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THE TELEOLOGY OF CPEC PHASE II: KEY CHALLENGES IN PAKISTAN'S INDUSTRIAL TRANSFORMATION AND WAY FORWARD

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ABSTRACT

China-Pakistan Economic Corridor (CPEC) Phase II carries huge potential for Pakistan's industrial development. The article explores the potential of CPEC Phase II to achieve the country's economic transformation, turning it from a transit hub into a productive industrial node within Asia's emerging economic order. Based on the theory of developmental state, the study analyzes the dynamics of Pakistan's domestic political economy and macro-economic constraints, contending that CPEC Phase II provides a contingent opportunity for the country's late industrialization instead of self-driven structural transition. The study explores Pakistan's CPEC-enabled transition into a modified developmental state (MDS) marked by strategic reorientation from infrastructure to industrialization via SEZ-led development; development of institutional nervous system; strategic coordination with China; and prioritization of sustainable regional development. It also highlights key barriers to Pakistan's industrial take-off, demonstrating how the pressure for fiscal stability and ad-hoc policy choices have curtailed the state's capacity for regulating capital; coordinating institutions; and accumulation of productive capabilities—ingredients considered essential in case of successful developmental states. The article argues that Pakistan's industrial potential, as envisaged through CPEC Phase II, depends upon the recalibration of state capacity towards a modified developmental state by ensuring institutional coherence, regulatory predictability, capability upgrading, and strategic public-private partnership and coordination. With such reforms, CPEC Phase II has the potential to be a geoeconomic instrument of national industrial transformation, rather than merely a conduit of transnational connectivity. The paper concludes with presenting policy pathways aimed at aligning CPEC's industrial ambitions with Pakistan's long-term developmental needs.

Keywords: *Geo-economics; China–Pakistan Economic Corridor (CPEC); Industrial Policy; Developmental State; Special Economic Zones; Economy*

INTRODUCTION

Global South recognizes the subject of economic development as one of sovereign dispensation and utmost urgency. Its long-fought political independence rallied around its political will to take charge of its economic destiny free from imperialistic depredations. Many countries, in their post-colonial course, have managed to break free from vicious cycles of underdevelopment, owing to their effective economic development strategies based on operationalizing industrialization. A 2025 World Bank report substantiated the rising share of emerging and developing economies

(EMDEs) in world GDP, representing nearly 45 percent, a noticeable increase from 25 percent around the period of 2000. China, India, and Brazil have been noted to be spearheading this trend (Kose and Arteta, 2025, p.105). Industrialization, aimed at bringing about structural change in the economy by expanding manufacturing base, has been identified as the key ingredient for inclusive economic development and poverty alleviation (Erumban & de Vries, 2021).

Pakistan's story of economic growth is essentially a story of unsuccessful industrialization reflected in the state's incapacity to establish functional industrial base. Thus, the repetitive nature of Pakistan's economic crisis is a product of years of structural lag inherent in its industrial underdevelopment. An overview of the country's economic history reveals that it inherited chronic industrial disadvantage from the era of the British colonialism. Then its efforts in the 1950s and 60s heavily relied on foreign-assistance-led economic growth model that resulted in massive wealth accumulation rather than driving real industrial development. The nationalization of the 1970s incurred serious erasure of private enterprise and productivity-led development. While the period of 1990s brought some hope of reviving industrialization, it soon fell short of achieving desired results of actualizing structural change, thus resulting in economic stagnation. Since then the country continues to descend into a concerning trajectory marked by premature deindustrialization resulting from widening income inequality, shrinking manufacturing sector, and inability to compete in global markets (Sattar & Karim, 2023).

CPEC Phase II forms a structural pivot, constituting the most consequential industrial opportunity for Pakistan since the 1960s. Initiated in 2013 and, in essence, the flagship of China's Belt and Road Initiative (BRI), CPEC is aimed at developing energy and logistics infrastructure within Pakistan. While its first phase had focused on transport, energy, and connectivity projects; industrialization, agricultural modernization, technological innovation, and inclusive regional development are the priorities of CPEC Phase 2.0. Consequently, the second phase is a gradual shift from infrastructure-oriented investments to productivity-oriented industrial cooperation, technology upgradation and value-chain integration, thus signifying a qualitative shift from connectivity to productivity.

The transition to CPEC Phase II unfolds within a rapidly shifting geoeconomic landscape. The post-COVID restructuring of global supply chains has accelerated diversification away from single-country production hubs, compelling firms to reconsider risk, resilience, and cost efficiency in their location strategies. Simultaneously, intensifying strategic competition between the United States and China has injected a geopolitical logic into trade and investment flows, reshaping industrial geography across Asia (Hwang et al., 2024). In its second decade, the Belt and Road Initiative under Xi Jinping is undergoing recalibration, with greater emphasis on industrial cooperation, value-chain integration, and higher-quality investments. Regional competitors such as Vietnam and Bangladesh are actively absorbing segments of Chinese industrial relocation (Ghosal & Ho-Him, 2026). In this context, Pakistan stands at a critical crossroads to capitalize industrial opportunity window under CPEC 2.0 for achieving industrial transformation.

Against this backdrop, the paper examines the scope for adapting aspects of the developmental state model to the institutional realities of Pakistan for the objectives of attaining sustained industrial upgrading through CPEC-linked industrial transformation. It discusses the main challenges faced in the process of industrialization. Though the framework of SEZs appears to be well-chalked out on paper, yet critical questions remain about how these can be effectively embedded within a coherent industrial strategy, one that is adequately equipped to break the mold of prevalent political-economy constraints. By addressing these questions, the paper aims to substantiate beyond descriptive accounts and extends a more

analytically grounded assessment of industrial prospects under CPEC 2.0 for Pakistan in the context of an increasingly geo-economic international system. Existing scholarship on CPEC has predominantly revolved around addressing questions of debt sustainability, geopolitical contestation, and strategic rivalry, often situating the project within the broader framework of the Belt and Road Initiative. While these debates are important, they have overshadowed a systematic assessment of CPEC Phase II's potential to catalyze structural industrial transformation within Pakistan. This article addresses this research gap by bridging CPEC-focused analysis with broader industrial policy and development scholarship.

THEORETICAL FRAMEWORK

The study builds on developmental state model to analyze the industrial capacity development through CPEC Phase II. The developmental state model focuses on domestic institutional capacity for industrial transformation. The developmental state literature emerged from analyses of East Asian industrialization and underlines the role of an "interventionist" state in coordinating markets, guiding investment, and enforcing performance discipline. The term developmental state has been propounded by Chalmers Johnson who introduced the category of developmental state alongside the liberal and Stalinist conceptions of development (Woo-Cumings, 2019, p.63). It is widely used to describe the successful experiment of capitalism in the East Asian economies, which despite being third world economies, were able to enter the industrial age. These included the four tigers (South Korea, Hong Kong, Singapore and Taiwan) including Indonesia and Malaysia.

According to neoclassical school, these economies employed pro-market principles in combination with outward-looking strategies that turned the tides into their favor and helped them reach higher growth rates. These case studies indicate that late-industrialisation was not achieved through laissez-faire liberalisation alone but through strategic state intervention, sectoral targeting, and export-oriented discipline (Johnson, 1982). For instance, in the case of South Korea, an intrusive state played a proactive in the industrial development by following the Infant Industry Model (IIM) and protected selected industries through raising tariffs, quotas, subsidies and price distortions, and most importantly through controlling industrial finance (Woo-Cumings, 1999, p. 35). Then in case of any external shock, the South Korean government instead of going to IMF and derailing its development strategy, relied on its state apparatus and survived through the crises. The philosophy of state intervention has been a central component of East Asian developmentalism.

Some of the characteristic features of developmental state can be distinguished as: first, the developmental state makes development its top-priority; second, the developmental state commits itself with free-market principles; third, the development is followed by strong redistribution of wealth; fourth, the state takes help of a strong technocratic, development-oriented bureaucracy which disciplines the private interests and guides the development process; fifth, the state manipulates the incentive structure of the economy in such a way that the free-market benefits selected sectors of the economy resulting in high growth and lastly, the developmental state invests heavily in human capital formation, particularly in upgrading its modern and scientific education. Leftwich, in his seminal essay, put forth the model of the developmental state, identifying six major components that make up the foundations of the developmental state model. These include: a determined developmental elite; relative autonomy; a powerful, competent and insulated economic bureaucracy; a weak and subordinated civil society; the effective management of non-state economic interests; and repression, legitimacy and performance (Leftwich, 1995).

Modern scholarship emphasizes a modified or adaptive developmental state which prioritizes coordination, skill development and institutional learning, rather than protectionism (Wong, 2004). In this way, it signifies the robust

bureaucracy; reliable regulations; sound skills; and public-private coordination mechanisms for effective industrial policy. The state should not replace markets, but influence incentives, eliminate coordination breakdowns and facilitate the upgrading of firms in global value chains. Central to the developmental state is a concept of embedded autonomy which binds "state and society" and is described as a historical intersection of domestic and global factors (Öniş, 1991, p.123). It means that the state, being sufficiently embedded in the society is able to get information and collaborate with companies, but at the same time, it is independent enough not to be captured by narrow interests. This balance allows the state to support select industries but on conditions that productive gains, as well as exports and evaluations for improved technology are real. Developmental states were not reliant on endless protection and unconditional subsidies; instead they provided incentives judiciously and withdrew support from underperforming firms (Cole, 1992, p. 455). This logic applies directly to industrialisation based on the zone. Zones succeed only if they are properly incentivized based on performance and if the participating firms are strategically tied to national development plans instead of being treated as isolated enclaves.

CPEC 2.0 and Pakistan's Transition into A Modified Developmental State (MDS)

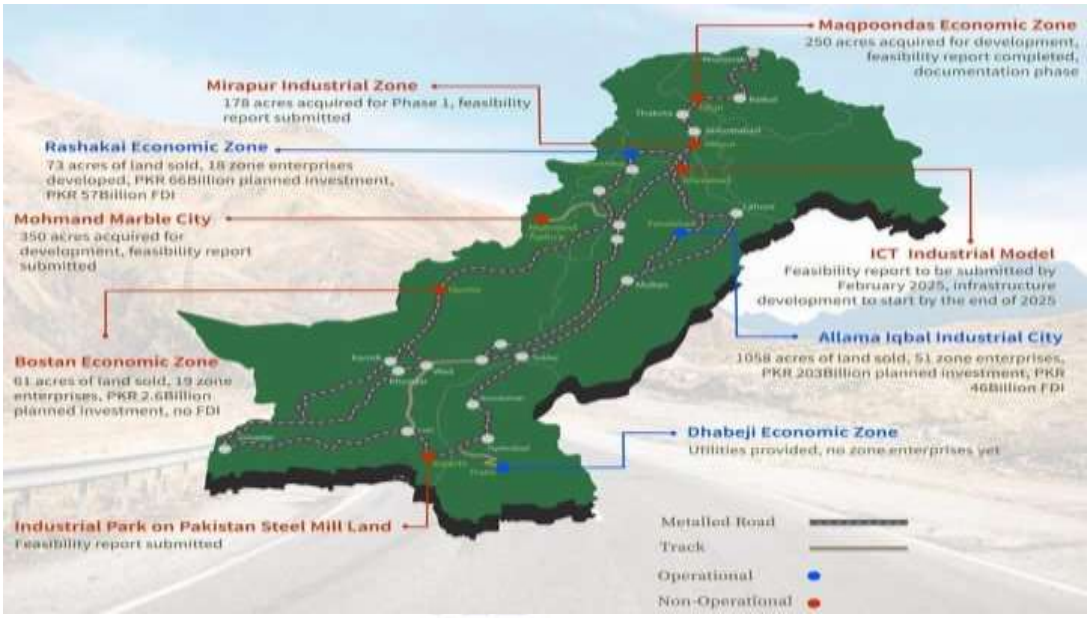
CPEC Phase II affords another critical opportunity to Pakistan for catching up with industrial transformation. Under CPEC Phase II, Pakistan systematically assumes a developmental orientation by assimilating essential aspects of a MDS. Instead of replicating classic developmental state, it facilitates the country to pivot towards a modified developmental mode by reorienting strategic focus from infrastructure towards industrialization through prioritizing sector-specific SEZ-led development aimed at export diversification; developing institutional nervous system, stepping up strategic coordination with external partner, China; and operationalizing productivity spillovers for achieving equitable growth and sustainable regional development.

1. Reorientation from Infrastructure Towards Industrialization

CPEC Phase II shifts Pakistan's strategic focus from transport infrastructure and energy production towards industrialization, agricultural cooperation, innovation and human capital development (Hanif, 2026). It reflects a broader trend of China's BRI, moving from heavy infrastructure projects to high-quality and productivity-driven development (Government of Pakistan, 2024). While the first phase primarily addressed chronic energy deficits and infrastructure lacunae through building large-scale power generation projects, roads, logistics and transport corridors, Phase II gears for advancing industrialisation, agricultural cooperation, and social sector development, with a MDS where, in addition to facilitating the markets, the state actively orchestrates economic priorities for structural transformation (UNCTAD, 2016). CPEC 2.0 is centered on five functional corridors, namely growth, innovation, green development, livelihood and regional connectivity, which explicitly relate industrialisation to long-term economic modernisation as opposed to short-term construction-based economic gains (Shahid, 2025).

CPEC 2.0, acting as structural intervention, focuses on instrumentalization of the Special Economic Zones (SEZs) to promote export-led industrialization. This enables Pakistan to move away from raw or semi-processed exports to manufacturing, processing and assembly; especially using these CPEC-linked SEZs. It enables transition from primarily infrastructure-led development or connectivity-led economic growth towards realizing SEZs-led industrial development. SEZs are dedicated zones that serve as take-off pads for kick-starting country's cumulative economic growth by providing favourable regulations such as tax concessions, infrastructure facilities and simplified administration for attracting foreign manufacturing and investments (Butt, 2024, p.

42). The expansion of SEZs under CPEC framework is illustrative of Pakistan's state-led industrial clustering strategy. The number of approved SEZs has increased from 7 to 44, with 37 new special economic zones been notified through coordinated efforts from the Board of Investment (BoI) of Pakistan (Shahzad, 2026). The 9 SEZs approved under CPEC are illustrated below (Government of Pakistan, n.d.).



Source: Islamabad Policy Research Institute (IPRI, 2024)

Pakistan's state-led industrial clustering strategy is based on establishing priority SEZs as industrial clusters to drive industrialization and export-led growth. Industrial clusters are born out of geographic concentration of sector-specific industries within an established zone for the objective of generating economies of scale. Strategic sector prioritization and proactive industrial zoning reflects how the state not only takes the lead in identifying priority SEZs but also provides a framework of state-led facilitation aimed at achieving the country's strategic integration into global value chains (GVCs). For instance, Allama Iqbal Industrial City (Faisalabad, Punjab) is a multi-sector cluster being developed in an area of over 3200 acres with a broad industrial focus encompassing nine targeted sectors (Government of Pakistan, n.d.). Its geographic adjacency with an already existing M3 Industrial City, located on Motorway M-3 (Faisalabad), facilitates proximity-based integration by creating vertical and horizontal linkages contributing to cluster densification (Shakeel, 2020). The focus on specific sectors is an intentional state strategy in order to move beyond short-term economic measures and transform economy towards realising long-term competitiveness and resilience through a mix of state-intervention and strategic sectoral planning, aimed at continuous industrialisation. In this regard, SEZs implement the logic of developmental state acting as strategic tools for industrialisation and thus contribute to the country's integration into global production networks and regional value-chains.

2. Development of Institutional Nervous System

CPEC 2.0 induces the development of institutional nervous system, a multi-layered governance framework based on four important factors which aid in achieving embedded autonomy requisite for national economic transformation. First, through the creation of specialized institutional and regulatory bodies, the state designates certain roles and duties that

in turn lead to proper management of these SEZs. This is exemplified by the establishment of BOI and BOA at the federal level; SEZ authorities at the provincial level; and PMU and SEZ Committees as project-specific institutional bodies (see table 1.1). Second, it actively builds centralized economic coordination among state intuitions, thus pushing towards centralization of management and operations which result in simplifying regulatory procedures for investors. For instance, SIFC, BOI, BOA, CPEC Authority and CPEC JWG operating at the federal level aim to achieve centralized economic decision-making, policy direction, and coordination. Third, state assumes leading role in establishing and governing SEZs clusters. The governance of incentive-based clusters illustrates this dynamic in which state through the SEZs provide tax exemptions, affordable utilities, and business-friendly frameworks. Such as in the case of Rashakai SEZ, one-time exemption from customs duty and taxes on capital imports along with 10-year tax immunity creates a conducive business for investors. Forth, the state proactively pursues alignment of its domestic development priorities with regional development goals. Pakistan's integration of its national transformation initiative, URAAN Pakistan (2024–29), with the CPEC Long Term Plan (LTP) underscores this principle. The 5Es framework which is an important mid-term strategy central to URAAN Pakistan and Pakistan Vision 2025 further reflects this strategic alignment as it identifies five key priority areas: Exports, E-Pakistan, Environment and climate-change, Energy and infrastructure and Equity and empowerment (Government of Pakistan, 2023).

Table: 1.1. (Compiled by the Authors)

Institution / Regulatory Body	Governance Level
Board of Investment (BOI)	Federal
CPEC/SEZ Cell (BOI)	Federal (specialized unit)
Special Investment Facilitation Council (SIFC)	Federal (apex hybrid civil–military body)
Board of Approval (BOA)	Federal (apex body)
Approvals Committee (under BOI)	Federal
CPEC Authority	Federal
Special Technology Zones Authority (STZA)	Federal (parallel regime)
CPEC Joint Working Group (JWG) on Industrial Cooperation	Bilateral (Pakistan–China)
Provincial SEZ Authorities (e.g., Sindh SEZA, KP-EZDMC, Punjab IE&SMC, Balochistan BOI)	Provincial
Provincial Investment Promotion Agencies (PIPA)	Provincial
SEZ Committees (Zone-level management)	Project-specific / Zone-level
Project Management Unit (PMU – CPEC Industrial Cooperation)	Project-specific (Federal-linked)
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	Project-specific (Punjab)

3. Strategic Coordination with China

Through CPEC Phase II, Pakistan becomes a strategic coordinator through deepening its industrial cooperation with Beijing, thus upgrading its role from a mere implementer of infrastructure and energy projects (Phase 1). It strategically coordinates with China in shaping industrial outcomes via joint planning; joint venture development; technology transfers; firm-level Chinese investment and sectoral co-production through SEZs development with a focus on export-oriented economic growth. Joint ventures (JV) and Chinese industrial relocation under CPEC diffuses technology and skills in a manner that stimulates learning through vocational training, managed industrial upgrading and productivity spillovers, as has been the case for late industrialisers in East Asia. Rashakai SEZ, a JV between Pakistan's Khyber Pakhtunkhwa Economic Zones Development and Management Company (KP-EZDMC) and China's CRBC, China Road and Bridge Corporation, effectively represents this kind of development model which institutionalizes industrial cooperation between both nations. This FDI-led industrial cluster houses around 26 Pakistani and Chinese firms as of early 2026 (*Newswire*, 2026). By focusing along productive industries and not just plug-in infrastructure, Pakistan is building up a base for high value-added production, export diversification, and sustainable job creation.

4. Sustainable Regional Development

The SEZs directly facilitate domestic value-chains and cater to export promoting industries. Improved transport and logistics connect SEZs to regional and global markets thus reinforcing the export-oriented growth model that is in tune with regional economic, as opposed to relying solely on import-substitution model. The state under CPEC 2.0 priortises equitable and sustainable economic growth thus shifting focus away from pure economic growth to sustainable human development. The introduction of innovation, green and livelihood corridor is a strategic endeavor to align sectors on economic, environmental and technological lines, strengthening sustainable development. Concurrently, there is strong commitment to human capital development and technology absorption. Through vocational training, professional capacity building programmes and joint technology transfer with Chinese partners, Pakistan aims at developing crucial skills and knowledge needed to build a productive economy (PIDE, 2025, p. 17). Consistent with the developmental state model, such an approach recognizes that physical infrastructure alone cannot be a driver of sustainable growth, and that the development of capabilities, innovation networks and technical expertise needs to be an equal determinant in achieving long-term economic success. Furthermore, the initiative is determined to mitigate disparity across the country by mobilising investment in underdeveloped areas such as Balochistan and Khyber Pakhtunkhwa (KP), thus alleviating inequalities which have continued to act as a major obstacle in the country's balanced growth in the past.

Key Challenges to Pakistan's Industrial Transformation

1. Institutional and Governance Bottlenecks in Materialisation of SEZs

Pakistan's SEZs are marred by a fragmented institutional architecture as contrasted with China's centrally co-ordinated model. The lack of a unified command leads to decentralization of authority in multiple agencies with overlapping mandates. At the federal level, the BoI, Planning Commission, SIFC, all promote investment, set the policy, and facilitate projects. Their parallel roles mean that they breed coordination gaps, as well as vague accountability (Khan, 2024). For instance, there is an issue of duplication, specifically between the BoI and the SIFC, which results in confining decision-making, forestalling investment facilitation and delaying development of SEZs. Such problems are further compounded by provincial dynamics. SEZ management companies, such as the KPEZDMC, operate with relative autonomy with respect to land allocation, infrastructure

development and regulatory compliance (Munir, 2024). This kind of parallel autonomy, along with weak federal-provincial coordination, results in delays in approvals; transfers of land; and provisioning of utilities, that are vital to industrial activity. Such fragmentation undermines the efficiency of implementation, and contributes to erode investor confidence, since the firms are subject to inconsistency and limited clarity regarding governance procedures. As a result, SEZs in Pakistan face challenges generating high density of industrial clusters mainly due to slow execution.

2. Delays in Supply of Facilitating Infrastructure

SEZs in Pakistan are still not fully operational, which turns them into real-estate enclaves rather than into productive clusters. The absence of a reliable and fully functional utilities mechanism delays prospective investors' interest which in turn ends up fading thrust required for industrial agglomeration. Even priority SEZs have uneven infrastructure provision. Shortfalls in electricity, gas, water and internal road networks restrict operational readiness, decreasing investment interests. These lacunae are aggravated by Pakistan's energy sector crisis that continues to persist till date. Chronic mismanagement, increasing tariffs, and circular debt pressures have direct toll on raising production costs for manufacturers. Recent trends indicate a sharp reduction in circular debt, from about Rs2.4 trillion in March 2024 to about Rs400 billion (Kiani, 2025). However, the structural reasons behind inefficient energy sector are still not fully addressed. Furthermore, reliance on costly imported fuels, exposure to global price fluctuations and cost recovery adjustments in tariff structure directly impact industrial competitiveness (Rana, 2024). For managers of SEZ investors, energy uncertainty means higher operating risks and unpredictable cost structure, which discourages long-term commitments as well as export-oriented manufacturing. As a result, SEZs are unlikely to realize scale economies and production clustering of industrial activities required for significant industrial spillovers.

3. Financial Constraints and IMF-Linked Policy Uncertainty

Industrialisation under CPEC Phase II still faces constraints emerging from macroeconomic stabilisation commitment, thus significantly limiting Pakistan's autonomy over its industrial policy (see Table 1.2). Engagement with the IMF has reduced the state's capacity to pursue its own economic agenda. It has almost become a "precipitating force" in restricting the country's autonomy to adopt a path of economic reforms (Gul, 2024). In this context, IMF conditionalities predominantly have an exacerbating impact on the country's domestic economic policy. These macroeconomic constraints originate from fiscal dependence, recurring balance of payments crises and alignment pressures embedded in IMF programs. Under the Extended Fund Facility (EFF), Pakistan is required to comply with strict fiscal and structural conditions before financial disbursements. This results in limited discretion over tariffs, subsidies and fiscal incentives, which are key tools of industrial policy (Brecorder, 2025). While successive governments announce industrial and export frameworks, their timing and scope remain closely bound by IMF targets focusing on curbing deficit, ensuring income and exchange rate stability, and this also impacts the country's long-term industrial strategy.

These restrictions are most evident in energy pricing and SEZ incentives. IMF programs focus on rationalisation of subsidies, taxation and adjustment of tariffs, which reduce industrial competitiveness in energy-intensive industries. In the most recent review, the country's electricity subsidies were reduced from Rs1.04 trillion to Rs893 billion, a reduction of Rs143 billion, which was a product of IMF-induced budgetary constraints and circular debts (Rana, 2025). Higher power tariffs increase the cost of production, exacerbate inflation, and hurt exporters that are competing in cost-sensitive regional and international markets. High energy costs and structural rigidities have led to export

contraction and exports are down to around 36 per cent (The Express Tribune, 2025). IMF engagement has also reduced fiscal space for implementation of SEZ-led industrial incentives such as tax holidays that are crucial for increasing zone competitiveness. Erfa Iqbal, Additional Secretary from BoI, acknowledged that IMF recommended phasing out SEZ incentives (Khan, 2024). Coupled with unresolved capacity payments disputes of Chinese IPPs and financing delays of large-scale projects, such as the ML-1, these factors contribute to wearing down investor confidence and industrial momentum envisaged under CPEC phase II (Ghumman, 2025).

Table: 1.2. (Compiled by the Authors)

Constraint	Impact on Industrial Policy
IMF structural conditions	Limits subsidies, tariff protection, and incentives
Focus on fiscal stabilisation	Prioritises short-term macro balance over long-term industrial growth
Tariff rationalisation	Reduces policy space for protecting local industries
Restrictions on SEZs/incentives	Curtails major industrial planning tools
Governance and institutional reform burden	Diverts resources from industrial strategy development
Dependence on IMF funds	Reduces policy autonomy

4. Weak Industrial Clustering and Localisation

Another significant challenge is the weak industrial clustering or thin clustering that restrains cluster densification thus impacting endogenous capability building and industrialisation. Though SEZs expansion under CPEC Phase II from 7 to 44 indicates industrial momentum taking hold, yet, it also reflects that industrial activity has expanded more horizontally rather than vertically as it remains concentrated in only a few zones. It also highlights that there has been a quantitative instead of a qualitative focus with regards to SEZs development. The foremost limitation involves non-sector specific industrial ecosystems of SEZs. Despite the policy intent, most of the SEZs have not been able to develop specialised clusters in key sectors such as engineering goods, electronics, agro-processing or chemical products, which results in poorly conceived clustering. Weak clustering has been most evident in the case of Dhabeji SEZ which suffers from poor location planning mainly due to domestic political considerations (MT Team, 2025). Its distant location or proximity from Karachi's industrial base contributes to weak linkage impacting its integration into existing supply chains. Fragmented clustering limits the formation of dense industrial ecosystems.

Moreover, the heavy reliance on Chinese enterprises regarding managerial, technical and supervisory functions has hindered enhancement of local talent, and has dented reciprocal linkages with domestic firms. Empirical research has found that Chinese investment plays a significant role in contributing to Pakistan's economic growth (Zhang et al., 2025). However, this growth does not necessarily bring structural transformation. In the absence of any coherent localisation plans, such as domestic JV development, supplier development programs, and workforce indigenization, SEZs remain at the risk of remaining enclave-style processes. Under these conditions, SEZs may stimulate employment primarily in low-value assembly and basic processing, rather than spurring productivity-enhancing industrial upgrading. Low investment in human capital, weak integration of SMEs and underdeveloped innovation systems falls short to achieve an embedded industrial ecosystem. Consequently, FDI-induced development fails to be strategically embedded into domestic

production networks, reducing opportunities for economic indigenization, deepening of supply chains, and knowledge spillovers. Hence, the country finds it difficult to shift from an investment-receiving economy to an industrially competitive one.

5. Structural Constraints in Pakistan's Industrial Base

CPEC SEZs operate in the backdrop of an underdeveloped national innovation ecosystem, thus constrain prospects of deepening industrial activity. Even when SEZs offer new infrastructure and fiscal incentives, they cannot replace the fundamental productivity improvements from innovation, skills upgrade and the use of new technologies. Pakistan's manufacturing productivity has been persistently low, growing by an estimated rate of about 1.5 percent per year, far below the level needed to sustain industrial competitiveness. These structural deficits in the economy are reflected by recent contractions across key industrial sectors and a weak manufacturing base. For instance, the food industry declined 1.83 percent, chemicals 3.12 percent, non-metallic minerals nearly 8 percent, iron and steel 9 percent and electrical goods nearly 12 percent (Najam, 2025). Segments like cement, steel, chemicals and machinery have registered cumulative declines of over 35 percent. Such performance demonstrates loose inter-sectoral linkages and weak domestic supply chains, hence, limiting prospects of SEZs spillovers into the wider economy.

The lack of sound firm-level innovation is an additional compounding factor. Without sustained investment in research and development (R&D), SEZs run the risk of attracting routine assembly and low-value manufacturing activities (World Intellectual Property Organization, n.d.). World Bank data reveal a downward trend for R&D expenditure between 2013 and 2023, ranking Pakistan among the countries with the lowest spending on knowledge creation. This persistent underinvestment reduces quality diffusion of technology, impinges industry upgradation and consequently makes it difficult for the country to overcome the middle-income trap (World Bank, n.d.). Moreover, without simultaneous investments in human capital and integration of SMEs, SEZs cannot bring about structural transformation on their own. There is a growing risk of zones being enclaves isolated from the domestic economy unless skill development strategies are aggressively pursued alongside. The workforce of Pakistan still lacks modern skill set required for manufacturing. According to the Asian Productivity Organization, although almost 50 percent of workers are able to work with traditional engineering instruments, only 15 percent have skills in digital technologies, such as artificial intelligence, blockchain, digital twin and Internet of Things. These capability gaps seriously limit productivity increases and slow down technology adoption, and reduce long-term competitiveness under CPEC Phase 2 (Hussain, 2025, p. 62).

6. Environmental and Regulatory Capacity Constraints

Pakistan's inability to comply with international standards in its export value chains increasingly threatens its export competitiveness. A World Bank report indicates that nearly 50 percent of Pakistani exporters have problems in meeting international standards and conformity standards assessment requirements rendering SMEs cost intensive, hence impacting their export competitiveness (World Bank, 2025, p. 32). The World Bank economist, Anna Twuma, finds that more than 70 percent of Pakistan's export goods stand to lose market access without firms upgrading their compliance with emerging global requirements such as "traceability" in the supply chain and reporting on labour practices demanded by key markets such as the EU and US (Attarwala, 2025). This is a very clear indicator that non-compliance is not marginal but a systemic weakness that is impacting export competitiveness. Pakistan's failure to meet quality standards and conformity assessments on a regular basis has limited growth in key sectors such as textiles and rice, which together generate lion's share of export revenues, thus impacting

its export diversification into higher value markets. This inability in compliance standards directly threatens export-oriented industrialisation especially where higher environmental, social and governance (ESG) standards are a precondition to market access.

Analysts caution that increasing pressure of EU green rules such as traceability and carbon compliance under schemes such as the EU Green Deal and Carbon Border Adjustment Mechanism could provide potential threats for textile exports from Pakistan if environmental compliance is not stepped up (Hanif, 2026). Earlier CPEC-related efforts were often focused on expediting progress as opposed to promoting sustainability. This has led to persistent concerns surrounding compliance with environmental standards and the adoption of ESG standards that are essential for SEZ-based exports to preferential regimes such as the EU GSP+ (Hussain, 2024). Despite the rhetoric at the policy level on the "Green CPEC", Pakistan's ability to enforce regulatory standards in order to maintain and ensure green standards within the SEZs still falls short, implying a weak capacity to keep abreast of international standards that are crucial for ensuring competitiveness of local exports. In the absence of sound standardisation and enforcement, Pakistan's export model continues to remain susceptible to changes in the markets, non-tariff barriers (NTBs) as well as the loss of preferential access, hence, undermining the country's export diversification efforts and industrialisation goals.

7. Security Risks

Security concerns also restrict the effectiveness of CPEC Phase II SEZs. They have become state-protected enclaves that restrict spillover benefits to local economy. This risk is highest in peripheral areas like Balochistan where law and order issues continue to persist. Security challenges have been termed as the "Achilles heel" of industrial zones (Munir, 2024). Targeted attacks on Chinese nationals and their infrastructure threaten lives and increase costs in the form of higher insurance premiums, increased security expenditure, and higher transaction risks. These risks limit private sector investment. Colonel Usman, Director of NACTA, informed the members of the National Assembly Standing Committee on Planning, Development and Special Initiatives that at least 20 Chinese citizens have been killed and 34 have been injured in terrorist attacks all over Pakistan since 2021 (Khan, 2024). This reality points to deteriorating security situation for foreign investors and industrial operators. Due to structural security issues, SEZs are faced with limited local suppliers' integration, knowledge sharing and job creation outside of their secured perimeter. This enclave-style development restricts the anticipated catalytic impact of SEZs on regional industrialisation, SME linkages and local skill development.

8. Political Instability and Policy Inconsistency

Political instability and policy discontinuity have hindered Pakistan's efforts to achieve transition towards a MDS and, in doing so, have had considerable adverse impacts on long-term projects such as the CPEC. Frequent shifts in government and bureaucracy create disruptions in implementation, resulting in policy deviations, delays in approvals and renegotiations. Analysts note that successive governments have delegated CPEC decision-making across a number of different agencies. Decision-making within a government has a sedative effect on momentum and sends mixed signals to foreign partners needed in a long gestation project. The Planning Ministry has mooted biannual meetings of Joint Cooperation Committees (JCC) and quarterly working groups, recognising coordination failures and occasional delays. These disruptions slow down the progress on industrial SEZs and strategic infrastructure. CPEC's shift from infrastructure to industrialisation has also been stalled because short-term political gains tend to win over long-term planning. Industrial projects with extended gestation period suffer from issues of timeline inconsistency which leads to impairing the country's credibility among Chinese and other foreign investors. Ahsan Iqbal, addressing at the

DataFest Conference, recognized Pakistan "could not benefit from CPEC" as it was intended, as Chinese investors were put off by politicised environments and inconsistent policy execution (Rana, 2025). The consequent political volatility and problematic set of incoherent policy frameworks stalls institutional changes required for a developmental state and undermines Pakistan's capacity to leverage CPEC as the catalyst for export-oriented industrial transformation.

POLICY RECOMMENDATIONS

a) Institutionalising a Modified Developmental State Framework

Pakistan should cultivate a MDS model that is based on active coordination, not merely on gaining ownership of the project. This involves specialised technical personnel in the institutions responsible for industrial policy, facilitating investment and ensuring export competitiveness, and their fixed tenures to ensure that policy rollovers are minimised. A legally-backed National Industrial Policy Council should be established to provide long-term policy direction with transparent performance metrics as opposed to being bound by electoral cycles, setting long-term sectoral targets. Incentives should be for measurable results such as exports, productivity gains, technology upgrades, and development of local suppliers, instead of broad concessions which encourage rent-seeking behavior and prompt short-term investment bubbles.

b) Reforming SEZ Governance under CPEC Phase II

For SEZs to foster economic transformation, the key is to actualize a consistent and reliable governance structure connecting the federal policy leadership and the provincial execution. Without such alignment, SEZs run the risk of being isolated enclaves with fewer spillover effects for larger-scale industrial upgrading. SEZs must be viewed as industrial ecosystems and not just as real-estate ventures. Pakistan's experience with SEZs has highlighted low performance due to an absence of centralized authority in facilitating investors. Pakistan must execute fully empowered one-window SEZ governance, controlling approvals, utilities and land use. China's SEZs show that an "enabling environment" consisting of simplified administration, investor rules and consistent policy framework goes a long way in materializing SEZs targets. Pakistan should also draw lessons from other countries and integrate best practices on SEZs governance. Incentives within SEZs need to move away from long-tax holidays, to performance-based models linked to exports, employment and technology upgrades provided by fast-track dispute resolution, thus strengthening investor confidence.

c) Aligning Sectoral Priorities with Regional Value Chains

Pakistan should prioritize a limited selection of sectors in which clustering-based zones contributes to export competitiveness and supply chain integration. These include upgraded textiles; light-engineering and assembly; mineral-processing; agri-processing; and renewable energy equipment. The latter sectors have been included in the LTP of CPEC. Industrial policy should mandate such export-led development programs in which domestic SMEs can join zone-processing supply chains.

d) Strategic Investment in Human Capital

Another very important step is to make strategic investments in upgrading human capital. Global evidence indicates that special economic zones only have the capacity to contribute towards achieving national development targets when they are embedded in a strong network of backward and forward linkages. Skills development needs to be directly linked to labor demands in these zones by instituting proper technical training modules and certification systems. While the recently concluded landmark agreement between National Vocational and Technical Training Commission NAVTTC and Hazza Institute of Technology to strengthen vocational and technical education in Pakistan, signed in Beijing last year, is an encouraging development, more such initiatives must be taken up at a priority basis (Ministry of Planning, Development & Special Initiatives,

2025). Otherwise, investments do not lead to sustainable industrial capability.

e) Leveraging Geo-Economic Partnerships Beyond China

In the quest to figure out the most prudent path ahead for Pakistan, the need of the hour is to proactively seek diversification of external economic partnerships with other non-Chinese investors such as Japan, South Korea, Vietnam and others, within SEZs, particularly in those sectors where compliance with international standards, robust regulatory structures and accessibility to the market are paramount. The imperatives of supply chain diversification enhance the Pakistan's preference of multi-locational production networks thus elevating its investment attractiveness profile. For instance, institutionalizing production-oriented partnerships with Gulf investors in the fields of logistics, metals and energy-related manufacturing industries, Pakistan can seek to translate its strategic interests into long-lasting industrial joint ventures, leveraging regional expertise and promoting economic integration in the broader region.

f) Managing Structural Risks and Ensuring Policy Credibility

Three main risks can affect industrial outcomes despite the existence of SEZs: volatile energy pricing, logistical bottlenecks and weak contract enforcement which risks policy credibility. Investors prefer regulatory regimes which offer policy continuity and stability. Pakistan must, therefore, create transparent and achievable implementation scorecards that measure SEZ readiness, utilities, approvals, dispute resolution mechanisms and facilitation of customs in a systematic manner. By publicly reporting progress through these kinds of metrics, the government can signal consistency, minimize uncertainty and thereby strengthen investor confidence. Addressing security issues is imperative not only to safeguard foreign/domestic investment but also to ensure that SEZs provide meaningful contribution in inclusive industrial development and sustainable economic growth.

CONCLUSION

In conclusion, the study highlights that CPEC Phase II should not be seen as a mere continuation of connectivity-driven growth that characterized corridor development in the previous phase. While the first phase projects were mostly infrastructural with more emphasis on energy generation, roads and transport networks; the strategic importance of the second phase lies in the fact that it can facilitate the country's upgradation of industrial base through setting up of SEZs, enhanced sectoral cooperation and integrated logistics systems. These elements are expected to create sustainable productive capacity, diversify country's export structure, in addition to stimulating endogenous value-addition in the domestic economy. To examine this transformation, the study employed the developmental state framework in a functional rather than normative sense. By combining strategic sectoral planning, human capital development, technological upgrading, and regional integration, CPEC Phase II is the summation of a unique vision developmental state, where the government is the orchestrator of economic transformation working in conjunction with strategic partners such as China, all the while maintaining autonomy of setting domestic economic growth as its main priority. Consequently, the initiative goes beyond the provision of infrastructure, and rather it is the product of state-led developmental policy which has the potential to ensure economic sovereignty, resilience, and structural modernisation of Pakistan in the long run.

From this perspective, therefore, Pakistan's central challenge lies in turning around capital-intensive investments into facilitating structural change in Pakistan's economy and by assimilating a modified developmental outlook through CPEC Phase II, moving towards establishing institutional autonomy and coordinating policy to govern industrialization. Should the implementation of CPEC Phase II be coupled with a disciplined industrial policy, good governance of the SEZs, and continued

capability-upgrading efforts within the state institutions, it may open up a window for Pakistan to emerge, over time, as a modest industrial middle power, integrated in the production linkages between East Asia, Central Asia, and the Middle East. Such a geoeconomically-grounded integration would directly enhance Pakistan's economic resilience and strategic autonomy. However, while these positive turnovers seem opportune to be capitalized, continued governance shortfalls and policy volatility could keep the country on the sidelines of Asia's evolving industrial reordering, regardless of the magnitude of external investments. Ultimately, CPEC Phase II should be seen not as a magic bullet but as a critical opportunity, the fate of which will be determined by the country's qualitative reorientation, disciplined domestic institutional capacity and policy coherence.

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