PRAC
POLICY RESEARCH
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PAKISTAN
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2026

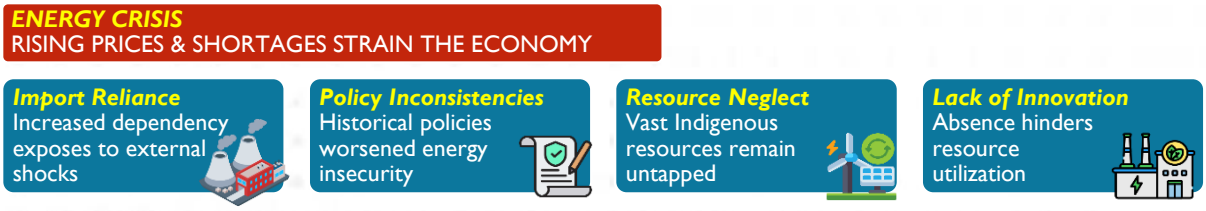
Energy and Infrastructure – Fixing the Fundamentals for Economic Revival

Introduction

Pakistan's Energy Security

Energy resources are essential to the modern geopolitical landscape, with conflicts now driven more by natural resources. For developing nations like Pakistan, stable energy supplies are crucial for sustained economic growth. The country faces a severe energy crisis, marked by rising prices and shortages, increasing vulnerability to external shocks, inflation, and recurring IMF bailouts.

Figure 53: Pakistan's Energy Crisis Snapshot

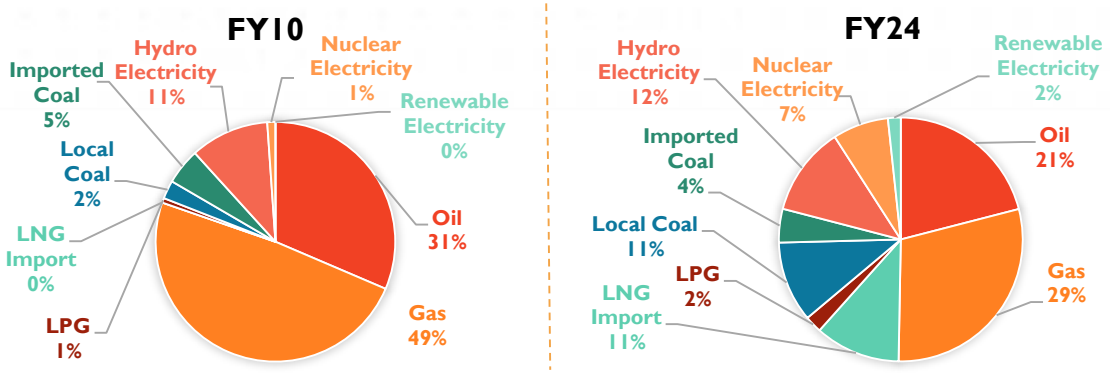


Pakistan holds 175 billion tons of Thar coal, the world's largest lignite reserves, capable of generating 300,000 MW of electricity for two centuries (Malik, 2023). With Coal-to-Liquid (CTL) and Coal-to-Gas (CTG) technologies, these reserves can meet transportation fuel needs and supply gas to industries, like fertilizer production. Hydropower potential exceeds 100,000 MW (Rehan, 2020), while solar energy offers unlimited possibilities.

Despite such vast resources, Pakistan remains import-dependent due to weak vision and a lack of indigenous policymaking.

Rapid urbanization and population growth in the 1980s–1990s exposed structural flaws in the energy sector, marked by inconsistent policies and no integrated plan. The Power Policies of 1994, 1995 and 2002 drew IPPs reliant on gas and furnace oil, expanding capacity but locking the country into costly imports and high tariffs. Neglecting indigenous coal added billions in import costs, with reliance on imported energy rising from 36% in FY10 to 44% in FY24 (EYB, 2023–24). This imbalance is evident in Pakistan's energy supply mix, as displayed in Figure 51, where indigenous sources rose only from 20% to 39%. Whereas, the 1992 CNG Rules fast-tracked gas depletion as CNG use surged in transport, while declining public transport (rise in private vehicle use) raised petroleum consumption. The absence of a full Exploration & Production (E&P) policy deterred shale oil investment, widening the CAD.

Figure 54: Pakistan's Primary Energy Supply Mix Share – FY10 vs. FY24



Data Source: Pakistan's Energy Year Book FY2023-24

Pakistan's Infrastructure Landscape

Pakistan's infrastructure progress has evolved via distinct policy phases. The 1950s–1970s witnessed state-led industrialization under the Five-Year Plans, marked by major projects such as the expansion of Karachi Port and the construction of Mangla and Tarbela Dams, which laid the foundation for the development of energy and transport systems.

The 1980s–1990s brought fiscal tightening and policy fragmentation, fading public investment and infrastructure governance. Later, the 2000s onward, primarily under CPEC, renewed focus on large-scale connectivity projects like Gwadar Port, Karachi–Lahore Motorway, and the ML-1 railway, yet institutional inefficiencies persist.

Despite progress, the World Bank's Logistics Performance Index (LPI) ranked Pakistan 122nd among 160 countries in 2018, behind all peer countries, as shown in the table below. The country's LPI rank highlights significant gaps compared to regional peers like India (44) and Sri Lanka (94). Weaknesses in customs efficiency, infrastructure, tracking, and logistics competence raise trade costs and reduce competitiveness.

Table 9: Pakistan's Logistics Performance Index (LPI) vs. Regional Countries (2018)

Country	LPI Rank	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking & Tracing	Timeliness
India	44	2.96	2.91	3.21	3.13	3.32	3.50
Sri Lanka	94	2.58	2.49	2.51	2.42	2.79	2.79
Bangladesh	100	2.30	2.39	2.56	2.48	2.79	2.92
Pakistan	122	2.12	2.20	2.63	2.59	2.27	2.66

Data Source: Pakistan Export Strategy Logistics 2023-2027 – GoP

Port inefficiencies persist as Karachi Port and Port Qasim, which together handle over 95% of Pakistan's external trade, operate at roughly 1/3rd of capacity[41], with average container dwell times of 5.5–6.5 days, far higher than India (2.6 days) and Bangladesh (1.6 days). Despite its strategic Belt and Road location, Gwadar Port accounts for under 0.5% of national trade due to weak hinterland connectivity and limited supply chain integration.

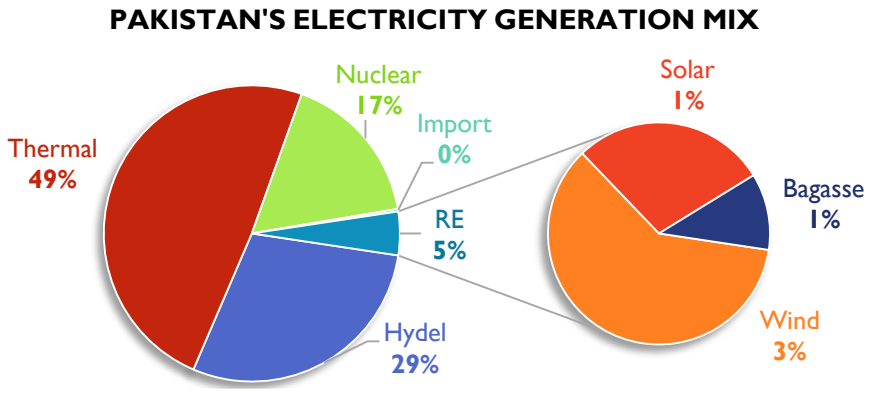
Pakistan's rail freight share has plunged from 73% in 1970 to under 5% by 2020[42], pushing 95% of cargo onto roads and driving up logistics costs. Recent upgrades, 1,400 new hopper wagons, 2,000 flat wagons, 55 locomotives, and a revenue rise to Rs 93 billion[43], are starting to reverse the decline, lifting per-wagon loads from 20 to 60 tons. New corridors, like the 45 km Karachi-Pipri link, multimodal chains, and RoRo services, aim to shift 15–20% of container traffic back to rail. The delayed ML-1 remains critical for unlocking full capacity and industrial connectivity.

The minerals sector, yet rich in resources, contributes only 3.2% to GDP[44]. With 92 known minerals and 52 under production, exports remain below US$2 billion (Trade Map, 2024). This underperformance stems from outdated exploration methods, weak geological data, and limited investment and value-addition, despite the Reko Diq project alone holding US$60–74 billion in reserves. Tourism infrastructure is also evolving, with KP tourism expected to rise to 9.3 million visitors by mid-2024. However, weak zoning laws and environmental safeguards hinder expansion. In brief, Pakistan's infrastructure potential remains underexploited due to fragmented governance and limited private participation.

Priority 1: "Transition into Green Energy Solutions"

Pakistan's power generation remained heavily dominated by thermal sources, accounting for 49% of total generation, followed by hydel (29%) and nuclear (17%). Renewable sources (wind, solar, and bagasse) collectively contributed only about 5%, underscoring the country's slow progress toward a clean energy transition, as shown in figure below. This fossil fuel–intensive mix heightens import dependency, fiscal stress, and carbon emissions, highlighting the urgent need to accelerate investments in renewable and indigenous green energy solutions.

Figure 55: Pakistan's Electricity Generation Mix – FY24



Data Source: State of Industry Report 2024

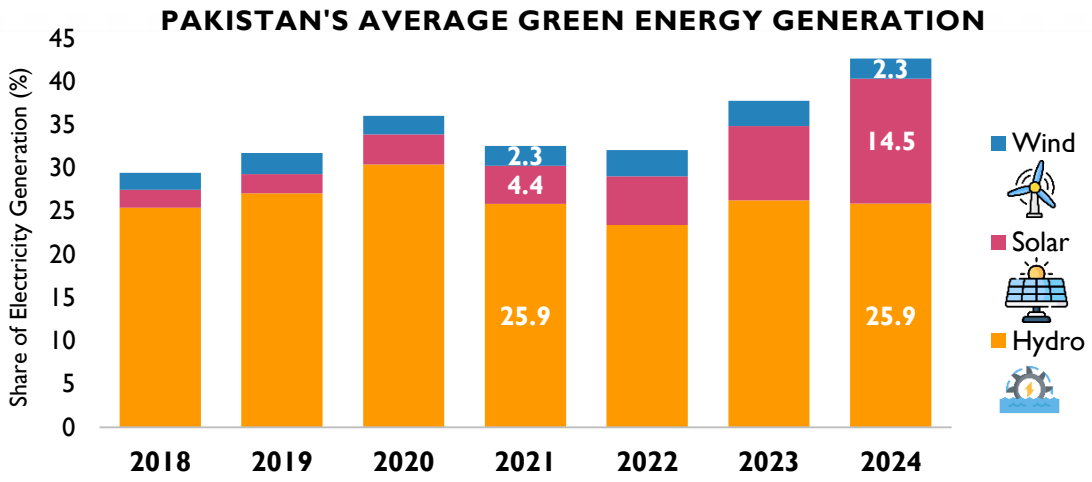
Pakistan's shift toward renewable energy is essential amid rising fuel import costs, circular debt, and persistent grid unreliability. While Sindh and Balochistan offer strong wind potential,

[41] Business Recorder. https://www.brecorder.com/news/40385681/trade-investment-logistics-sector-becomes-major-structural-bottleneck
[42] Business Recorder. https://www.brecorder.com/news/40365064
[43] Profit Pakistan Today. https://profit.pakistantoday.com.pk/2025/07/11/pakistan-railways-posts-record-rs-93-billion-revenue-in-fy2024-25/
[44] Business Recorder. https://www.brecorder.com/news/40352446

expansion remains slow due to high project costs and transmission constraints. In contrast, solar energy has emerged as the most affordable option, supported by a global collapse in Chinese PV prices driven by massive overproduction and price wars (Araújo, 2025). As a result, Pakistan's 5–25 kW net-metered systems now deliver attractive 2–4-year payback periods, with installation costs of PKR 110–135 per watt and electricity generation costs of US¢2.6–4.9 per kWh (IEEFA, 2024), making solar a viable solution for consumers facing high tariffs and unreliable grid supply.

The figure below shows a remarkable surge in solar power generation from 4% in 2021 to 14% in 2024, while wind power stagnated under 2%. This highlights solar's affordability and deployment advantages over wind projects constrained by land or grid limits, while hydel's fluctuating contribution underlines the need to expedite dam projects.

Figure 56: Pakistan's Average Green Energy Generation over the Years

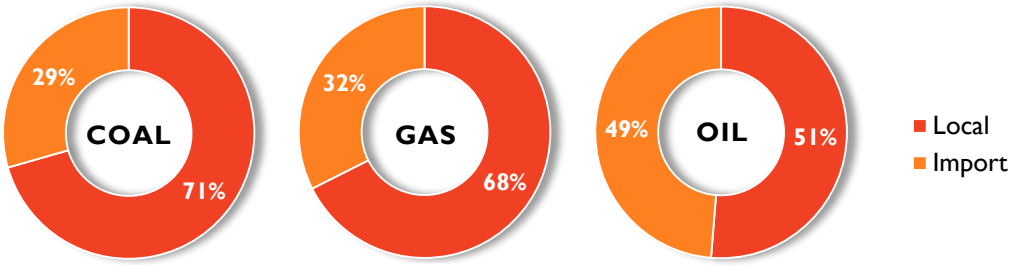


Data Source: Ember Energy
**Note: Ember Energy takes data from EIA, NEPRA, GEM, IRENA.*

Priority 2: "Develop an Efficient and Affordable Energy Infrastructure"

In FY2024, Pakistan relied heavily on imported energy, with 29% of its total coal, 49% of its oil, and 32% of its gas imported. This dependence, intensified by the absence of a long-term energy framework and recurring policy failures, has placed a significant strain on the economy. Despite this, local resources, such as Thar coal, hold immense potential to meet current and future coal demand; yet, a substantial portion, 29% of coal supplies, continues to be imported.

Figure 57: Commodity-wise Indigenous vs. Imported Energy Supplies in FY24



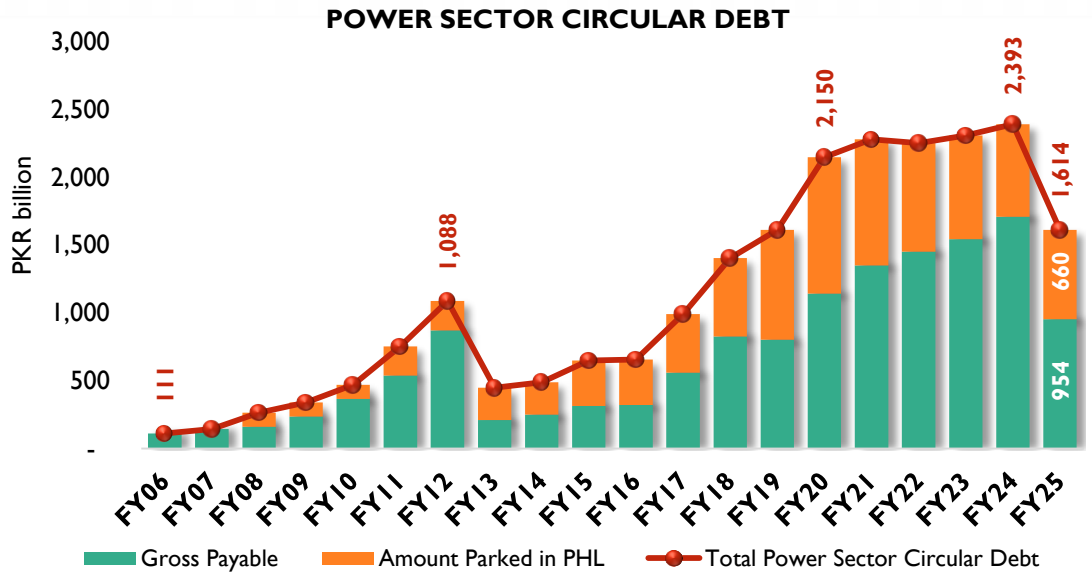
Data Source: Pakistan's Energy Year Book FY2023-24

Power Sector Circular Debt

Pakistan's power sector circular debt, which had surged to Rs 2.25 trillion by FY22 (3.4% of GDP), has been reduced by Rs 780 billion to Rs 1.61 trillion in FY25, primarily due to lower line losses, improved bill recovery, and savings from renegotiated IPP contracts (Profit Pakistan Today, 2025). Still, structural inefficiencies persist, and T&D losses remain high at 18.31% (SOI, 2024), driven by technical faults, theft, and weak recovery across DISCOs. Delayed tariff adjustments, uniform pricing despite regional cost variations, and untargeted subsidies continue to create fiscal strain.

Additionally, capacity payments to IPPs have risen sharply, with the Energy Purchase Price (EPP) increasing by 49% and the Capacity Purchase Price (CPP) by 211% between FY20 and FY24, further worsening financial pressures and sustaining the circular debt cycle.

Figure 58: Pakistan's Power Sector Circular Debt – FY06 to FY25



Data Source: PIDE & Pakistan's Ministry of Energy (Power Division)
Note: *Gross Payable includes payments payable from GENCOs to fuel suppliers & Payable to Power Producers.*

Cross-Subsidization among DISCOs

Cross-subsidization model under the *Uniform Tariff Policy* unfairly burdens efficient DISCOs like *LESCO*, *MEPCO*, *GEPCO*, and *IESCO*, whose surplus revenues cover losses of inefficient DISCOs such as *PESCO*, *SEPCO, FESCO, HESCO*, *QESCO*, and *TESCO*. In FY25, Rs125.78 billion was allocated through the *Tariff Rationalization Surcharge (TRS)* to bridge these gaps, as shown in the table below. This system penalizes efficiency, rewards poor performance, and raises tariffs in efficient regions, fading industrial competitiveness. Moving toward cost-reflective, performance-based tariffs is key to easing fiscal pressure and ensuring fair electricity pricing.

Table 10: Cross-Subsidization among DISCOs (FY25)

FY 2024-25 (Determined Tariff)	Determined Revenue	Revenue based on Uniform Tariff	Subsidy	Surcharge
Peshawar Electric Supply Company (PESCO)	444.89	441.75	3.14	-
Tribal Area Electricity Supply Company Limited (TESCO)	71.32	48.99	22.33	-
Islamabad Electric Supply Company Limited (IESCO)	345.69	411.57	-	-65.88

Gujranwala Electric Power Company Limited (GEPCO)	368.55	382.72	-	-14.17
Lahore Electric Supply Company Limited (LESCO)	799.96	839.5	-	-39.53
Faisalabad Electric Supply Company Limited (FESCO)	535.76	525.08	10.68	-
Multan Electric Power Company Limited (MEPCO)	629.73	635.93	-	-6.19
Hyderabad Electric Supply Company Limited (HESCO)	209.62	151.48	58.14	-
Sukkur Electric Power Company Limited (SEPCO)	136.32	124	12.32	-
Quetta Electric Supply Company Limited (QESCO)	226.11	206.94	19.17	-
All DISCOs	**3,767.96**	**3,767.96**	**125.78**	**-125.78**

Data Source: State of Industry Report 2024, NEPRA

Subsidies in the Energy Sector

Power Sector

Pakistan's power sector is at a critical juncture as the grid struggles to retain industrial users. Despite reforms, cross-subsidization keeps tariffs uncompetitive, and while the base tariff fell by Rs 1.15/kWh in FY26, the expiry of temporary subsidies and surcharges erased this relief, leaving effective industrial tariffs well above cost levels. The main issue is the government inflating industrial tariffs by 25–30% to fund protected domestic users. NEPRA's cost-based industrial rates are about 9 cents/kWh, but GoP's notified tariffs rise to 12–14 cents/kWh. This undermines exports, discourages investment, and drives industries toward captive solar, further shrinking grid demand.

The table below demonstrates how every industrial consumer slab is priced above its cost of supply under the uniform tariff policy. In FY26, the total industrial cross-subsidy burden reached Rs131.3 billion, diverted to cover residential and agricultural subsidies. Even temporary supply users, mostly SMEs, pay a steep Rs 7.14/kWh above cost. This shows an entrenched policy of overpricing the most productive sector to cover inefficiencies and political concessions. Unless cross-subsidies are phased out and tariffs aligned with NEPRA's cost, the grid will keep losing demand, worsening capacity costs and sector instability.

Table 11: Cross-Subsidy in Industrial Power Tariff – FY26

Industrial Slab	FY26 Estimated Sales, GWh	NEPRA Determined Uniform Tariff w/ PYA, Rs/kWh	GoP Applicable Charges, Rs/kWh	Cross Subsidy, Rs/kWh	Total Cross Subsidy, Rs. million
B1	163	26.53	30.80	4.27	696.0
B1 Peak	264	32.79	36.74	3.95	1,042.8
B1 Off-Peak	1,641	25.93	30.05	4.12	6,760.9
B2	32	22.73	30.73	8.00	256.0
B2 - ToU - Peak	1,254	32.65	36.68	4.03	5,053.6
B2 - ToU - Off-Peak	7,320	24.34	27.41	3.07	22,472.4
B3 - ToU - Peak	1,290	30.75	36.68	5.93	7,649.7
B3 - ToU - Off-Peak	8,391	21.65	28.24	6.59	55,296.7
B4 - ToU - Peak	513	29.92	36.68	6.76	3,467.9
B4 - ToU - Off-Peak	3,566	19.98	27.96	7.98	28,456.7
Temporary Supply	23	35.11	42.25	7.14	164.2
Total	**24,457**	-	-	-	**131,316.9**

Data Source: NEPRA Consumer Tariff Determination, Business Recorder[45] (2025)

Gas Sector

Pakistan's gas sector faces severe financial stress, with circular debt exceeding PKR 2.8 trillion (The News, 2025) by mid-2025 (PKR 2 trillion principal, PKR 800 billion in surcharges/interest). The cross-subsidy system, where households pay below cost and industries face high tariffs, drives inefficiencies, weakens industrial competitiveness, and forces the government to seek IMF-mandated reforms.

- ***Subsidy Gap & Industrial Tariff Burden***

  In FY25, a cross-subsidy of PKR 160 billion was extended to four consumer slabs, declining slightly to PKR 140 billion in FY26. OGRA set the prescribed price, i.e., the cost-recovery price, at PKR 1,895/MMBtu for SNGPL and PKR 1,659/MMBtu for SSGC (Arif Habib, 2025), while domestic consumers still pay as low as PKR 200/MMBtu, reflecting a subsidy gap of 89% for SNGPL and 88% for SSGC, funded through higher industrial tariffs.

- ***Impact of Weighted Average Cost of Gas (WACOG) Policy on Industrial Energy***

  The WACOG policy blends cheap domestic gas with expensive imported RLNG, inflating supply costs. As of August 2025, RLNG cost US$11.73/MMBtu for SNGPL and US$10.73/MMBtu for SSGC (Profit Pakistan Today, 2025), equivalent to roughly PKR 3,000–3,300/MMBtu, versus indigenous gas at US$3.5–4.0/MMBtu (i.e., PKR 1,050–1,200/MMBtu), raising WACOG to PKR 3,500–3,800/MMBtu. Yet, households pay as low as PKR 200/MMBtu, while industrial and commercial users pay PKR 2,300–4,400/MMBtu, forcing them to compromise on household affordability.

- ***Impact of UFG on Consumer Costs***

  Pakistan's UFG losses, about 12% for SNGPL and 18% for SSGC versus a global norm of under 2% (Profit Pakistan Today, 2025), signify another form of implicit cross-subsidization. OGRA allows these losses in utilities' revenue requirements, passing the financial cost of theft, leaks, faulty meters, and poor maintenance onto paying consumers. Industries and households subsidize both protected domestic users and systemic inefficiencies, worsening the sector's cost imbalance.

Priority 3: "Promote the Blue Economy"

Pakistan's blue economy holds immense but underutilized potential, anchored by a 1,050 km coastline, three major commercial ports, and an aquaculture sector employing over a million people. Despite managing over 90% of national trade, the maritime sector contributes 10% to GDP, while fisheries add only 0.31%, with aquaculture production at 798 million MT annually.

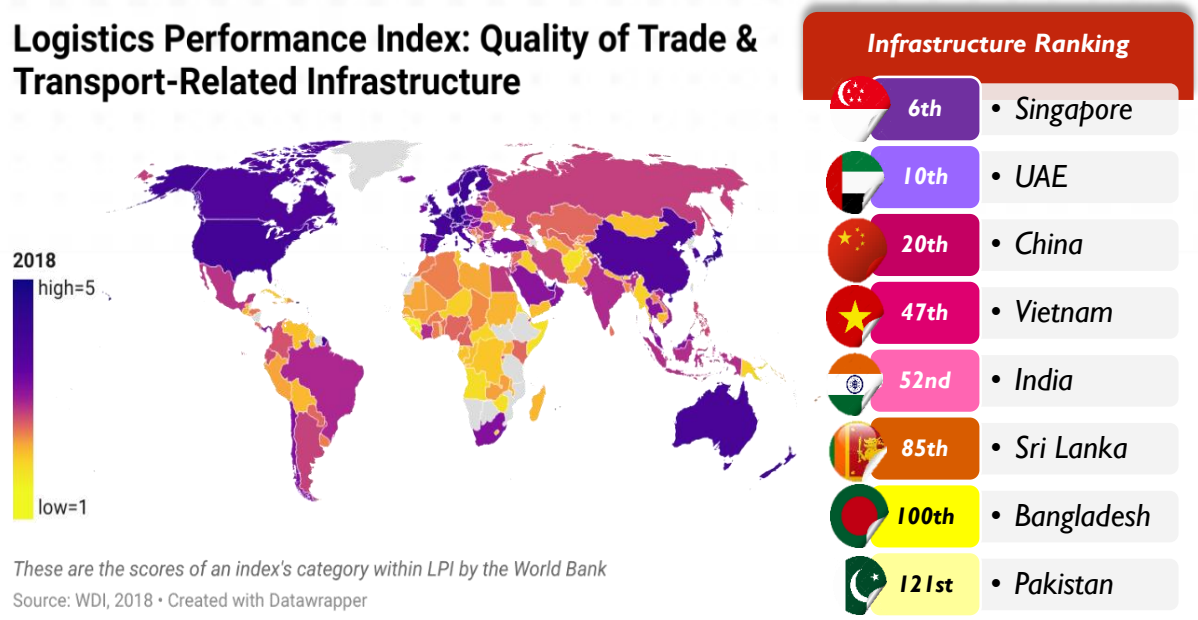
With shipping revenues reaching US$235 million in FY23 and fisheries exports at US$319 million in FY25, investment in port modernization, logistics hubs, and sustainable aquaculture could lift the blue economy's GDP share from the current 1.5–3% to 10–15%[46], unlocking US$8–10 billion in shipping and US$17–18 billion in fisheries by 2030–35.

Port Infrastructure

[45] Business Recorder. https://www.brecorder.com/news/40380014
[46] The Express Tribune. https://tribune.com.pk/story/2534660/pakistans-untapped-blue-economy

Pakistan's port infrastructure remains severely outdated, as reflected in its low infrastructure ranking of 121, far behind regional competitors, as shown in the figure below: Vietnam (47th), India (52nd), and Sri Lanka (85th). This gap also shows why Pakistan struggles to integrate into competitive global supply chains. Countries with higher infrastructure ranking, Singapore (6th) and the UAE (10th), benefit from modern terminals, deep-water berths and advanced digital logistics systems.

Figure 59: Infrastructure Quality (Score & Ranking) from LPI – Pakistan vs. Peer Countries



Data Source: LPI 2018 – World Development Indicators (WDI)

This poor ranking aligns with ground realities: Karachi Port Trust is operating at only 47% of its 125-million-ton capacity, and Port Qasim at roughly 50% of its 89-million-ton capacity (The News, 2025), despite handling most of Pakistan's external trade. Cargo clearance that should take 48–72 hours often stretch to 10–14 days at Pakistani ports, largely due to slow customs processing and outdated logistics (Geo News, 2025). Inadequate road and rail connectivity around Karachi Port causes chronic congestion and long dwell times (INP, 2025).

Pakistan's maritime inefficiencies, such as outdated infrastructure, slow clearance, and under-utilized handling capacity, have led to economic losses of Rs 5 trillion annually, besides high demurrage and freight charges that reduce export competitiveness (The Voice, 2025).

Tourism Sector Potential

Pakistan's tourism sector has strong untapped potential but underperforms relative to its peer nations. Pakistan ranks 101st, behind India (39th) and Sri Lanka (76th). Its enabling environment score is comparable to peers, yet it lags badly in infrastructure & services, which are well below India. Pakistan's price competitiveness is the highest in the South Asian region, meaning it is a relatively cheap destination, but low scores in prioritization of T&T, openness, and ICT readiness hold back sector growth.

Table 12: Travel and Tourism Development (TTD) Index 2024 – Pakistan vs. Peer Countries

Countries	TTD Rank	Enabling Environment					T&T Policy & Enabling Conditions			Infrastructure & Services			T&T Resources			T&T Sustainability		
		Business Environment	Safety & Security	Health & Hygiene	Human Resources & Labour Market	ICT Readiness	Prioritization of T&T	Openness to T&T	Price Competitiveness	Air Transport Infrastructure	Ground & Port Infrastructure	Tourist Services & Infrastructure	Natural Resources	Cultural Resources	Non-Leisure Resources	Environmental Sustainability	T&T Socioeconomic Impact	T&T Demand Sustainability
India	39	3.7	5.0	3.4	2.8	3.8	4.1	4.1	5.6	4.5	4.4	1.6	5.8	5.6	5.0	3.6	4.0	4.5
Sri Lanka	76	3.3	5.2	4.6	3.4	4.4	4.7	3.6	5.6	3.0	3.9	1.5	2.7	1.4	1.6	3.7	5.8	3.7
Pakistan	101	3.4	4.5	3.4	3.2	3.3	3.0	2.9	6.0	3.3	3.3	1.6	2.8	1.9	2.7	3.6	4.3	3.9
Bangladesh	109	3.2	5.6	3.5	3.1	4.0	3.2	2.1	5.2	3.0	3.9	1.3	2.1	1.6	2.0	3.6	3.4	2.7

Data Source: TTD Index 2024 – World Economic Forum (WEF)

Tourism plays a strong economic role, contributing 5.9% to GDP in 2022 and supporting over 4 million jobs. Even in 2023, it remained at 5.8% of GDP. With better security, infrastructure, and marketing, tourism sector revenues could reach US$5.5 billion by 2029 (Raza, 2025).

Figure 60: Pakistan's Tourism Potential

Off-Shore Mineral Exploration in Pakistan

Pakistan's offshore mineral potential includes rare-earth elements (REEs), cobalt, nickel, copper, etc. Geological surveys highlight deposits in Balochistan (Chagai), KPK (Swat–Dir), northern areas, and Makran coastal sands. Estimated REE-oxide reserves range from 100,000–500,000 tonnes, while the Reko Diq project (containing cobalt and trace REEs) holds US$60–74 billion in proven reserves[47]. In 2025, Pakistan exported its first critical minerals shipment to

[47] SFA (Oxford). (2025). *Pakistan's rare earths partnership advances US supply chain security and independence*. Retrieved from https://www.sfa-oxford.com/market-news-and-insights/sfa-pakistan-s-rare-earths-partnership-advances-us-supply-chain-security-and-independence/

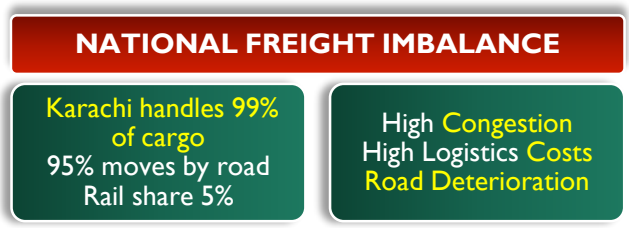
the USA under a US$500 million deal[48], marking early steps toward realizing its US$100–300 billion recoverable critical minerals potential. Pakistan's ambitions depend on a local policy: although the government cites US$6 trillion in untapped mineral wealth, mining contributes only 2–3% to GDP and 0.1% to global exports (SFA Oxford, 2025). This US$6–8 trillion figure is speculative, reflecting in-ground estimates of unverified mineral occurrences rather than proven, economically recoverable reserves.

Pakistan's Critical-Mineral Potential	
Regions	Balochistan, KPK, Northern Areas, Makran Coast
REE Potential	100k-500k tonnes
Major Project	Reko Diq - US$60-74b reserves
Mineral Potential	US$100-300b

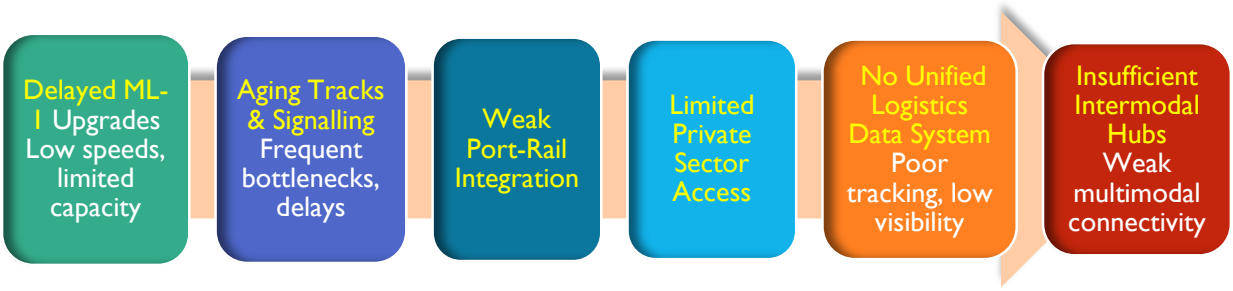
Priority 4: "Promote Multimodal Regional Connectivity"

Pakistan Railways is re-emerging as a strategic pillar of national and regional connectivity, supported by its highest-ever revenue of Rs 93 billion in FY25, including Rs 47 billion from passenger services and Rs 31.5 billion from freight operations[49], signalling a strong financial turnaround and renewed investor confidence for PPP-led expansion. Fleet upgrades, 1,400 hopper wagons, 2,000 flat wagons, 55 locomotives, and 30 new high-speed wagons have raised per-wagon capacity from 20 tons to 60 tons[50], enabling freight trains to transport 4,000+ tons and offering cheaper, more efficient logistics than road transport. Despite these upgrades:

- Karachi handles 99% of Pakistan's external trade, and nearly 95% of cargo still moves by road, leaving rail with only a 5% modal share, far below global norms, where rail carries 30–40% of freight[51].



- Pakistan's rail transformation is stuck by delayed ML-1 upgrades, ageing infrastructure, limited automation, weak port-rail linkage, and minimal private-sector participation. This keeps freight slow, costly, and less competitive than regional transport systems.



Freight Corridors, Multimodal Strategy & Regional Integration

Pakistan's freight future depends on accelerating dedicated freight corridors and multimodal linkages that connect ports, industrial hubs, and regional markets.

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[48] Hussain, A., & Dar, Z. (2025). *Pakistan's potential path to global relevance through critical minerals*. The Diplomat. Retrieved from https://thediplomat.com/2025/09/pakistans-potential-path-to-global-relevance-through-critical-minerals/

[49] Profit Pakistan Today. (2025) https://profit.pakistantoday.com.pk/2025/07/11/pakistan-railways-posts-record-rs-93-billion-revenue-in-fy2024-25/

[50] The Express Tribune. (2025) https://tribune.com.pk/story/2548184/shift-cargo-from-roads-to-rail-railway-official

[51] Business Recorder. (2025) https://www.brecorder.com/news/40365064

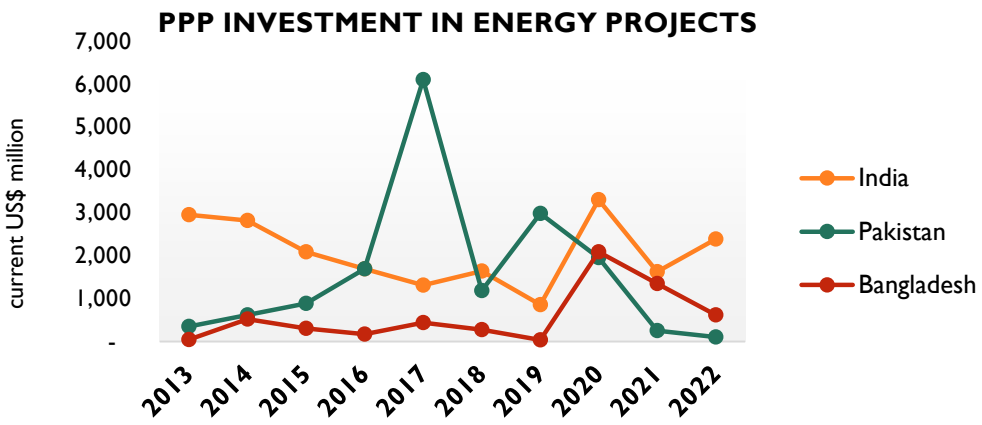
- The 45 km Pipri Dedicated Freight Corridor, developed by Pakistan Railways, DP World and NLC[52], aims to speed up cargo evacuation from Karachi Port and ease urban congestion.
- Pakistan is advancing multimodal reforms like Roll-on/Roll-off (RoRo) wagons and dedicated industrial freight trains, aligned with the National Freight & Logistics Policy and the National Maritime Policy.
- Upgrading ML-1 remains essential, including linking the US$90 billion Reko Diq project to the rail grid[53].
- Pakistan is reviving international freight corridors to Iran, Turkmenistan, Kazakhstan, and Moscow[54], positioning itself for wider regional supply-chain integration.

Priority 5: "Drive Innovative Financing for Infrastructure Projects"

Pakistan's infrastructure financing landscape shows persistent underinvestment, allocating only 2–3% of GDP to infrastructure against an estimated need of 10–11%, contributing to a projected US$124 billion financing gap (2016–2040)[55]. To bridge this deficit, experts stress expanding long-term financing instruments, deepening capital markets, and scaling PPPs, supported by ADB financing, including a US$250 million policy loan[56] and a US$1 billion multi-tranche facility[57] for PPP-backed investments.

In regional comparison, Pakistan lags behind peers: India gradually attracts US$1.3–3.3 billion annually in PPP energy investment, while Bangladesh mobilised up to US$2,087 million in 2020, as shown in the figure below. However, Pakistan's trend is more volatile, with a sharp peak in 2017 when PPP energy investment surged to US$6.1 billion, driven by multiple CPEC projects (Sahiwal, Sachal, UEP, Hydro China, Karot, and Suki Kinari[58]) reaching financial close, a one-off spike not sustained in the next years.

Figure 61: PPP Investment in Energy Projects – Pakistan vs. Peer Countries



Data Source: WDI
Note: *Pakistan's 2014 and Bangladesh's 2021 figures are estimated due to missing data in the dataset.*

[52] Business Recorder. (2025) https://www.brecorder.com/news/40342140/pipri-dedicated-freight-corridor-on-the-cards
[53] Business Recorder. (2025) https://www.brecorder.com/news/4036831 8/pm-for-linking-reko-diq-project-to-railways-network
[54] Business Recorder. (2025) https://www.brecorder.com/news/40365064
[55] Business Recorder. (2023) https://www.brecorder.com/news/40236141
[56] Dawn. (2024). https://www.dawn.com/news/1838075
[57] Dawn. (2025). https://www.dawn.com/news/1917938
[58] Energy Projects Under CPEC (https://www.cpec.gov.pk/ch/progress-update?)

Since then, Pakistan's PPP energy inflows have fallen abruptly to US$100 million in 2022, highlighting the urgency for stable financing, stronger project preparation, and diversified investor participation to regain competitiveness.

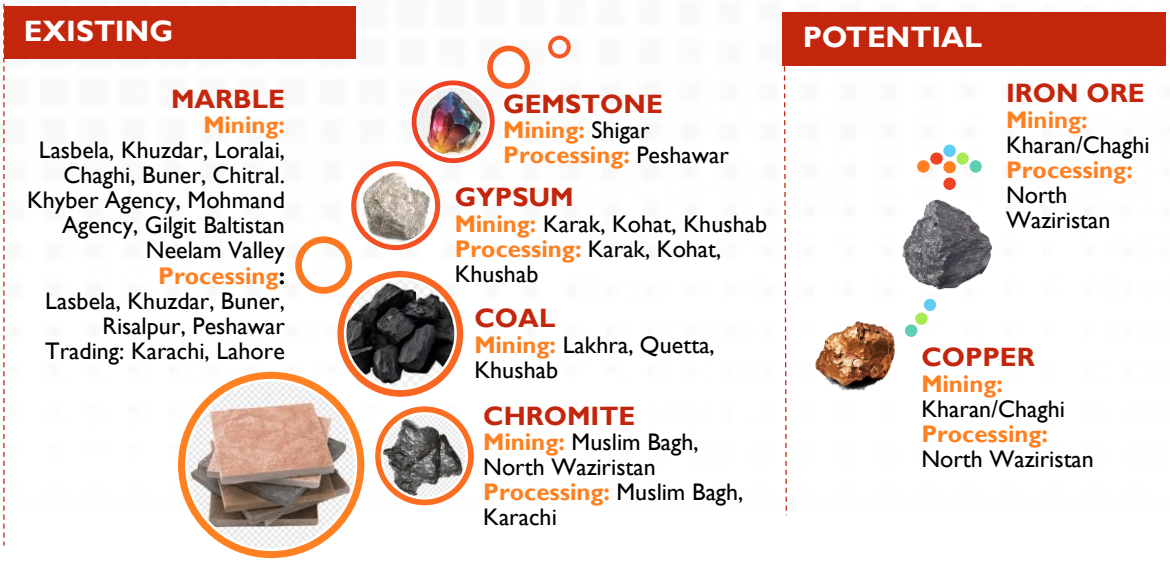
Priority 6:"Harness Pakistan's Mining Potential"

The mineral industry is a key driver of economic growth in many developed nations, including China, Italy, Türkiye, Spain, and Brazil. Pakistan, with its rich mineral reserves spanning 600,000 square kilometers, holds immense potential. Out of 92 identified minerals, 52 are commercially utilized, leading to an annual production of 68.5 million metric tons. The sector is growing at a promising 2-3% annually, supported by over 5,000 operational mines, 50,000 SMEs, and 300,000 direct employees. Among Pakistan's most valuable and promising minerals are marble, granite, coal, chromite, gypsum, copper, gold, iron ore, lead, zinc, bauxite, crude oil and natural gas. These minerals boast large, commercially viable deposits, offering Pakistan significant comparative and competitive advantages on the global stage.

Figure 62: Reserves of Core Minerals in Pakistan

Data Source: Strategy for Mineral Sector Development in Pakistan, Planning Commission of Pakistan, 2018

Pakistan's Mining Clusters



Data Source: Strategy for Mineral Sector Development in Pakistan, Planning Commission of Pakistan, 2018

Priority 1: "Transition into Green Energy Solutions"

- **Green Energy Development:** Pakistan holds significant potential in hydro, solar, and wind power. The following measures are advised to harness this potential.

HYDRO

- Increase hydropower's share in the generation mix by achieving the early completion of large hydropower projects, as identified under IGCEP 2025–35. Priority should be accorded to accelerating projects such as the Dasu Hydropower Project (4,320 MW), Diamer–Bhasha Dam (4,500 MW), and Mohmand Dam (800 MW) through timely financial closures, streamlined procurement processes, and strengthened federal–provincial coordination.

SOLAR

- The share of solar power generation should be increased by promoting the development of a local solar PV industry and addressing regulatory and operational bottlenecks in net metering. Despite short-term revenue losses for DISCOs, consistent policy follow-up is required, including the continuation of the net-metering policy, to sustain investor confidence and leverage the current momentum in rooftop and utility-scale solar adoption.

WIND

- Wind power generation can be accelerated by promoting competitive private investment and business-to-business (B2B) adoption through targeted fiscal incentives, fast-track grid access, streamlined land acquisition processes, and predictable, bankable power purchase agreements, allowing Pakistan to fully capitalize on its significant wind energy potential while lowering generation costs and reducing reliance on imported fuels.

- **Advancing Renewable Energy Projects via ARE Policy:** Implement the *Alternative & Renewable Energy (ARE) Policy 2019* in its full essence through cost-efficient competitive bidding for the private renewable energy projects. Also, a single-window clearance system under Private Power and Infrastructure Board (PPIB) should be established to expedite project approvals, grid access, and PPA negotiations, thereby abating delays and enhancing investor confidence.

Priority 2: "Develop an Efficient and Affordable Energy Infrastructure"

- **Efficient Import Substitution in the Energy Sector:** Develop a five-year plan to replace imports with local alternatives by boosting E&P in KPK and Balochistan's frontier regions. Scale up domestic refining capacity and modernize fuel storage infrastructure. Consider blending ethanol with oil to reduce imported oil demand in the transport sector (86.6% of total oil consumption in FY24). Promote the conversion of imported coal-based power plants to utilize local Thar coal, and boost investment in CTL & CTG technologies to diversify domestic energy substitutes and strengthen long-term energy security.
- **Regional Energy Trade Ties:** To enhance regional cooperation and reduce import dependence, the following policy measures are recommended:

* **Oil & Gas Exploration for Energy Security:** Energy security remains a key area of collaboration between Pakistan and China. It is advised to extend joint efforts in oil & gas exploration, refining, and storage under the CPEC framework. By establishing refineries and storage facilities along the CPEC route and engaging other partners like the USA, Pakistan can diversify its energy sources and reduce import dependence.
* **Shared Development of Renewable Energy Projects:** Pakistan should collaborate with bilateral investment partners on solar and wind projects, with private firms leading through B2B transactions enabled by supportive governmental policies and competitive pricing frameworks. Joint investments in solar PV, wind farms, grid integration, and storage can diversify energy sources and reduce reliance on fossil fuels.

- **Energy Supply Chain Modernization:** Upgrade the Transmission and Distribution (T&D) network through the High Voltage Direct Current (HVDC) lines, smart grids, and smart metering systems, and fast-track Supervisory Control & Data Acquisition (SCADA) automation to reduce the T&D losses (18.31% in FY24) and support renewable-powered energy flow across the supply chain.
- **Energy Demand Management:**

To enhance energy productivity, residential electricity demand should be reduced from 45.7% to 40% through the implementation of measures such as eco-labeling, adoption of energy-efficient building codes, and using efficient appliances.

To reduce oil consumption in the transport sector, the introduction of additional public transport projects and the development of essential infrastructure for localizing electric vehicles (EVs) are crucial.

PUBLIC TRANSPORT PROJECTS significantly reduce petroleum consumption in the transport sector.

- Pakistan can save **US$0.8–1 billion** in fuel imports if Karachi's planned BRTs are implemented; ongoing projects must be fast-tracked to reduce reliance on personal vehicles.
- Public transport expansion is needed through BRT systems, Circular Railway, and increased Pakistan Railway freight services.

The rationalization of natural gas prices and implementation of the WACOG bill are essential, which would also help minimize gas wastage in the residential sector.

- **Structural Reforms to Curb Power Sector Circular Debt (CD) and Ensure the Provision of Affordable Energy:** Past mistakes have contributed to a weak governance structure and unfavourable PPAs, leading to persistent circular debt and rising electricity prices. The following measures are suggested to address these issues.

- Circular debt is exacerbated by power distribution companies' failure to recover electricity costs. It is suggested to privatize the loss-making DISCOs.
- Rationalize the Uniform Tariff Policy and ensure unbundling K-Electric with access to national grid power at pooled CPPA-G rates, creating parity with other DISCOs, reducing end-consumer tariffs, supporting cost-reflective pricing, and ensuring timely disbursement under the Tariff Differential Subsidy (TDS) framework to sustain operational liquidity (PRAC, 2025).
- Energy regulators bear the responsibility of ensuring a continuous energy supply at affordable rates. To achieve this goal, efforts should be made to eliminate operational impediments.
- The old PPAs should be terminated, and dollar-indexed agreements should be converted into local currency index.
- Establish a power exchange to eliminate the government as the sole buyer and introduce a more potent multi-seller & multi-buyer market. Fast-track the Competitive Trading Bilateral Contract Market (CTBCM) and wheeling policy at international rates immediately.
- Introduce efficiency-linked rewards for T&D loss reduction & improved recovery rates.
- To facilitate the expansion of the wholesale electricity market, the gradual privatization of the state-owned power distribution network must be done. Distribution companies should primarily focus on their core line of business, while the potential for establishing small franchises for supply and distribution can be done side by side.

- **End Cross-Subsidization in the Energy Sector:**

Power Sector: Electricity costs the system approximately Rs 34/kWh for domestic users, but the government charges industries Rs 37/kWh plus fixed charges. To restore balance between consumers:

- The government should charge the full cost of electricity while providing targeted subsidies through the federal budget to directly support low-income households.
- Domestic needs must be balanced with industrial & commercial demand, prioritizing industrial consumers to promote economic growth, as practiced in countries like India and Bangladesh.
- Power utilities should be restructured to enhance operational efficiency and management, including the unbundling of K-Electric into separate generation, transmission, and distribution entities.
- The regulatory framework should be reformed to link utility returns to performance, ensuring efficiency, transparency, and long-term sustainability in the sector.

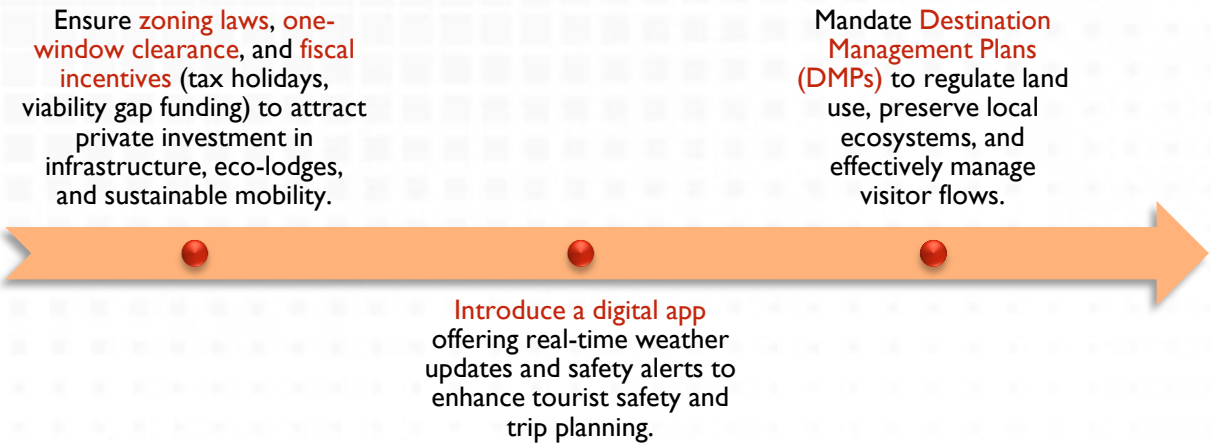
Gas Sector: Natural Gas costs about Rs 1,529/MMBTU (US$5.4/MMBTU), but government charges industries Rs 2,300-3,500/MMBTU (US$8.1-12.3/MMBTU). To restore the balance between gas consumers:

- Government should charge the full cost of gas and provide subsidies through the federal budget, not through cross-subsidization.
- Balance domestic consumers' energy needs with the requirements of industrial, power, and commercial sectors, prioritizing industrial consumers for industrial growth.
- Restructure gas utilities to enhance operational efficiency. Unbundling the 'pipeline' and 'retail' sectors by splitting SNGPL & SSGC into smaller units will encourage private sector participation & improve governance. Despite 40% private ownership in both utility companies, they lack a proper business model and a regulatory mechanism. Therefore, it is crucial to reform the regulatory framework to link financial returns to efficiency.
- UFGs are seven times the world average. In developing economies, such as Turkey, Russia, and Bangladesh, UFGs are 4-5% (Profit Pakistan Today, 2025). Despite OGRA's 6.3% benchmark allowance, the gas losses remained high, leading to increased allowances of 6.6% for SNGPL and 6.4% for SSGC (News Desk, 2024) in FY25. However, it is significant to tackle UFG losses within the gas sector.

Priority 3: "Promote the Blue Economy"

- **Modernize Port Infrastructure:** Outdated port facilities and equipment cause inefficiencies that deter foreign shipping companies. Prioritize investments in port modernization, including automated cargo handling, digital tracking systems, and state-of-the-art equipment, as focused under the National Maritime Policy.
    - It is advised to develop/ restructure Industrial Free Zones near Port Qasim and Gwadar Port to capitalize on their strategic location and estimated $850 million annual export potential[59] from seafood, dates, and regional commodities, attracting investment in logistics, trade, and industrial activities. Policies must encourage FDI in terminal operations and port-linked industries.
    - It is also recommended to allocate Sindh Infrastructure Development Cess (SIDC) funds exclusively for the maintenance & upgradation of Karachi's infrastructure and industrial zones[60].
- **Integrated Tourism Zones (ITZs):** Accelerate the progress of identified ITZs, such as Thandiani, Ghanool, Mankyal, and Madaklasht, while exploring potential too by operationalizing PPP frameworks under the Khyber Pakhtunkhwa Integrated Tourism Development Project (KITE) and the Pakistan Tourism Development Authority (PTDA) mandate. It is important to:

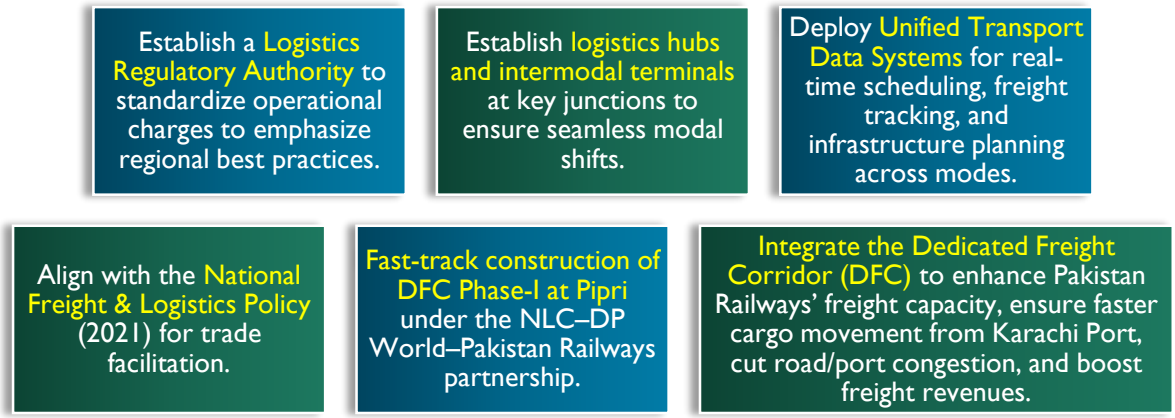
[59] The Daily CPEC. (2025). https://thedailycpec.com/gwadar-ports-seafood-dates-hold-850m-potential/
[60] Dagha. M.Y. (2025). *City suffers Rs3tr loss due to flawed fiscal policies: Dagha*. The Express Tribune. Retrieved from https://tribune.com.pk/story/2564359/city-suffers-rs3tr-loss-due-to-flawed-fiscal-policies-dagha



- **Sustainable Offshore Mineral Exploration:** Develop a National Offshore Mining Framework aligned with United Nations Convention on the Law of the Sea (UNCLOS) standards to govern exploration within Exclusive Economic Zones (EEZs) and the extraction of seabed minerals, like polymetallic nodules and rare earth elements (REEs). Offer tax incentives and fast-track licensing for private investors adopting advanced marine mining technologies, while enforcing Environmental Impact Assessments (EIAs) and marine spatial planning.

Priority 4: "Promote Multimodal Regional Connectivity"

- **Multimodal Transport Master Plan:** It is advised to develop a National Multimodal Transport Master Plan that integrates road, rail, maritime, and air networks with inland water transport and dry ports. Ensure to:



- **Leverage ML-1 Railway for Connectivity:** CPEC/ADB ML-1 railway project presents an opportunity to connect Karachi Port and Port Qasim seamlessly with inland industrial zones. Expedite its integration with port operations to reduce logistics costs and improve efficiency. Policies should facilitate private sector freight train operations, safeguarding fair competition and regulatory oversight. This integration must be aligned under the National Maritime Policy of regional cooperation for enhancing maritime and logistics connectivity nationwide.

Priority 5: "Drive Innovative Financing for Infrastructure Projects"

- **Develop a National Infrastructure Fund (NIF):** Establish a National Infrastructure Fund (NIF) like a Real Estate Investment Trust (REIT) with a dedicated NIF Management Company licensed and regulated by SECP.

- NIFMC will pool funds from institutional investors, mutual funds, banks, or individuals, while a trustee institution safeguards the assets on behalf of investors. SECP would ensure governance, transparency, and investor protection.
- Private capital mobilization can be facilitated through mutual funds, concessional loans, credit guarantees, and clean energy sukuk bonds, while offering steady, dividend-like returns similar to REIT distributions.
- Priority financing should be extended to energy infrastructure projects (grid upgrades, renewable integration, and storage systems) through long-tenor financing instruments, diversifying investment opportunities and de-risking private participation.

- **Strengthen Public-Private Partnerships (PPPs):** Streamline the National-level PPP framework by introducing standardized risk allocation, model concession agreements, and viability gap financing (VGF) schemes. It is also suggested to shift suitable PSDP energy and infrastructure projects to the PPP framework, enabling the government to significantly reduce the overall budgetary deficit.

Priority 6: "Harness Pakistan's Mining Potential"

- **Access to the Potential of Pakistan's Mining Reserves:** Conduct periodic geological surveys using advanced geospatial mapping and remote sensing to accurately evaluate mineral reserves. Modernize the Geology & Mineral Exploration Data Center under the Geological Survey of Pakistan (GSP) to provide investors with reliable and accessible data on general metallic minerals. Partnerships with international survey firms can enhance credibility and technical rigor in resource assessments, leading to bankable exploration studies for large-scale projects.
- **Mineral Sector Development:** The government should estimate mineral reserves, raise value addition, employ technologies, and develop infrastructure. Ensure to:

- Use geo-modeling and 3D techniques to map mineral reserves and employ Mineral-to-Chemicals and Ore-to-Metals technologies to increase value addition.
- Develop mines-to-market infrastructure, including power grids for mining clusters, and establish Common Facilities and Training Centers at major hubs. Develop an export-oriented marketing strategy to attract investors.
- Develop an investor-friendly Mining Licensing Policy with revenue incentives for local communities to bring in greater interest in mechanized mining, mainly in Balochistan and KPK.
- Pakistan can adopt Indonesia's mining export model, which focuses on downstreaming by banning raw ore exports to promote domestic processing into higher-value products (e.g., smelters, batteries). Implementing a Domestic Market Obligation (DMO) for key minerals like coal would ensure local supply before export, boost national revenue, create jobs, attract FDI, and enhance the competitiveness of Pakistan's mineral sector.

- **Fast-Track Utilization of Thar Coal:** The potential of Thar coal to liberate Pakistan from perpetual reliance on imported fuel is immense. The following measures are crucial to harnessing the economic benefits of Thar coal:

<table>
<tr><th>TARGETS/ OBJECTIVES</th><th>CURRENT STATUS</th><th>CRITIQUE/ GAP</th></tr>
<tr><td colspan="3">ENERGY</td></tr>
<tr><td colspan="3">NATIONAL ALTERNATIVE & RENEWABLE ENERGY (ARE) POLICY 2019</td></tr>
<tr><td>• On-grid Renewable Energy (RE) capacity: 20% by 2025, 30% by 2030.</td><td>• RE capacity: 7.2% (FY24). Target Shortfall: 12.8%</td><td rowspan="3">• Govt.'s weak policy commitment to solar.
• Off-grid and net-metering consumers (private) face inconsistent policy support.
• Projects stalled due to delayed bidding frameworks, missing IRZ data, & pending CCoE approvals.
• Poor coordination among AEDB, provinces & NTDC on grid & tariffs.</td></tr>
<tr><td>• Increase Green Energy (GE), i.e., Hydropower + RE share.</td><td>• GE share: 36.2% (FY24). Increased from 30.43% (FY19).</td></tr>
<tr><td>• Develop a competitive power market.</td><td>• Competitive Trading Bilateral Contract Market (CTBCM) launched in 2025.</td></tr>
<tr><td colspan="3">INDICATIVE GENERATION CAPACITY EXPANSION PLAN (IGCEP) 2025–35</td></tr>
<tr><td>• Expand installed capacity to 62,657 MW by 2035.</td><td>• Installed capacity FY24: 39,591 MW | Off-grid & net-metered capacity: 18,000 MW.</td><td rowspan="3">• URAAN-IGCEP not aligned.
• Capacity continues to increase while demand stagnates → fixed cost burden remains high.
• Forecasting gaps: lack of transparency, weak periodic review, omission of climate-related risks.
• Weak storage planning, hydrological stress not incorporated, and no alignment with Transmission System Expansion Plan (TSEP).
• No cap on growing capacity payments, worsening circular debt.</td></tr>
<tr><td>• Maintain system reliability and meet projected demand growth.</td><td>• Demand forecast based on a GDP-based forecasting model, excluding rooftop solar penetration.</td></tr>
<tr><td>• Promote 69% indigenous + Renewable Energy (RE) share by 2035.</td><td>• RE share FY24: 36.2% (Hydro+Solar+Wind+Baggase).
<table><tr><th>YEAR</th><th>IGCEP RE</th><th>URAAN RE</th></tr><tr><td>2024</td><td>8%</td><td>-</td></tr><tr><td>2029</td><td>16%</td><td>10%</td></tr></table>Solar+Wind+Baggase</td></tr>
<tr><td>• Ensure lower tariff burden for consumers.</td><td>• Revised tariff for FY26: PKR 31.59/kWh, with capacity payments as high as PKR 17/kWh.</td><td></td></tr>
<tr><td colspan="3">TRANSMISSION SYSTEM EXPANSION PLAN (TSEP) 2024–2034</td></tr>
<tr><td>• Expand and reinforce the national transmission grid (including 500 kV, 765 kV, and High Voltage Direct Current (HVDC) lines) to meet projected 2033 demand.</td><td>• 82% physical progress as of Dec 2024, but project completion is delayed. Underutilization of the 4,000 MW HVDC Matiari–Lahore transmission line, causing an estimated PKR 7.5 billion loss (Jul-Dec) due to South–North bottlenecks and grid overload.</td><td rowspan="3">• SCADA/III underway (completion expected FY25); delays limit grid optimization.
• Delays in Planning Commission Form-I (PC-I) approvals, land acquisition, and procurement.
• Lack of indigenous manufacturing for 765 kV equipment; coordination gaps among NTDC, Distribution Companies (DISCOs), and the Ministry of Energy (MoE).
• Poor alignment between generation and transmission project timelines; outdated system studies.
• Underfunded substations, ageing grid infrastructure, lack of automatic voltage regulation, and limited grid digitalization.</td></tr>
<tr><td>• Ensure effective power evacuation from upcoming generation projects.</td><td>• Thar coal evacuation lines are operational; delays remain in Gwadar and K-2/K-3 (Karachi Nuclear Power Plants) interconnections. Transmission links for hydropower projects (Dasu, Mohmand) are still incomplete.</td></tr>
<tr><td>• Improve reactive power management and maintain voltage stability across the 220–765 kV network.</td><td>• Reactive compensation is underway at a few substations, but voltage fluctuations continue during peak hours.</td></tr>
<tr><td>• Develop a cost-based investment plan with stage-</td><td>• National Electric Power Regulatory Authority (NEPRA)</td><td></td></tr>
</table>

TARGETS/ OBJECTIVES	CURRENT STATUS	CRITIQUE/ GAP
wise implementation for 2024–2034.	approved a revised PKR 352 billion investment plan for National Transmission and Despatch Company (NTDC) in Sept 2024.	
NATIONAL ELECTRICITY PLAN 2023-27		
• Achieve 100% energy access and electrification by 2030.	• 95.6% national electricity access (World Bank, 2023).	• Households continue to face unreliable electricity supply; rapid growth of off-grid solar remains unintegrated with national planning. • High cost and logistical challenges in expanding grid networks to remote areas. • Limited stakeholder engagement in policy implementation. • Industrial consumers show resistance to fixed charges, citing increased monthly bills.
• Increase the indigenous energy share to 60% by 2025 and 75% by 2030.	• Hydropower + nuclear + renewable energy (RE) account for 54.41% of total generation.	
• Protect low-consumption users and reduce cross-subsidies to ≤ 20% by 2026.	• Cross-subsidy levels decreased by 13% year-on-year (YoY) in FY26, but the target is still unmet.	
• Introduce fixed electricity charges across all consumer slabs (excluding protected users).	• Fixed charges are implemented only for industrial consumers.	
TIGHT GAS POLICY 2024		
• Incentivize investment in tight gas and unexplored hydrocarbon reserves.	• Policy offers a 40% price premium over the zonal price for eligible tight gas projects. Only Nur West-1 (a small-scale tight gas project) is currently operational.	• Incentive applies only to projects certified within 10 years, reducing attractiveness for large-scale, long-term investments. • High exploration and production costs limit private-sector participation. • Weak federal–provincial coordination, unclear concession procedures, and slow regulatory approvals. • Undefined frameworks for joint ventures (JVs), technology transfer, and insufficient domestic technical capacity.
• Increase local natural gas production to reduce reliance on imported fuels.	• Limited domestic gas output; Oil and Gas Development Company Limited (OGDCL) has partnered with a Chinese exploration company to evaluate tight gas prospects.	
• Ensure transparent and accelerated regulatory approvals for exploration and production projects.	• No fast-track approval mechanism or procedural reforms have been implemented.	
INFRASTRUCTURE		
NATIONAL FREIGHT AND LOGISTICS POLICY 2021		
• Strengthen freight forwarder licensing and regulatory oversight.	• Federal Board of Revenue (FBR) issued the Freight Forwarders Licensing Rules (2025) — Pakistan's first formal licensing framework.	• Weak, underfunded rail network and poor port–road integration hinder multimodal freight efficiency. • Limited financing, slow technology adoption, and insufficient progress in green shipping initiatives; fleet modernization remains slow. • Chronic port congestion, delayed dredging, weak cold chain systems, and deteriorated road links → high transport and logistics costs.
• Enhance multimodal connectivity, especially rail freight.	• USD 400 million Karachi–Pipri Freight Corridor under development by National Logistics Cell (NLC) and DP World.	
• Modernize the national shipping fleet to reduce import dependence.	• Pakistan National Shipping Corporation (PNSC) announced a plan to expand its fleet by 34 vessels within three years (The Express Tribune, 2025).	
• Upgrade freight infrastructure to lower logistics costs and delays.	• Digitalization efforts are underway through Pakistan Single Window (PSW), but road and rail connectivity gaps persist.	

TARGETS/ OBJECTIVES	CURRENT STATUS	CRITIQUE/ GAP
NATIONAL MARITIME POLICY (NMP) 2025 DRAFT		
• Expand national merchant fleet; increase Pakistan-flagged cargo share to 25–30% by 2047.	• Pakistan National Shipping Corporation (PNSC) handles only 10% of Pakistan's trade cargo, despite a threefold growth in trade (2001–2022).	• No feasibility studies, baseline cargo/port data, or updated sectoral assessments; many legacy issues from Maritime Policy 2001 (MMP-2001) remain unresolved. • Fleet expansion targets are considered unrealistic due to the absence of financing mechanisms and reliance on outdated vessel technologies. • No Green Port Policy, maritime waste-management framework, or mechanisms for environmental compliance at ports.
• Modernize ports & logistics infrastructure (Karachi Port Trust – KPT, Port Qasim Authority – PQA, Gwadar Port).	• Limited modernization at KPT, PQA, and Gwadar Port; several Public-Private Partnership (PPP) projects initiated.	
• Promote sustainable, carbon-neutral maritime operations.	• No substantial progress on emission reduction, green port initiatives, or renewable-energy-based port operations.	
• Facilitate private investment in the maritime and shipping sectors.	• The government announced the First Maritime Investment Conference (Arab News, 2025).	
NATIONAL MINERAL POLICY 2013		
• Foster an investment-friendly climate to attract local and foreign investors.	• Policy largely unimplemented; weak investor-support framework.	• Federal overreach and provincial autonomy, with unclear institutional roles, mainly concerning the Special Investment Facilitation Council (SIFC). • Institutional overlap persists, and Mineral Investment Facilitation Authorities (MIFAs) are still not operational. • Sector faces regulatory instability, with acts and bills suspended or opposed. • Transparency gaps persist due to weak geodata systems and slow licensing processes. • Enforcement is weak, allowing illegal mining to continue. • Contracts are unclear, and high taxes, royalties, and inconsistent policies deter investors. • No unified national geodata center, limiting exploration incentives. • Infrastructure and industrial linkages are inadequate, restricting value addition. • Stakeholder representation is weak, with small miners often sidelined. • High financial requirements and limited community benefits.
• Optimize mineral exploration, development, and utilization nationwide.	• Limited geological exploration; many mineral deposits remain unexplored.	
• Promote value addition across both upstream and downstream mineral sectors.	• Minimal downstream industrial activity, with dominance of raw mineral exports.	
• Strengthen institutions, geological data systems, and environmental safeguards.	• Under-resourced institutions and poor enforcement of safety and environmental regulations.	
PROVINCIAL MINERAL ACTS CURRENT STATUS • ***BALOCHISTAN MINES & MINERALS ACT 2025 –*** Implementation is stalled as the act is suspended by the provincial government. • ***SINDH MINES & MINERALS GOVERNANCE ACT, 2021 –*** The act is partially implemented with weak enforcement. • ***KPK MINES & MINERALS ACT, 2025 –*** Implementation stalled as the bill has not yet passed in the KP Assembly. • ***PUNJAB MINES & MINERALS BILL 2025 –*** The bill is not yet enacted — still under provincial review.		

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