

# DAILY NEWSP APER ANALYSIS

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**CHANAKYA IAS ACADEMY  
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# ISRO launches advanced GSAT-7R, India's heaviest communication satellite

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The Indian Space Research Organisation on Sunday successfully launched the Indian Navy's advanced communication satellite GSAT-7R (CMS-03) from the Satish Dhawan Space Centre in Sriharikota.

The indigenously designed and developed satellite, weighing approximately 4,400 kg, is India's heaviest communication satellite to date and marks a major milestone in strengthening the Navy's space-based communications and maritime domain awareness.

The ISRO launched the rocket aboard its most powerful launch vehicle, the LVM3, on its M5 mission. The lift-off took place at about 5.26 p.m. from the second launch pad, and mission control soon confirmed that the satellite had been successfully inserted into a geosynchronous transfer orbit (GTO).

This is the heaviest Indian-built communications satellite launched from Indian soil so far. Because of the high mass of the GSAT-7R, the launch vehicle targeted a standard GTO; once there, the satellite will raise and circularise its orbit using its onboard propulsion systems.

## Boost to self-reliance

The Navy said that equipped with state-of-the-art indigenous components, the GSAT-7R would provide robust and secure telecommunication coverage across the Indian Ocean Region. Its advanced payload features transponders supporting



LVM3-M5 lifts off carrying the GSAT-7R communication satellite from Satish Dhawan Space Centre in Sriharikota on Sunday. x/isro

voice, data, and video links over multiple communication bands, ensuring seamless connectivity between the Navy's ships, submarines, aircraft, and Maritime Operations Centres.

The launch highlights India's growing self-reliance in space technology and the Navy's commitment to safeguarding national maritime interests, it said.

It stands as a testament to Aatmanirbhar Bharat, enabling the armed forces to operate with enhanced situational awareness and secure, high-capacity communication links in complex maritime environments, it added.

The launch also demonstrated the capacity of the

LVM3 rocket to routinely handle four-tonne-plus satellites to GTO from India, reducing dependence on foreign launchers for heavy communications satellites as well as feeding directly into ISRO's preparations for Gaganyaan, its maiden human spaceflight programme, which plans to use an evolved LVM3 variant.

"ISRO has successfully launched the heaviest GEO communication satellite from Indian soil," ISRO Chairman V. Narayanan posted on X following the successful launch. "The Indian space sector is soaring high to provide valuable services to the user community in and around the Indian region," he added.

## KEY HIGHLIGHTS

### Context of the News

- ISRO successfully launched the Indian Navy's communication satellite GSAT-7R (CMS-03) using the LVM3-M5 rocket from Sriharikota.
- Weighing ~4,400 kg, it is India's heaviest indigenous communication satellite, placed into a Geosynchronous Transfer Orbit (GTO).
- Aimed at enhancing secure maritime communication, the launch marks a key step in Aatmanirbhar Bharat and space defence indigenisation.

### Key Points

- Launch Vehicle: LVM3-M5 (India's most powerful rocket).
- Orbit: GTO, to be circularised by onboard propulsion.
- Coverage: Indian Ocean Region – secure voice, data, and video links.
- Payload: Multi-band transponders enabling seamless communication between ships, aircraft, submarines, and command centres.
- Strategic Role: Enhances maritime domain awareness and operational coordination.

- Self-Reliance: Reduces dependence on foreign launchers and supports Gaganyaan preparations.

### Static Linkages

- Geostationary Orbit: 35,786 km altitude; remains fixed relative to Earth – ideal for communication satellites.
- GSAT Series: Part of India's INSAT-GSAT network for civil and defence communications.
- LVM3: Formerly GSLV Mk-III; used for Chandrayaan-2 and future Gaganyaan missions.
- Aatmanirbhar Bharat: Promotes self-reliance in critical technologies including space and defence.
- Maritime Domain Awareness (MDA): Central to India's SAGAR (Security and Growth for All in the Region) vision.

### Critical Analysis

#### Strengths:

- Strengthens strategic communication and surveillance in IOR.
- Promotes technological autonomy and defence synergy.
- Enhances LVM3's heavy-lift reliability and global competitiveness.

#### Challenges:

- High cost of heavy satellites.
- Space debris and cyber vulnerabilities.
- Need for rapid R&D upgrades to match global tech pace.

### Way Forward

- Operationalise Defence Space Agency (DSA) for unified control.
- Promote private sector via IN-SPACE and NSIL.
- Adopt quantum encryption for secure defence networks.
- Enhance space sustainability through debris management norms.

# Engage the Taliban, don't recognise them



Stanley Johnny

indeed, a case for recognition. The Taliban appear more consolidated than they were in the 1990s, and unlike in the past, no regional power seems interested in backing anti-Taliban forces – at least for now. The National Resistance Front, the primary anti-Taliban group, remains weak, with its leadership in exile in Tajikistan. The Taliban's most serious military challenge comes from the Islamic State-Khorasan, a transnational terrorist outfit that threatens regional security. Russia has formally recognised the Taliban, and China has exchanged ambassadors with Kabul.

## Long-term risks

While recognition of the Taliban could allow India to fast-track cooperation with the regime, further deepening Pakistan's anxieties, it would also carry significant long-term risks. The Taliban, who emerged from the anarchy of the Afghan civil war in the early 1990s, have not fundamentally changed. Nor have they ever claimed to have changed – either ideologically or programmatically.

To be sure, the Taliban are not the only totalitarian regime in the world, and states, even democracies, should do diplomacy with different political systems. But the Taliban's totalitarianism is distinct. It is perhaps the only regime that bars girls from attending school beyond the primary level. It has enforced strict segregation between men and women in public spaces, and largely banned women from workplaces. The regime, headed by its reclusive Kandahar-based supreme leader Hibaitullah Akhundzada, and run by the Kabul Taliban, has maintained high levels of repression at a time when the economy is in serious trouble. Afghanistan's economy has contracted by around one-third since the Taliban seized power. Nearly 22.9 million Afghans – almost half the population – require humanitarian assistance this year. The exclusion of women from the workforce and education will have economic and social consequences. While the Taliban claim to have improved security over the past four years, they have also overseen a near-collapse of the economy.

Amid high-decibel repression and mounting economic distress, it is far from certain that the Pashtun, men-only regime of the Taliban has truly consolidated power in Afghanistan, a country of deep ethnic diversity that has seen almost continuous conflict since the mid-1970s. In the early 2000s, after the Taliban were toppled and the Islamic Republic was taking shape, Afghanistan enjoyed a period of relative calm and stability. Many believed that the country had embarked on a path towards democratisation and socio-economic modernisation. But it was only a matter of time before the Taliban re-emerged from the mountains of Pakistan's tribal belt to challenge the republic. So today's relative calm should not mislead anyone that the Taliban had won absolute lasting control over Afghanistan. It

makes sense for India to adopt a wait-and-watch approach.

## Deep networks

In their second stint, the Taliban have sought to project an image of having severed ties with transnational jihadist organisations. The Taliban learned a key lesson from 2001: it was not their repressive policies at home that led to their downfall but their open alliance with al-Qaeda. This time, they have adopted a more pragmatic posture. In public, their leaders insist that they will not allow transnational groups to use Afghan territory. Yet, this does not mean that the Taliban have genuinely severed ties with such groups. The Haqqani network, which has long maintained close ties with al-Qaeda, is now deeply integrated into the Taliban establishment.

According to a recent report by a United Nations Security Council monitoring group, the Taliban have allowed al-Qaeda to consolidate "through safe houses and training camps scattered across Afghanistan". It notes that the Taliban remain "the primary partner of all foreign terrorist groups operating in Afghanistan", including al-Qaeda, Pakistani Taliban, Jaish-e-Mohammad, Lashkar-e-Taiba and the Islamic Movement of Uzbekistan. The only exception is the Islamic State-Khorasan, which opposes Taliban rule. For now, these groups have been allowed to operate quietly without posing an immediate security threat to Afghanistan's neighbouring countries or the wider region. But if domestic pressures mount, and the Taliban's grip on power weakens, these networks could easily resurface, because they haven't given up their commitment to global jihadism. In that case, the enemy's enemy may well turn out to be India's enemy too.

If India recognises the Taliban regime and allows the so-called Islamic Emirate to take over its embassy in New Delhi, that would grant the Taliban legitimacy they have long sought. It would also strengthen the Taliban's regional standing and prompt more countries to do the same. But such a move would also shut one of the few remaining windows New Delhi can press the Taliban to reform. Rather than pursuing short-term realpolitik, India should adopt a long-term strategic approach. Faced with a hostile Pakistan across the border and a collapsing economy at home, the Taliban need India's assistance far more than India needs the Taliban. While engaging the regime, both bilaterally and through regional and international mechanisms, New Delhi must urge the group to respect at least the fundamental freedoms of the Afghan people. If India's interests lie in stability in Afghanistan, Afghanistan's stability will ultimately depend on economic recovery, political inclusion and regional integration – not on the Taliban's gains.

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## Static Linkages

- Neighbourhood First Policy – promotes regional stability and outreach.
- Gujral Doctrine – goodwill-based diplomacy with neighbours.
- Recognition Policy – India recognises states, not regimes.
- Strategic Autonomy – independent, interest-based diplomacy.

## Critical Analysis

### Pros:

- Protects India's long-term stakes and influence.
- Counters Pakistan's regional leverage.
- Enables humanitarian and developmental outreach.
- Positions India in evolving regional connectivity (e.g., Chabahar).

### Cons:

- Taliban's ideology conflicts with India's democratic values.
- Risk of re-emerging terror networks.
- Recognition may legitimise extremism.
- Fragile Afghan economy heightens instability.

### Stakeholders:

- India: Conditional engagement, no formal recognition.
- Taliban: Seeking legitimacy and aid.
- Pakistan: Concerned over India-Taliban proximity.
- Regional powers: Pragmatic ties for security and trade.

## Way Forward

- Maintain conditional, non-recognition engagement.
- Use multilateral forums (SCO, UN) for coordinated counterterrorism and aid.
- Tie cooperation to Taliban's human rights commitments.
- Expand humanitarian, education, and health assistance.
- Strengthen intelligence coordination on regional terror activity.

As the saying goes, the enemy's enemy is a friend. When the Afghan Taliban were an insurgency, they were clients of the Pakistani military establishment. Now, they are the state in Afghanistan. Their return to power in Kabul also brought back old fissures between Pakistan and Afghanistan, two neighbours divided by a disputed 2,640-kilometre border, to the centre of inter-state relations. As tensions between the two rise, often spilling into cross-border clashes, India may be tempted to see the Taliban, its enemy's enemy, as a friend.

It may not be a coincidence that Pakistan bombed Kabul earlier in October, just as Taliban Foreign Minister Amir Khan Muttaqi was visiting India. Mr. Muttaqi's visit, the highest-level contact between the Sunni extremist Taliban and India, was the clearest indication yet that both sides are keen to improve ties. India has since decided to upgrade its technical mission in Kabul to a full embassy and resume stalled infrastructure and welfare projects with Mr. Muttaqi giving his assurance that the Taliban regime "will not allow any group to use our territory against others".

The case for engagement is well known. When the Taliban, then backed by Pakistan, returned to Kabul in August 2021, India, which had backed anti-Taliban forces in the 1990s, faced the prospect of losing the influence it had built in Afghanistan over the previous two decades. The question before New Delhi was whether to remain engaged with the new rulers or distance itself from them.

## India's objectives

Broadly speaking, India has three objectives when it comes to dealing with Afghanistan. First, it had invested some \$3 billion in Afghanistan between 2001 and 2021 – after the collapse of the first Taliban regime. It seeks to protect those investments, and build on the goodwill it earned during the period. Second, unlike in the 1990s, New Delhi does not want Afghan soil to be used by anti-India militants. Third, it does not want the Taliban to become an external arm of Pakistan's establishment, which would give Islamabad-Rawalpindi strategic depth in the region. As an Indian diplomat told this writer in 2021, soon after the Taliban's conquest, "India would like to explore the autonomy of the Taliban from their masters". To meet these goals, India has opted for a policy of conditional and gradual engagement with Taliban 2.0.

Mr. Muttaqi's visit to New Delhi and the decision to upgrade the Indian mission in Kabul to an embassy suggest that India is expanding the scope of this conditional engagement. The dramatic deterioration in Pakistan-Taliban relations adds a new geopolitical dimension to India's approach. These developments have prompted calls for India to move faster in formally recognising the Taliban regime. There is,

While engaging the regime, both bilaterally and through regional and international mechanisms, New Delhi must urge the group to respect at least the fundamental freedoms of the Afghan people

## KEY HIGHLIGHTS

### Context of the News

- Taliban Foreign Minister Amir Khan Muttaqi's visit to India marks the highest-level contact since 2021.
- Pakistan's airstrikes on Kabul amid the visit reveal deep rifts between Islamabad and the Taliban.
- India plans to upgrade its Kabul mission to a full embassy, signalling a cautious expansion of ties.
- The move renews debate on whether India should recognise the Taliban regime or sustain conditional engagement.

### Key Points

- India invested \$3 billion (2001–2021) in Afghan reconstruction and goodwill projects.
- Core objectives:
  - a. Safeguard investments and goodwill.
  - b. Prevent use of Afghan soil by anti-India groups.
  - c. Limit Pakistan's strategic depth in Afghanistan.
- Taliban rule remains highly repressive, barring women's education and employment.
- UN reports indicate enduring Taliban-al-Qaeda links despite public denials.
- Russia and China have upgraded ties; India maintains pragmatic engagement.

# The vision of Model Youth Gram Sabhas

In India's democratic architecture, the Gram Sabha holds a significance that is as fundamental as that of the Lok Sabha or Vidhan Sabha. Yet, the Gram Sabha, the constitutional cornerstone of grassroots democracy, remains an unsung hero in popular conversations and civic awareness. Unlike the Bal Sansad (Children's Parliament), Youth Parliament, and the Model United Nations, the Model Youth Gram Sabha is an unfamiliar concept for most. Yet, it is in these village assemblies, not the grand chambers of Parliament, that democracy finds its purest expression – direct, participatory, and accountable.

Article 243A of the Constitution, introduced by the 73rd Amendment Act of 1992, defines the Gram Sabha as the foundation of the Panchayati Raj system. It represents every registered voter in a village and empowers them to deliberate on budgets, development plans, and governance priorities. This institution embodies participatory democracy, empowering rural citizens to shape decisions affecting their community, fostering transparency, accountability, and inclusive development. But despite its revolutionary potential, participation remains minimal.

## Why aren't Gram Sabhas aspirational?

Ask any young person if they dream of leading a village or becoming a Sarpanch, and you will likely be met with a puzzled silence. The educational curriculum largely focuses on Lok Sabha and Vidhan Sabha elections, parliamentary governance, or global models such as the United Nations. It remains silent on the Panchayati Raj institutions that form the bedrock of Indian democracy. This absence from classrooms has turned the Gram Sabha into a distant administrative concept rather than a living



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If the Model United Nations cultivates global citizenship, the Model Youth Gram Sabha can nurture civic pride and local leadership

democratic experience. To build a 'Viksit Bharat', the Gram Sabha must be positioned as aspirational, empowering rural youth, women, farmers to lead at the grassroots, shaping development and democracy. This requires embedding Gram Sabha simulations into school and college curriculum.

It was to bridge this gap that the Ministry of Panchayati Raj, in collaboration with the Ministry of Education, Ministry of Tribal Welfare and the Aspirational Bharat Collaborative, launched the Model Youth Gram Sabha in 2025. Simulating real Gram Sabha processes, students play the roles of Sarpanch, ward members, health workers, and engineers discussing village budgets and development plans. The programme is supported by teacher training and offers incentives such as prizes and certificates to encourage enthusiastic participation. The exercise transforms abstract civics into lived experience, cultivating local governance knowledge, and making democratic participation concrete and engaging for the future generation.

In Phase 1, the Model Youth Gram Sabha is being launched in over 1,000 schools across 28 States and eight Union Territories (UTs). These include more than 600 Jawahar Navodaya Vidyalayas, 200 Eklavya Model Residential Schools, and select Zilla Parishad schools in Maharashtra. A team of 126 master trainers is leading nationwide teacher training. So far, 1,238 teachers from 24 States and UTs have been trained. More sessions are in progress.

Prior to the national rollout, successful pilots were held at Jawahar Navodaya Vidyalaya Baghat in Uttar Pradesh and Eklavya Model Residential School Alwar in Rajasthan. The Jawahar Navodaya Vidyalaya, Sitapur, in Bundi district, Rajasthan, became a living classroom of democracy as more than 300 students

participated in a Model Youth Gram Sabha. In Phase 2, the initiative intends to expand beyond central institutions and Zilla Parishad schools to include all State-run schools across India.

## From simulation to transformation

In a democracy such as India, active citizen participation is not just a right but a responsibility. If the Model United Nations cultivates global citizenship, the Model Youth Gram Sabha can nurture civic pride and local leadership. By being introduced to the Panchayati Raj systems, students are better able to understand the rights and responsibilities of citizens in a democratic setup. The experience of conducting debates, passing resolutions, and negotiating consensus instils critical life skills.

This model has the potential to redefine civic education. By expanding it to all schools and colleges, India can make participation aspirational again. A future IAS officer or parliamentarian who once "chaired" a Youth Gram Sabha in school is more likely to value the power of local governance in real life.

The vision of Viksit Bharat cannot rest on policy alone. It depends on citizens who see governance not only as the government's responsibility but as a shared civic duty. The Model Youth Gram Sabha is more than a classroom exercise; it is a seedbed for democratic renewal.

When young people learn that their village meeting is as vital as Parliament, democracy ceases to be an abstract system – it becomes a lived culture. And when every child in India grows up believing their voice matters at the Gram Sabha, the dream of a truly participatory, self-reliant, and compassionate nation will no longer be a distant aspiration. It will be the everyday rhythm of Indian democracy.

## KEY HIGHLIGHTS

### Context of the News

- In 2025, the Ministry of Panchayati Raj, with the Ministry of Education, Ministry of Tribal Affairs, and the Aspirational Bharat Collaborative, launched the Model Youth Gram Sabha to promote participatory democracy at the grassroots.
- It introduces school students to Gram Sabha functioning – the foundation of Panchayati Raj Institutions (PRIs) under Article 243A.
- Phase 1 covers 1,000+ schools across 28 States and 8 UTs, including Jawahar Navodaya Vidyalayas (JNVs), Eklavya Model Residential Schools (EMRSs), and Zilla Parishad schools, following successful pilots in U.P. and Rajasthan.

### Key Points

- Objective: Simulate Gram Sabha meetings where students act as Sarpanch, ward members, and officials discussing budgets and plans.
- Teacher Training: 126 master trainers, 1,238 teachers trained in 24 States/UTs.
- Goal: Convert civics theory into experiential learning and promote youth leadership.
- Incentives: Certificates and prizes for participants.
- Phase 2: Expansion to all State-run schools and colleges.

### Static Linkages

- 73rd Amendment (1992): Gave constitutional status to PRIs and introduced the 11th Schedule.
- Article 40 (DPSP): Directs the State to organize village panchayats.

- Balwantrai Mehta Committee (1957): Recommended Gram Sabha as the base of local democracy.
- Second ARC (2007): Stressed civic engagement and participatory governance.
- NEP 2020: Advocates experiential learning and constitutional values in education.

### Critical Analysis

#### Strengths

- Promotes democratic literacy and civic pride.
- Builds leadership, accountability, and communication skills.
- Encourages local participation among youth and women.
- Reflects strong inter-ministerial coordination.

#### Challenges

- Uneven teacher training and curriculum integration.
- Monitoring gaps in impact assessment.
- Social barriers may restrict inclusivity.

### Way Forward

- Integrate in NCERT/State curricula.
- Develop digital Gram Sabha simulators on DIKSHA.
- Expand teacher training via NIRDPR/IGNOU.
- Ensure inclusive participation of girls and marginalized youth.
- Create measurable outcome indicators under NITI Aayog's framework.

# Depressing pattern

Any gap between guidance and practice can cause a crowd crush

**S**adly, the Srikakulam crowd collapse that occurred in a private and unregistered temple, on a day when high footfall was expected, is hardly surprising. Reports indicate that there was one combined entry and exit, public use of an under-construction area, inadequate stewarding, severe capacity overshoot, and weak infrastructure. The Hathras crowd crush in 2024 followed an event where permission was reportedly given for only a third of the crowd that attended, and investigations cited inadequate exits and gaps in planning and supervision. The 2011 Sabarimala crush also revealed systemic weaknesses in circulation control on a day with predictable surges and a trigger that became lethal due to constrained pathways. These incidents had different proximate triggers but the same causes of failure: reciprocal pedestrian flows and shared gates, weak physical public infrastructure, and a lack of real-time density monitoring. India already has guidance to anticipate these failures, including the 2014 National Disaster Management Authority (NDMA) guidelines and the National Building Code (NBC). Indian authorities have already demonstrated a feasible path from guidance to operations, including in recent Sabarimala seasons and with the Integrated Command and Control Centre operating at Tirumala. This includes licensed plans compliant with NDMA or NBC prescriptions; calculated occupancy; certified structures that prevent bidirectional flows; real-time density control by trained stewards; and real-time communications and crowd analytics. The persistence of stampedes is due to the gap between guidance and enforced practice.

That almost 80% of stampedes in India occur at religious gatherings or pilgrimages is not coincidental. Pilgrim and congregational events often proceed without any licence that ties permission to a crowd safety plan that can be tested for compliance. Authorities often infer the capacity from the space available, rather than what can be estimated from egress options and evacuation times, tolerate bad or no gating plans, accept temporary barricades without certified load ratings, and do not cordon off areas with construction materials. Public safety is a process and its absence, including during crowding disasters, is rarely due to single-point failures. The Srikakulam incident aligns with a known risk pattern and only disciplined adoption of the country's own codes, enforced by licensing, will reverse it. India also needs a policy culture that treats religious events as engineered systems requiring licensing and auditing.

## KEY HIGHLIGHTS

### Context of the News

- A crowd collapse in Srikakulam, Andhra Pradesh, at an unregistered private temple, exposed serious safety lapses — no separate entry/exit, overcrowding, and weak supervision.
- Similar to Hathras (2024) and Sabarimala (2011) incidents, the tragedy reflects systemic crowd management failures.
- Despite existing frameworks — NDMA Guidelines (2014) and National Building Code (NBC) — implementation remains poor.

### Key Points

- Nearly 80% of Indian stampedes occur at religious gatherings (NDMA).
- Recurring causes: shared gates, overcrowding, untested structures, and lack of real-time monitoring.

- Existing provisions:
  - NDMA's Managing Crowd at Events and Venues of Mass Gathering (2014).
  - NBC standards for occupancy and evacuation routes.
- Best practices:
  - Tirumala Command Centre uses AI-based crowd control.
  - Licensed, coded crowd plans at Sabarimala.
- Core issue: No mandatory licensing or compliance audits for most religious or private events.

### Static Linkages

- Disaster Management Act, 2005 – NDMA's legal mandate.
- 11th Schedule – Panchayat functions like public health, local safety.
- NBC – BIS standards for crowd capacity and egress.
- Article 21 – Right to life implies public safety.
- Ethical dimension: Accountability and preventive governance.

### Critical Analysis

Positives:

- India has detailed NDMA/NBC guidance.
- Pilgrimage zones like Tirupati use tech-enabled crowd management.

Gaps:

- Weak enforcement; no unified licensing law.
- Low local capacity for risk audits.
- Public acceptance of unsafe practices.
- Minimal accountability after tragedies.

Moral/Constitutional Angle:

- Right to safe public spaces (Art. 21) and Duty to act responsibly (Art. 51A).

### Way Forward

- Mandatory crowd-safety licensing for all large gatherings.
- Trained safety officers and certified infrastructure audits.
- Integration of AI/IoT for real-time monitoring.
- District-level enforcement via DDMA's.
- Accountability and periodic drills at major venues.
- Public awareness on safe crowd behaviour.

# Cruising ahead

India's shipping sector needs help from the government to thrive

The India Maritime Week event, headlined by Prime Minister Narendra Modi, signalled government recognition that shipping is not just a business but a business with a strong strategic component. The Indian shipping sector had declined considerably over nearly two decades under the ideological framework of liberalisation, privatisation and globalisation, which weakened government support and diluted strategic intent for shipping. Barring port infrastructure, the Indian government seemed keen largely only on training and educating sea-farers so that they could continue to serve on foreign ships and bring in foreign exchange. The state-owned Shipping Corporation of India (SCI), once a global leader in ship ownership, was allowed to decline. Favourable government policies, such as giving the company first rights to transport India's oil, were withdrawn in the name of a level playing field and SCI barely escaped privatisation. But COVID-19 was a rude awakening. With India depending heavily on foreign-owned ships, it had little leverage to intervene in its own trade. Private Indian shipping was too small to step up fully. Post-pandemic, the government has realised that shipping, though a business, has much strategic importance, especially during times of disruption, war, and where protectionism and resurgent national interests of western countries rule trade. Recent government initiatives have sought to beef up the SCI's fleet strength.

A major part of the lakhs of crores of rupees in investments announced at the maritime week was port-related. The government has been running its ports under a landlord model, sharing revenue with private and foreign companies for terminal operations, which are now a target of investors. This has given the ports financial heft to embark on new projects – the Chennai and Kolkata ports, for instance, have taken up the transshipment hub project in the Andamans. Investments are also seen in port connectivity, Sagarmala projects, and Indian seafarer training. Another major push has been to have foreign shipping companies register their ships in India through their local subsidiaries, which would give the Indian government leverage over them for serving Indian needs as well as support allied businesses such as insurance. But movement is still barely visible in Indian merchant shipbuilding, where greater progress would have signalled industrial, technical, and project management expertise in heavy industry. The day that Indian shipyards quickly roll out state-of-the-art LNG ships or futuristic green fuel burning vessels, Indian shipping will be truly cruising full ahead.

## KEY HIGHLIGHTS

### Context of the News

- India Maritime Week 2025, inaugurated by PM Narendra Modi, marked a strategic shift in viewing shipping as a national asset, not just commerce.
- Investments worth lakhs of crores announced, largely in ports, connectivity, and seafarer training.
- The COVID-19 crisis exposed India's dependence on foreign-owned ships, limiting trade control.
- The government now seeks self-reliance in shipping, revival of the Shipping Corporation of India (SCI), and incentives for foreign firms to register ships in India.

### Key Points

- Strategic Focus: Shipping recognised as vital for trade security and national resilience.

- SCI Revival: Expansion of fleet and renewed priority in transporting Indian cargo.
- Port Modernisation: Investments under Sagarmala and Maritime India Vision 2047, including Andaman transshipment hub.
- Landlord Model: Ports retain ownership; private operators run terminals on revenue share.
- Seafarer Training: Renewed focus on skill-building and maritime education.
- Shipbuilding Gap: India lags in LNG and green-fuel vessel production, limiting industrial depth.

### Static Linkages

- Blue Economy and sustainable maritime growth.
- Strategic Autonomy in critical infrastructure.
- Major Port Authorities Act, 2021 enabling port autonomy.
- Make in India and Atmanirbhar Bharat for shipbuilding revival.
- 95% of India's trade by volume moves through sea routes.

### Critical Analysis

Pros:

- Boosts strategic control and economic resilience.
- Strengthens port efficiency and private investment.
- Builds domestic maritime skills and allied industries.

Challenges:

- Weak shipbuilding ecosystem.
- Policy inconsistency and limited R&D.
- Global competition and regulatory hurdles.

### Way Forward

- Launch a National Shipping Policy 2047.
- Incentivise Indian-flag registration and coastal shipping.
- Develop maritime clusters and green fleet initiatives.
- Deepen PPP models in ports and shipbuilding.

# Looming scarcity of urea

Consumption of the highly subsidised price-controlled fertiliser is growing much faster than domestic production, calling for deft demand-supply management, including MRP rationalisation and rationing



HARISH DAMODARAN

INDIA'S UREA consumption is set to touch 40 million tonnes (mt) in the current fiscal, due to surplus monsoon-induced demand and also the maximum retail price (MRP) of the nitrogenous fertiliser remaining unchanged for over a decade.

Sales of the country's most used fertiliser hit an all-time-high of 38.8 mt in 2024-25 (April-March). The first six months of this fiscal have registered a 2.1% year-on-year increase, which is likely to go up with farmers planting more area under wheat, mustard, potato and other rabi (winter-spring) crops. That could take total consumption closer to the 40-mt mark.

## Relentless growth

Table 1 shows urea consumption doubling, from about 14 mt to 28.1 mt, between 1990-91 and 2010-11 and rising to 30.6 mt in 2013-14. It fell to 29.9 mt by 2017-18.

That was partly thanks to the Centre, in May 2015, making it mandatory to coat all indigenously manufactured and imported urea with neem oil. Neem coating was expected to enable a more gradual release of the 46% nitrogen in urea, prolonging its action and translating into better nutrient use efficiency. Besides reducing the number of bags required per acre, it was also intended to curb the illegal diversion of the heavily-subsidised fertiliser for non-agricultural use, from particle board, plywood and cattle feed manufacturing to milk adulteration.

But neither neem coating, nor replacement of 50-kg bags with 45-kg ones (from March 2018) and the launch of liquid ultra-small particle size 'Nano Urea' by the Indian Farmers Fertiliser Cooperative (in June 2021), have lowered consumption after 2017-18. It crossed 35 mt in 2020-21. "At this rate, consumption could top 45 mt by the decade end," said an industry source.

A key reason for its price: The MRP has been fixed at ₹5,360 per tonne since November 2012 and at ₹5,628 with neem oil-coating from January 2015.

Compare this with the per-tonne MRPs now of ₹11,500-12,000 for single super phosphate (SSP), ₹26,000 for triple super

**TABLE 1**  
UREA PRODUCTION, IMPORT AND CONSUMPTION

	PRODUCTION	IMPORT	CONSUMPTION
1990-91	128.36	-	140.77
2000-01	196.24	-	191.86
2010-11	218.73	66.1	281.13
2013-14	227.19	70.88	306
2017-18	240.26	59.75	298.94
2018-19	238.99	74.81	314.18
2019-20	244.55	91.21	336.95
2020-21	246.03	98.26	350.43
2021-22	250.76	91.36	341.8
2022-23	284.95	75.82	357.25
2023-24	314.08	70.42	357.8
2024-25	306.41	56.47	387.74
Apr-Sep 2024	153.05	16.66	189.11
Apr-Sep 2025	144.44	39.79	193.08

Source: The Fertiliser Association of India. All figures in lakh tonnes

IFFCO: Indian Farmers Fertiliser Cooperative; KRIBHCO: Krishak Bharati Cooperative; RCF: Rashtriya Chemicals and Fertilizers; HURL: Hindustan Urvarak & Rasayan Ltd.

Note: Only companies/plants with capacity or production above 10 lakh tonnes are shown. \*2024-25 (April-March). \*\*Includes other companies/plants.

**TABLE 2**  
MAJOR UREA PRODUCERS IN INDIA

COMPANY/PLANT	CAPACITY	PRODUCTION*
IFFCO	36,894	48,165
National Fertilizers Ltd	32,307	37,138
KRIBHCO	25,938	35,689
Chambal Fertilisers	29,997	34,617
RCF	20,369	20,901
Matix Fertilisers	12,705	14,713
Yara Fertilisers	8,646	13,23
Indorama India	8,646	12,184
Ramagundam Fertilizers	12,705	11,954
HURL-Gorakhpur	12,705	12,009
HURL-Barauni	12,705	8,554
HURL-Sindri	12,705	12,471
Nagarjuna Fertilizers	11,946	2,174
TOTAL**	283,774	306.67

IFFCO: Indian Farmers Fertiliser Cooperative; KRIBHCO: Krishak Bharati Cooperative; RCF: Rashtriya Chemicals and Fertilizers; HURL: Hindustan Urvarak & Rasayan Ltd.

Note: Only companies/plants with capacity or production above 10 lakh tonnes are shown. \*2024-25 (April-March). \*\*Includes other companies/plants.

phosphate, ₹27,000 for di-ammonium phosphate, ₹28,000-29,000 for 20:20:13, ₹36,000 for muriate of potash and ₹37,000-38,000 for 10:26:26 and 12:32:16 complex fertilisers.

"Urea is available at the half the price of the next cheapest fertiliser, SSP. And it has 46% nitrogen, as against the 27% nutrient content (16% phosphorous and 11% sulphur) in SSP. Even if the government takes a political decision to double the urea MRP, there will be no significant demand reduction," the source pointed out.

## The spectre of shortages

Not surprisingly, shortages have been developing. The recent kharif crop season witnessed a scramble for urea, with reports from many states of farmers standing in queues for hours to procure the minimum requirement.

The situation doesn't look that good even in the just-begun rabi season, with opening stocks of urea on October 1, at 3.7 mt, below the 6.3 mt for the same date last year.

The consumption rise is, moreover, happening with no commensurate increase in domestic production. The latter, as can be seen from Table 1, peaked at 31.4 mt in 2023-24, before dipping.

In fact, things would have been worse but for six new urea plants, each with 1.3 mt an-

ual production capacity, commissioned between 2019 and 2022.

These units — Gadepan-III (Rajasthan) of Chambal Fertilisers and Chemicals; Ramagundam (Telangana) of Ramagundam Fertilizers and Chemicals; Panagarh (West Bengal) of Matix Fertilisers and Chemicals; and Gorakhpur (Uttar Pradesh), Barauni (Bihar) and Sindri (Jharkhand) of Hindustan Urvarak & Rasayan — helped boost India's domestic urea output from 24.5 mt in 2019-20 to 31.4 mt in 2023-24.

However, not all new plants are producing at full capacity, unlike the older ones belonging to the likes of IFFCO, National Fertilizers and Krishak Bharati Cooperative.

Also, two plants shut down: Nagarjuna Fertilizers & Chemicals at Kakinada (Andhra Pradesh) and Kanpur Fertilizers & Chemicals at Panki (UP) with production capacities of 1.2 mt and 0.7 mt respectively. The former ceased operations from this fiscal, while the latter's assets were acquired by the Hyderabad-based AM Green for conversion into a renewable hydrogen-cum-ammonia project.

## The road ahead

Given its affordability, ease of application (unlike Nano Urea) and proven effectiveness (nitrogen is indispensable for plant growth), the demand for urea is unlikely to go down.

It would only go up with expansion in gross cropped area, irrigation coverage and farmers planting more nitrogen-loving crops, whether maize or leafy vegetables.

Urea consumption can, at best, be capped at around 45 mt through a mix of MRP rationalisation, rationing (not supplying say, more than 25 subsidised bags per farmer) and incorporation of urease and nitrification inhibitor chemicals (that slow nitrogen release).

On the supply side, the present installed capacities, after factoring in the closure of the two plants, allow for a domestic production of only 30-31 mt. If annual imports are to be contained within 10 mt, it would require roughly 5 mt of capacity addition.

India has seven operational liquefied natural gas terminals at Dahej, Hazira and Mundra (Gujarat), Kochi (Kerala), Dabhol (Maharashtra), Ennore (Tamil Nadu) and Dhamra (Odisha). These (six more are coming up), along with the pipelines crisscrossing the country, have made it possible to import and transport gas to urea plants in the hinterlands.

In such a scenario, urea imports would make sense primarily to feed the western and southern markets closer to the ports. For the others, it would be more economical to import gas and "make" urea. This is as opposed to direct import of urea ("buy") in bulk vessels, which entails additional costs and logistics.

- Stock Shortage: Opening stock 3.7 mt (Oct 2025) vs 6.3 mt last year; long farmer queues.

## Static Linkages

- Soil Science: Nitrogen vital for chlorophyll and vegetative growth.
- N:P:K Ratio: Ideal 4:2:1 balance disturbed by excessive urea use.
- Policy: Urea excluded from Nutrient-Based Subsidy (NBS); price controlled by Centre.
- Economy: Fertiliser subsidy ≈ 0.7-1% of GDP (Economic Survey).
- Energy Link: Urea tied to LNG-based feedstock and India's gas import network.

## Critical Analysis

### Pros:

- Supports food security and affordability.
- Boosts yields in nitrogen-hungry crops.
- Enhances industrial linkages with LNG and chemical sectors.

### Cons:

- High fiscal burden (₹2.5 lakh crore subsidy).
- Soil degradation and N<sub>2</sub>O emissions.
- Skewed cropping patterns (rice-wheat bias).
- Import reliance ~25%; uneven production.
- Slow Nano Urea adoption due to limited awareness.

## Way Forward

- Rationalise MRP, gradually link to cost.
- Bring urea under NBS for balanced nutrient use.
- DBT-based rationing (limit subsidised bags/farmer).
- Promote Nano Urea, bio-fertilisers, organic inputs.
- Expand Soil Health Card awareness.
- Encourage green ammonia from renewables.
- Import gas, not urea, for inland manufacturing.

## KEY HIGHLIGHTS

### Context of the News

- India's urea consumption is projected to touch 40 million tonnes (mt) in 2025-26 due to higher Rabi acreage and unchanged Maximum Retail Price (MRP) for over a decade.
- Sales reached 38.8 mt in 2024-25 (Apr-Mar), up 2.1% year-on-year in the first half of the fiscal.
- MRP for urea has remained fixed at ₹5,360/tonne since 2012 (₹5,628 with neem coating from 2015), despite rising costs of other fertilisers.
- This price distortion and sustained subsidies are leading to overuse, rising fiscal burden, and nutrient imbalance in Indian soils.

### Key Points

- Trend: Doubled from 14 mt (1990-91) to 30 mt (2013-14); crossed 35 mt (2020-21).
- Policy Efforts: Neem-coating (2015), 45-kg bag (2018), Nano Urea (2021) — limited impact on demand.
- Production: Peaked at 31.4 mt (2023-24); six new plants (2019-22) added ~7.8 mt capacity.
- Subsidy Distortion: Urea MRP ₹5,628/tonne vs ₹12,000-38,000 for others → price-driven overuse.

# Cloud seeding in winters to reduce pollution is bad science. Here is why

**EXPERT  
EXPLAINS**

**GUFRAN BEIG**



FOR SEVERAL years now, irrespective of who was in power, Delhi has looked towards cloud seeding as a potential solution to air pollution, as seen in the government's recent experiments to induce artificial rain. With top Indian research institutions participating in the process, the matter deserves deep scrutiny from a scientific perspective.

## The technique

Let's understand the basics of cloud seeding to disperse the clouds of confusion. Cloud seeding is a form of engineering of natural weather, where substances like silver iodide or sodium chloride are intro-

duced into a particular class of clouds to artificially trigger rain. The underlying physics is straightforward — these chemicals act as cloud condensation nuclei or ice nuclei, around which water vapour condenses (or ice crystals form). Their accumulation may produce rain.

Crucially, seeding only works with a particular class of clouds, known as hygroscopic or warm-rain clouds, because they have abundant water content and respond quickly when extra nuclei are introduced.

## The limitation

Hygroscopic clouds are rare and form under specific atmospheric conditions. They typically appear during the pre-monsoon period and throughout the monsoon.

Statistically, their probability of occurrence is about 51% during pre- and post-monsoon months, but it plummets to just 5 to 10% from November to January, when air pollution peaks in north India.

While some may argue for the technique as a solution to drought (which has its flaws, too), deploying it against pollution

is a different story, because the specific clouds must be present on the very days when the Air Quality Index (AQI) spikes. The combination of these factors makes the chances of success razor-thin.

## No solution to pollution

Proponents of the Delhi experiment claim that the AQI improved from the "Very Poor" category to "Poor" in several pockets of the city. However, this ignores the fact that in both cases, concentrations of PM<sub>2.5</sub>, the lead pollutant driving up the AQI in Indian cities, remained alarmingly above standards. The initial exposure to fine particles inflicts the greatest harm, further increments merely deepen the injury.

We must also thank nature that the drizzle, if it indeed resulted from seeding, did not coincide with cooler temperatures. Substantial rainfall is required to effectively wash out particulates, and light drizzles under cooler conditions often do the opposite. A secondary aerosol formation process is triggered and these fine particles attach to microdroplets, coagulate, and multiply,



The AQI in Delhi touched 400 on Sunday morning. Tashi Tobgyal

leading to a rebound in PM levels.

Even when supposedly successful, such interventions can only yield short-lived relief. Emissions are produced continuously and swiftly re-accumulate into concentrations through weather interactions. Within a day, we find ourselves back to square one.

Still, the experiment has led to a sense of relief for two reasons. First, it fulfilled a scientific curiosity, and second, the subse-

quent analysis will likely settle the debate on the scientific sanctity of such interventions. Smog towers, first tested in Delhi in 2021 with similar enthusiasm, have gradually found their quiet conclusion.

Air pollution in Delhi remains an unresolved, recurring challenge. Yet again, we are confronted with the same question: what is truly polluting Delhi?

Crop residue burning is a seasonal episode; festival fireworks last only a few days. Yet, the discourse continues to orbit around these transient factors, overlooking the systemic drivers.

It's time to shift from a city-centric mindset to an airshed approach, one that considers the climatological "family area" responsible for the transboundary movement of pollutants, a proposition promoted by NARFI (National Air Quality Resource Framework of India) of NIAS, a project supported by the office of Principal Scientific Advisor to the Government of India. Air knows no administrative boundaries, and city-only solutions risk compromising the larger airshed.

Mitigation must be anchored in coordi-

nated year-round actions targeting persistent sources. A clear starting point is accelerating the transition away from fossil fuels, where the emerging electric vehicle revolution offers promise. According to latest estimates from the System of Air Quality and Weather Forecasting And Research (SAFAR), vehicular emissions contribute over 40% of Delhi's PM<sub>2.5</sub> load, and the rapid growth in vehicle numbers is offsetting the gains made from technological advances. Poor traffic management and congestion further worsen the situation.

Complex problems demand innovative solutions, backed by rigorous scientific evaluation to sustain credibility and impact. Above all, we must stop normalising toxic air. This is not merely a winter or Delhi problem, and certainly not a poor person's problem. It is everyone's problem, corroding our health, eroding our productivity, and weakening our collective dignity.

Beig is Chair Professor, National Institute of Advanced Studies, IISc-Campus, and Founder Project Director, SAFAR.

## KEY HIGHLIGHTS

### Context of the News

- The Delhi government recently conducted cloud seeding experiments to induce artificial rain as a temporary measure to reduce air pollution levels in the National Capital Region (NCR).
- The initiative was undertaken in collaboration with leading institutions such as IIT-Kanpur, IMD, and ISRO, following permissions from the Directorate General of Civil Aviation (DGCA).
- The move revives an old debate on the scientific, environmental, and policy viability of cloud seeding as an air quality intervention.

### Key Points

- Objective: To artificially induce rainfall to wash out particulate pollutants (PM<sub>2.5</sub> and PM<sub>10</sub>) from the atmosphere.
- Technique: Introduction of silver iodide (AgI) or sodium chloride (NaCl) into moisture-laden clouds to enhance precipitation.
- Effectiveness: Cloud seeding works only with hygroscopic (warm-rain) clouds, which form under specific humidity and temperature conditions.
- Limitation: These clouds rarely form between November and January—the period of severe air pollution in North India.
- Outcome: Despite localized drizzle, PM<sub>2.5</sub> levels remained well above national standards (as per SAFAR data).
- Major Pollutant Sources: Vehicular emissions (~40%), industrial combustion, construction dust, biomass burning.
- AQI Status (2024-25): Delhi's average AQI remained in the 'Very Poor' category, with episodic improvement post-rainfall.

### Static Linkages

- Artificial rain = Example of Weather Modification Technology under geoengineering.
- Cloud seeding first tested in India (1983, Tamil Nadu; later in Maharashtra, Karnataka).
- Silver iodide listed under Schedule I of the Hazardous and Other Wastes Rules, 2016.
- PM<sub>2.5</sub> standard (NAAQS): 40  $\mu\text{g}/\text{m}^3$  (annual), 60  $\mu\text{g}/\text{m}^3$  (24-hour).
- Air Act, 1981 empowers CPCB and SPCBs to regulate emissions and enforce standards.
- National Clean Air Programme (NCAP, 2019): Targets 40% reduction in particulate matter by 2026.

### Critical Analysis

Pros:

- Enhances understanding of atmospheric chemistry and cloud microphysics.
- Could support drought mitigation efforts under controlled conditions.
- Fosters scientific experimentation in environmental engineering.

Cons:

- Low success rate during winter months when pollution peaks.
- Potential environmental hazards from chemical dispersal (AgI toxicity).
- Provides only short-term relief, failing to address root causes of pollution.
- High operational cost with uncertain meteorological returns.
- May divert attention and funding from sustainable long-term mitigation.

Stakeholder Perspectives:

- Government: Experimentation as a crisis-management tool.
- Scientists: Concerned over efficacy and reproducibility.

- Public: Demand for visible relief, even if temporary.
- Environmentalists: Advocate systemic emission control, not quick fixes.

### Way Forward

- Adopt an “Airshed Management Approach” for Delhi-NCR (as recommended by NIAS–NARFI framework).
- Strengthen NCAP implementation with inter-state coordination.
- Invest in continuous emission reduction: electric mobility, clean fuels, urban planning.
- Improve vehicular congestion management and enforce BS-VI standards.
- Promote citizen awareness to curb emissions from biomass and waste burning.
- Institutionalize scientific audits for all techno-environmental interventions.

# Restraint has a half-life

Global consensus against nuclear testing is fraying.  
India must re-evaluate its position



AMITABH MATTOO

WHEN PRESIDENT DONALD Trump announced that the United States would consider resuming nuclear testing, he did more than reopen an old debate. He reminded the world how fragile the post-Cold War consensus on restraint has become. For nearly three decades, a voluntary global moratorium on nuclear testing has held, not because it was legally binding, but because it was politically convenient and morally persuasive. That consensus is now fraying.

Washington's doubts about the reliability of its nuclear arsenal without testing mirror similar trends elsewhere. Russia has revived activity at its Arctic test sites. China is expanding its facilities at Lop Nur. When the most powerful states begin to question the sufficiency of self-restraint, the assumptions that have governed the nuclear order start to erode.

India cannot ignore these shifts. Since 1998, New Delhi's voluntary moratorium on nuclear testing has symbolised strategic maturity and moral confidence. It reassured a sceptical world that India's nuclear programme was guided by discipline rather than defiance. That policy opened the way for diplomatic legitimacy, the end of sanctions, and the civil nuclear cooperation agreements that followed. Yet restraint, if left unexamined, can harden into inertia. India must now re-evaluate its position, not to be the first to test again, but to ensure it is not the last to adapt.

The global nuclear landscape has changed profoundly since India's tests a quarter-century ago. Russia has withdrawn from key arms-control regimes. China is expanding its stockpile at an unprecedented rate and constructing new missile silos. The United States is openly questioning whether computer simulations can indefinitely replace physical verification. The Comprehensive Nuclear-Test-Ban Treaty, which India never signed, remains in limbo because even the major powers have failed to ratify it. The stability of the nuclear order has rested less on shared conviction than on temporary convenience.

India's doctrine of credible minimum deterrence, anchored in its No First Use pledge, has served the country well. It balanced responsibility with readiness and underscored India's image as a restrained power. Yet credi-

bility is not a permanent condition. Deterrence depends not only on the existence of weapons but on confidence in their performance. India's arsenal today is built on designs validated in 1998. Since then, technology, materials, and delivery systems have evolved. The Agni-V, with intercontinental range, is now operational. Submarine-launched missiles are entering service. The next step, multiple independently targetable re-entry vehicles, will require new levels of assurance about yield, miniaturisation, and reliability.

Computer modelling and subcritical tests can extend existing knowledge, but they cannot replace empirical data. Even the United States, with its vast experience and computing power, no longer sounds entirely confident that simulations alone are sufficient. For India, with far fewer validated data points, the uncertainty is greater. The question is not whether India should rush to test, but how it should prepare for a world in which others might.

To reconsider restraint is not to advocate recklessness. Testing, if it ever becomes necessary, can be scientific, limited, and responsible. A carefully designed series of underground tests, intended for validation rather than demonstration, could provide assurance about the reliability of new-generation designs. More importantly, it would communicate to adversaries that India's deterrent remains modern and credible. In nuclear strategy, perception is as crucial as capability; credibility must be seen to be believed.

Yet, India must guard the moral and diplomatic capital that its restraint has earned. Its standing as a responsible nuclear power derives not only from technological competence but from the prudence with which it exercises that power. The challenge is to maintain readiness while sustaining restraint, to keep the option of testing alive without being the one to reopen the nuclear gates.

To assume that restraint is cost-free is to misunderstand the evolving balance of power. China's arsenal continues to grow in size and sophistication. Pakistan is diversifying into tactical and sea-based systems. The United States is designing new warhead classes and signalling readiness to test again. If India clings indefinitely to unilateral restraint, it risks being

left outside the framework that will define the next era of arms control. Strategic autonomy demands flexibility, not fixation.

Should testing ever become unavoidable, it must remain consistent with India's ethical framework of credible minimum deterrence and No First Use. Testing for validation, not for showmanship, can coexist with these principles. Its purpose would be knowledge, not escalation; preparedness, not provocation.

Beneath the technical debate lies a deeper question: Can a democracy sustain credible deterrence without periodic verification? Can leaders, in good faith, ask their scientists and soldiers to depend on weapons whose ultimate reliability has never again been confirmed? These questions cannot be answered through nostalgia for the moral clarity of 1998. They require an open, informed national debate that treats deterrence as a living equation of technology, psychology, and politics.

India's restraint after 1998 demonstrated maturity. Its willingness to re-examine that restraint today would demonstrate confidence. Strategic autonomy was built on the courage to act when others doubted and the wisdom to pause when caution demanded. That same courage, the ability to judge when readiness serves peace better than ritual, is needed again.

Trump's statement may never translate into explosions under the Nevada desert. But the silence that has held since 1992 is already beginning to crack. The question for India is whether to remain a passive observer or to shape the contours of the emerging order. To stand still in a moving world is not prudence; it is paralysis.

India's moratorium on nuclear testing was a promise to itself, not a treaty with others. Like all promises of restraint, it carries a half-life. When circumstances change, renewal requires re-examination. Strategic maturity now lies not in denial of change, but in readiness for it. If the world is returning to an age of verification through detonation, India must ensure that its deterrent remains not only moral but credible.

Mattoo is dean and professor, School of International Studies, JNU and former member of the National Security Advisory Board

- India's deterrence relies on 1998 designs, despite new systems like Agni-V and K-series SLBMs.
- India's restraint brought NSG waiver (2008) and civil nuclear cooperation with the U.S., France, and Russia.

## Static Linkages

- Nuclear Doctrine: CMD, NFU, civilian control of arsenal.
- Institutions: NSC, SFC, BARC, DRDO.
- International Law: CTBT (1996), NPT (1970); India's non-signatory but responsible stance.
- Constitutional Basis: Article 51(c) – peace and disarmament.
- Historical Path: From Atoms for Peace (1954) to Pokhran-II (1998) to Indo-US Nuclear Deal (2008).

## Critical Analysis

### Advantages of Moratorium

- Reinforces India's image as a responsible nuclear state.
- Enables civil nuclear cooperation and global legitimacy.

### Concerns

- Aging test data from 1998; limited empirical validation.
- China-Pakistan modernization shifting deterrence balance.
- Weakening arms-control regime globally.

### Stakeholders

- Strategists: Demand readiness with restraint.
- Diplomats: Stress on moral capital.
- Scientists: Seek technical assurance.

## Way Forward

- Periodic doctrine review via NSC.
- Invest in simulation, subcritical testing, AI verification.
- Maintain NFU and CMD, keeping testing option technically viable.
- Strengthen global disarmament engagement and strategic communication.

## KEY HIGHLIGHTS

### Context of the News

- U.S. President Donald Trump's statement on possible resumption of U.S. nuclear testing has reignited global debate on nuclear restraint.
- For nearly three decades, a global voluntary moratorium has held since 1992 – politically driven rather than legally binding.
- Major powers – Russia, China, and the U.S. – are reconsidering the sufficiency of non-testing verification, hinting at a shift in the post-Cold War nuclear consensus.
- India, which declared a voluntary moratorium after its 1998 Pokhran-II tests, faces new strategic challenges amid evolving global nuclear postures.

### Key Points

- India became a declared nuclear power after Pokhran-II (1998), adopting credible minimum deterrence (CMD) and No First Use (NFU).
- India is not a signatory to CTBT; the treaty hasn't entered into force.
- Global trends:
  - China expanding warheads and missile silos.
  - Russia exiting arms-control pacts.
  - U.S. questioning simulation-based verification.

# CRIMINAL APATHY

Kasibugga stampede could have been prevented. It should jolt administrators, event organisers to be sensitive to crowd safety

**A**T LEAST NINE lives — mostly women and children — were lost at the Venkateswara Temple in Kasibugga, Andhra Pradesh, on Saturday, when a morning of devotion turned into one of tragic loss as railings gave way, exits jammed, and the crowd surged uncontrollably. In a country where multitudes are a constant feature of public life, people were once again failed by a system — event organisers, administrators, law enforcers — that takes a short-cut approach to managing crowds.

The Kasibugga tragedy is part of a grim national pattern. In January, a stampede at the Tirupati temple in Andhra Pradesh claimed six lives. In February, a similar incident at the New Delhi railway station during rush hour left 18 commuters, mostly Kumbh Mela pilgrims, dead; a month earlier, the lives of at least 30 devotees were snuffed out at the Mela site. During the Indian Premier League, in June, a stampede outside the M Chinnaswamy Stadium in Bengaluru killed 11 fans and injured over 50 others at what was to be a celebration of RCB's maiden IPL victory. Most recently, in September, nearly 40 people died in a stampede at a rally by TVK president, actor Vijay, in Tamil Nadu's Karur. Each incident was followed by familiar official lamentations, similar inquiries, and the same promises of reform — and yet very little seems to change on the ground. Whether in places of worship, transport hubs, or sporting and music arenas, the script is identical: Crowds surging beyond expectations, too little planning, and a deep-seated disregard for basic safety regulations. The apathy is institutional and administrative — crowd management is treated as an afterthought rather than a science. In Kasibugga, for instance, the crowd on Saturday swelled to around 25,000, well over its usual weekend capacity of 10,000-15,000. The area where the incident occurred was under construction, the entry and exit routes were the same and the makeshift arrangements were woefully inadequate. The state administration has claimed that it was not informed of the special celebrations for Ekadashi.

India's public spaces are a melange of aspiration, desperation, fervour, and devotion. Lax enforcement of safety codes by states and organisers' indifference to capacity limits create a culture of inevitability, where every stampede is described as "unfortunate" rather than unacceptable. The victims of Kasibugga, mostly people from disadvantaged communities — women who came in faith, children who held their mothers' hands until the crush separated them — warrant more than condolences and platitudes. They deserve accountability. The best tribute to them would be to root out the all-too familiar lapses. India's temples, stations, and stadiums are the arteries of the country's public life. Crowd management at these venues cannot be left to instinct and rope lines; it demands trained personnel, real-time monitoring to stagger crowd movement, spacious and clearly-demarcated entry and exit points, and accountability in case of violations. Most of these safety measures have, in fact, long been underlined in the National Disaster Management Authority's guidelines. Until states, temple trusts, and event organisers acknowledge that managing crowds is an urgent imperative, the country will continue to mourn in the aftermath of preventable tragedies.

## KEY HIGHLIGHTS

### Context of the News

- Nine people, mostly women and children, died in a stampede at Kasibugga, Andhra Pradesh, during Ekadashi celebrations.
- Railings collapsed, single entry–exit, and poor planning triggered chaos as the crowd swelled to 25,000 — double normal capacity.
- Adds to a string of crowd disasters in Tirupati, Delhi Station, Karur, and Bengaluru Stadium in 2025.
- State officials were uninformed, revealing administrative gaps despite existing NDMA guidelines.

### Key Points

- Cause: Structural weakness, lack of coordination, poor crowd control, and negligence.
- Pattern: Repeated mass-gathering failures in religious, political, and entertainment events.
- Guidelines Ignored: NDMA's 2014 framework for mass gatherings remains unenforced.
- Victims: Mostly from marginalized communities; highlight governance inequity.

### Static Linkages

- Article 21 – Right to life implies safe public spaces.

- Seventh Schedule: Public order & police → State List.
- DM Act, 2005 – Legal basis for NDMA & disaster prevention.
- NDMA Guidelines (2014): Recommend risk mapping, entry–exit segregation, real-time monitoring.
- Public Trust Doctrine – State as guardian of citizen safety.
- ARC Report (2009): Urged proactive crisis management and accountability.

## Critical Analysis

Strengths:

- Legal framework exists (DM Act, NDMA guidelines).
- Periodic inquiries highlight lapses.

Concerns:

- Implementation deficit and weak inter-agency coordination.
- No trained personnel or simulation drills.
- Poor infrastructure and capacity violations.
- Lack of accountability; tragedies recur without reform.
- Ethical lapse: Negligence violates Article 21 and moral duty of care.

## Way Forward

- Crowd Science Training Institute under NDMA.
- Mandatory safety audits before large events.
- AI-based crowd monitoring & geofencing.
- Legal penalties for violating safety norms.
- Unified Command System led by DM/SP.
- Infrastructure redesign: Segregated entry–exit routes.
- Public awareness on safety protocols.

# NOT ON THE PULSE

Import duty on yellow peas won't address basic anomaly of agriculture procurement — policies tilted towards wheat, rice

**T**HE NARENDRA MODI government has imposed a 30 per cent import duty on yellow peas, effective from this month. The move, ending duty-free imports of the pulse grain since December 2023, is notable for its timing. Currently, harvesting of kharif pulses such as *moong* (green gram) and *urad* (black gram) is on, with the new *arhar* (pigeon-pea) crop too slated to arrive from December. The sowing season for rabi pulses — mainly *chana* (chickpea) and *masoor* (red lentil) — has taken off as well. With most pulses trading well below their minimum support prices (MSP), farmers have little incentive to plant these crops. The incentive is even less in the light of the good monsoon rains, which have recharged groundwater reservoirs and left sufficient soil moisture to enable them to sow more area under wheat than chana.

Annual consumer price inflation in pulses was at double-digits for 15 consecutive months from June 2023 to August 2024 on the back of an El Niño-induced crop failure. This led the Centre to scrap import duties on most pulses. India imported a record 7.3 million tonnes of pulses valued at \$5.5 billion in 2024-25 (April-March). The imports, along with domestic production recovery, helped cool down prices, so much so that retail pulses inflation has been in negative territory for eight successive months from February 2025. The shoe is clearly on the other foot now, and it's farmers, not consumers, that are at the receiving end. It also explains the government's cautious shifting of gears, starting with the levying of 10 per cent import tariffs on *masoor* and *desi* (small-sized) *chana* in March-April 2025, followed by the latest 30 per cent duty on yellow peas. The Union Agriculture Ministry has also approved a Rs 15,096-crore programme for the MSP procurement of *urad*, *moong*, *arhar*, and *soya* bean.

All this, however, does not address the root of the problem. India's MSP procurement and import policy is excessively skewed in favour of rice and wheat, which is reflected in their stocks in government godowns being two times or more than the required buffer levels. Import duties on them are also prohibitively high. The MSPs on pulses and oilseeds, on the other hand, are largely on paper, and their growers are also significantly exposed to import competition. Ideally, policy shouldn't discriminate between crops, and farmers should grow what the market wants. MSP fixation, too, should align more to supply-and-demand market realities than to a mechanical cost plus 50 per cent formula. Even better would be the assurance of a minimum income, rather than price support to farmers in the form of a flat per-acre direct benefit transfer. That will help all farmers, and not just those cultivating rice and wheat.

## KEY HIGHLIGHTS

### Context of the News

- The Government imposed a 30% import duty on yellow peas (Dec 2023) after a year of zero-duty imports.
- Comes amid harvesting of kharif pulses (moong, urad, arhar) and rabi sowing (chana, masoor).
- Pulses are selling below MSP, discouraging sowing.
- India imported 7.3 million tonnes (USD 5.5 billion) of pulses in 2024-25 after El Niño-induced crop loss.
- With inflation now negative for 8 months, the policy pivot aims to support farmers.

### Key Points

- Tariff Shift:
  - Mar-Apr 2025: 10% on masoor, desi chana.
  - Dec 2023: 30% on yellow peas.
- Support Plan: ₹15,096 crore approved for MSP procurement of pulses and soyabean.
- Skewed Procurement: Rice and wheat stocks exceed 2-3× buffer norms, while pulse MSPs remain weakly implemented.
- Sowing Concern: Better soil moisture and wheat profitability may reduce pulse acreage.

### Static Linkages

- Pulses are part of the Kharif and Rabi cropping system, contributing to nitrogen fixation and soil fertility.

- MSP determination is based on the CACP's cost-plus 50% formula (A2+FL+50%).
- Foodgrain Procurement Policy operates under the National Food Security Act (NFSA), 2013 and buffer stock norms managed by FCI.
- Import duties are governed by the Customs Act, 1962 and Foreign Trade Policy (FTP) under the DGFT.
- Direct Income Support Schemes (e.g., PM-KISAN) are examples of non-price-based support mechanisms.

### Critical Analysis

#### Advantages

- Safeguards farmers from cheap imports.
- Encourages domestic cultivation and Atmanirbhar Bharat.
- Stabilizes farm incomes after price crashes.

#### Concerns

- May raise retail prices if supply dips.
- Lacks long-term MSP enforcement.
- Risks trade tensions with exporters.
- Persistent bias towards rice-wheat depletes water and distorts cropping.

### Way Forward

- Frame a rules-based import policy linked to price bands.
- Reform MSP fixation to reflect market demand.
- Strengthen pulse procurement via NAFED.
- Promote crop diversification and direct income support (per-acre DBT).
- Develop value chains and FPO-based marketing.