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# Supreme Court begins review of 2018 ruling on Sabarimala shrine

Krishnadas Rajagopal
NEW DELHI

Justice B.V. Nagarathna, part of the Supreme Court Constitution Bench hearing a reference spurred by a 2018 judgment upholding the right of women of menstruating age to enter the Sabarimala shrine in Kerala, said on Tuesday that social ills cannot be branded and passed off as 'essential religious practices'.

The Union government said the legislature, not courts, drives reform in religion, if need be.

"If social evils are given a religious colour, then the courts can intervene to distinguish [between] the two," Justice Nagarathna said.


Solicitor-General Tushar Mehta said the Preamble to the Constitution champions liberty of thought, expression, belief, faith, and worship.

The exchange marked the first day of hearing of a reference to evolve a 'judicial policy' for constitutional courts while dealing with questions of right to religious freedom enshrined in Article 25 and a denomination's privilege to manage its own religious affairs under Article 26 of the Constitution.

"How can the courts then examine the essentiality of religious practices of a denomination which does not otherwise offend public order, morality, and health?" Mr. Mehta asked.

The focal point of the reference is how far the courts can use their plenary powers to judicially review religious practices considered "essential or core" in the name of ushering in social reform.

The Centre argued whether the judges had the expertise to decide if a ritual or a manner of devotion was merely superstition or an essential religious practice. "The essentiality of a religious practice may not fall within the domain of judicial review", Mr. Mehta said.

"Judges are not experts in science. Yet, courts are empowered by the Evidence Act to examine the opinions of scientific experts and become an expert of experts," Justice Joymalya Bagchi observed.

Justice M.M. Sundresh intervened to note that "the difference here is science is based on logic and religion is based on belief".

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## KEY HIGHLIGHTS

### Context of the News

- A nine-judge Constitution Bench of the Supreme Court of India is examining the scope of judicial review in religious matters.
- The reference arises from the 2018 Sabarimala judgment allowing entry of women (10–50 years).
- Justice B.V. Nagarathna observed that social evils cannot be protected as essential religious practices (ERP).
- The Union Government argued that religious reforms should be legislatively driven, not judicially imposed.
- Core issue: Extent of court's power to determine "essential religious practices" under Articles 25 & 26.

### Key Points

- Essential Religious Practices (ERP) DoctrineJudicially evolved doctrine (not in Constitution).
- Protects only those practices integral/essential to religion.
- Constitutional ProvisionsArticle 25: Freedom of religion (subject to public order, morality, health).
- Article 26: Rights of religious denominations to manage affairs.
- Articles 14 & 15: Equality and non-discrimination.
- 2018 Sabarimala JudgmentExclusion of women held unconstitutional (violative of FRs).
- "Ayyappans" not a separate religious denomination.
- Emphasized constitutional morality over social practices.
- Government's ArgumentsCourts lack expertise in theology.
- ERP determination may homogenize diverse religious practices.
- Legislature better suited for gradual social reform.
- Judicial ConcernsCourts must intervene when religion masks social discrimination.
- Judicial review is part of basic structure.

### Static Linkages

- Fundamental Rights enforceable by courts.
- Judicial Review as part of Basic Structure Doctrine.
- Secularism = equal respect + state intervention for reform.
- Distinction: Religious belief vs secular practice.
- Concept of constitutional morality (Dr. B.R. Ambedkar).

### Critical Analysis

Pros

- Protects individual rights over oppressive customs
- Ensures gender justice and equality
- Upholds constitutional supremacy

Cons

- Risk of judicial overreach in religious matters
- Lack of objective test for ERP
- May disturb religious autonomy and diversity

Challenges

- Defining "essentiality"
- Balancing faith vs fundamental rights
- Avoiding uniform interpretation of diverse traditions

### Way Forward

- Shift from ERP to rights-based adjudication
- Develop clear judicial standards
- Promote legislative + consultative reforms
- Balance religious freedom with equality principles

# Centre's plan for women's reservation follows UPA blueprint for OBC quota

NEWS ANALYSIS

Varghese K. George
NEW DELHI


The late Arjun Singh designed the formula for OBC reservation in higher education.

The Centre is proposing a 50% expansion in the size of the Lok Sabha and State Assemblies to accommodate 33% reservation for women ahead of the 2029 general election. The math is such that incumbent lawmakers will be assured that their pathway to seeking re-election will not be narrowed due to a new social accommodation.

Prime Minister Narendra Modi said during a campaign meeting in Kerala that assured representation for women would be achieved by creating additional seats. The government plans to increase the size of the Lok Sabha from 543 to 816 (a 50% increase in seats). There will be 273 additional seats, and 273, which is 33% of 816, will be reserved for women. The same math will apply at the State level too. For instance, Kerala will have its Lok Sabha seats increased from 20 to 30 with 10 seats reserved for women, Uttar Pradesh from 80 to 120, with 40 for women. The existing Scheduled Caste and Scheduled Tribe reservation of 15% and 7% each will have one-third of them reserved for women of respective groups.

Enlarging the size of the pie before carving out a new social accommodation is not unprecedented. It was exactly in this manner that the UPA-I government implemented reservation for Other Backward Classes (OBC) in higher education in 2005-06 and it was a formula designed by then Education Minister Arjun Singh. He championed the expansion of reservation in higher education through the 93rd Constitutional Amendment Act and the Central Educational Institutions (Reservation in Admission) Act, 2006, that mandated a 27% reservation for OBCs in central higher educational institutions (such as IITs, IIMs, and Central universities). To accommodate this, the government implemented a 54% expansion of seats over a three-year period, starting from the 2008-09 academic session, ensuring the number of seats available for the general category did not decline.

**'Win-win' formula**

Until then, the SC and ST reservations added up to 22.5% of the seats, and the rest were general category seats. The proposal was to accommodate OBC reservation without impacting the absolute number of general seats. The math in that situation meant that the total capacity of Central higher education institutions had to expand by 54% for the general category numbers to remain the same. In the pre-OBC reservation era, general category had 78 seats out of each 100, which remained the same when the total grew to 154, of which 49.5% was reserved.

In other words, what was 78% of 100 earlier, became 50.5% of 154. This avoided any decline in the number of seats for general category students while accommodating the OBC students by expanding the pie. Singh defended the reservation policy as a win-win for all stakeholders, as investment in higher education expanded massively, with several new IITs, IIMs and AIIMS coming up, and the intake of students increasing by 54% for the bulging youth population of the country.

The BJP formula of linking additional seats in the Lok Sabha for women's reservation takes a leaf out of the Arjun Singh playbook. Expansion in seats in higher education was long overdue then, as it is for the legislatures now.

## KEY HIGHLIGHTS

### Context

- Union Government considering ~50% increase in seats in Parliament and State Assemblies.
- Aim: Implement 33% reservation for women without reducing existing seats.
- Lok Sabha proposed expansion: 543 → 816 seats.
- Reservation includes SC/ST women within existing quotas.
- Linked to implementation of Constitution (106th Amendment) Act, 2023.
- Implementation conditional upon next Census + delimitation exercise.

### Key Points

- Women's Reservation:
  - 33% seats in Lok Sabha and State Assemblies.
  - Includes rotation of constituencies.
- Seat Expansion Model:
  - Prevents reduction of existing MPs/MLAs seats.
  - Political feasibility increases.
- Numerical Logic:
  - Total seats: 816
  - Women's quota: 273 seats (33%).
- SC/ST Sub-quota:
  - Within 15% SC and 7% ST quotas, 1/3 reserved for women.
- Precedent (Education Sector):
  - 93rd Constitutional Amendment Act, 2005.
  - ~54% seat expansion ensured no loss to general category.

### Static Linkages

- Articles 81, 170 – Composition of legislatures
- Articles 330–334 – Reservation for SC/ST
- Delimitation Commission – Constitutional body
- Equality principle (Art 14–16) – Basis of affirmative action
- 73rd & 74th Amendments – Women's reservation in local bodies
- Concept of representative democracy

### Critical Analysis

Advantages

- Improves gender representation in legislatures.
- Avoids political resistance (no seat loss).
- Strengthens inclusive democracy.
- Builds on successful Panchayati Raj model.

Challenges

- Delay due to delimitation dependency.
- Larger House → efficiency concerns.
- Risk of proxy candidates (dynastic politics).
- Does not ensure ticket distribution reforms.

### Way Forward

- Conduct Census and delimitation at the earliest.
- Ensure internal party quotas for women.
- Promote capacity building of women leaders.
- Address structural barriers (finance, political access).
- Monitor through institutional mechanisms.

# Delimitation, women's reservation, political dynamics

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In September 2023, Parliament passed the Constitution (One Hundred and Sixth Amendment) Act, 2023, or the Nari Shakti Vandan Adhiniyam, which commits to reserving one-third of seats in the Lok Sabha and Vidhan Sabhas for women, including in constituencies already earmarked for Scheduled Castes and Scheduled Tribes. However, this potentially transformative measure falls short of immediacy: its implementation is deferred until after the next Census and the subsequent delimitation exercise.

During parliamentary debates, the Congress party, along with several other Opposition parties, demanded its immediate operationalisation, ideally for the 2024 general election. Women's rights groups criticised the government for tying the quota to delimitation after the new Census, arguing that it creates unnecessary delays. The National Democratic Alliance (NDA) government rejected this, maintaining that such a major change, without updated Census data and delimitation, would undermine both fairness and feasibility.

**The shift now seems more deliberate**

Less than three years later, that position appears to have shifted. Recent reports suggest that the government now plans to amend the Women's Reservation Act, 2023 by initiating a delimitation exercise based on the 2011 Census, rather than waiting for a fresh Census and a subsequent delimitation process tied to it. At the same time, the size of the Lok Sabha and State Assemblies may be expanded by nearly 50%, increasing the Lok Sabha's strength from 543 to 816 seats. In the absence of any formal articulation of the basis for such an expansion, questions arise about its implications for representational balance and political fairness.

Taken together, these developments – particularly the proposed increase in seats – point to a decoupling of women's reservation from the next Census, expected to include caste enumeration beyond the Scheduled Castes and Scheduled Tribes, and the delimitation exercise that would follow. While this shift is framed as a means of expediting implementation, it also suggests a more deliberate political reconfiguration underlying these far-reaching structural changes.

The timing is telling. Acting at this juncture allows the government to claim credit for a long-pending reform that previous administrations failed to implement, even if it entails departing from the sequencing that it had earlier defended. It has clear electoral implications, likely to mobilise women voters in upcoming Assembly elections across key States/Union Territory, consolidate support ahead of the 2027 contests, and position the Bharatiya Janata Party as the party that delivered on women's reservations and gender justice. This claim could, in turn, become a chief plank of its campaign for the 2029 general election.

Implementing women's reservation without waiting for the Census or delimitation exercise could undermine representation and the intended reforms

Delimitation, however, remains contentious, questioning whether representation should be based solely on population or also consider economic, social, and demographic factors. A strictly population-based approach would strengthen the parliamentary power of northern States where fertility rates remain relatively high, while reducing the relative influence of southern and peninsular states that have stabilised population growth and significantly drive India's economy and employment. This dynamic is likely to deepen the existing north-south divide, driven by demographic asymmetries and uneven development outcomes, placing additional strain on the federal compact and the balance of inter-State representation.

These conflicting concerns stem from the constitutional freeze on delimitation, leaving constituency boundaries and seat allocations unchanged since the early 1970s. After nearly five decades, the government now appears set to lift this freeze, proposing a roughly 50% expansion of the Lok Sabha alongside proportional increases in State Assemblies. This approach is intended to reassure southern States by preserving their relative share of seats and thus reducing resistance to delimitation. Yet, even with a uniform expansion, the absolute seat counts of northern States would rise significantly, further tilting the existing balance of power in their favour. For instance, Uttar Pradesh and Bihar together could approach 180 seats, while the five southern States (Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Telangana) combined may reach around 195, raising the possibility that the northern bloc could still wield disproportionate political weight. In a first-past-the-post system, where numerical strength ultimately determines both electoral victory and seats gained, such an increase risks entrenching structural disadvantages for less populous regions, even if formal proportionality is preserved.

**The issue of data**

These distributional concerns are compounded by the question of data. Basing women's reservation on the 2011 Census is problematic, particularly when a new Census is already underway. India in 2026 bears little resemblance to its 2011 demographic profile: migration, rapid urbanisation, and the after-effects of the COVID-19 pandemic have significantly reshaped population patterns over the past decade and a half, altering both urban and rural constituencies. Proceeding with outdated data risks misrepresenting current realities at the very moment when foundational decisions on delimitation, seat expansion, and the operationalisation of women's reservation are being made. Yet, the urgency to move ahead suggests a calculated political judgment: that the imperative of delivering women's reservation will outweigh resistance, as few can afford to oppose its expeditious implementation, leaving little room to contest either the process or its sequencing. The issue is further complicated by what the next Census itself may reveal. Widely expected to be a landmark exercise, the availability of caste data could sharpen demands for greater representation of disadvantaged caste groups, particularly given their demographic strength. It may also amplify calls for sub-quotas within women's reservation, especially from Other Backward Classes (OBCs), including Muslim OBC communities that remain underrepresented. Several political parties and women's organisations have already voiced such demands. By moving ahead without waiting for the 2026-27 Census, the government appears to be postponing these pressures, but only temporarily.

A further concern is the lack of clarity on how women's reservation will operate in practice. While the amendment mandates a one-third quota, it defers critical details, especially the rotation of reserved constituencies. This is not a minor issue: rotation determines who can contest, from where, and with what continuity, shaping both accountability and constituency development. Earlier proposals cautioned that frequent rotation could disrupt these goals, yet the current framework leaves the design unresolved. Reports suggest that in smaller States and Union Territories with one or two Lok Sabha seats, the rotation of reserved constituencies may operate differently, resulting in less frequent turnover, while in larger States, some seats could remain reserved across successive terms. However, the law itself provides only for rotation after delimitation, leaving the precise mechanism to be defined.

**The need for deliberation**

None of this diminishes the core premise: women's reservation is long overdue and politically imperative. Evidence from other countries suggests that quotas can be effective, and there is little reason to believe that India would be an exception. Taken together, women's reservation, seat expansion and delimitation are not isolated changes; they will jointly reshape who is represented, from where, and in what proportions. Seen in this context, they mark a foundational reordering of the electoral map – one that will redraw constituencies, recalibrate the weight of States, and reconfigure the social composition of legislative bodies. Far from a marginal or technical adjustment, this is a structural shift that could rebalance political power across regions, social groups, and genders.

Precisely because of the scale of this shift, implementation must be preceded by thorough deliberation grounded in the latest data. Departing from the logical and constitutionally settled sequence risks distorting representation and seat distribution, thereby weakening the very reform it seeks to advance. India stands on the cusp of one of the most significant transformations of its representative system since the early decades of the Republic.

# KEY HIGHLIGHTS

## Context of the News

- Parliament enacted the Constitution (106th Amendment) Act, 2023 providing 33% reservation for women in Lok Sabha and State Assemblies.
- Implementation was originally linked to post-Census delimitation, delaying operationalisation.
- Recent developments indicate a policy shift:
  - Proposal to use 2011 Census data for delimitation instead of waiting for fresh Census.
  - Possible ~50% expansion of Lok Sabha seats (543 → ~816) and corresponding State Assemblies.
- Move aims to expedite women's reservation before 2029 elections, but raises concerns on federal balance, data validity, and political equity.

## Key Points

- Reservation Framework1/3rd seats reserved, including within SC/ST categories.
- Based on Articles 330 & 332 (reservation principles) extended through amendment.
- Delimitation DynamicsFrozen since 1971 Census (42nd & 84th Amendments).
- Proposed revival may redistribute seats based on population.
- Seat Expansion LogicIntended to avoid displacement of existing MPs/MLAs.
- Helps politically accommodate reservation without reducing incumbency opportunities.
- Federal ImplicationsPopulation-based delimitation may increase representation of northern States (UP, Bihar).
- Southern States risk relative decline in political influence despite economic contribution.
- Data Concerns2011 Census outdated due to:
  - Urbanisation
  - Migration
  - Post-COVID-19 pandemic demographic shifts
- Upcoming Census may include caste enumeration, influencing representation debates.
- Operational IssuesRotation of reserved constituencies unclear
- Possible demand for OBC sub-quota within women reservation

## Static Linkages

- Constitutional Amendments: 42nd, 84th, 87th Amendments (Delimitation freeze and extension)
- Articles 81, 82 – Representation and Delimitation
- Articles 330, 332 – Reservation for SC/ST
- Delimitation Commission – quasi-judicial body
- First-Past-The-Post electoral system
- Principle of "One Person, One Vote, One Value"
- Federalism and Centre-State balance
- Census as basis for representation

## Critical Analysis

Pros

- Promotes gender equality in politics
- Improves inclusive governance
- Seat expansion reduces political resistance

Cons

- Use of outdated data may distort representation
- Risk of north–south imbalance
- Unclear rotation mechanism affects accountability
- No clarity on OBC sub-quota

Challenges

- Balancing population vs federal equity
- Ensuring credible and updated data
- Managing political consensus

## Way Forward

- Use latest Census data for delimitation
- Ensure transparent seat allocation formula
- Define clear rotation policy
- Consider sub-quota based on evidence
- Build consensus among States
- Strengthen institutional mechanisms (Delimitation Commission)

# A closer look at Asim Munir's West Asia diplomacy

**Mahesh Sachdev**
Former Indian Ambassador specialising in West Asia and oil matters

Pakistan's Field Marshal is being watched to see whether he will emerge as an indispensable mediator or a useful idiot

To give the devil its due, Pakistan's Chief of Defence Forces Field Marshal Asim Munir's recent diplomatic avatar has shown a sense of anticipation of the incipient conflict and hyperactivity in its wake. He was everywhere: soothsaying Trump 2.0, at the signing of Pakistan's Strategic Mutual Defence Agreement (SDMA) with Saudi Arabia, and selling weapons to the Libyan warlord and the Sudanese Army Chief.

But his most ambitious rainbow chase has been the self-proclaimed role of an indispensable mediator in Iran's war with the United States/Israel. So, if he eventually fails to ford the Strait of Hormuz, it would not be for lack of trying.

**The gaze of detractors**

However, his detractors – there are many in India – are themselves guilty of a transactional approach in judging his diplomatic hyperactivity. In their opinion, the energetic Field Marshal's regional diplomatic overreach is doomed to fail for reasons ranging from the intrinsic weaknesses and preoccupations of Pakistan, the constant shapeshifting in the West Asian conundrum, to a propensity for glib talk. They are itching to see it fail and then claim the proprietary rights to the outcome.

Such predictions are overblown on two grounds. First it is the process and not the product. The entire exercise is aimed at exorcising the ghosts of Islamabad's pattern of shortchanging its gullible partners. Whether the Pakistani leopard can change its spots is a separate question. Second, they half expect Field Marshal Munir's wading into Trump-kissed regional diplomacy would, at one stroke, solve many of Pakistan's current troubles – from a sclerotic economy and diplomatic doghouse to internal political disorder. This may be an unrealistic outcome.

Pakistani diplomacy has left no stone unturned in wooing Trump 2.0, flipping a decade-long mutual antipathy with the U.S. that followed the killing of Osama bin Laden in 2011. Indeed, this multi-pronged charm offensive has been handsomely rewarded, and Asim Munir has become Mr. Trump's favourite Field Marshal. Then moving on to being a messenger-cum-mediator between Washington and Tehran, seamlessly replacing Oman and Qatar, as the latter faced Iran's retaliation for hosting the U.S. military bases.

**An overreach**

In Asim Munir's scheme of things, all this greater realpolitik is to set off a perpetual motion machine meant for multiple ends. In the short run, he hopes to monetise its "peace-making" role to curry favour with both Washington and Beijing, becoming a useful conduit for their planned first Summit next month. He would also attempt a reset with the post-war dispensation in Iran. Islamabad has already leveraged its putative links with Iran to host a brainstorming meeting with the Foreign Ministers of Saudi Arabia, Türkiye and Egypt on March 30, which may lead to an Islamic NATO. In a less noticed, but significant move, Asim Munir recently paid a low-key fence-mending visit to Abu Dhabi, miffed by Islamabad's growing proximity with rival Saudi Arabia.

At a different level, Islamabad also hopes that its overreach would fulfil its long-standing ambition to be counted in the senior league of the Islamic world. Last, but not least, Pakistan also hopes that being the paw of various fat cats would earn it cash rewards and bail it out of perennial penury. If all that happens, Asim Munir would have transformed himself from being an ambitious top-gun to surpass the iconic Ayub Khan, the only other Field Marshal and President of Pakistan.

There are reasons to believe that Asim Munir's diplomatic activism may not get sustainable tailwinds to fully realise its goals. It is mainly because too many factors are beyond his control. Well-informed U.S. media reported last evening that Iran has stopped engaging in talks to halt the fighting. It may turn out later that sceptics in Tehran were cynically "blowing hot, blowing cold" about the "Islamabad talks", to keep Mr. Trump off-balance and expose his unreliability as a regional security provider. This could take the wind out of Pakistan's self-image as the only country with cordial ties with both Iran and the U.S.

There are multiple ethnic, geopolitical and orientational differences between Tehran and Islamabad. Second, the portents do not point to any possible de-escalation in the conflict, which currently seems headed in the opposite direction. The current prognosis is for either a war of attrition or for Mr. Trump to declare a fictional victory and quit the arena.

**The broader view**

Either way, Iran may use the leverage of the selective closure of the Strait of Hormuz to serve its own multiple goals, from revenue accretion to keeping the littoral states under pressure and forcing the U.S. to relent on the sanctions. In either of the two scenarios, the stakeholders would have little use for Asim Munir's diplomacy. Pakistan's long restive land border with Iran and a significant Shia minority have forced its hand in being more kinetic in response to Saudi Arabian calls for mutual defence. In case Mr. Trump averts his eyes to the Gulf and looks for more manageable targets, his ardour for his favourite Field Marshal may cool further. This would then allow the redoubtable Pakistani Field Marshal an opportunity to rue the verity of a century-old aphorism: "War is too important to be left to the generals".

# KEY HIGHLIGHTS

## Context of the News

- Asim Munir has undertaken active diplomatic engagement amid the ongoing West Asian geopolitical tensions involving Iran, the U.S., and Israel.
- Pakistan is attempting to project itself as a mediator in the Iran–U.S. conflict and expand its strategic role in the region.
- Simultaneous outreach to Gulf countries, the U.S., and Iran reflects a multi-alignment strategy.
- Uncertainty persists due to continued conflict escalation and limited response from Iran.

## Key Points

- Pakistan signed a Strategic Mutual Defence Agreement (SDMA) with Saudi Arabia.
- Attempt to position itself as a mediator, replacing traditional intermediaries like Oman and Qatar.
- Engagement with Donald Trump administration (possible geopolitical recalibration).
- Outreach to multiple stakeholders:
  - Iran (despite tensions)
  - Saudi Arabia, UAE, Türkiye, Egypt
- Strategic objectives:
  - Enhance geopolitical relevance
  - Attract economic and financial support
  - Balance relations between major powers (U.S.–China)
- Constraints:
  - Iran's inconsistent engagement
  - Escalating regional conflict
  - Pakistan's internal economic and political challenges

## Static Linkages

- Strait of Hormuz: Strategic oil chokepoint (NCERT Geography)
- Chapter VI of UN Charter: Pacific settlement of disputes
- Balance of Power theory in International Relations
- India's energy imports dependence on West Asia
- Sunni–Shia divide in West Asia geopolitics
- Defence diplomacy and strategic agreements
- Multi-alignment in foreign policy

## Critical Analysis

Pros

- Enhances Pakistan's diplomatic visibility
- Potential mediator role in conflict resolution
- Strengthens ties with Gulf countries
- Opportunity for economic leverage

Cons

- Strategic overreach beyond capacity
- Lack of credibility due to past inconsistencies
- Iran–Pakistan tensions (sectarian and border issues)
- High dependence on external powers
- Volatile regional situation limits success

## Way Forward

- Align foreign policy with domestic capacity
- Strengthen economic stability
- Build long-term diplomatic credibility
- Prioritize regional cooperation mechanisms
- Support multilateral conflict resolution (UN framework)

# Systemic reckoning

## Sattankulam verdict should sensitise the police against use of excessive force

Delivery of justice to hapless victims of police brutality requires a combination of an actively engaged judiciary, the courage of victims and witnesses to speak out against the khaki fraternity, and a determined investigation to assemble irrefutable evidence. All these factors perfectly aligned to uncover the truth behind the custodial killing of an innocent trader, Jayaraj, and his son Benicks, who were tortured at the Sattankulam police station in Thoothukudi, Tamil Nadu, six years ago. Relying on the CBI's scientific evidence, despite early attempts to destroy it, a trial court in Madurai has now convicted all nine policemen arraigned in the case. A tenth accused had died earlier of COVID-19. While the awarding of the death penalty to the convicts militates against the principle of rehabilitative justice, the conviction sends a strong message to those in uniform who assume the power to wield force against unarmed citizens as if it were a statutory right. This case might have passed off as yet another suspicious custodial death but for overwhelming evidence of torture and public outrage. The police picked up Jayaraj on false charges of violating lockdown conditions during the pandemic, and Benicks was detained later when he confronted them for assaulting his father. The two men were stripped, brutally beaten overnight, and even forced to clean their own blood with their clothes. After registering an FIR on trumped-up charges, the injured men were produced before a government doctor, who dubiously issued a "fit for remand" report. The jurisdictional magistrate too mechanically remanded them to judicial custody, ultimately leading to their deaths.

That the policemen felt entitled was evident when a Judicial Magistrate found the atmosphere at the station hostile and "intimidating". Justices P.N. Prakash and B. Pugalendhi of the Madurai Bench of the Madras High Court, having taken *suo motu* cognisance, in an extraordinary direction, asked revenue officials to take control of the station to safeguard evidence. The turning point came when a head constable, Revathi, testified against her colleagues. The CBI established that blood samples recovered from the station matched the victims' DNA, while call data records confirmed the presence of both the victims and the accused at the time of the crime, sealing the case. The trial court appears to have applied uniform proportionality in assigning culpability to all accused. This may not withstand scrutiny in higher courts, as seen in the Rajiv Gandhi assassination case, where the Supreme Court, in 1999, upheld the death sentences of only four of the 26 convicted by the TADA court. Nonetheless, the convictions should help sensitise the police force that excesses will not go unpunished.

# KEY HIGHLIGHTS

## Context of the News

- A Madurai trial court convicted nine policemen in the 2020 custodial deaths of Jayaraj and Benicks (Tamil Nadu).
- Case involved severe custodial torture after arrest for alleged COVID-19 lockdown violations.
- Investigation by the Central Bureau of Investigation relied on forensic and digital evidence.
- The Madras High Court took suo motu cognisance to preserve evidence and ensure fair investigation.

## Key Points

- Custodial torture violated fundamental rights under Article 21.
- Failure of institutional safeguards:
  - Improper medical certification ("fit for remand").
  - Mechanical judicial remand.
- Role of evidence:
  - DNA matching of blood samples.
  - Call Data Records confirming presence.
- Whistleblower testimony (police insider) strengthened prosecution.
- Trial court awarded death penalty (subject to appellate scrutiny).
- Highlights systemic issues:
  - Low conviction rate in custodial deaths (NCRB trend).
  - Weak enforcement of arrest guidelines.

## Static Linkages

- Article 21 – Right to life and dignity.
- Article 22 – Safeguards against arbitrary arrest.
- D.K. Basu vs State of West Bengal (1997) – Custodial safeguards.
- Indian Evidence Act, 1872 – Sections 24–27 (confessions, admissibility).
- CrPC – Arrest, remand, and custodial procedures.
- NHRC guidelines on custodial deaths.
- Prakash Singh case (2006) – Police reforms.
- Second ARC – Ethics in Governance (accountability).

## Critical Analysis

Positives

- Judicial activism ensured accountability.
- Scientific evidence improved conviction reliability.
- Strong deterrence against police excesses.

Issues

- Institutional complicity (police–doctor–magistrate nexus).
- Delay in justice delivery.
- Death penalty vs reformative justice debate.
- Lack of effective police accountability mechanisms.

## Way Forward

- Implement Supreme Court directives in police reforms (Prakash Singh case).
- Ensure CCTV surveillance in police stations.
- Strengthen forensic and investigative autonomy.
- Fix accountability of medical and judicial officers.
- Establish independent Police Complaints Authorities.
- Improve human rights training for police.
- Ensure time-bound trials and witness protection.

# In Delhi's support for Arab Gulf, a return of the Bombay school of thought

RAJA MANDALA
C RAJA MOHAN

WHETHER THE Iran war escalates into a more devastating confrontation or cools into a diplomatic mode this week, one fact is now beyond dispute: The Gulf has moved decisively to the very top of India's strategic priorities. Geography alone should have made this happen long ago. The Gulf is not a distant theatre; it is India's immediate neighbourhood, separated only by a narrow stretch of water and tied to the Subcontinent through deep economic, social, and security ties. India's approach to the current war suggests that Delhi will no longer treat the Gulf as a peripheral region.

The Gulf's new centrality also revives an older debate in modern India's strategic imagination — the contest between the so-called "Bombay School" and "Ludhiana School". The terms may sound strange to contemporary ears, but they capture two enduring ways of thinking about India's geopolitics.

The story begins in the late 18th century, when the British Raj, newly ascendant in the Subcontinent, confronted a dramatic external shock: Napoleon's conquest of Egypt in 1798. His ambitions in the eastern Mediterranean and the Middle East exposed the vulnerability of the Indian empire's western approaches. The result was the birth of the "Great Game", the prolonged contest between Britain and its European rivals for influence across the territorial arc from the Levant to the Hindu Kush. Out of this crucible emerged two distinct strategic visions. Both saw the need for defending India well beyond its territorial borders. They diverged on questions of geographic focus and policy instruments.

The Bombay School, shaped by the commercial dynamism of the emerging Parsi and Gujarati capitalists operating in the space created by the empire in western India and the Arabian Sea, saw India's security beginning at sea. Its leading figures — John Malcolm and Mountstuart Elphinstone — viewed Persia and Arabia as the natural outer ring of India's defence.

Their instincts were outward-looking and maritime. Malcolm's early 19th-century missions to Tehran sought to anchor Persia in a British-Indian orbit through diplomacy and trade. Elphinstone, as governor of Bombay, expanded the East India Company's naval presence in the Persian Gulf and concluded security arrangements with the Arab coastal principalities — the entities that would later become the Trucial States. For the Bombay School, the key to India's security lay in controlling sea lanes, shaping littoral politics, and projecting influence across the Gulf. Ports, commerce, and naval power were its natural instruments.

The Ludhiana School — where the East India Company agents were located before gaining full control of the Punjab — was continental in orientation. Figures such as Henry Lawrence, John Lawrence, and Claude Wade operated in a world shaped by tribal politics, feudal forces, and shifting alliances in the effort to prevent European penetration through Central Asia and Afghanistan. For them, Afghanistan was the lynchpin. The defence of India required forward fortifications, tribal militias, and political manipulation in the highlands beyond the Indus.

> The Bombay School saw India's security beginning at sea. Its leading figures — John Malcolm and Mountstuart Elphinstone — viewed Persia and Arabia as the natural outer ring of India's defence

The First Anglo-Afghan War (1839-42) was the decisive collision between these two schools. The Ludhiana School prevailed in policy, pushing the Raj into Kabul to install a friendly ruler. The catastrophic retreat from Afghanistan vindicated the Bombay School's scepticism about continental adventures. Yet the Ludhiana logic proved resilient. As the Raj consolidated the Punjab and fretted about Russian expansion, the Ludhiana School entrenched itself.

After 1947, Pakistan inherited this tradition. Its quest for "strategic depth", the search for a protectorate in Afghanistan, its reliance on tribal proxies, and its entanglement with extremist forces all flowed from the Ludhiana worldview. Rawalpindi's neglect of Karachi — once a vital node of the Bombay Presidency's maritime universe — reflected the same landlocked worldview. It was only China's rise and its maritime ambitions that put Pakistan's coastline back on the strategic map.

Independent India, too, drifted toward the Ludhiana mindset. Partition created new land borders with Pakistan that had to be defended. Delhi's socialist turn diminished the role of trade, ports, and maritime strategy. The three great port cities — Bombay, Calcutta, and Madras — ceded primacy to a land-centric capital.

Economic reforms in the 1990s and the new focus on trade put the maritime world back in the reckoning. But the persistent demands of contested land borders kept Delhi's strategic gaze fixed on the continent. It was the rapid rise of the oil-rich Gulf — and the massive flows of labour, remittances, energy, and capital — that gave unacknowledged heft to the Bombay School.

Today, nearly 9 million Indian workers, nearly $50 billion in annual remittances, and critical energy and logistics dependencies tie India inextricably to the Gulf. The region has become a vital extension of India's economic and social space. Revolutionary Iran's confrontational politics after 1979 limited Delhi's engagement with Tehran, but the Arab Gulf steadily assumed the centrality that Persia once held for Malcolm and Elphinstone.

The revival of the Bombay School does not mean India can ignore the challenges on its northwestern marches. The enduring hostility with Pakistan remains real. The task for Delhi is not to choose between maritime and continental imperatives but to integrate them — to anchor maritime India firmly in the Gulf while maintaining credible military deterrence on the land frontier.

Meanwhile, the rise of political moderation and economic openness in Arabia stands in sharp contrast to Iran's oppressive theocracy and Pakistan's persistent use of religious extremism and violent proxies to destabilise India. In subtle but significant ways, the Arab Gulf's positive political evolution offers India a counterweight to the destabilising impulses emanating from Pakistan and Iran. Delhi's strong support for the Arab Gulf in the current war is, in essence, about the return of the Bombay School.

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## KEY HIGHLIGHTS

### Context of the News

- Rising tensions involving Iran and the Gulf region have elevated the Gulf's strategic centrality for India in foreign policy.
- India is increasingly treating the Gulf as part of its extended neighbourhood, rather than a peripheral region.
- The development has revived the debate between two strategic approaches:
  - Maritime-oriented (Bombay School)
  - Continental (Ludhiana School)
- Strong linkages through energy dependence, trade, and Indian diaspora reinforce this shift.

### Key Points

- Gulf region is crucial due to:
  - ~9 million Indian diaspora
  - ~$50 billion annual remittances
  - Major source of India's crude oil and gas imports
  - Bombay School (Maritime View):Focus on sea power, trade routes, ports, and naval dominance
  - Emphasis on Gulf, Persia, and Arabian Sea
  - Ludhiana School (Continental View):Focus on land borders, Afghanistan as buffer, and territorial defence
- Post-independence India → continental bias due to:
  - Partition and hostile neighbours
- Post-1991 reforms → revival of maritime engagement
- Current trend → strategic shift toward maritime-Gulf integration while retaining continental focus

### Static Linkages

- Alfred Thayer Mahan's Sea Power Theory
- Buffer State concept (Afghanistan in geopolitics)
- Energy Security (Economic Survey, IEA data)
- Indian Ocean Region (IOR) as strategic space
- Diaspora diplomacy (Ministry of External Affairs)
- Historical: Great Game, Anglo-Afghan Wars

### Critical Analysis

Advantages

- Ensures energy security and economic stability
- Strengthens India's maritime strategic depth in IOR
- Enhances trade, investment, and connectivity
- Leverages diaspora as soft power asset
- Provides counterbalance to regional instability

Challenges

- High dependence on Gulf → geopolitical vulnerability
- Balancing relations between Iran and Arab Gulf states
- Limited naval capabilities vs expanding ambitions
- Persistent threats from China and Pakistan (continental front)
- Risk of spillover from West Asian conflicts

### Way Forward

- Adopt a balanced hybrid strategy (maritime + continental)
- Diversify energy basket (renewables, strategic reserves)
- Strengthen naval capacity and maritime infrastructure
- Deepen comprehensive partnerships with Gulf countries
- Enhance diaspora security and engagement policies
- Maintain strategic autonomy in West Asia

# Phule's life and thought, a constitutional project

ANURAG BHASKAR

AS WE mark the beginning of the bicentenary year of Mahatma Jotirao Phule, born on April 11, 1827, he is rightly remembered as a social reformer, educator, fierce critic of caste, and pioneer of women's education. Yet, to stop there is to miss the deeper significance of his work. Phule's life and thought can be understood as a constitutional project. Even if it did not produce a legal text, it reimagined the foundations of social order on the principles of equality, dignity, and the redistribution of power.

Born into a Shudra community, Phule experienced firsthand the injustices of a graded society. Yet, what transformed experience into critique was his encounter with new intellectual resources. Reading English classic texts furnished him with a vocabulary through which he could begin to articulate claims of rights, equality, and justice. A transformational moment was his engagement with Thomas Paine's *Rights of Man* in 1847.

Paine wrote that every individual possesses certain natural rights due to "his existence", and certain civil rights for "being a member of society". Paine also understood a constitution as a foundational structure of political power. A constitution is a "body of elements" containing the principles on which government is organised, with the ultimate purpose of promoting "the general happiness". Phule's subsequent interventions aimed at promoting the rights of all through institutional and structural efforts: The establishment of schools for women and oppressed castes, the opening of public wells to those deemed "untouchable", and advocacy for widow remarriage alongside a critique of child marriage.

Phule was also a keen observer of global constitutional developments. In his seminal work *Gulamgiri* (Slavery), 1873, he situated the struggle against caste oppression within a transnational history of emancipation. In the preface, Phule referred to the abolition of slavery in the US and dedicated the book to "the good people of the United States, as a token of admiration for their sublime disinterested and self-sacrificing devotion" against slavery, "and with an earnest desire that my countrymen may take their noble example as their guide in the emancipation of their Sudra brethren from the trammels of Brahmin thraldom". This positioned Phule as one of the earliest Indian thinkers to envision constitutional responses to the oppression of marginalised communities.

His focus on equality and equitable measures is also evident in his submissions to the Education Commission of 1882. Phule argued for compulsory primary education up to the age of 12. He insisted that higher education must be within the reach of all, and proposed targeted government scholarships for those communities "amongst whom education has made no progress", alongside "more liberal" and proactive measures to advance women's education.

Phule's constitutional imagination extended to the material conditions of labour and agrarian life. In *Shetkaryacha Asud* (Cultivator's Whipcord, 1883), he exposed how caste domination operates within the agrarian economy. The Shudra farmer, he wrote, is so burdened by exploitation and deprivation that even the possibility of sending his children to school is foreclosed. At the same time, he directed sharp criticism at colonial administrators, observing that White officers had neither the time nor the inclination to inquire into the conditions of the cultivators.

What emerges from Phule's writings and interventions is a deeper insight: That social hierarchy, economic exploitation, and state indifference are mutually reinforcing. He identified the failure of governance to respond to systemic injustice. In doing so, he implicitly called for a reordering of state priorities to focus on the lived conditions of the most vulnerable.

Phule passed away in 1890, but his ideas continued to inform India's evolving constitutional imagination. B R Ambedkar drew upon his vision of social transformation and gave it concrete expression in constitutional guarantees. Phule's bicentenary places upon us a renewed responsibility to confront the continuing challenges of inequality.

*Bhaskar is the author of* The Foresighted Ambedkar: Ideas That Shaped Indian Constitutional Discourse

What emerges from Phule's writings and interventions is a deeper insight: That social hierarchy, economic exploitation, and state indifference are mutually reinforcing

# KEY HIGHLIGHTS

## Context of the News

- April 11 marks the birth anniversary of Jyotirao Phule.
- His ideas are being revisited in the context of social justice, constitutional morality, and inclusive governance.
- Increasing recognition of his role as a precursor to constitutional thought in India, influencing B. R. Ambedkar.

## Key Points

- Conceptualised society on principles of equality, dignity, and rights.
- Influenced by Thomas Paine → Natural Rights & constitutionalism.
- Established first schools for girls and lower castes (1848, Pune).
- Advocated:
  - Widow remarriage
  - Abolition of caste discrimination
  - Opposition to child marriage
- Hunter Commission (1882):
  - Compulsory primary education (up to 12 years)
  - State-funded education for backward classes
- Gulamgiri (1873):
  - Linked caste oppression with global slavery discourse
- Shetkaryacha Asud (1883):
  - Highlighted agrarian distress + caste exploitation nexus
- Core Idea: Social inequality + economic exploitation + governance failure are interlinked

## Static Linkages

- Article 14–18 → Equality, abolition of untouchability
- Article 21A → Right to Education
- DPSP Article 46 → Promotion of weaker sections
- Hunter Commission, 1882 (Education reforms)
- 19th Century Social Reform Movements (NCERT Spectrum)
- Natural Rights Theory (Locke, Paine)
- Agrarian structure under British rule

## Critical Analysis

Positives

- Early articulation of social justice before Constitution
- Emphasis on state responsibility in education and welfare
- Intersectional understanding (caste + class + gender)

Limitations

- Reform confined to limited regions
- Lack of institutional enforcement mechanisms

Contemporary Relevance

- Persistent inequality (caste, gender, rural distress)
- Need for substantive equality vs formal equality

## Way Forward

- Strengthen Article 46 implementation
- Improve access to quality public education
- Targeted policies for socially disadvantaged groups
- Address agrarian inequality structurally
- Promote constitutional morality in governance

# EC failed Bengal voters, SC should look again

IN SEPTEMBER last year, when the Election Commission of India published the electoral roll for Bihar after a contentious exercise, apprehensions of mass disenfranchisement were put to rest. Nudged by the Supreme Court, the poll body released a list in which deletions were largely attributable to death, migration, and duplication. The process raised hopes that the EC had learnt its lessons — that future Special Intensive Revisions would be routine exercises in electoral hygiene. That hope has been belied in West Bengal. What has unfolded over the past three-and-a-half months is a troubling story of mass deletions, procedural opacity, and a system that, flying in the face of due process, shifted the burden of proof onto the very citizens it is meant to enfranchise. The numbers are stark. When the SIR began in December, West Bengal had 7.66 crore registered voters. The roll frozen on Monday lists only 6.77 crore — a fall of 11.62 per cent. Of the more than 60 lakh whose eligibility was under adjudication since February, as many as 27,16,393 — more than 45 per cent — will have no say in the Assembly elections. Most of them had fulfilled the documentation requirement. Democracy rests on the idea that every citizen has an equal right to choose their representatives. That principle has been compromised.

Yes, these 27 lakh citizens have a right to appeal. But the appellate process is cold comfort when elections are imminent. The window for redressal is too narrow, the machinery too overwhelmed, and as this newspaper has reported, people have been left in the lurch by appellate agencies. It was here that the SC's intervention was needed — especially on the foundational question of inclusion. The Court did engage: It allowed tribunals to accept fresh documents. But its Monday decision is disappointing. Its reasoning — "Appellate authorities will formulate a fair procedure...That may take a month, that may take even 60 days. We cannot, on that contemplation, allow some people because they were earlier mapped" — gives the EC the benefit of the doubt. It is, in effect, the Court's virtual acceptance of disenfranchisement in this electoral cycle.

This is a departure from the Court's own Bihar standard, where it pushed the Commission towards transparency, compelling it to own and justify its deletions. In Bengal, that sustained scrutiny was absent when it mattered most. The EC has a storied record of reaching out to every voter, of erring on the side of inclusion. In West Bengal, with a process skewed against the voter and framed by a shrill rhetoric of illegal immigrants, lakhs fear disenfranchisement. Every valid voter deleted from the roll, everyone who now has to navigate the intimidating machinery of redressal, is a blot on the poll panel's record. The SC has always been the last line of defence for the citizen's franchise. That role is not diminished by a frozen roll or an electoral calendar. The Court needs to look again, not to reopen a process, but to ensure that no eligible citizen loses her vote because of institutional failure.

## KEY HIGHLIGHTS

### Context of the News

- The Election Commission of India conducted a Special Intensive Revision (SIR) of electoral rolls in West Bengal starting December.
- Total registered voters declined from 7.66 crore to 6.77 crore (~11.62% reduction).
- Around 60 lakh voters were under scrutiny; 27.16 lakh (≈45%) excluded from final rolls.
- Grounds cited: death, migration, duplication.
- Concerns raised about:
  - Procedural opacity
  - Burden of proof shifted to citizens
- The Supreme Court of India allowed appeals but refused immediate intervention before elections.

### Key Points

- Electoral Roll Revision:
  - Mandated under Representation of the People Act, 1950.
  - Conducted periodically to ensure electoral integrity.
- Major Issues Identified:
  - High rate of deletions despite document submission.
  - Short appeal window before elections.
  - Administrative overload in appellate mechanisms.
- Judicial Response:
  - SC permitted tribunals to accept fresh documents.
  - However, declined to halt or revise final electoral roll.
- Concerns:
  - Risk of mass disenfranchisement.
  - Undermines universal adult suffrage.

### Static Linkages

- Article 326: Elections based on universal adult suffrage.
- Article 324: Powers of ECI for superintendence, direction, and control of elections.
- Representation of the People Act, 1950:
  - Preparation and revision of electoral rolls.
- Due Process & Natural Justice:
  - Audi alteram partem (right to be heard).
- Free and Fair Elections:
  - Basic feature of the Constitution (as per SC judgments).
- Judicial Review:
  - Courts can intervene in electoral processes in limited circumstances.

### Critical Analysis

Issues

- Risk of mass disenfranchisement.
- Violation of natural justice (burden shifted to citizens).
- Lack of transparency and accountability.
- Weak grievance redressal mechanism.
- Judicial restraint may undermine protection of voting rights.

Justifications

- Ensures electoral integrity.
- Removes duplicate/fake entries.
- Maintains clean electoral rolls.

### Way Forward

- Ensure pre-deletion notice and fair hearing.
- Strengthen appeal mechanisms with adequate time.
- Increase transparency in revision process.
- Use technology with safeguards (data integration).
- Periodic independent audits of electoral rolls.
- Clear judicial guidelines for voter inclusion standards.

# Kalpakkam: 'Critical' step in 3-stage nuclear programme

The Kalpakkam fast breeder reactor has attained criticality, a big part of the second stage of the programme. The next step is thorium reactors

ANIL SASI

A file photo of the Kalpakkam Nuclear Complex. IAEA/WIKIMEDIA COMMONS

INDIA IS among the few countries with considerable experience in developing nuclear technologies. This includes mastery over pressurised heavy water reactor (PHWR) technology — reactors that use natural uranium as fuel and heavy water (deuterium oxide) as a coolant and moderator.

These reactors now comprise the bulk of India's installed nuclear power capacity of 8,180 megawatt electric (MWe), alongside some imported light water reactor units.

Two other technologies are a work-in-progress: fast breeder reactors (FBRs) and a longstanding project aiming to fabricate thorium-based nuclear reactors.

These three technologies — PHWRs, FBRs and thorium reactors — progressing in a series, make up India's ambitious three-stage nuclear power programme.

This programme envisages a pathway to utilising India's abundant thorium reserves to generate electricity.

On Monday, India took a major step towards completing the vital second stage — its first indigenous FBR, at Kalpakkam in Tamil Nadu, attained criticality.

Going critical means the initiation of a self-sustaining nuclear fission reaction that will eventually lead to full power generation. It is a key milestone indicating that the reactor core is functioning as designed and that each fission event in the core now releases a sufficient number of neutrons to sustain an ongoing series of reactions.

This major step came after the 500-MWe FBR's "core loading" — or the process of placing nuclear fuel assemblies inside the core — was completed in March 2024.

The Kalpakkam reactor will initially use uranium-plutonium mixed oxide (MOX) fuel, with a "blanket" of a uranium isotope (U-238) around the fuel core that will undergo nuclear transmutation to produce more fuel — hence the name "breeder".

Nuclear transmutation involves the conversion of a chemical element or isotope into another chemical element, with the numbers of protons or neutrons in the nucleus of the atom undergoing a change.

### *The three stages*

The first stage in India's nuclear programme entails the setting up of PHWRs and associated fuel cycle facilities, which is currently in progress. The India-US civil nuclear deal opened the doors for India to buy uranium for its domestic reactors, increasing the pace of its PHWR programme.

The second stage involves deploying FBRs at scale. FBRs are designed to produce more fuel than they consume. The "higher breeding" is desired so that the rate at which power capacity can grow would be higher.

FBRs enable the potential to harness the energy of natural uranium by over 60 times through multiple recycles. These breeder reactors are also crucial for enlarging the inventory of plutonium — produced after the first stage PHWRs — so that a much larger irradiation capacity to produce an isotope of uranium (U-233) at scale for use in the three-stage programme can be built up.

For this, at an appropriate stage, the FBRs would need to be loaded with thorium (Th-232) as the blanket material that would be converted to U-233. With sufficient inventory and production capacity for U-233 having built up, the move onto the third stage can then happen.

Thus, FBRs are a key link between the first and third stages of the programme.

### *Second-stage plans*

India's FBR programme began in 1985 with the operationalisation of a 13.5MWe Fast Breeder Test Reactor.

The 500-MWe prototype Kalpakkam FBR, indigenously designed and built, is now in an advanced stage of commissioning. Besides the Kalpakkam FBR, India plans to construct six more FBRs with a capacity of 600MWe each. Two of these six reactors are planned to be constructed at the site adjacent to the prototype FBR, and another site will be identified to build four more reactors, according to an expert committee report of the Vivekananda International Foundation.

Successive governments have nurtured the FBR project as a step towards India developing comprehensive capabilities that span the entire nuclear fuel cycle, by which electricity is produced from uranium in nuclear power reactors. In 2003, when Atal Bihari Vajpayee was prime minister, the Bharatiya Nabhikiya Vidyut Nigam Ltd or BHAVINI was incorporated to build and operate what was then India's most advanced nuclear reactor, the prototype FBR. The project was expected to be completed by September 2010, but was delayed due to technological challenges. The last set of approvals had revised the completion target to October 2022.

Once commissioned, India will be the second country after Russia to have a commercial operating FBR. China has a small FBR programme. Programmes in countries such as Japan, France, and the US were shut down amid safety concerns.

The Department of Atomic Energy aims to increase nuclear power capacity to 22,400 MWe by 2032. It has approved the construction of 10 new PHWRs in "fleet mode", in which a plant is expected to be built in five years from the first pouring of concrete.

### *Key for third stage*

The second stage leads to the third phase where thorium can be used as the main fuel. The three stages, in this process, involve the conversion of "fertile material" (which is not fissionable by thermal neutrons) into fissile material.

For example, U-238, the dominant isotope of uranium, is a fertile material that cannot by itself make the reactor achieve criticality, and has to be converted to fissile plutonium (Pu-239) in a reactor.

The spent fuel from thermal reactors contains Pu-239, which is most efficiently burnt in a fast reactor or FBR.

Thorium-bearing monazite too, is a fertile material that has to be converted to the fissile U-233. India has adopted a "closed fuel cycle" approach, which involves the reprocessing of spent fuel to separate the useful Pu-239 and U-233 isotopes from U-238 and Th-232. To multiply the fissile inventory and to gradually work towards establishing a higher power base, it is key to ultimately use thorium in the third stage of the programme.

The FBR is clearly being seen as an important milestone for getting to the third stage, clearing the way for the full utilisation of the country's thorium. Transitioning to thorium-based nuclear power generation in India is vital for securing energy independence, which requires building sufficient inventory of fissile U-233 through irradiation of thorium in thermal or fast nuclear reactors of relevant capacity, according to nuclear scientist Anil Kakodkar.

Now that India is able to build a large PHWR capacity with imported uranium (as fuel), the country has the possibility of using this reactor capacity for conversion of thorium to fissile uranium through irradiation of thorium along with HALEU (a fuel variant called high assay, low enriched uranium) in the country's indigenous PHWRs at scale, he told *The Indian Express*.

This enables the launch of the thorium phase (the third phase of India's three-stage nuclear programme) earlier than envisaged, without having to wait for build up of required FBR capacity that comprises the second stage.

**Setting the stage**

Once the Kalpakkam project is commissioned, India will be the second country after Russia to have a commercial operating FBR

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China has a small FBR programme. Programmes in countries such as Japan, France, and US were shut down amid safety concerns

# KEY HIGHLIGHTS

## Context of the News

- India's 500 MWe Prototype Fast Breeder Reactor (PFBR) at Kalpakkam Nuclear Complex achieved criticality (self-sustaining nuclear chain reaction).
- Major milestone in Stage-II of India's Three-Stage Nuclear Power Programme.
- Developed indigenously by BHAVINI under the Department of Atomic Energy.

## Key Points

- Criticality: Reactor achieves stable neutron chain reaction → precursor to power generation.
- Fuel Type: Mixed Oxide (MOX) fuel (Uranium + Plutonium).
  - Breeding Mechanism:U-238 (fertile) → Pu-239 (fissile) via neutron capture.
  - Importance of FBR:Produces more fuel than consumed.
  - Enhances uranium utilisation (~60 times).
  - Programme Stages:Stage-I: PHWRs → Natural uranium → Pu-239 generation
  - Stage-II: FBRs → Pu-239 utilisation + more fuel generation
  - Stage-III: Thorium reactors → U-233 fuel cycle
  - Thorium Advantage:India has large reserves (monazite sands).
  - Ensures long-term energy security.
  - Future Plans:6 additional FBRs planned.
  - Nuclear capacity target: 22,400 MWe by 2032.

## Static Linkages

- Fissile vs Fertile:
  - Fissile: U-235, Pu-239, U-233
  - Fertile: U-238, Th-232
- Moderator: Slows neutrons (heavy water in PHWR)
- Coolant: Transfers heat (liquid sodium in FBRs)
- Closed Fuel Cycle: Reprocessing of spent fuel
- Nuclear Transmutation: Conversion of one element/isotope into another

## Critical Analysis

Pros:

- Strategic autonomy in nuclear energy
- Reduced import dependence
- Supports low-carbon energy goals
- Efficient resource utilisation

Cons:

- Safety risks (sodium coolant hazards)
- High cost and delays
- Nuclear waste disposal issues
- Limited global acceptance of FBR tech

## Way Forward

- Accelerate FBR deployment in fleet mode
- Strengthen nuclear safety regulations (AERB reforms)
- Invest in thorium reactor commercialization
- Promote public acceptance via transparency
- Integrate nuclear with renewable energy strategy