STRATEGIC BRIEF · 06 APRIL 2026

PINNACLE
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MIDDLE EAST CONFLICT

IMPACT, THREATS & OPPORTUNITIES

Mapping the Ripple Effect of Iran Conflict on Global Energy, Industrial Commodities & Logistics

MIDDLE EAST WAR - IMPACT, THREATS & OPPORTUNITIES

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01

Geopolitical Background - Iran Conflict & Effect on the Strait of Hormuz

Escalation timeline, leadership transition, missile warfare and closure risk at the world's most critical maritime chokepoint

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Energy Security - Industrial Gas Supply Disruptions & Price Surge

LNG, PNG and LPG vulnerability assessment, manufacturing process risk heat map and commercial price progression since February 2026

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Energy hedging, supplier diversification, inventory buffering, freight renegotiation and policy interventions to build industrial resilience

GEOPOLITICAL BACKGROUND- IRAN CONFLICT AND EFFECT ON STRAIT OF HORMUZ

Global Oil Hub: Approximately **20% of the world's total oil consumption** passes through the strait daily (roughly 21 million barrels). At its narrowest point, it is only about **33 km (21 miles).**

Lack of Alternatives: Most oil-producing nations in the Gulf (Iraq, Kuwait, Qatar, UAE) have limited pipeline infrastructure to bypass the strait, meaning a closure would immediately halt their exports

Asian Dependency: The economies of **India, China, Japan, South Korea** and **South East Asia** are the most vulnerable, as they rely on this route for over 70% of their crude oil imports.

Operation Epic Fury

Feb 28, 2026: Massive US-Israeli joint strikes targeted Iranian leadership and nuclear facilities.

Leadership Change

Khamenei killed in strikes; son Mojtaba Khamenei appointed — maintains hardline stance against Israel.

Missile & Drone Warfare

Iran launches large-scale salvos of ballistic missiles and Shahed drones at Israeli cities and defense sites.

Maritime Security

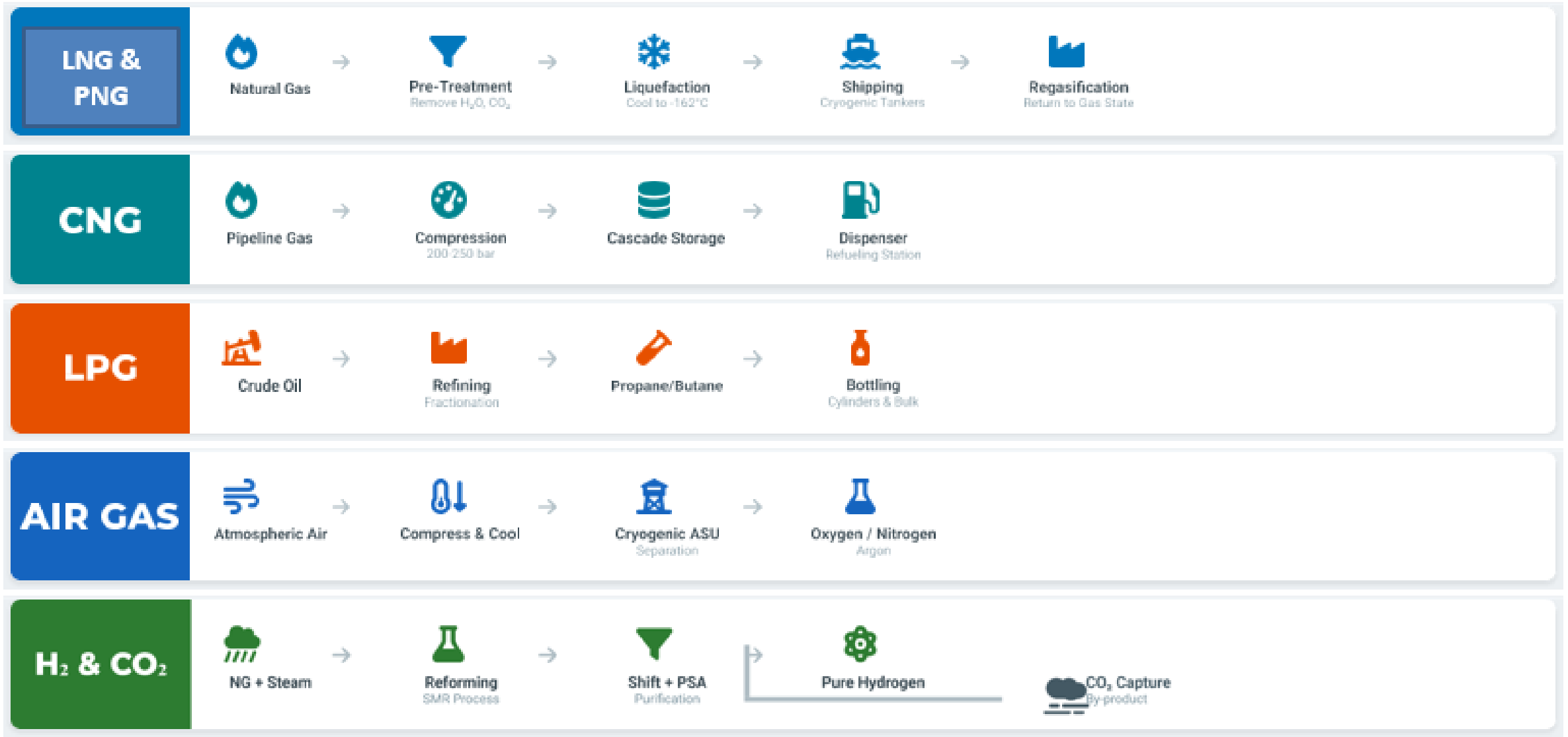
Conflict spills into Strait of Hormuz and Red Sea, disrupting global oil shipments and trade routes.

KEY IMPLICATIONS

- Oil prices surging above $100/barrel amid Hormuz disruptions
- Regional allies on alert; US carrier groups repositioned
- UN Security Council convened; ceasefire talks stalled

Sources: https://www.iea.org/news/iea-member-countries-to-carry-out-largest-ever-oil-stock-release-amid-market-disruptions-from-middle-east-conflict

FOR ENERGY SECURITY ASSESSMENT: LNG, PNG & LPG MANUFACTURING PROCESS



Sources: Pinnacle Research

GAS RISK HEAT MAP - MANUFACTURING PROCESS WISE VULNERABILITY ASSESSMENT

Manufacturing Process	Gas Used	Description	Risk Level	Can the current gas-powered machinery be converted to electric operation with certain modifications	A completely new manufacturing setup powered by electricity can replace the existing gas-based system.	Additional Remarks
Glass Blowing (Melting)	PNG	High temperature flame for melting & shaping glass ~ 1200 °C	High	No	No	
Glass Annealing (Lehr Furnace)	PNG	Controlled cooling of glass ~ 450 °C	Moderate	Yes	Yes	
Powder Coating Oven	PNG / LPG	Heating for curing coating ~ 180 °C	Moderate	Yes	Yes	
Metal Heat Treatment	PNG / LPG	Controlled heating for hardness	Moderate	No	Yes	
Boilers (Steam generation)	PNG / LPG	Heat to generate steam	Moderate	No	Yes	
Electronics Manufacturing	Nitrogen / Hydrogen	Clean environment, no oxidation	Moderate	No	No	Hydrogen is dependent on Natural gas
Laser Cutting	Nitrogen / Oxygen	Nitrogen → clean cut, Oxygen → faster cutting	Low	No	No	These Gases are at low risk Nitrogen, Oxygen produced via atmospheric air & Carbon dioxide is produced By-product of: Fertilizer plants, Chemical factories, Burning fuels
Welding (MIG/TIG)	Argon / CO_2	Shielding gas to prevent oxidation	Low	No	No	

Sources: Pinnacle Research

IMPACT OF IRAN CONFLICT ON LPG AND PNG PRICES IN INDIA

Commercial LPG (19 Kg Cylinder) INR Progression

Period	Delhi (₹)	Mumbai (₹)	Kolkata (₹)	Key Driver
Pre-conflict (Feb 2026)	1,740.50	1,692.00	1,844.50	Minor monthly adjustments
1 March 2026	1,768.50 (+28)	1,720.50	1,875.50	Initial global price pass-through
Mid-March (post 7 Mar)	1,883.00 (+114.50)	1,835.00	1,990.00	First major conflict-driven hike
1 April 2026 (Post-conflict)	2,078.50 (+195.50)	2,031.00 (+195.50)	2,208.00 (+218.00)	Hormuz blockade — largest single hike

Industrial & Commercial PNG INR Progression (INR)

Parameter	Pre-conflict (Jan–Feb 2026)	Post-conflict (Mar–Apr 2026)	Change
Base retail PNG (commercial/industrial)	₹46–51 / SCM (e.g., Gurugram ~46.7; Vadodara ~50.4)	Base rate + ₹1/SCM; spot rates up to ₹96/SCM for excess	20–100%+ increase for excess volume
Excess / spot gas price (Adani Total Gas)	~₹40 / SCM	₹119 / SCM (5 Mar), reduced to ₹82.95 (16 Mar)	2x–3x increase
Supply availability (industrial/commercial)	100% of contracted volume	40–80% of prior usage allocated; force majeure notices	20–60% volume shortfall

Note:- Pipe Natural Gas PNG Supply allocation reduced to ~55–65% of baseline consumption across affected regions

Sources:; Pinnacle Research

KEY STRATEGIES FOR GASES TO STRENGTHEN INDUSTRIAL RESILIENCE

DEPENDENCY AUDITS

Check if your Supply Chain has a Manufacturing Process which is dependent on energy type –= Gas, if Yes, which Gas is it?
Example:- (PNG/LPG – High Risk) (Oxygen Nitrogen – No Risk)
.

DUAL FUEL SYSTEMS – Check if the Gas is Replaceable?

The next step is to check the feasibility of the alternative
Example:- Annealing Gas Furnace can be converted to electric

INVENTORY BUFFERS

Maintaining strategic reserves of Key Critical orders at the Vendor end. To discuss & check if inventory space is available and to keep a safety stock at a dedicated place.

SUPPLY DIVERSIFICATION

Adopting a multi-supplier strategy reduces reliance on a single source and mitigates the impact of localized failures.

EXECUTIVE SUMMARY SUMMARY

India's manufacturing Industries must balance their growing gas dependency with proactive resilience strategies to navigate a volatile energy landscape.

Sources: Pinnacle Research

IRAN CONFLICT: SUPPLY CHAIN & COST IMPACT ON INDUSTRIAL COMMODITIES

SITUATION

A war involving Iran began on 28 February 2026.

- The Strait of Hormuz - carrying 20% of global oil was effectively restricted.
- Crude oil surged 45–50% in under four weeks.
- Naphtha (the key raw material for plastics) jumped 55% to $849/MT.
- Ocean freight costs on Asia–India lanes rose 65–150%.
- Every major industrial material the company buys is now more expensive.

+45–50%

Crude oil rise
since 28 Feb 2026

+40–100%

Polymer surge
(PP, HDPE, EPDM)

+19–22%

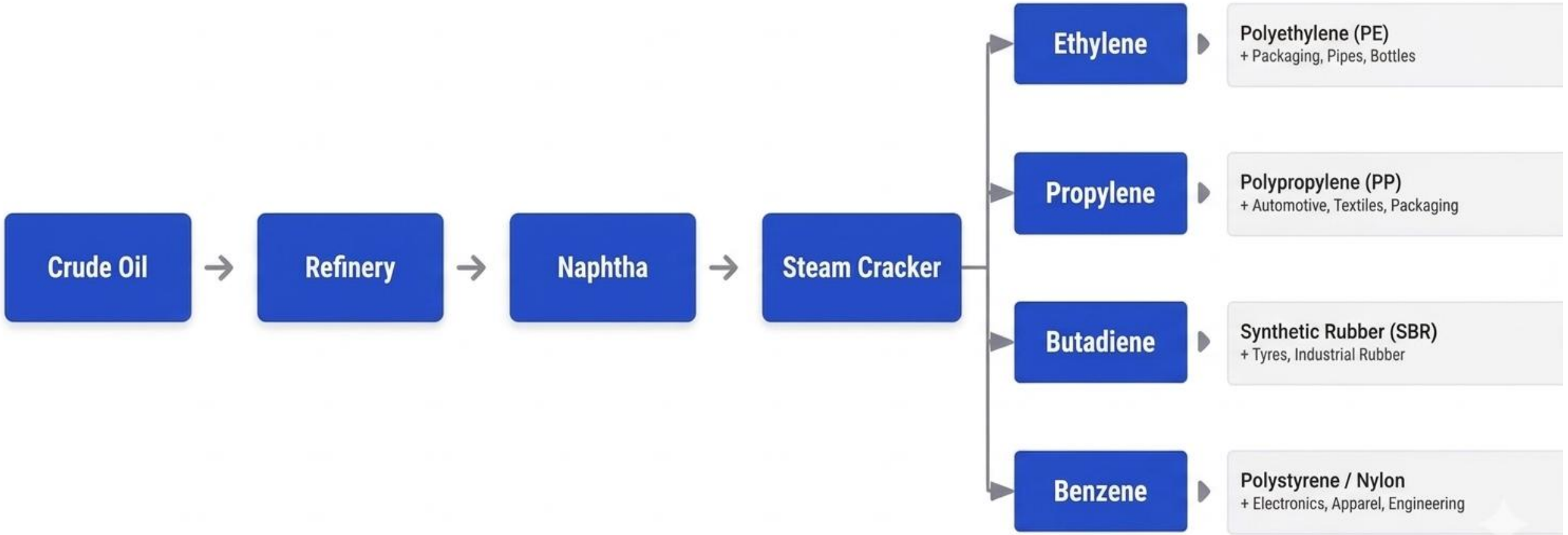
Aluminium
price rise (India)

+4–12%

Steel prices
at 28-month highs

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

THE PETROCHEMICAL VALUE CHAIN



Sources: Pinnacle Research

HOW CRUDE OIL AFFECTS EACH MATERIAL

Material	How crude oil affects its price	Connection strength
Polymers (PP, HDPE, ABS)	Oil is refined into naphtha, which is turned directly into plastic pellets. The strongest feedstock chain of all materials - every oil price move hits polymer costs within weeks.	**STRONG 70–90%**
EPDM Rubber	Made from the same oil-derived chemicals as plastics (ethylene and propylene). Adjusts more slowly as a specialty grade but follows the same feedstock chain.	**MED–STRONG 50–70%**
Aluminium	Smelting uses enormous amounts of electricity - when energy costs rise, production cost rises directly. Gulf smelters (9% of world supply) were also physically disrupted by the conflict.	**STRONG Energy + Supply**
Steel (HRC / CRC)	Oil affects diesel for transport and freight costs on raw materials (iron ore, coking coal). The link is real but weaker than polymers.	**MEDIUM 20–40%**
Glass	Glass furnaces run on natural gas 24/7 - energy is 35–40% of production cost. Soda ash (the other key ingredient) has stayed stable due to Chinese oversupply, limiting the overall impact so far.	**WEAK–MED Energy-driven**

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

POLYMER PRICES (PP, HDPE, ABS)

BEFORE vs AFTER

Product	Before conflict (₹/kg)	Today (₹/kg)	Change
PP- Injection (H110MA)	~₹95–105	**₹150**	**+₹45–55/kg (+45–55%)**
HDPE Raffia / Injection	~₹80–95	**₹154–162**	**+₹60–82/kg (+65–90%)**
ABS - General purpose	~₹140–160	**₹182–192**	**+₹22–52/kg (+20–35%)**

SCENARIO OUTLOOK

Scenario	Crude oil	PP (₹/kg)	HDPE (₹/kg)	Timeline
A - Cools	$85–95	115–130	120–140	2–4 mths
B - Continues	$110–130	155–175	165–185	6–9 mths
C - Worse	>$130	180–220	190–230	12+ mths

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

Why are polymer prices rising?

- Crude oil jumped 45% → naphtha (plastic raw material) surged 55% to $849/MT.
- 31+ Gulf petrochemical plants declared force majeure cutting global supply.
- Reliance, IOCL raised prices 4–5 times in March; PE up ₹7,000–28,000/MT.
- Shipping plastics now costs 65–150% more due to rerouted ships & war insurance.
- Weak rupee (~₹94/$) makes imported resins even more expensive.

Sources: https://indianpetrochem.com/

ALUMINIUM PRICES

BEFORE vs AFTER

Benchmark	Before conflict (Feb 2026)	Today (Mar 2026)	Change
LME 3-month (global benchmark)	~$3,100–3,300/t	**$3,431/t (peaked $3,546)**	**+8–11%**
Hindalco Primary ingot (India, ex-works)	~₹316,000–323,000/MT	**₹385,500/MT (₹385.5/kg)**	**+19–22%**
MCX Futures (India)	~₹320–325/kg	**₹350/kg**	**+8–10%**

SCENARIO OUTLOOK

Scenario	Crude oil	LME ($/t)	India (₹/MT)	Timeline
A Cools	$85–95	$3,000–3,200	₹3.30–3.50 lakh	2–4 mths
B Continues	$110–130	$3,400–3,600	₹3.80–4.10 lakh	6–9 mths
C Worse	>$130	$3,700–4,000	₹4.20–4.60 lakh	12+ mths

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

Why is aluminium rising?

- Gulf smelters (UAE, Bahrain, Qatar) produce ~9% of world supply and were physically disrupted.
- LME aluminium hit 4-year highs ($3,546/t) as warehouses drew down inventory.
- Hindalco & NALCO issued 4–5 price revisions in March ₹54,000–69,500/MT cumulatively.
- Higher ocean freight and war-risk insurance raised landed costs of imported metal by 15–25%.

Sources: https://www.lme.com, https://www.mcxindia.com/

STEEL PRICES (HRC & CRC)

BEFORE vs AFTER

Product	Before conflict (Feb 2026) ₹/MT	Today (Mar 2026) ₹/MT	Change
HRC IS2062 Gr E250	₹52,000–54,000	**₹53,000–56,200**	**+₹1,000–2,500 (+4–9%)**
CRC IS513 CR1	₹57,000–59,000	**₹58,100–63,500**	**+₹1,000–4,500 (+5–12%)**

SCENARIO OUTLOOK

Scenario	Crude oil	Steel prices (₹/MT)	Timeline
A - Cools down	$85–95/bbl	HRC: ₹50–54k CRC: ₹55–60k	2–4 months
B - Continues	$110–130/bbl	HRC: ₹56–60k CRC: ₹61–66k	6–9 months
C - Gets worse	>$130/bbl	HRC: ₹62–68k CRC: ₹67–74k	12+ months

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

Why are steel prices rising?

- Ocean freight for iron ore and coking coal surged as ships avoid Hormuz.
- Distributors panic-bought in early March, creating an artificial shortage.
- JSW, Tata & SAIL raised list prices ₹1,000–1,500/MT in March.
- Weak rupee (~₹94/$) makes imported raw materials more expensive.

Sources: https://www.bigmint.co/steel-insights

GLASS & SODA ASH PRICES

SODA ASH KEY INGREDIENT (BEFORE vs AFTER)

Grade	Before conflict (Feb'26) (₹/kg)	Today (Mar'26) (₹/kg)	Change
Light Soda Ash (98%+ grade)	₹27–29/kg	**₹28–35/kg**	**+₹0–6/kg (0–15%)**
Dense Soda Ash	₹26–33/kg	**₹26–39/kg**	**+₹0–6/kg (0–12%)**

GLASS SCENARIO OUTLOOK

Scenario	Energy costs	Glass price impact	Timeline
A - Cools	Gas eases	Flat to +2–5% from today	3–6 months
B - Continues	Gas stays high	+10–18% vs pre-war	6–9 months
C - Worse	Gas spikes	+20–30% vs pre-war	12+ months

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

Why are glass prices rising?

- Glass furnaces run on natural gas 24/7 they cannot be turned off, so rising gas costs hit immediately.
- Energy is 35–40% of glass production cost the single largest input.
- Soda ash (other key ingredient) is stable for now due to Chinese oversupply but freight costs are rising.
- Higher diesel and bunker fuel make shipping heavy glass sheets more expensive.
- Weak rupee (~₹94/$) raises costs for any imported glass coatings or processing chemicals.

Sources: www.detergentchemicalsasia.com/

RISK HEAT MAP- ALL COMMODITIES

Material	Scenario A Conflict cools	Scenario B Conflict continues	Scenario C Conflict worsens
Polymers (PP / HDPE)	● MEDIUM	● HIGH	● CRITICAL
ABS	● LOW–MED	● MEDIUM	● HIGH
EPDM Rubber	● LOW–MED	● MEDIUM	● HIGH
Aluminium	● MEDIUM	● HIGH	● CRITICAL
Steel - HRC	● LOW	● MEDIUM	● HIGH
Steel - CRC	● LOW	● MEDIUM	● HIGH
Glass / Soda Ash	● LOW	● LOW–MED	● MEDIUM

Sources: Pinnacle Research

PINNACLE'S STRATEGIC RECOMMENDATION ON RAW MATERIAL TO MITIGATE COST IMPACT & ENSURE SUPPLY CONTINUITY

PRICE PROTECTION
& negotiation

- Freeze price increases temporarily (negotiate short-term hold)
- Convert forecasts into firm POs to lock current prices before next escalation
- Secure volume commitment vs. price stability deals - visibility for certainty
- Delay price revision acceptance while government stability window holds

COST TRANSPARENCY
& governance

- Validate all cost increase claims via open-book costing, verify RM %, energy % and conversion exposure before conceding
- Introduce index-based pricing for steel, aluminium & polymer parts - fair, auditable escalation / de-escalation framework

SUPPLY CONTINUITY
& buffer

- Build 4–8 weeks strategic inventory on critical commodity-exposed components - act within the stability window
- Prioritise buffer on highest oil-linkage parts - polymer mouldings, foam packaging, resin-based sub-assemblies

VAVE & DESIGN
optimisation

- Launch targeted VAVE projects on highest cost-impact parts - thickness reduction, design simplification, alternate material qualification
- Introduce spec changes - material substitution, recycled/blended input grades with engineering sign-off

Sources Pinnacle Research

LOGISTICS IMPACT ANALYSIS

US-Iran Conflict: India→USA Logistics Impact

Sea Freight
Rerouted via Cape (+10-14 days)

+14 days

Air Cargo
Rates +58% (SA→NA)

+58 %

Insurance
War-risk surged 1000%+

+1000 %

Jet Fuel
Prices doubled

+100 %

Global Logistics Network
Impact radius expanding

(SA→NA)- South Asia To North America

Sources: Maersk, Reuters, Flexport | Mar 2026

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

ROUTE IMPACT: CAPE OF GOOD HOPE REROUTING, TRANSIT TIME EXTENSION

20FT CONTAINER SEA COST: INDIA → USA BEFORE VS AFTER CONFLICT

Cost comparison for East Coast and West Coast routes with visible minimum pricing

East Coast
Mumbai → New York

Before	Active	After
$2,284		$2,484
Base shipping		Base + $200
Total: $3,034		Total: $3,234

Route: Mumbai → Cape of Good Hope → New York

15 days (normal) — 25-29 days (current)

West Coast
Mumbai → Los Angeles

Before	Active	After
$3,012		$3,212
Base shipping		Base + $200
Total: $3,752		Total: $3,952

18 days (normal) — 28 days (current)

Post-war visible minimum increase: +$200 per 20ft container

Before additional insurance and disruption costs

Visible minimum after-war cost = base + $200 only. Actual total may be higher due to war-risk insurance, rerouting, and carrier-specific charges.

Sources: Reuters India; Economic Times; FIEO; Moneycontrol; Firstpost; London Marine Insurance market

IMPACT ON IMPORTS CHINA → INDIA

ROUTE: Zhangzhou, China → Mundra Port, India

Ocean Freight (per 40ft HQ Container)

Before (Feb 2026)	Today (April 2026)	
$950	$2,000	+110% increase

Lead Time (Door-to-Door, in Days)

Before (Feb 2026)	Today (April 2026)	
30 days	45 days	+50% increase

Why is Freight Increasing?

Capacity Crunch
Rerouting ships around Africa absorbs the global fleet, reducing container slots.

Conflict Surcharges
Carriers added $500–$4,000/container in War Risk and Emergency Conflict fees.

Fuel Price Spike
Marine fuel doubled to $1,000+/tonne, passed on as Bunker Adjustment Factors (BAF).

Port Congestion
Irregular schedules cause delays at Mundra & JNPT, adding idling surcharges.

Sources: Logistics Partner in India (Global Transistos) | Data as of March 2026

STRATEGIC RESPONSE: WHAT FIRMS AND GOVERNMENTS SHOULD DO NOW

Corporate Actions

- Review energy hedging horizon beyond current quarter
- Map petrochemical input exposure across product lines
- Accelerate freight contract renegotiation or multi-route logistics
- Stress-test margin assumptions at $110–120 crude scenarios

Government Actions

- Assess strategic reserve deployment thresholds
- Communicate subsidy and fuel pricing policy trajectory
- Engage bilaterally on alternative crude sourcing windows
- Monitor fertilizer supply chain and pre-position buffer stocks

Supply Chain Decisions

- Identify single-source petrochemical dependencies
- Qualify alternative suppliers for critical feedstocks
- Build 4–6 week buffer inventory where storage permits
- Revisit supplier contracts with force majeure review

NEAR-TERM PRIORITY

Act within 30–60 days on hedging and contract renegotiation before Q3 price pressure peaks.

POLICY SIGNAL

Subsidy and reserve announcements in the next two weeks will materially shift procurement strategies.

RESILIENCE LEVER

Buffer inventory investment now costs less than spot procurement under a supply disruption.

Sources: Pinnacle Suggestion

Pinnacle helps clients secure alternate supply options, validate supplier price hikes, redesign sourcing strategy, and reduce disruption risk during volatile market conditions.

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