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Policy Brief

THE FUTURE OF NATURAL GAS IN PAKISTAN: REVIEW OF POLICY FRAMEWORK

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EXECUTIVE SUMMARY

Natural gas has been the backbone of Pakistan's energy system for many decades, accounting for about half of the energy supply. Domestic gas reserves were viewed as a substitute for imported crude oil, and the government pursued an energy strategy centered on low-priced, widely distributed pipelined gas to households, industry, power, fertilizer, and transportation. The allocation and price-related inefficiencies in the downstream were overlooked owing to the indigenous natural resources. However, supply has become increasingly unsettled since the 2010s, when domestic reserves and production have not kept pace with ever-rising demand, and distortionary allocations and pricing have led to chronic shortages. This prompted an abrupt shift to imported liquefied natural gas (LNG). The inefficiencies and governance problems resulted in a financial crisis in the sector, evident by the accumulation of circular debt exceeding PKR 3 trillion in 2025.

This policy brief reviews the structural weaknesses of Pakistan's natural gas sector across the entire value chain, including upstream E&P activities, LNG imports, and downstream distribution. Economic efficiency suggests that market-based allocations maximize the sum of consumer and producer surplus. Deviating from market allocation creates inefficiency. Energy sector data shows that gas supply costs are considerably high, and WACOG washed away industrial and commercial sector demand.

In this backdrop, the research identified sectoral anomalies and key questions through key informant interviews. The study draws on extensive stakeholder consultations to find the core issues and plausible solutions. The central finding is that government footprints controlling the sector and an incoherent policy framework lie at the heart of gas-sector distress in Pakistan. Administrative pricing, discretionary and politically motivated allocation, weak regulatory capacity, and the absence of market-based coordination between gas and electricity markets have undermined investment incentives and financial viability.

The brief argues that the transition toward market-based allocation and pricing, prioritizing high-value uses of gas, ring-fencing RLNG for industry, and aligning upstream incentives with downstream reforms are essential to sparing the government from the financial liabilities of the gas

sector. Without decisive action, the gas sector will continue to drain fiscal resources, discourage investment, and weaken industrial competitiveness. With coherent reforms, however, natural gas can still play a stabilizing role in Pakistan's energy transition over the next decade.

BACKGROUND: FROM ENERGY BACKBONE TO FISCAL LIABILITY

Pakistan's natural gas success story began with significant discoveries in the mid-20th century, most notably at Sui, Balochistan. Domestic gas production expanded rapidly in the 1990s, supported by favorable policies for exploration and production (E&P) companies, and by the early 2000s, utilities sought avenues for gas supply from households, power and fertilizer plants, industry, and even transport. The policy was to keep prices low through subsidies and cross-subsidization, making gas the preferred fuel across sectors.

This strategy, however, hinges on two assumptions: (i) growing net gas reserves, (ii) price-inelastic gas demand. Both expectations proved to be wrong. Since the mid-2010s, production has begun to decline, exploration has failed to yield any significant discoveries, and major gas fields have been exhausted due to excessive production and consumption. Meanwhile, demand continued to rise, driven by gas-intensive economic planning and policy decisions that expanded gas connections to residential, industrial, and transportation sectors, ignoring long-term supply constraints.

Faced with widening shortages, Pakistan had two options: either to allow the private sector to import RLNG in the spot market or make long-term contracts for a stable price. However, the government began importing RLNG in 2016 under long-term contracts with Qatar Energy and ENI. These imports eased shortages, but they fundamentally altered the nature of the gas sector issues viz, imported gas is significantly more expensive than indigenous supplies, yet utilities' inefficiency and consumer tariffs remain unchanged due to a poor regulatory framework. The result has been mounting losses for gas utilities, delayed payments across the supply chain, and a growing burden on public finances.

KEY CHALLENGES FACING PAKISTAN'S NATURAL GAS SECTOR

Pakistan's recoverable gas reserves have fallen sharply over the past decade, with production projected to decline to nearly half of early-2010s levels by 2030. The E&P activity has slowed in both Sindh and Balochistan, which have been surplus gas-producing provinces. Multiple factors contribute to declining gas production, including the geological maturity of key basins, bureaucratic delays, repatriation of profits, security concerns in gas-rich regions, and economic terms that inadequately reward risky investments. Although Pakistan's petroleum policies formally offer competitive fiscal terms, investor confidence is undermined by regulatory uncertainty, delayed payments, and downstream dysfunction. Controlled pricing and weak cost recovery in the gas market indirectly depress upstream investment by raising doubts about long-term offtake and payment security.

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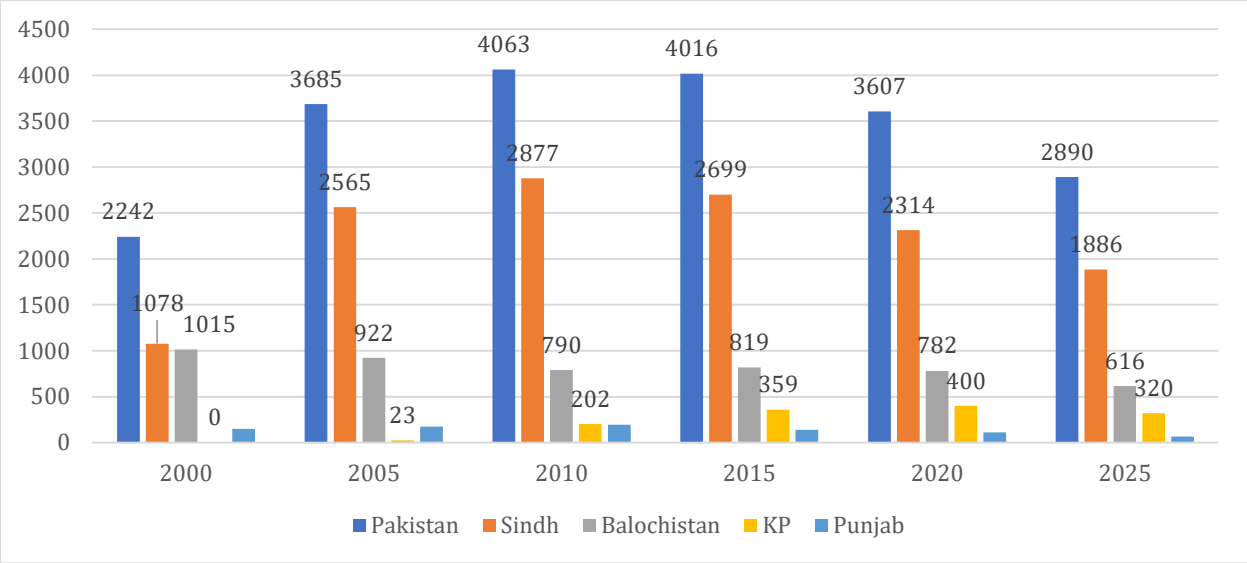
Figure 1 Province-wise Natural Gas Production [million Cubic Feet per day (mcfd)]



Source: Pakistan Energy Yearbook (various issues), HDIP.

Likewise, various policy distortions affect the downstream gas sector. Gas pricing in Pakistan is administratively determined and heavily distorted by cross-subsidization. Households and fertilizer producers receive subsidies on gas prices, while industry and commercial users pay for those subsidies by bearing disproportionately high tariffs. This system works when utilities supply domestic low-cost gas, but with the introduction of RLNG, cross-subsidization results in extremely high tariffs for industry to compensate for residential and fertilizer subsidies. Industrial gas demand can be eroded by high tariffs, and in that case, it would become a fiscal burden on the government. Ironically, administrative allocation driven by the elite capture prioritizes low-value uses, such as domestic use, over high-end industrial uses for export-oriented activities. This contradicts fundamental principles of efficient resource use and undermines economic growth.

Energy governance in Pakistan is fragmented across multiple institutions, further complicated by the 18th Constitutional Amendment. While provincial participation in resource ownership is justified, the lack of effective coordination has made unified pricing mechanisms, such as the Weighted Average Cost of Gas (WACOG), politically contentious and difficult to implement. Moreover, gas and electricity planning remain poorly integrated, even though the two are close substitutes. Rapid solar adoption has displaced gas-fired power during daytime hours, altering demand patterns that were not anticipated in official projections. The failure to account for such cross-sector dynamics has led to over-contracting of LNG and underutilization of capacity.

Both gas utilities, SNGPL and SSGC, face high unaccounted-for gas (UFG) due to aging pipeline infrastructure and weak incentives for efficiency. Their regulated rate-of-return model rewards asset accumulation rather than performance, while political interference constrains tariff adjustments and loss reduction. High UFG levels—exceeding 15 percent in some regions—are particularly costly when RLNG is blended into the system. Industrial consumers, despite having

minimal technical losses, are charged system-wide loss factors that inflate delivered prices and further erode the competitiveness of the industrial sector.

In a nutshell, Pakistan's gas crisis is policy-driven. Resource depletion is real, but distorted incentives, denial of market pricing and allocation, ad hoc decisions, and resistance to market-based reforms augment it. Continuing on the current path will deepen fiscal stress, discourage investment, and weaken industrial growth.

POLICY RECOMMENDATIONS

1. Transition to Market-Based Allocation and Pricing: Pakistan should gradually replace administrative gas allocation with market-based mechanisms. Pricing should reflect the marginal cost of supply, particularly for RLNG. Subsidies, where politically unavoidable, should be explicitly budgeted and transparently targeted rather than embedded in tariffs. High-value users, especially export-oriented industry and efficient captive cogeneration plants, may receive priority in gas allocation but at cost-reflective prices.

2. Ring-Fence RLNG for Productive Use: The private sector may be allowed to import RLNG in the medium to long-term. In the short run, however, RLNG should be ring-fenced for industry and power sectors charging cost-reflective prices. Supplying imported gas to households at subsidized rates is fiscally unsustainable and economically inefficient.

3. Reform Utility Incentives and Reduce Losses: The regulatory framework for gas utilities should shift from asset-based returns to performance-based incentives. Reduced UFG, billing efficiency, and service quality must be rewarded. Accelerated investment in pipeline rehabilitation and metering is essential, particularly as the cost of losses rises with higher-priced gas. OGRA is formulating the modalities for Third-party access to gas regulations, which are expected to attract considerable investment in the natural gas downstream sector.

4. Strengthen Upstream Investment Signals: Ensuring timely payments, reducing bureaucratic delays, and maintaining predictable pricing frameworks will improve investor confidence in the upstream. Wellhead prices should reflect geological risk and opportunity cost, mainly as Pakistan competes with other emerging markets for exploration capital.

CONCLUSION

The above discussion highlights the core issues in Pakistan's natural gas sector stemming from the failure to apply market principles of allocation and pricing. The government's control, driven by bureaucratic and political constraints, denies market-based allocation and pricing, resulting in segregated WACOG implementation and utilities' higher rates of return, thereby raising the cost of gas supply and fiscal liabilities. The choice facing policymakers is stark. Either continue with ad hoc interventions that deepen fiscal and economic stress, or embrace a coherent, market-oriented

reform agenda that restores financial discipline, attracts investment, and allocates gas to where it delivers the most significant national benefit. The evidence strongly favors the latter.

Developing the gas market would play a pivotal role in limiting government liabilities magnified by the RLNG imports and extensive solar adoption. Public sector dominance in the energy sector provides a leeway to pool the entire inefficiency in the black box named 'circular debt'. On the contrary, market mechanisms will provide incentives to update the dilapidated pipeline infrastructure over time.

The contemporary energy sector issues stem from policy incoherence in the gas and electricity sectors, which, by and large, complement each other. To maintain competitiveness, it is essential to ensure that energy prices are affordable for businesses, enabling them to use energy productively. Nonetheless, the financial sustainability of the energy sector through cost-recovery supply, coupled with an effective circular debt management plan, is crucial for achieving an optimal energy mix.

Here is the bottom line. On the supply side, domestic E&P operations must focus on increasing gas availability and reducing reliance on RLNG to minimize pressure on WACOG. Petroleum policies play a crucial role in enhancing the energy sector's performance, making it efficient and more revenue-generating. Policies that offer fiscal incentives and streamlined regulatory procedures for E&P companies will help tap natural gas reserves. On the demand side, correcting price and allocation inefficiencies by limiting the government's control would help sustain the sector financially.

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Figure 2 Analytical Framework and Summary of Key Findings