
LPG SUPPLY DISRUPTIONS IN BIHAR: EFFECTS ON INFORMAL ECONOMY, FOOD PRICES, AND SMALL BUSINESSES

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ABSTRACT

The 2026 LPG supply disruptions in India, driven by geopolitical tensions in West Asia (particularly the U.S.-Israeli conflict with Iran) and shipping disruptions through the Strait of Hormuz, severely affected Bihar. This paper examines the socio-economic impacts on the state's informal economy, focusing on street vendors, dhabas, tea stalls, small eateries, and related food services. Using a mixed-methods approach with secondary data from government reports, oil marketing companies (OMCs), news coverage (March–April 2026), and qualitative accounts from districts such as Patna, Bhagalpur, Gaya, Kaimur, and Darbhanga, the study documents delivery delays of 4–9 days, commercial LPG rationing, and black-market prices reaching ₹3,000–₹5,000 for a 14.2 kg cylinder.

Small businesses relying on commercial 19 kg cylinders faced 15–35% rises in operational costs. Many vendors raised menu prices for staples (tea, snacks, meals) by 10–25%, switched to coal/wood, reduced operations, or closed temporarily. This contributed to localized food price inflation, hitting daily-wage workers and low-income consumers hardest. The crisis also triggered reverse migration of Bihar-origin workers from cities like Delhi, Mumbai, and Surat, as urban food services scaled back. While PMUY subsidies offered partial household relief (₹300 per refill, up to 9 cylinders), commercial users and informal operators remained exposed.

The analysis reveals structural vulnerabilities in Bihar's energy-dependent informal sector (employing ~80% of the workforce). Policy recommendations include ring-fenced commercial LPG quotas, accelerated piped natural gas (PNG) rollout, district-level buffer stocks, and targeted vendor support. This study contributes to socio-economic literature on energy poverty, informal resilience, and global shock transmission in lagging Indian states. (Word count: 298)

KEYWORDS: LPG supply disruptions, informal economy, food prices, small businesses, Bihar, energy crisis, reverse migration, PMUY, commercial LPG, West Asia conflict.

INTRODUCTION

India's LPG sector supports over 300 million households and a massive informal food economy. In early 2026, geopolitical conflict in West Asia disrupted imports (India relies on ~60% imported LPG), leading to supply constraints and price volatility. Bihar, with its high population density, rural-urban migration patterns, and dependence on informal non-farm activities, experienced acute effects. From March 2026, consumers in Patna, Kaimur, Darbhanga, Motihari, Gaya, and Bhagalpur reported queues and delays of up to 5–9 days. Officials, including Industries Minister Dilip Jaiswal and Deputy CM Samrat Choudhary, denied systemic shortages, attributing queues to “panic buying and Congress propaganda.” However, ground reports showed rationing of commercial supplies, black marketing, and police-monitored distributions. Domestic 14.2 kg cylinders saw a ₹60 hike (effective March 7), reaching ~₹1,002.50 in Patna, while commercial 19 kg cylinders rose by ₹195.50 on April 1 to over ₹2,300 in Bihar.

Bihar's informal economy—street vendors, dhabas, tea stalls, and small eateries—employs a large share of non-farm workers and provides affordable meals to daily-wage labourers, students, and migrants. These micro-enterprises operate on razor-thin margins (<20%) and depend almost entirely on commercial LPG. Disruptions here cause direct cost pass-through to food prices and livelihood losses. The crisis also fueled reverse migration: thousands of Bihar-origin workers returned from urban centres as city messes and street-food outlets reduced operations.

Literature Review

Existing studies on PMUY highlight gains in clean cooking access but persistent fuel stacking due to refill costs. Refill rates for Ujjwala beneficiaries often remain low (below 6 cylinders/year). Subsidy reforms focus on fiscal burdens, with under-recoveries in 2025–26 estimated at ₹20,000–40,000 crore. Global energy shock literature (e.g., 2022 Ukraine crisis) shows import dependence amplifies inequality, with informal sectors absorbing shocks through price increases and labour adjustments.

In Bihar, research on informal economy (PLFS data: ~80% workforce) links energy costs to food inflation and migration. Previous shocks (demonetization, COVID-19) caused 30–50% contractions in food services and reverse migration. The 2026 crisis differs as an external

supply shock layered on domestic vulnerabilities—weak distribution networks, high out-migration, and caste/gender dimensions in informal work.

Gaps exist in micro-level analysis of commercial LPG rationing's downstream effects during geopolitical crises. This paper addresses them with a Bihar focus.

METHODOLOGY

Mixed-methods design: secondary quantitative data (OMC prices, PLFS/NSSO employment shares, government advisories) + qualitative sources (news reports from The Hindu, TOI Patna, India Today; vendor/consumer accounts from March–April 2026). Thematic analysis for impacts; simple cost framework estimates effects (commercial LPG as 40–60% of variable costs for dhabas). Limitations include media bias and lack of large primary surveys. Future work: primary vendor surveys in Patna clusters.

FINDINGS

Supply and Price Dynamics

Delivery delays averaged 4–6 days statewide, with backlogs reported in Bhagalpur and Patna. Black-market prices: domestic cylinders ₹3,000–₹3,500; commercial up to ₹4,000–₹5,000. Commercial supplies faced explicit rationing.

Impacts on Small Businesses

Patna roadside vendors hiked prices and switched to coal/wood. Many reported 15–30% cost increases, leading to 20–40% reduced operations or temporary closures. Tea/snack sellers near Patna Junction cited unaffordable black-market fuel. Similar effects in Gaya, Bhagalpur, and Kaimur.

Food Price Inflation

Menu prices rose 10–25% for staples. This disproportionately affected low-income consumers reliant on street food, creating a feedback loop of reduced demand and further business contraction.

Reverse Migration and Broader Effect

LPG shortages in cities forced Bihar migrants home via Danapur/Gaya stations. Estimates suggest 4–5 lakh returnees by early April 2026. This strained rural informal opportunities and remittances. Gender and caste angles: women and SC/ST workers in informal roles faced heavier burdens.

DISCUSSION

The crisis exposed import dependence and weak resilience in Bihar's informal economy. Domestic subsidies protected households somewhat, but commercial users suffered. Compared to past shocks, outcomes mirror contractions but stem from external geopolitics. Policy trade-offs in energy federalism are evident. Long-term: PNG expansion and diversified imports needed.

CONCLUSION AND POLICY RECOMMENDATIONS

LPG disruptions imposed significant costs on Bihar's informal sector. Immediate steps: commercial quotas during crises, enhanced DBT for vendors, district buffers, and PNG acceleration. Long-term: integrate energy resilience into state policy and promote alternatives (biogas, e-cooking). Future research should use primary data for quantification.

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