



UPSC & STATE PCS CURRENT AFFAIRS · UJIYARI.COM

EDITORIAL ANALYSIS

India's LPG Crisis Is the Wake-Up Call It Cannot Ignore

THE HINDU

22 April 2026 · ENVIRONMENT · ECONOMY · GS3

CURATED & WRITTEN BY

**Bharat Choudhary**

UPSC Educator & Content Creator

[linkedin.com/in/epicbharat](https://www.linkedin.com/in/epicbharat)

ALSO FROM THE CREATOR

BharatNotesFree UPSC notes, MCQs, PYQ analysis. **100% Free.**bharatnotes.com →

ADVERTISE

Advertise with Ujiyari

Reach thousands of UPSC aspirants daily.

epicbharat@gmail.com

India's LPG Crisis Is the Wake-Up Call It Cannot Ignore

The Hindu 22 April 2026 **GS3**

TH The Hindu | 3 tags ▾



INTERVIEW ANGLE

"With 88.6% crude import dependence and West Asia in turmoil, what structural reforms can insulate India's energy security — and can Compressed Biogas actually replace LPG at scale?"

THE CORE ARGUMENT

India's energy crisis of 2025-26, triggered by West Asia conflict disruptions and LPG supply shocks, has revealed a structural vulnerability that years of progressive energy policy have not addressed: India imports 88.6% of its crude oil and relies almost entirely on Middle East LPG, with domestic gas production covering barely half its requirements. The editorial argues that Compressed Biogas (CBG) — produced from agricultural waste, urban organic waste, and sewage — offers a viable, scalable domestic alternative that simultaneously addresses energy security, rural employment, environmental sustainability, and import substitution.

INDIA'S ENERGY VULNERABILITY — THE NUMBERS

Import Dependence (2025-26)

ENERGY SOURCE	IMPORT DEPENDENCE	PRIMARY SUPPLIERS
Crude oil	88.6%	Saudi Arabia, Iraq, UAE, Russia
LPG	~60% imported	Middle East (Qatar, UAE)
Natural gas	Domestic production ~50% of demand	Domestic + LNG imports
Coal	~25% imported (coking coal)	Australia, Indonesia, South Africa
Uranium (nuclear)	~85% imported	Kazakhstan, Canada, Australia

Hormuz Dependency: ~80-85% of India’s oil imports transit the Strait of Hormuz. Any closure or military escalation in West Asia directly threatens India’s energy supply.

LPG Dependency — The PM-UJJWALA Vulnerability

PM Ujjwala Yojana (PMUY, 2016): 10 crore+ BPL connections given free LPG cylinders. This was a transformational clean cooking fuel initiative — but it created a large urban-rural consumer base dependent on imported LPG.

PMUY DATA	FIGURE
LPG connections distributed	10+ crore (100 million+)
Target beneficiaries	Women below poverty line
Launch	May 2016
LPG retail price (subsidised)	~₹500-800/cylinder
Market price	~₹900-1100/cylinder

The 2025-26 LPG price spike following West Asia disruptions has hit PMUY beneficiaries hardest — exposing the structural flaw of substituting firewood/biomass with imported fossil fuel.

WHAT IS COMPRESSED BIOGAS (CBG)?

CBG is biogas (methane + CO₂) produced by anaerobic digestion of organic feedstocks, then compressed and purified to approximately **95% methane purity** — comparable to Compressed Natural Gas (CNG).

Feedstocks for CBG Production

	SOURCE	AVAILABILITY
Agricultural residue (paddy straw, sugarcane bagasse)	Farms	~500-600 million tonnes/year
Cattle dung	Livestock sector	~300 million cattle
Municipal Solid Waste (organic fraction)	Urban areas	~100 million tonnes/year
Press mud (sugar mills)	Sugar industry	Abundant
Sewage sludge	Urban ULBs	Abundant

India has the **world’s largest livestock population** and generates enormous agricultural residue — making it uniquely positioned for biogas production.

CBG vs LPG vs CNG

PARAMETER	LPG	CNG	CBG
Primary use	Cooking, heating	Vehicle fuel	Both
Origin	Refinery/imported	Natural gas	Biomass fermentation
Carbon footprint	High	Moderate	Low/Carbon neutral
Domestic availability	Low	Moderate (gas fields)	High
Rural employment potential	Nil	Nil	High

GOVERNMENT POLICY — SATAT SCHEME

SATAT (Sustainable Alternative Towards Affordable Transportation, 2018):

PARAMETER	DETAIL
Launched	October 2018
Ministry	Ministry of Petroleum and Natural Gas
Target	5,000 CBG plants by 2023-24 (revised timelines)
CBG production target	15 MMT (million metric tonnes) by 2023-24
Long-term target	20 MMT by 2030
Offtake	Oil Marketing Companies (IOC, BPCL, HPCL) committed to purchase
Price assurance	OMCs provide assured offtake at floor price

GOBARdhan (Galvanising Organic Bio-Agro Resources Dhan) — under Jal Jeevan

Mission/SBM:

- Converts cattle dung and organic waste into biogas + biofertiliser
- Linked to village-level CBG plants under Gram Panchayats

Progress vs Target (SATAT)

YEAR	CBG PLANTS TARGET	PLANTS COMMISSIONED	GAP
2023-24	5,000	~600-700	Significant shortfall
2025-26	Revised targets	~1,000	Below target

The gap reflects **implementation challenges**: feedstock aggregation, technology cost, gas distribution infrastructure, and offtake logistics.

THE ARGUMENT FOR CBG AS AN LPG SUBSTITUTE

Why CBG Can Work at Scale

- 1 **India generates 900+ million tonnes of agri-waste** annually — most burned in fields, causing air pollution (stubble burning). CBG converts this into clean fuel.
- 2 **Rural income generation**: A 2,000 kg/day CBG plant creates 5-8 direct jobs and ~50 indirect (feedstock supply chain)
- 3 **Biofertiliser co-product**: CBG plants produce fermented organic slurry — high-quality biofertiliser that can substitute chemical fertilisers
- 4 **Carbon neutrality**: CBG is considered near-carbon-neutral — the methane captured from decomposing organic matter would have been released anyway
- 5 **Infrastructure compatibility**: CBG can use existing CNG/PNG distribution infrastructure — unlike hydrogen, it requires no new pipeline standards

The Comparison with Ethanol Success

The editorial draws parallels with **ethanol blending**, which reached **15-16% in petrol (E15-E16) by 2025** — ahead of schedule — driven by policy continuity, assured offtake by OMCs, and price discovery. CBG needs a similar policy framework: **floor price guarantees, streamlined clearances, feedstock aggregation hubs, and viability gap funding** for the first generation of plants.

CHALLENGES AND THE PATH FORWARD

CHALLENGE	SOLUTION
Feedstock aggregation cost	Cluster-based plants at mandis/sugar mills
Technology capital cost	Viability Gap Funding (VGF); MNRE subsidy
Gas distribution (last mile)	Piggybacking on CNG station network
Regulatory complexity	Single-window clearances under DPIIT
Market price uncertainty	Assured OMC offtake at floor price

UPSC ANGLE

PAPER	ANGLE
GS3 — Energy	CBG, SATAT, GOBARDhan, India's energy mix, LPG dependence
GS3 — Environment	Stubble burning, biofuels, carbon neutrality, agricultural waste
GS3 — Economy	Energy security, import substitution, rural employment
GS2 — Governance	PMUY, OMCs, MoPNG, energy access policy

Mains Keywords: CBG, SATAT scheme, GOBARDhan, PMUY, LPG import dependency, biogas, biofertiliser, ethanol blending, energy security, Hormuz, agri-waste

Probable Question: “Compressed Biogas presents a convergence of energy security, environmental sustainability, and rural development objectives. Examine.” (GS3 Mains)

PRACTICE TODAY'S QUIZ



[Take the 22 April 2026 Quiz →](#)

RELATED DAILY ARTICLES

22 Apr [Current Affairs Today — April 22, 2026](#)

22 Apr [World Earth Day 2026 — 'Our Power, Our Planet' and...](#)

22 Apr **Kankaria Coaching Depot — India's First Water-Neutral...**

22 Apr **India Post FY2025-26 — Record ₹15,296 Crore Revenue and...**

← **NEWER EDITORIAL**

**IMF-World Bank Spring Meetings 2026 —
When Development...**

OLDER EDITORIAL →

**India Must Draw a Red Line on U.S. Unilateral
Sanctions**



CURATED & WRITTEN BY

Bharat Choudhary

UPSC Educator & Content Creator

[linkedin.com/in/epicbharat](https://www.linkedin.com/in/epicbharat)[Read Full Article on Ujiyari →](#)<https://ujiyari.com/editorials/2026/04/india-lpg-crisis-compressed-biogas-cbg/>

ALSO FROM THE CREATOR

BharatNotes

Free UPSC study platform — subject-wise notes across all 4 GS papers, Prelims MCQs, Mains answer frameworks, PYQ analysis & progress tracking. **100% Free • No Login Required.**

[Start Preparing → bharatnotes.com](http://bharatnotes.com)

📌 OPPORTUNITY

Advertise with Ujiyari

Reach **thousands of serious UPSC & State PCS aspirants** daily through our PDFs, website, and social channels.

Ideal for: Coaching institutes • EdTech platforms • Book publishers • Exam prep apps

[✉ epicbharat@gmail.com](mailto:epicbharat@gmail.com)

Write to us for rates & media kit

Free UPSC & State PCS Current Affairs · ujiyari.com · bharatnotes.com