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The Reserve Bank of India (RBI) recently updated the Supreme Court on the progress of the **UDGAM (Unclaimed Deposits – Gateway to Access InforMation)** portal. Developed to streamline the process of tracing unclaimed deposits, the portal now integrates **30 major banks**, covering approximately **90% of the total unclaimed funds** residing in the **Depositor Education and Awareness (DEA) Fund**. This move addresses a critical gap in financial governance, ensuring that legal heirs can reclaim assets belonging to deceased account holders.

30 banks integrated with UDGAM portal to help legal heirs trace funds

Aaratrika Bhaumik
NEW DELHI

The Reserve Bank of India (RBI) told the Supreme Court on Tuesday that 30 banks have been integrated into its centralised web portal, UDGAM (Unclaimed Deposits - Gateway to Access InforMation), to enable legal heirs to trace funds belonging to deceased account holders.

A three-judge Bench headed by Justice Vikram Nath was hearing a public interest litigation (PIL) petition filed by journalist Sucheta Dalal, contending that funds lying in dormant or inoperative accounts were increasingly being transferred to government-managed pools.

The petitioner sought directions for the creation of a centralised platform to provide information on financial assets held by deceased persons.

Senior advocate Ranjit Kumar, appearing for the RBI, submitted that the UDGAM portal had already been operationalised to address the petitioner's concerns. "The UDGAM portal is an interactive platform. There are around 20 lakh registered users who have carried out around 44 lakh searches on the portal as of April 1," he said.

Mr. Kumar added that the 30 banks integrated into the portal account for nearly 90% of the funds held in the Depositors' Education and Awareness Fund (DEAF), a corpus set up by the RBI in 2014 to house unclaimed deposits from commercial and co-operative banks.

30 banks integrated into the portal account for nearly 90% of the funds held in DEAF.

The RBI clarified that the UDGAM portal that enables individuals to look up unclaimed deposits and accounts, but does not function as a claims settlement mechanism. "The object of the portal is to facilitate the identification and tracing of unclaimed deposits, so that the concerned depositor or claimant may approach the respective bank for settlement of the claim in accordance with the applicable procedure," it said.

Challenges for heirs

Advocate Prashant Bhushan, appearing for the petitioner pointed out that deposits held in post offices, provident funds, and insurance schemes had not yet been integrated into the portal, thereby posing challenges for legal heirs seeking to claim such assets.

Taking note of the submissions, the Bench granted one week to the Centre and the Securities and Exchange Board of India (SEBI) to place on record the relevant circulars and outline the steps taken to enable the return of unclaimed funds of deceased persons held with banks and financial institutions.

Key Highlights of the RBI Submission

1. Expansion of the UDGAM Portal

- **Scale:** As of April 1, 2026, the portal has around **20 lakh registered users** and has processed nearly **44 lakh searches**.
- **Coverage:** 30 integrated banks represent the lion's share (90%) of unclaimed deposits, making it a robust centralized search engine.
- **Functionality:** The portal is a **tracing tool**, not a settlement platform. Users identify their funds on UDGAM and then must approach the specific bank to complete the KYC and claim process.

2. The DEA Fund (Depositor Education and Awareness Fund)

- **Origin:** Established by the RBI in **2014**.
- **Mechanism:** Accounts that remain inoperative for **10 years or more** are classified as "unclaimed." The balances are transferred to the DEA Fund, though the depositor's right to claim the money remains intact indefinitely.

3. Judicial Scrutiny and Public Interest

- The Supreme Court is hearing a PIL filed by journalist Sucheta Dalal. The petition highlights the difficulty legal heirs face in accessing "dormant" assets, which are often shifted to government pools without easy recourse for recovery.

Challenges and Regulatory Gaps

While the UDGAM portal is a significant step, the proceedings highlighted several unresolved issues:

- **Siloed Information:** Advocate Prashant Bhushan noted that assets like **Post Office savings, Provident Funds (EPF), and Insurance proceeds** are not yet part of UDGAM.
- **Complex Claim Procedures:** Tracing is only half the battle. Legal heirs often face "red tape" at the individual bank level when verifying successions or death certificates.
- **Inter-Regulatory Coordination:** The court has now directed the **Centre** and **SEBI** to outline steps for returning unclaimed funds in other financial sectors (stocks, mutual funds, etc.), signaling a push for a truly "unified" national portal.

Significance for India's Financial Ecosystem

1. **Financial Justice:** Simplifies the "right to inheritance" for families who may not be aware of a deceased member's financial footprint.
2. **Transparency:** Reduces the opacity surrounding the thousands of crores (over ₹60,000 crore as per 2026 data) lying with the DEA Fund.
3. **Digitization of Governance:** Showcases the use of "GovTech" to bridge the gap between citizens and complex financial institutions.

Conclusion

The integration of 30 banks into the UDGAM portal marks a milestone in protecting depositors' interests. However, for the initiative to achieve its full potential, it must evolve into an **inter-regulatory platform** that includes insurance and post-office assets. The Supreme Court's intervention acts as a catalyst, pushing the government and regulators like SEBI toward a more empathetic and efficient "single-window" system for unclaimed wealth in India.

UPSC Prelims Exam Practice Question

Ques:The Depositor Education and Awareness (DEA) Fund is associated with:

(a) Ministry of Finance

(b) SEBI

(c) Reserve Bank of India

(d) NABARD

Ans: c)

UPSC Mains Exam Practice Question

Ques: Discuss the role of digital platforms like the UDGAM portal in improving transparency and financial inclusion in India. What further reforms are needed to create a unified framework for unclaimed financial assets?**(150 Words)**

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India's renewable energy landscape is at a crossroads. As of early 2026, the country has achieved massive success in installing solar capacity, which now accounts for approximately 28% of the total installed electric capacity. However, the data from April 2026—where solar contributed over 21% of peak daytime demand yet only 0.1% after sunset—exposes a fundamental **"integration mismatch."**

Building bridges

Battery storage capacity must keep pace with solar energy generation

India scaled a record peak demand of 256.1 GW on April 25 with solar plants supplying 21.5% of the afternoon load – an all-time high, and the clearest signal yet that the country's installed solar fleet can do real work when the sun is overhead. But the same day's full 24-hour ledger told a more sobering story. When there was accounting for the whole day of April 25, solar contributed only about 10.8% of daily generation, and just 0.1% of the evening's needs after sunset. Solar's share of India's installed electric capacity has nearly doubled from about 15% in 2022 to nearly 28% in early 2026. However, solar accounted for roughly 5.6% of generation on India's peak-demand day in 2022 and only increased to the 10.8% of April – a clear indication of the yawning gap that remains between the realities of the present and what is possible. The bottleneck is not panels, land or ambition but the inability to use the vast stores of generated electrons through batteries. In fact, such is the paucity of battery storage that States which are prolific producers of solar power are being asked to halt their supply, lest it compromise the stability of India's electric grid. In 2025, India had to curtail 2.3 terawatt hours of solar generation between late May and December, equivalent to 18% of average monthly solar output, with 0.9 TWh (terra-watt hours) wasted in October alone. Given that producers of such electricity must be compensated, this ends up being a cost to the public exchequer which pays for power that was never delivered. The India Meteorological Department's forecast of a below-normal monsoon at 92% of the Long Period Average – the first such warning in 11 years – only sharpens the argument: a hotter, drier summer means greater daytime demand, which is precisely when solar should be doing the heavy lifting.

The encouraging news is battery economics. Standalone two-hour battery storage tariffs fell from around ₹2.21 lakh per MW per month in early 2025 to ₹1.48 lakh by year-end. The challenge is execution. Only 0.7 GWh of battery storage was operational in India by end-2025, with another 2 GWh expected by December 2026. The Centre and States must now focus less on tendering and more on commissioning – pairing every fresh solar auction with mandatory co-located storage and resolving the financing wall facing aggressively bid low-tariff projects. Solar capacity without storage is a half-built bridge.

The "Duck Curve" Challenge

In power grid management, the "Duck Curve" phenomenon describes the mismatch between the timing of peak solar generation (mid-day) and peak electricity demand (evening/night).

As India aggressively scales solar, the grid faces a "must-run" paradox: solar produces an abundance of power when demand is low (during the day), forcing grid operators to curtail (waste) this clean energy because the inflexible coal fleet cannot be ramped down fast enough. Simultaneously, during the evening peak, the system must rely on coal or other firm power sources because there is no solar generation and insufficient storage to bridge the gap.

Key Structural Bottlenecks

The recent analysis of the power sector reveals that the crisis is not one of generation capacity, but of **system flexibility**:

1. **Curtailment as a Symptom:** In 2025, India curtailed 2.3 TWh of solar generation. This is not just a loss of green electrons; it is a financial drain on the public exchequer, which pays renewable developers for power that the grid cannot absorb.
2. **Coal's Minimum Technical Load (MTL):** India's coal fleet currently operates under technical constraints that prevent them from ramping down below ~55% capacity. This "floor" creates a barrier to integrating more solar during daylight hours.
3. **The "Financing Wall":** While battery costs are falling (tariffs dropping from ₹2.21 lakh/MW/month to ₹1.48 lakh/MW/month), developers face high capital costs. Recent government initiatives, such as **Viability Gap Funding (VGF)** and mandates for **20% domestic content in BESS** (Battery Energy Storage Systems), are attempts to de-risk these projects and incentivize local manufacturing.

The Way Forward: A Multidimensional Approach

To move beyond "capacity-only" growth, India's strategy must pivot toward "flexibility-first":

- **Commissioning vs. Tendering:** The policy focus must shift from merely awarding capacity to ensuring time-bound commissioning of co-located storage (Solar + BESS).
- **Grid Flexibility:** Deepening the ramping capability of the existing coal fleet is essential to allow for higher penetration of solar energy.
- **Time-of-Day (ToD) Tariffs:** Implementing smart metering and ToD pricing will incentivize consumers to shift their energy-intensive activities to the "solar-rich" daytime hours, reducing the evening peak load.
- **Hybrid Policy Models:** Policies like the recent VGF Tranche 2 tenders (e.g., UPPCL projects) represent a mature approach to bridging the cost gap for 4-hour discharge systems, providing the reliable "firm" power that standard solar cannot.

Conclusion

Solar energy in India has proven it can do the "heavy lifting" during the day, but it remains a "half-built bridge" without the support of energy storage. The transition from a "Generation-heavy" strategy to a "Flexibility-heavy" strategy is the defining requirement for India's 2030 renewable goals. By resolving the financing bottlenecks for BESS and enforcing mandatory storage for new solar auctions, India can transform its grid from one that merely handles renewable energy to one that is powered by it, 24/7.

UPSC Prelims Exam Practice Question

Ques:Which of the following best describes "curtailment" in the renewable energy sector?

(a) Reduction in fossil fuel subsidies

(b) Wastage or forced reduction of renewable power generation due to grid constraints

(c) Limiting electricity demand through smart metering

(d) Shutdown of thermal plants during low demand periods

Ans: b)

UPSC Mains Exam Practice Question

Ques: India's renewable energy transition is increasingly constrained not by generation capacity, but by grid flexibility. Discuss in the context of the "Duck Curve" challenge and Battery Energy Storage Systems (BESS). **(150 Words)**

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Project 17A, a ₹45,000-crore initiative, marks a significant milestone in India's push for Aatmanirbharta (self-reliance) in defense. With the delivery of the sixth ship, **INS Mahendragiri**, on April 30, 2026, India has demonstrated a robust capacity for warship construction. However, the project also highlights a critical structural tension: while India has mastered the art of building "hulls," it continues to struggle with the timely integration of the "brains"—the advanced sensor and weapon suites—that define modern naval combat.

Core Strategic Issues

1. The "Hull vs. Brain" Disconnect

While Project 17A boasts **75% indigenous content by value**, this metric can be misleading. Much of the value is tied up in steel, propulsion systems, and basic infrastructure. The most critical, high-value components—sophisticated sonars, radars, and electronic warfare suites—remain heavily dependent on foreign imports.

- **The Bottleneck:** Ships are often delivered "nominally complete" to meet administrative deadlines, while remaining technically incomplete because critical foreign components are delayed.
- **Operational Impact:** A ship without its primary sensors is effectively a "blind" asset, unable to fulfill its primary role as a mobile sensor platform in a contested maritime environment.

2. The Detect-Decide-Respond Loop

Modern naval warfare relies on a high-speed "Detect-Decide-Respond" cycle. India has built a formidable network of static sensors (Chain of Static Sensors) across the Indian Ocean Region (IOR). However, for this network to work, the mobile assets (frigates) must be seamlessly integrated into it.

If the frigates' radars and sonars are outdated or delayed, they cannot effectively "close the loop" with the static sensor grid. This results in what the article terms a "fuzzy picture," where India's naval presence is numerically strong but operationally degraded.

3. Strategic Misalignment with Threats

There is a growing gap between the *type* of platform being built and the *nature* of the threat.

- **The "Overkill" Dilemma:** High-end, multi-role frigates are cost-intensive and arguably overkill for low-intensity missions like anti-piracy or smuggling, which are better handled by the Indian Coast Guard or smaller, lighter vessels.

At sea

The expansion of high-end frigate fleet must be in step with perceived threats

The Indian Navy's Project 17A is a ₹45,000-crore programme to build seven 'Nilgiri'-class frigates, with anti-air, anti-surface, and anti-submarine capabilities, as an advanced complement to the 'Shivalik' frigates and a precursor to Project 17B. The Project delivered the *INS Mahendragiri* on April 30, completing six deliveries in 17 months, but had previously faced multiple delays. The Comptroller and Auditor General (CAG) of India has flagged hundreds of design changes in previous warship classes during construction. Deliveries had been delayed even though ships were nominally complete because they lacked critical components such as engines and sensors, allowing the projects to meet commissioning dates on paper while leaving the hull unprepared for combat. A 2025 CAG report found that the Navy was inducting platforms without building the supporting infrastructure. While Project 17A used 75% indigenous components by value, many critical parts were sourced from abroad, and without them the vessels' final integration was withheld. Currently, India can build most of each ship but exercises limited control over timelines.

The Indian Ocean carries most of India's energy imports as well as Chinese naval deployments, but the nature of these challenges alone does not resolve the kind and scale of response they merit. India built the Chain of Static Sensors after the 2008 Mumbai attacks, with radar hardware involving imported parts. The Chain has been extended to Mauritius, Sri Lanka, and the Seychelles, and together with naval platforms forms a detect-decide-respond system. But while naval satellites and underwater sensor networks provide the 'detect' aspect, the frigates' radars and sonars remain the most imported –and thus most delayed – components, limiting the vessels' ability to function as mobile sensors. Adding more surface combatants is like adding receivers to a network still transmitting a fuzzy picture. Granted, securing sea lanes and addressing non-traditional threats such as Houthi drone and missile activity justify some number of multi-role frigates. However, these platforms are also overkill for countering piracy and smuggling. Heightened surveillance and the Indian Coast Guard also address the 26/11 scenario. And while the People's Liberation Army Navy has been increasing its submarine presence in the region, an Indian hull lacking the premium sensors required to find these vessels is effectively not responding to China's presence. What then is the purpose of expanding the high-end frigate fleet? One possibility is to sustain domestic shipyards and absorb new technologies, but this risks allowing industry interests to supersede the demands of the threat environment. In sum, India has a response fleet facing delays, a sensor grid with incomplete coverage and overdue upgrades, a domestic industrial ecosystem that still depends on imports, and, ultimately, investments that are out of step with the threats they are meant to address.

- **The "Under-capability" Risk:** Conversely, for high-end threats—such as the People's Liberation Army Navy (PLAN) submarines in the Indian Ocean—these frigates require premium, cutting-edge sensor suites to be effective. If the platform lacks these sensors due to procurement delays, it fails in its primary strategic objective: deterrence against peer-level adversaries.

Institutional and Governance Challenges

The Comptroller and Auditor General (CAG) reports highlight a recurring issue of **"design creep."** Hundreds of design changes made during the construction phase often lead to:

- **Prolonged Timelines:** Constant changes prevent the standardization of production.
- **Infrastructure Mismatch:** Inducting platforms faster than the supporting logistical or maintenance infrastructure can be developed.
- **Industrial Interest vs. Strategic Necessity:** There is a risk that the drive to sustain domestic shipyards and absorb industrial technology may take precedence over the immediate, urgent requirements of the threat environment.

Way Forward

To transition from a "ship-building" navy to a "combat-ready" navy, the following shifts are essential:

1. **Sensor-First Procurement:** Future tenders must prioritize the procurement of "brain" components (sensors/software) well in advance of the hull, decoupling them from shipyard timelines.
2. **Lifecycle Management:** Focus must shift from "launch" milestones to "operational readiness" milestones, ensuring that the "combat suite" is fully integrated before commissioning.
3. **Platform Specialization:** Balance the fleet composition by ensuring that high-end frigates are reserved for high-threat environments, while investing in more cost-effective platforms for lower-intensity maritime policing.

Conclusion

The delivery of Project 17A frigates is a commendable testament to India's industrial progress. However, as the geopolitical landscape in the Indian Ocean becomes more contested, the "numbers game"—counting the number of hulls in the water—is no longer sufficient. True naval power lies in the integration of a **detect-decide-respond**network where the platform is as capable as the sensors it carries. For India to truly secure its maritime interests, its investment strategy must be as agile and sophisticated as the threats it seeks to deter.

UPSC Prelims Exam Practice Question

Ques: **In the context of modern naval warfare, the "Detect-Decide-Respond" loop refers to:**

(a) A missile interception strategy

(b) A naval logistics and maintenance framework

(c) The cycle of surveillance, decision-making, and operational response

(d) A maritime trade security mechanism

Ans:c)

UPSC Mains Exam Practice Question

Ques: Project 17A reflects India's growing shipbuilding capability but also exposes structural weaknesses in defense procurement. Critically examine.**(150 Words)**

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Page 09:GS III : Indian Economy / Prelims Exam

The year 2025 marked a historic turning point in global energy history: for the first time, the growth in global electricity demand was met entirely by renewable energy (RE), halting the growth of fossil fuel-based generation. While this indicates a successful global pivot toward sustainability, the reality for India remains complex. Despite massive strides in renewable capacity, India faces a deepening "energy security paradox," where clean energy progress exists alongside a stubborn—and vulnerable—dependence on imported fossil fuels from volatile regions like West Asia.

RE meets global electricity demand for the first time

Despite rapid renewable capacity growth globally, geopolitical shocks expose India's dependence on fossil fuel imports from West Asia

DATA POINT

Areena Arora

In 2025, global electricity generation increased by roughly 850 terawatt-hours (TWh), according to data from the Ember Energy Institute. This increase was supplied almost entirely by solar and wind energy, contributing 636 TWh and 204 TWh respectively. Other renewables added another 23 TWh. Coal generation and oil meanwhile fell by 67 TWh and 12 TWh respectively. This is the first year in which expanded electricity demand did not require an increase in fossil fuels.

Over the past decade, the cost of solar and wind energy has dropped steeply, and battery storage and grid integration capacities have improved drastically, supporting an uptick in reliance on renewable energy sources. In 2025, coal's share of global electricity production fell by just over 1% and solar energy increased by nearly 2%. The dependence on oil also went down.

Major superpowers are embracing the change. China, for instance, saw its fossil fuel generation fall for the first time since 2015. The country saw a strong 5% growth in electricity demand and a 15% growth in clean energy generation, met largely by solar and wind energy. Solar energy in China grew by 40% compared to 2024 and wind energy increased by 14%. Solar energy alone met two-thirds of the increase in the country's electricity demand in 2025, according to a report by Ember Energy.

Fossil fuel demand fell in India as well. Together, the fall in demand in India and China has pushed global fossil fuel generation to stagnation, according to the report. Fossil fuel generation fell in both India (down 3.3%) and China (down 0.9%), driven by clean power usage and demand growth.

How is this different from the earlier years? For two decades, even as renewable electricity capacity grew at double-digit rates, fossil fuel generation remained relevant and kept climbing because absolute electricity demand was rising faster than what renewables could cover. The rising consumption relied on coal and gas-fuelled energy. Even as renewable energy gained market share, it could not displace fossil fuels in absolute terms. However, that pattern reversed in 2025.

Globally, coal's share in electricity production declined from 36% in 2015 to 33% in 2024 **(Chart 1)**. Coal generation fell in absolute terms for the first time last year, as renewables outpaced demand growth. Natural gas also saw a modest 45 TWh increase, entirely offset by renewable gains.

The effect of war

India's crude oil imports fell by 17% year-over-year in March 2026 to 18.9 million tonnes, compared with 22.8 million tonnes in March 2025 **(Chart 2)**. The decline comes amid the closure of the Strait of Hormuz starting March 1 due to the U.S.-Israel conflict with Iran. This narrow waterway handles a significant share of global oil and gas shipments. India imports 89% of its crude oil from mostly Qatar, the UAE and Saudi Arabia. The Indian basket crude (simplify) price averaged $113.49 per barrel in March 2026, compared with $72.47 in March 2025, a 56% increase year-over-year.

India's primary energy supply consists of coal, followed by oil, natural gas and then renewables **(Chart 3)**.

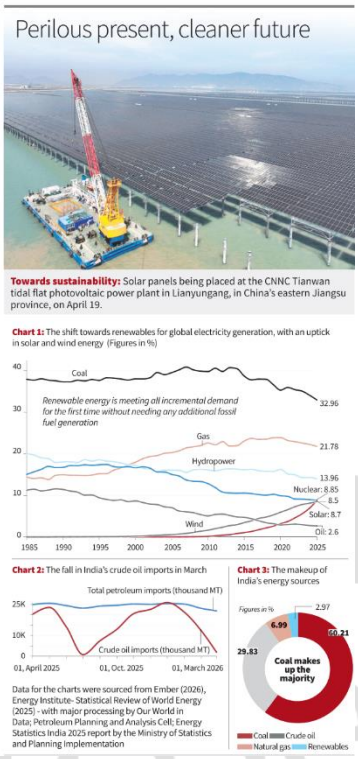
India's natural gas consumption rose in March 2026 despite supply disruptions. Natural gas available for consumption went up by 7% from March 2025. This increase came despite a 4.9% decline in domestic production. The gap was filled by LNG imports, which jumped by 20.5% by March this year. India's LNG imports reached 27 million metric tonnes (mmt) in 2024-25, the highest on record and double the 13.5 mmt imported in 2011-12. India's LPG imports also surged with expanded household access. The Pradhan Mantri Ujjwala Yojana increased LPG connections from 62% of households in 2016 to nearly 100% by 2025, driving imports to 18 mmt in 2025-26 from 16.48 mmt in 2020-21.

Crude oil, LNG, and LPG are all imported heavily from West Asian suppliers. The closure of the Strait of Hormuz disrupted all three simultaneously. India's response included accelerating renewable approvals, maximising refinery output, and paying ₹30,000 crore to oil marketing companies in FY 2025-26 to cushion LPG losses. LPG prices rose by ₹60 per cylinder after the conflict began.

On the flip side, India's renewable capacity grew by over 210% in the past decade. In FY 2024-25, renewable energy accounted for 89% of India's new capacity additions. Yet absolute energy dependence on imports has also deepened. India imports 89% of crude oil, 47% of natural gas, and 26% of coal despite being the world's third-largest coal producer. The renewable buildout has not yet reduced India's reliance on imported fossil fuels.

Renewable capacity takes years to translate into reliable, usable power and geopolitical shocks affect energy supply in the instant short-term. When the Strait of Hormuz closed in early March, India could not wait for wind farms to reach completion or battery capacity to scale. It responded by maximising output from existing coal and gas infrastructure, instructing domestic suppliers to prioritise domestic users and accelerating imports of LNG and LPG from alternative suppliers.

The global energy transition advanced significantly in 2025. India's renewable capacity is growing at the fastest rate globally. However, import dependence on a conflict zone exists alongside clean energy progress in India.



The 2025 Watershed: A Global Transition

According to data from the Ember Energy Institute, 2025 demonstrated that renewable energy (solar and wind) has moved from being a supplementary power source to the primary driver of demand growth.

- **The "Demand Growth" Match:** Previously, RE capacity grew, but absolute fossil fuel use continued to climb because total demand outpaced clean supply. In 2025, that pattern reversed.
- **The Role of Superpowers:** China, often criticized for coal reliance, saw its fossil fuel generation drop as solar/wind met two-thirds of its new electricity demand.
- **Global Stagnation:** The collective shift in India and China—the world's largest consumers—has effectively pushed global fossil fuel generation into a state of stagnation.

India's Energy Security: The "Hormuz" Vulnerability

While the global narrative is one of a clean transition, the recent closure of the **Strait of Hormuz** (starting March 1, 2026) has exposed a critical vulnerability in India's strategic infrastructure.

- **Strategic Over-reliance:** India imports 89% of its crude oil, 47% of natural gas, and 26% of coal. A significant portion of this transits through the Strait of Hormuz.
- **Economic Impact:** The disruption caused an immediate, painful spike in the "Indian basket" crude price (a 56% year-on-year increase by March 2026), illustrating how geopolitical instability can undo the economic gains of a green transition in the short term.
- **The "Import Dependence" Paradox:** Even as India adds record-breaking renewable capacity (89% of new additions in FY 2024-25), its reliance on imported LNG and LPG continues to surge to meet household access targets (e.g., Ujjwala Yojana).

Why the "Build-out" Isn't Enough

The core policy challenge highlighted by this analysis is the **Time-Lag Disconnect**:

1. **Renewable Infrastructure:** Solar and wind projects have long gestation periods; they cannot be scaled instantly to absorb the shock of a sudden global supply chain collapse.
2. **Short-term Resilience:** When geopolitics shut down supply chains, governments are forced to fall back on "legacy" energy (coal/gas) to avoid grid failure. This creates a contradictory policy environment where a country aggressively builds green infrastructure while simultaneously being forced to maximize coal output to maintain stability.

Conclusion

The 2025 data confirms that the renewable energy transition is no longer a theoretical goal but a present reality. However, for a country like India, Energy Transition and Energy Security must be treated as two separate, albeit intersecting, objectives. While the build-out of solar and wind capacity is the long-term solution to decarbonization, the short-term reality demands a focus on Strategic Petroleum Reserves (SPR), diversification of energy import routes, and strengthening domestic coal and gas infrastructure to act as a "buffer" during crises. True energy independence will only arrive when renewable capacity is paired with scalable, affordable Battery Energy Storage Systems (BESS), effectively decoupling economic growth from volatile global fossil fuel markets.

UPSC Prelims Exam Practice Question

Ques:The "Indian Basket" refers to:

(a) India's renewable energy index

(b) A weighted average of crude oils imported by India

(c) India's domestic coal reserve classification

(d) The strategic petroleum reserve mechanism

Ans: b)

UPSC Mains Exam Practice Question

Ques: Examine the strategic significance of the Strait of Hormuz for India's economy and energy security. What measures can India adopt to reduce its vulnerability to geopolitical disruptions?**(150 Words)**

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Energy security for India is no longer merely about procuring fuel at the lowest cost; it has evolved into a complex exercise of managing geopolitical risk, macroeconomic stability, and long-term industrial transition. The recent West Asian conflict, specifically the disruption of maritime trade through the Strait of Hormuz, has exposed India's structural vulnerability as an import-dependent economy. To mitigate these shocks, India is transitioning from a policy of simple dependency to one of strategic optionality, while simultaneously confronting a new "mineral-based" dependency.

India's energy security amid conflicts

The conflict in West Asia has shown how geopolitical shocks can transmit to India's domestic economy, given that the country imports over 85% of its crude needs. In a fragmented energy market, India's edge lies not in self-sufficiency but in optionality.

EXPLAINER

Deepanshu Mohan
Aditi Lazarus

The conflict in West Asia has demonstrated the speed with which geopolitical shocks have been transmitted to India's domestic economy. The head of the International Energy Agency has described the current geoeconomic crisis as more severe than the combined shocks of 1973, 1979 and 2022.

The price of Brent crude oil rose to $109.03 per barrel after hitting highs of around $120 during the conflict. At a domestic level, India is projected to see its economy slow from 7.4% growth in FY26 to 6.5% in FY27 with a projected increase in inflation from 2.3% to 4.4% due to the impact of disruptions observed in the energy supply chains.

Energy security can no longer be defined solely as purchasing fuel at the lowest possible price. It now rests on resilience, diversification, and protection of macroeconomic stability.

Breakdown of the old energy market order

The Russia-Ukraine War was the first major warning to the pre-existing energy market order. It exposed the perils of energy dependence overnight.

Europe once relied on Russia for 45% of its gas imports. By 2025, that had fallen to 12%. Europe did not respond by chasing efficiency, it did so by buying insurance. Gas consumption by European Union (EU) countries fell by 20% between 2021 and 2024, while the combined imports of gas and liquified natural gas (LNG) declined by 18%.

Even when average LNG terminal utilisation was only 52% in the first half of 2025, Europe accepted spare capacity as the price of security.

While the war in Ukraine revealed the reliance on pipeline-based supplies, the conflict in West Asia demonstrated the reliance on sea transportation.

The Strait of Hormuz, through which approximately 25% of the world's crude oil is transported, has once again become an extremely important chokepoint, transmitting price shocks rapidly across global markets.

Other powers have adapted differently. China has locked in nearly 25 million metric tons of LNG per year through contracts, South Korea has secured 273 million barrels of crude oil that will transit from outside the Strait of Hormuz, while Japan has stockpiled 470 million barrels, which is equivalent to 254 days of consumption.

Gulf shore exporters have regained much of their bargaining power due to spare capacity. The International Energy Agency (IEA) forecasts a contraction of 80 kb/d in the global demand for oil on average in 2026, with a decrease of 236 kb/d for OECD (Organisation for Economic Co-operation and Development) and 254 kb/d for Middle East, while non-OECD demand still rises 152 kb/d. In this weaker market, India's demand growth becomes strategically valuable.

How India gained more room to manoeuvre

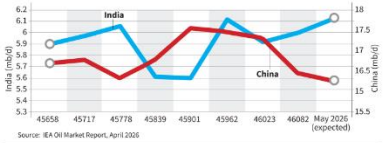
The potential threat of disruption of the Indian oil imports is real and immediate, since the country imports over 85% of its crude needs, with roughly 45% of its imports transiting through the Strait of Hormuz.

Navigating the crisis: An Indian-flagged tanker carrying crude oil that transited through the Strait of Hormuz, is seen docked in Mumbai. AFP

Energy requirements

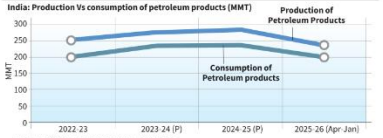
India is now the world's third-largest oil consumer, with high dependence on crude imports. As a result, fluctuations in crude oil prices, freight rates, and currency exchange rates remain a concern, especially during geoeconomic conflicts

India and China oil demand (2025-26)



Source: IEA Oil Market Report, April 2026

India: Production Vs consumption of petroleum products (MMT)



Source: PPAC Monthly Ready Reckoner, January 2026

India's FY2024-25 Crude import shares: Top 5 sources

Source: DGCI & S data

For years, India has depended heavily on imports. But the country has handled repeated shocks better than many comparable importers. It is now the world's third-largest oil consumer.

According to OPEC's forecast, India's consumption is expected to reach 5.74 million barrels per day (mb/d) in 2025 and 5.99 mb/d in 2026, while the IEA projects that Indian crude demand will rise approximately 130 kb/d, compared with 80 kb/d for China.

As Chinese demand becomes flatter and more cyclical, India has become one of the few large engines of incremental oil demand.

Before 2022, Russia supplied barely 2% of India's crude imports, however, by FY2024-25, that figure was around 36%, making Russia India's largest supplier. Flows from Russia picked up again as Gulf disruptions intensified.

Now, India's import basket also includes countries such as Iraq, Saudi Arabia, UAE, and the United States, while remaining geographically diversified. In a fragmented energy market, India's edge lies not in self-sufficiency, but in optionality.

Tactical gains and structural risks

India has managed successive shocks well. First, India's crude oil dependence is extremely high, reaching 89.4% in FY2024-25. During that period, India produced only 28.7 million metric tons of crude oil domestically. As a result, fluctuations in crude oil prices, freight rates, and currency exchange rates continue to be a concern.

Second, geography still constrains strategy. Significant reductions in flows along Gulf sea lanes occurred due to tensions in 2026, and Indian LPG carriers, carrying a combined cargo of 97,000 metric tonnes required naval escort under Operation Sankalp. Diversification cannot bypass chokepoints.

Third, the energy transition creates fresh vulnerabilities. India's expansion into solar, batteries, electric vehicles (EV), and storage may reduce oil use over time. However, the reliance on lithium, cobalt, nickel, copper, and rare earths may increase in the future.

The way forward

India's dependence on critical minerals is tied to processing networks dominated elsewhere, especially by China, which controls over 98% of global rare-earth production, while India currently processes less than 5% of its projected 2035 battery-grade mineral requirements domestically. While India has adapted to the new oil order with considerable agility, having such tactical flexibility does not provide security in the long-term.

The next phase must focus on increasing larger strategic reserves, reducing the oil intensity in transport, strengthening maritime resilience, and ensuring security for supply chains of critical minerals. The real question is no longer whether India can switch suppliers during crises, but whether future crises will carry lower economic costs when they occur.

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THE GIST

- India has long relied on crude oil imports but has handled repeated geoeconomic shocks better than many comparable importers.
- Its import basket—spanning Iraq, Saudi Arabia, the UAE, Russia, and the United States, remains geographically diversified.
- While expansion into solar, batteries, and EVs may reduce oil use over time, reliance on lithium, cobalt, nickel, copper, and rare earths may increase in the future.

The "Optionality" Strategy: Responding to Geopolitical Shocks

India has demonstrated significant agility in its energy procurement, shifting its strategy from traditional sources to a more diversified basket.

- **From Pipeline to Sea Lanes:** The Russia-Ukraine conflict alerted India to the dangers of single-source reliance. Consequently, India rapidly diversified its crude oil imports. Russia, which accounted for barely 2% of India's crude imports pre-2022, became the largest supplier (approx. 36%) by FY2024-25.

- **The Optionality Edge:** By engaging with Iraq, Saudi Arabia, UAE, the US, and Russia, India ensures it has multiple "levers" to pull. This prevents any single supplier or chokepoint from completely paralyzing the domestic economy.

The New Dependency: Critical Minerals

While India is adapting its fossil fuel strategy, the energy transition (EVs, solar, battery storage) is creating a new, potentially more perilous dependency: **Critical Minerals**.

- **The China Factor:** China currently dominates global rare-earth production and processing. As India moves toward a net-zero future, its reliance on minerals like lithium, cobalt, nickel, and copper—essential for batteries and renewable tech—threatens to replicate the same vulnerabilities it currently faces with oil.

- **Proactive Mitigation (May 2026 Update):** In a significant policy push, the Ministry of Mines recently approved **58 companies** under the **Incentive Scheme for Promotion of Critical Mineral Recycling** (April-May 2026). This aims to build a domestic circular economy, reducing import dependence by recovering minerals from e-waste and batteries.

The Energy Security Trilemma

For UPSC preparation, it is essential to view energy policy through the "Trilemma" framework: balancing **Energy Security**, **Affordability**, and **Sustainability**.

Pillar	Strategy for India (2026)
Security	Diversification of imports (Russia, US, West Asia); Expansion of Strategic Petroleum Reserves (SPR).
Affordability	Targeted subsidies (PM Ujjwala Yojana); Diversification of LPG/LNG sources; PSU capital redirection (approx. ₹2 trillion annually toward clean/reliable energy).
Sustainability	Scaling renewables (solar/wind); Mandating co-located storage; Critical Mineral Recycling Mission.

Structural Risks and the Way Forward

The recent analysis by the International Institute for Sustainable Development (IISD) suggests that India's State-owned enterprises (PSUs) have the financial scale to bridge the transition gap. By redirecting capital away from legacy fossil fuel projects toward firm, dispatchable renewables and storage, India can reduce its exposure to volatile global markets.

However, three primary challenges remain:

1. **Chokepoint Vulnerability:** Geography cannot be bypassed. Major sea lanes like the Strait of Hormuz will remain strategic risks regardless of import diversification.

2. **Infrastructure Mismatch:** The speed of renewable capacity addition often outpaces the development of storage and grid integration, leading to curtailment (wasted energy).

3. **Mineral Sovereignty:** India's success in the coming decade depends on its ability to build a **domestic processing ecosystem** for critical minerals, rather than just importing the finished products.

Conclusion

India's energy narrative is shifting from "survival mode"—where the focus was simply on keeping the lights on—to "resilience mode," characterized by strategic optionality and domestic capacity building. While geopolitical shocks like the closure of the Strait of Hormuz highlight the fragility of the status quo, India's dual-track approach—securing fossil fuel supply chains while aggressively localizing the critical mineral value chain—provides a roadmap for long-term stability. The future of India's energy security will be defined not by how much fuel it can import, but by how effectively it can decouple its economic growth from volatile external supply chains through storage, recycling, and domestic innovation.

UPSC Prelims Exam Practice Question

Ques: Which of the following best explains the term "Energy Security"?

(a) Achieving complete domestic production of fossil fuels

(b) Ensuring uninterrupted access to affordable and reliable energy supplies

(c) Eliminating dependence on renewable energy imports

(d) Replacing all fossil fuels with nuclear energy

Ans: b)

UPSC Mains Exam Practice Question

Ques: India's energy security is increasingly shaped by geopolitical instability in West Asia. Discuss the challenges and policy responses required to reduce India's vulnerability.**(250 Words)**

Silencing academia, weakening democratic space

C.P. Rajendran

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According to the Varieties of Democracy (V-Dem) Institute 2026 report, India is still classified as an "electoral autocracy", ranking in the lower half globally. The report notes a steady decline in democratic freedoms, especially in free expression, media independence, and civil society, placing India among the "worst autocratizers". This signals a growing dismantling of institutions and norms that support accountability and pluralism, drawing increasing international scrutiny.

The Scholars at Risk Free to Think 2024 report classifies India as having "completely restricted" academic freedom. It cites declining university autonomy linked to rising political interference, and pressure on institutions. Notably, it emphasises the systematic enforcement of a Hindu nationalist agenda within higher education, with changes to curricula, limited scholarly exploration and reduced space for intellectual dissent.

This classification is not an isolated judgment. It aligns with a broader pattern of democratic erosion documented by global indices, from V-Dem to Freedom House. For Indian universities – once celebrated as arenas of critical thought and pluralistic debate – the message is unequivocal: the freedom to teach, to learn, and to question is no longer guaranteed.

What is less discussed is how shrinking academic freedom weakens democracy itself. Beyond elections, voting rights and laws, a healthy and functioning democracy depends on a strong civil society, open access to evidence-based information, and space for genuine public debate – areas now under growing pressure, especially in academia.

These freedoms are under direct strain, most visibly in academia. Universities –meant to foster inquiry and debate – face funding cuts, regulatory pressure, and growing self-censorship, eroding their autonomy. The Viksit Bharat Shiksha Adhishthan Bill proposes to further centralise control, prioritising conformity over academic freedom. As these spaces shrink, so does society's ability to think critically and sustain a pluralistic democracy.

Academic suppression and shrinking dissent signal a deep democratic decline in India

A disturbing pattern

According to *The Wire*, 62 academics faced punitive action (2014-26) for their opinions or political stances. Freedom of expression is penalised on campuses using service rules that define faculty as "government servants". In *Nature* (April 2024), Yamini Aiyar cites an India Academic Freedom Network report that documents a series of disrupted events, arrests of faculty and students, and visa hurdles for foreign researchers.

The contrast with British scientist J.B.S. Haldane who became a citizen of India in the early 1960s and who openly criticised the government while working in India is striking. It highlights how space for dissent in academia has sharply narrowed. Data from 2024-26 show a broad assault on academic freedom, targeting students, researchers, and faculty. Driven by political pressure, institutional failures, and social biases, these trends signal that certain topics are off-limits, certain voices are dangerous, and the pursuit of knowledge must bow to political convenience.

A consistent and disturbing pattern emerges: institutions are accused of failing to act against perpetrators. Internal complaints committees, mandated to provide oversight and justice, are described by critics as "ornamental", existing more for formal compliance than for substantive accountability. When the very bodies designed to protect students and faculty become complicit through silence or inaction, the chilling effect deepens. Trust erodes, fear takes root, and the message is unmistakable: power will be protected, and voices that challenge it will find no refuge within the walls meant to nurture free inquiry.

A worrying erosion

These actions undermine the ability of civil society and academic institutions to hold leaders accountable, eroding the very basis of a knowledge sector essential to Indian democracy. When violence goes unpunished, when caste and religious prejudice are replicated rather than challenged, when sexual predators are protected, and when dissent is criminalised, the message is unmistakable: the pursuit of knowledge must not disturb power.

India's stance on political rights is reflected in its refusal to sign the First Optional Protocol to the International Covenant on Civil and Political Rights (ICCPR). Although a party to the ICCPR treaty since 1979, it does not accept the UN complaint mechanism, meaning citizens cannot seek international redress for rights violations after exhausting domestic remedies.

The contrast is striking. India's Constitution, through Articles 14, 19, and 21, guarantees many of the same rights enshrined in the ICCPR. The Supreme Court of India has often drawn upon international human rights norms to interpret and expand fundamental rights. Yet, the government remains unwilling to subject itself to the international complaint mechanism that would allow its own citizens – particularly those from marginalised communities who face disproportionate human rights violations – to seek justice beyond domestic courts when those courts fail them.

This issue is highlighted in an insightful article by Ravi Nair, "The Umar Khalid and Sharjeel Imam case: An international campaign within the realm of possibility" (*The Leaflet*, January 7, 2026). The young academic scholars, Umar Khalid and Sharjeel Imam, have been in jail as undertrials for the last five years. On January 6, the Supreme Court rejected their bail application and barred them from applying for bail for a year, stunning many legal experts.

When journalists such as Irfan Mehraj and humanists such as Sonam Wangchuk (now released) struggle through prolonged legal battles, even for bail, some high-profile godmen accused of serious crimes have repeatedly secured parole or furlough. The contrast could not be more telling. On one side, a voice for justice, dignity, and democratic rights is treated as a threat. On the other hand, figures accused of serious crimes are granted leniency. In this asymmetry lies a disturbing truth about whose freedoms are protected and whose are quietly abandoned.

The cost of homogenisation

Why does a self-proclaimed "Mother of Democracy" prefer homogenisation of thought rather than freedom of thought? Higher education institutions have always been refuges for those who challenge orthodox thinking and work toward generating new ideas.

This is not a bug but a feature of university life. Democracies are revitalised by such encounters, even when they mean questioning majority opinion.

History offers sobering evidence: authoritarianism does not always arrive with a crash. More often, it emerges from within democracies – slowly, quietly, and with the acquiescence of those it will eventually silence. It springs not from sudden rupture, but from the gradual conditioning of publics through manufactured victimhood, cultivated fear, and the steady erosion of norms that once seemed unshakeable. In this process, citizens and institutions can become complicit in the dismantling of their own freedoms, unaware that the protections being stripped away were the very foundations of the democracy they took for granted.

The decline documented in the Academic Freedom Index is not an abstract metric. It is a measure of the health of Indian democracy itself. When scholars, activists and students are silenced, when dissent is criminalised, and when political interests capture academic institutions, the foundation upon which democratic accountability rests is systematically dismantled–brick by brick, case by case, silence by silence.

The numbers tell a story. However, the true story is developing on our campuses, where voices once raised in inquiry now whisper; in our courtrooms, where justice is increasingly influenced by power; and in the silence of those who once dared to speak, a silence that grows louder each day, while the state itself becomes more bureaucratic, punitive, and regulatory.

The key question is whether institutions will continue down this path or reclaim their original purpose. For society, it is whether we choose to protect the spaces that allow critical thinking, challenge power, and help young people engage meaningfully with issues of justice and governance.

GS PaperII:Polity & Constitution

UPSC Mains Exam Practice Question: Given this analysis, would you like to explore the constitutional provisions regarding "Academic Freedom" in India, or perhaps compare this with international models of institutional autonomy?**(250 Words)**

Context : The article posits that there is a direct, causal link between the health of academic institutions and the strength of a democracy. Drawing on reports from the **Varieties of Democracy (V-Dem) Institute (2026)** and **Scholars at Risk (2024)**, the author argues that the erosion of academic freedom—characterized by the suppression of dissent and institutional conformity—is not an isolated phenomenon but a systemic indicator of shrinking democratic space in India.

Key Dimensions of the Argument

1. The "Chilling Effect" on Higher Education

- **Institutional Constraints:** The author notes that universities, traditionally centers of critical inquiry, are facing regulatory pressures, funding cuts, and the centralizing influence of legislative moves like the Viksit Bharat Shiksha Adhishthan Bill.
- **Administrative Control:** Academics are increasingly subjected to service rules that define them as "government servants," limiting their freedom of expression and political participation.
- **Erosion of Autonomy:** The report highlights that internal complaint mechanisms and bodies designed to protect students and faculty are becoming "ornamental," failing to provide accountability or justice in the face of political pressure.

2. The Link to Democratic Health

- **Accountability:** A functioning democracy relies on an informed citizenry and independent institutions (including academia) that can hold power to account. When academia is silenced, this essential check-and-balance mechanism weakens.
- **Pluralism vs. Homogenization:** The article argues that the state's preference for "homogenization of thought" undermines the constitutional spirit of debate and intellectual inquiry, which is vital for the growth of a diverse nation.

3. Constitutional and Global Perspectives

- **ICCPR Stance:** The article highlights India's refusal to sign the First Optional Protocol to the International Covenant on Civil and Political Rights (ICCPR). This prevents citizens from seeking international redress for rights violations, reinforcing the importance of a robust domestic judiciary.
- **Judicial Asymmetry:** The author draws a contrast between the prolonged incarceration of activists/academics as undertrials and the relative leniency shown to high-profile figures accused of serious crimes. This raises questions about the **Rule of Law** and the **Right to Equality (Article 14)** under the Constitution.

Why this matters for UPSC

- **GS Paper II (Polity & Constitution):**
  - **Fundamental Rights:** The intersection of Freedom of Speech and Expression (Article 19) with academic freedom.
  - **Role of Judiciary:** Understanding judicial outcomes in bail petitions and their impact on civil liberties.
  - **Democratic Institutions:** The role of independent academic institutions in fostering a "knowledge sector" essential for a healthy democracy.

- **GS Paper IV (Ethics):**
    - **Institutional Integrity:** The ethical obligation of public institutions to protect dissent and provide unbiased oversight.
    - **Social Justice:** Addressing the protection of marginalized voices and the systemic biases (caste, religion) mentioned in the text.

Conclusion

The author concludes that the decline in academic freedom is a "canary in the coal mine" for Indian democracy. The erosion of these spaces—once intended for critical thinking and public discourse—signals a transition from a space of inquiry to one of bureaucratic conformity. For the state, the challenge lies in reconciling the "Mother of Democracy" narrative with the protection of dissent and intellectual freedom. For society, the onus is on upholding the constitutional mandate to protect the institutions that nourish democracy, ensuring that critical thinking remains a cornerstone of the nation's future.

Tirumal Classes Quality education