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PART I · HEADLINES TO ECONOMY

Morning Edition · 08:00 IST · Saturday, 17 October 2026

— *The Topper's Last Read* —

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Publisher: TheIAS Akademia · theiasakademia.com · theiasakademia@gmail.com

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2

POLITY, GOVERNANCE & CULTURE

3 CARDS

GS2

Federalism & Delimitation · Representation of the People

Introduced 16 April 2026; pending in Lok Sabha · Source: PRS Legislative Research (Bill Summary); Lok Sabha Bulletin

The Delimitation Bill, 2026: Redrawing India's Political Map and the Women's-Reservation Seat Puzzle

Why in News: The Delimitation Bill, 2026 was introduced in the Lok Sabha on 16 April 2026 to repeal the Delimitation Act, 2002 and constitute a fresh Delimitation Commission empowered to redraw Lok Sabha and Assembly constituencies, fix SC/ST reserved seats, and determine the one-third of seats to be reserved for women under the Nari Shakti Vandan Adhiniyam (106th Constitutional Amendment, 2023) once the next Census-linked exercise is triggered. Six months after introduction the Bill remains pending, with several States continuing to warn that a purely population-based formula could shrink their Lok Sabha share relative to faster-growing northern States.

Background: Article 82 requires readjustment of seats after each Census, but a freeze imposed by the 42nd Amendment (1976) and extended by the 84th Amendment (2001-02) has kept total seat numbers unchanged since the 1971 Census, specifically to avoid penalising States that controlled population growth; that freeze lapses after the first Census taken after 2026. The 2002-Act Commission had only redrawn constituency boundaries without changing total seat numbers. The new Bill lets a fresh Commission use Census figures as they stand "on the date the Commission is constituted" — the crux of the current federalism dispute, since the trigger Census itself is still being planned for 2027.

⚡ KEY FACTS

- Introduced in Lok Sabha: 16 April 2026; the Bill repeals the Delimitation Act, 2002.
- Commission composition: a Chairperson who is a sitting or retired Supreme Court judge, the Chief Election Commissioner (or a nominated Election Commissioner), and the State Election Commissioner of the concerned State.
- Each State gets up to 10 non-voting associate members (5 Lok Sabha MPs + 5 MLAs) nominated by the respective Speakers.
- Population basis: the latest published Census figures as of the date the Commission is constituted — not frozen at 1971 levels.
- Every Assembly constituency must fall wholly within one Lok Sabha constituency.
- SC seats must be spread across a State wherever the SC population is comparatively large; ST seats wherever the ST population is proportionally largest.

- The freeze on total seat numbers (42nd Amendment, 1976; extended by the 84th Amendment, 2001-02) lapses after the first Census taken after 2026.
- This Commission's exercise is the constitutional trigger for operationalising the one-third women's-reservation quota under the 106th Amendment Act, 2023.

MAINS DIMENSIONS / ANALYSIS

- Significance: this is the mechanism that will finally activate the 2023 women's-reservation law — without fresh delimitation, the one-third quota cannot be mapped onto actual constituencies.
- Criticism: southern States (Tamil Nadu, Kerala, Andhra Pradesh, Telangana) and some northern States argue a pure-population formula would cut their Lok Sabha share since they stabilised fertility earlier — effectively "punishing" population control, a live Centre-State flashpoint.
- Federal angle: tests the balance between the "one person, one vote, one value" principle and protecting the political weight of States that met national family-planning goals ahead of schedule.
- Implementation challenge: the Bill's own trigger — "the first Census after 2026" — is itself delayed, since Census 2027 enumeration planning is still being rolled out, creating a sequencing bottleneck.
- Way forward: proposals on the table include extending the seat-freeze further, a Finance-Commission-style weighted formula, or a protected "seat-share floor" for States that over-performed on population stabilisation.

LET'S REMEMBER THIS THROUGH A TRICK

Remember the trigger-chain: the 2023 Women's Reservation Act → needs a 2027-linked Census → needs this 2026 Delimitation Bill's Commission → only then can one-third of seats actually be marked "reserved for women". No delimitation, no women's quota in practice.

PYQ LINKAGE

Delimitation and the freeze on Lok Sabha seats is a recurring GS2 federalism theme; revise alongside the 84th Constitutional Amendment Act, 2001-02 and the women's-reservation 106th Amendment Act, 2023.

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. The Delimitation Bill, 2026 seeks to repeal the Delimitation Act, 2002.
2. Under the Bill, the Delimitation Commission's Chairperson must specifically be a sitting or retired Chief Justice of India.
3. The freeze on the total number of Lok Sabha seats was first imposed by the 42nd Constitutional Amendment Act, 1976.

(a) 1 and 3 only (b) 2 only (c) 1, 2 and 3 (d) 1 and 2 only

Answer: a. Statement 2 is wrong — the Chairperson need only be a sitting/retired Supreme Court judge, not specifically the Chief Justice of India.

PROBABLE MAINS QUESTION

"The Delimitation Bill, 2026 is the constitutional bridge between the 2023 women's-reservation law and its actual implementation, but risks reopening India's oldest federalism dispute over seat-share." Discuss. (250 words)

GS3

Disaster Management · DM (Amendment) Act 2025 Implementation

261st Report of a Parliamentary Standing Committee · Source: Parliamentary Standing Committee Report; PRS-style legislative analysis

261st Parliamentary Standing Committee Report: India's Disaster-Management Architecture Needs an Urgent Rewrite

Why in News: A Department-related Parliamentary Standing Committee's 261st Report has reviewed India's disaster-management architecture in light of the Disaster Management (Amendment) Act, 2025, and found the foundational 2009 National Policy on Disaster Management and the National Disaster Management Plan dangerously out of date — both pre-date the 2025 amendment and make no provision for AI-driven forecasting or climate-risk modelling. The Committee flags that only Karnataka has actually constituted an Urban Disaster Management Authority despite the 2025 amendment enabling every State capital and municipal corporation to have one, and that only 10 States/UTs have adopted the Model Bill on fire and emergency services.

Background: The Disaster Management Act, 2005 created the NDMA-SDMA-DDMA three-tier structure following the 2004 Indian Ocean tsunami. The 2025 amendment updated this structure for urban and Himalayan-specific risks and empowered Urban Disaster Management Authorities for the first time; this 261st Report is the first comprehensive parliamentary review of how States have actually implemented that amendment on the ground.

⚡ KEY FACTS

- Report: the 261st Report of a Department-related Parliamentary Standing Committee, reviewing implementation of the Disaster Management (Amendment) Act, 2025.
- Only 1 State (Karnataka) has constituted an Urban Disaster Management Authority, though the 2025 amendment enables one for every State capital and municipal corporation.
- Only 10 States/UTs have adopted the Model Bill on fire and emergency services.
- The 2009 National Policy on Disaster Management and the National Disaster Management Plan have not been revised to reflect the 2025 amendment or AI-based forecasting tools.
- Landslide-susceptibility mapping and seismic microzonation are rarely built into mandatory town-planning rules or pre-project clearances.
- Recommendation: integrate IMD, Central Water Commission, INCOIS and National Remote Sensing Centre data onto a single early-warning platform, moving from district-level to ward-level alerts.
- Recommendation: the 16th Finance Commission should widen State Disaster Response Fund coverage to explicitly include heatwaves and lightning.
- Recommendation: two dedicated NDRF Regional Response Centres for the Western and Eastern Himalayas, with response times measured by actual site arrival.

🎯 MAINS DIMENSIONS / ANALYSIS

- Significance: exposes the gap between enacting a reform law (the 2025 amendment) and States actually operationalising its institutional provisions — a classic implementation-deficit story.
- Criticism: disaster funding still leans toward post-disaster relief (SDRF/NDRF payouts) rather than long-term mitigation infrastructure, undercutting the "build back better" principle India committed to under the

Sendai Framework.

- Federal angle: Urban Disaster Management Authorities are for States to constitute, so a single-State compliance rate exposes the limits of a Central framework law without binding timelines or penalties.
- Himalayan angle: the Committee's call for two new NDRF Regional Response Centres (Western and Eastern Himalayas) reflects post-2023 disaster patterns such as the Joshimath subsidence and Sikkim's glacial-lake outburst flood.
- Way forward: quarterly, audited updates to the India Disaster Resource Network and mandatory Disaster Risk Impact Assessments for major infrastructure projects, modelled on Environmental Impact Assessments.

LET'S REMEMBER THIS THROUGH A TRICK

Chain to remember: 2005 Act (tsunami-triggered, 3-tier NDMA-SDMA-DDMA) → 2025 Amendment (urban + Himalayan focus, Urban DM Authorities) → 261st Committee Report (only Karnataka actually complied) — a 2025 facelift on paper, but implementation still lags two decades behind.

PYQ LINKAGE

GS3 Disaster Management is a near-annual Mains theme; revise alongside the 2005 Act's three-tier structure and the Sendai Framework for Disaster Risk Reduction, 2015-2030.

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. The Disaster Management Act, 2005 created a three-tier structure of NDMA, SDMA and DDMA.
2. As per a recent Parliamentary Standing Committee review, more than half of India's States have already constituted Urban Disaster Management Authorities.
3. The State Disaster Response Fund is a mechanism recommended through the Finance Commission.

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 only (d) 1 only

Answer: a. Statement 2 is wrong — the Committee found only Karnataka has done so.

PROBABLE MAINS QUESTION

Examine the implementation gaps between India's legal disaster-management framework and its ground-level institutional capacity, with reference to the Parliamentary Standing Committee's findings on the Disaster Management (Amendment) Act, 2025. (250 words)

#DisasterManagement

#NDMA

#StandingCommitteeReport

#UrbanDMA

#SendaiFramework

GS1

Indian Culture & Heritage · Manuscripts

Flagship Ministry of Culture mission; institutional roll-out ongoing · Source: Ministry of Culture; National Mission for Manuscripts framework

Gyan Bharatam Mission: Can India Digitise and Save Its Manuscript Heritage Before It Is Lost?

Why in News: The Ministry of Culture's Gyan Bharatam Mission — a technology-driven successor to the older National Mission for Manuscripts — is scaling up its network of Cluster and Independent Centres tasked with surveying, conserving and digitising India's manuscript collections into a single National Digital Repository (NDR). Roughly 50 institutional partners are being brought on board in phases (about 20 in the first round, with 30 more to follow), making this one of the largest coordinated heritage-documentation exercises India has attempted.

Background: India is estimated to hold several million manuscripts in Sanskrit, Pali, Prakrit, Tamil, Persian and Arabic scattered across universities, monasteries, temple libraries and private collections, many physically decaying and uncatalogued; earlier efforts under the National Mission for Manuscripts (started 2003) catalogued only a fraction of this corpus. Gyan Bharatam reorganises the task around institutional "clusters" (a lead centre managing up to 20 partner centres) and "independent centres" for large standalone collections, each running six verticals from survey/cataloguing to linguistics/translation and public outreach.

⚡ KEY FACTS

- Nodal ministry: Ministry of Culture; builds on the earlier National Mission for Manuscripts (started 2003).
- Structure: Cluster Centres (lead institute plus up to 20 partner centres) and Independent Centres, each anchored by a "Gyan Bharatam Cell" of linguists, conservators, digitisation technicians and researchers.
- Roughly 50 institutional partners targeted in total, rolled out in phases of about 20 and then 30.
- Six operational verticals: survey & cataloguing; conservation & capacity-building; technology & digitisation (high-resolution scanners, AI-assisted transcription); linguistics & translation; research & publication; outreach.
- Centrepiece deliverable: a National Digital Repository (NDR) intended as India's largest searchable knowledge archive, open to scholars and the public.
- Funding structure: 70% released on approval of the annual budget/work plan; the remaining 30% only after progress reports, utilisation certificates and third-party audit.
- Languages covered include Sanskrit, Pali, Prakrit, Tamil, Persian and Arabic, spanning philosophy, Ayurveda, astronomy, mathematics and governance treatises.
- Explicitly linked to UNESCO's Memory of the World Programme and to India's cultural soft-power diplomacy.

🎯 MAINS DIMENSIONS / ANALYSIS

- Significance: treats manuscripts as a renewable knowledge resource for contemporary research (Ayurveda, traditional mathematics, historical astronomy) rather than museum curiosities.
- Criticism: conservation groups warn that a 70:30 phased-funding structure tied to third-party audits can slow disbursement to smaller, under-resourced monasteries and temple libraries that hold some of the most fragile, least-catalogued material.
- Analytical angle: digitisation raises access and intellectual-property questions — who controls reproduction rights once a historically community-held manuscript enters a centralised national repository.
- Comparative angle: parallels global efforts like UNESCO's Memory of the World Register and Europe's Europeana digitisation programme, but is unusual in scale given the sheer volume of Indian manuscripts.
- Way forward: experts recommend prioritising at-risk collections (palm-leaf and birch-bark manuscripts in high-humidity regions) ahead of already well-preserved institutional holdings.

Think of it as India's 'Survey-Save-Share' mission: Survey → Conserve → Digitise → Share via the National Digital Repository — the same four-step logic UNESCO uses for its Memory of the World Register.

PYQ LINKAGE

Heritage conservation and Indian Knowledge Systems are a recurring GS1 "Indian Culture" theme; revise alongside the National Mission for Manuscripts (2003) and UNESCO's Memory of the World Programme.

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. The Gyan Bharatam Mission is implemented by the Ministry of Culture as a successor initiative building on the National Mission for Manuscripts.
2. The Mission's manuscript coverage is restricted only to Sanskrit-language texts.
3. A National Digital Repository is envisaged as the Mission's central digitised-access platform.

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 and 3 only (d) 2 only

Answer: a. Statement 2 is wrong — coverage spans Sanskrit, Pali, Prakrit, Tamil, Persian and Arabic.

PROBABLE MAINS QUESTION

"Manuscripts are a living knowledge resource, not merely museum artefacts." Discuss this view in the context of the Gyan Bharatam Mission and India's approach to heritage conservation. (150 words)

#GyanBharatamMission

#IndianKnowledgeSystems

#ManuscriptConservation

#MinistryOfCulture

#NationalDigitalRepository

3

INTERNATIONAL RELATIONS

2 CARDS

GS2

International Groupings · Shanghai Cooperation Organisation

Static Topic — institutional explainer · Source: SCO Secretariat framework; Ministry of External Affairs

Shanghai Cooperation Organisation: Why India Keeps a Careful Balance Inside a China-Led Bloc

Why in News: With the SCO's Council of Heads of Government cycle and working-level coordination meetings continuing through 2026, India's calibrated engagement with the Shanghai Cooperation Organisation (SCO) — a full member since 2017 — remains a live example of its "multi-alignment" foreign policy: participating fully in SCO's counter-terrorism and connectivity tracks while publicly declining to endorse China's Belt and Road Initiative inside SCO joint statements.

Background: Founded in 2001 (evolving from the 1996 "Shanghai Five"), the SCO groups China, Russia, India, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Iran (joined 2023), with Belarus admitted in 2024 — making it the world's largest regional organisation by population and landmass. Its charter rests on the "Shanghai Spirit" of mutual trust and non-alignment against third countries, but India's simultaneous membership of the China-wary Quad makes its SCO role a standing test of strategic autonomy.

⚡ KEY FACTS

- Founded 2001; headquartered in Beijing; evolved from the 1996 "Shanghai Five" (China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan).
- India and Pakistan became full members together in 2017; Iran joined in 2023; Belarus joined in 2024.
- Key organs: the Regional Anti-Terrorist Structure (RATS), headquartered in Tashkent, and the SCO Secretariat in Beijing.
- Member states together account for roughly 40% of the world's population and about a quarter of global GDP.
- India has consistently declined to endorse Belt and Road Initiative (BRI) references in SCO joint declarations, citing sovereignty concerns over the China-Pakistan Economic Corridor's route through Pakistan-occupied Kashmir.
- India has hosted SCO Council of Heads of Government engagements as part of its rotating-presidency obligations in recent years.
- SCO decisions are consensus-based, giving every member — including smaller Central Asian states — an effective veto.
- India uses SCO primarily for counter-terrorism cooperation via RATS, connectivity dialogue, and as a forum for engaging Central Asia independent of bilateral ties with Russia or China.

🎯 MAINS DIMENSIONS / ANALYSIS

- Significance: SCO is one of the few multilateral forums where India, China and Pakistan sit at the same table, making it a pressure-release valve even amid bilateral tension.
- Criticism: critics argue SCO has increasingly become a vehicle for Chinese strategic influence in Central Asia, limiting India's room to shape the agenda despite full membership.
- Analytical angle: India's BRI-abstention inside SCO is a textbook case of "selective multilateralism" — using an institution's functional tracks (counter-terror, trade facilitation) while opting out of its geopolitical ones.
- Comparative angle: contrasts with India's QUAD engagement (explicitly Indo-Pacific, US-aligned) — together the two memberships are the clearest evidence of India's non-bloc, multi-alignment doctrine.
- Way forward: analysts suggest India use SCO's Central Asian connectivity tracks (synergies with the International North-South Transport Corridor) to deepen economic ties independent of the BRI framework.

🧠 LET'S REMEMBER THIS THROUGH A TRICK

Memorise SCO's growth as '5-6-8-9-10': Shanghai Five (1996) → Uzbekistan joins, Shanghai Six (2001) → India & Pakistan join, 8 members (2017) → Iran joins, 9 (2023) → Belarus joins, 10 (2024).

📌 PYQ LINKAGE

SCO's structure and India's dual SCO-QUAD membership is a recurring GS2 "International Groupings" theme; revise alongside the Quad's four-nation Indo-Pacific framework.

 PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. The Shanghai Cooperation Organisation originated from the "Shanghai Five" grouping formed in 1996.
2. India has formally endorsed the Belt and Road Initiative as part of SCO joint declarations.
3. The SCO's Regional Anti-Terrorist Structure is headquartered in Tashkent.

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 only (d) 2 and 3 only

Answer: a. Statement 2 is wrong — India has consistently declined to endorse BRI references in SCO statements.

 PROBABLE MAINS QUESTION

India's membership of both the SCO and the QUAD is often cited as proof of its strategic autonomy. Examine, with reference to India's approach to the Belt and Road Initiative within SCO forums. (150 words)

#SCO

#ShanghaiCooperationOrganisation

#StrategicAutonomy

#BRI

#RATS

GS2

Economic Diplomacy · India-EU Relations

Institutional framework, active through 2026 · Source: Ministry of Commerce & Industry; European Commission

India-EU Trade and Technology Council: Pairing a Stalled FTA With a Fast-Moving Tech Pact

Why in News: Even as the long-pending India-EU Free Trade Agreement (relaunched 2022, still unresolved on autos, dairy and carbon-border issues) continues to run past informal deadlines through 2026, the India-EU Trade and Technology Council (TTC) — launched in 2023 as only the EU's second such council after the one with the United States — has emerged as the more agile track for cooperation on semiconductors, green technology, digital connectivity and critical minerals.

Background: The TTC operates through three working groups — strategic technologies/digital governance; green and clean-energy technologies; and trade, investment and resilient value chains — mirroring the EU-US TTC model but adapted to India's semiconductor and renewable-energy ambitions. It was set up against the backdrop of the EU's post-2022 push to de-risk supply chains away from China, making India a preferred partner for critical-minerals and electronics manufacturing diversification.

 KEY FACTS

- Launched: April 2023, during European Commission President Ursula von der Leyen's visit to India.
- India is only the second country (after the United States) with which the EU runs a Trade and Technology Council.
- Three working groups: (1) strategic technologies, digital governance and connectivity; (2) green and clean-energy technologies; (3) trade, investment and resilient value chains.

- The EU is one of India's largest trading-bloc partners, with two-way trade exceeding \$100 billion annually in recent years.
- The parallel India-EU FTA has been under renewed negotiation since June 2022, with auto tariff lines, dairy market access and the EU's Carbon Border Adjustment Mechanism (CBAM) as key sticking points.
- CBAM, phasing in fully from 2026, is expected to impose a carbon tariff on Indian exports of steel, aluminium, cement and fertilisers to the EU — a direct TTC-FTA overlap issue.
- The TTC has supported cooperation on semiconductor supply-chain resilience and diversifying sourcing of critical raw materials such as rare earths and lithium.
- Both sides have repeatedly targeted (and slipped) a political conclusion of the FTA, underscoring the TTC's role as the "working" track while the FTA remains the stalled "headline" track.

MAINS DIMENSIONS / ANALYSIS

- Significance: shows how India and a major trading partner can advance functional cooperation (technology, green energy) even while a full trade treaty remains gridlocked — a pattern also visible in India-US ties.
- Criticism: critics argue the TTC risks becoming a talk-shop that substitutes for, rather than accelerates, the substantive tariff concessions only an FTA can deliver.
- Analytical angle: CBAM is the clearest flashpoint — the EU frames it as climate policy, India as a disguised, WTO-inconsistent trade barrier disproportionately hitting its energy-intensive exporters.
- Comparative angle: parallel to the EU-US TTC (2021) — the EU is building a hub-and-spoke network of technology councils with key partners to de-risk from China.
- Way forward: trade economists suggest folding a CBAM-mitigation clause (phased compliance timelines, green-technology transfer support) into the ongoing FTA talks rather than leaving it as a parallel TTC irritant.

LET'S REMEMBER THIS THROUGH A TRICK

Two-track memory peg: TTC = Technology (fast lane, working groups since 2023); FTA = Tariffs (slow lane, relaunched 2022, still unresolved) — same partner, two very different speeds.

PYQ LINKAGE

India-EU economic relations, especially CBAM's impact on Indian exports, form a strong GS2/GS3 current-affairs-and-economy crossover theme.

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. India is the only country besides the United States with which the European Union operates a Trade and Technology Council.
2. The India-EU Trade and Technology Council was established in 2023.
3. The EU's Carbon Border Adjustment Mechanism applies exclusively to agricultural imports from developing countries.

(a) 1 and 2 only (b) 2 and 3 only (c) 1, 2 and 3 (d) 1 only

Answer: a. Statement 3 is wrong — CBAM targets carbon-intensive goods like steel, aluminium, cement and fertilisers, not agriculture.

PROBABLE MAINS QUESTION

Discuss the significance of the India-EU Trade and Technology Council as a parallel track to the stalled India-EU Free Trade Agreement, with reference to the EU's Carbon Border Adjustment Mechanism. (250 words)

#IndiaEU

#TradeAndTechnologyCouncil

#CBAM

#FTA

#EconomicDiplomacy

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From the SCO's delicate balancing act to the India-EU Trade and Technology Council's semiconductor push, International Relations questions reward structured, long-horizon preparation — not last-minute cramming. TheIAS Akademia's **ANTIM 2027** batch is built around exactly this kind of sustained IR depth. Learn more at theiasakademia.com.

4 DEFENCE

1 CARD

GS3

Defence Platforms · Air Defence Systems

Static Topic — not tied to a current event · Source: DRDO; Ministry of Defence

Akash-NG: India's Next-Generation Answer to Modern Air Threats

Why in News: With Akash-NG (New Generation) progressing through high-altitude and user trials ahead of induction, the missile system remains one of DRDO's flagship indigenous air-defence programmes and a standing reference point for India's layered air-defence architecture alongside the S-400 and the older Akash system — a core Defence & Security topic independent of any single week's news trigger.

Background: Developed by DRDO as a canister-launched, more compact and higher-performance successor to the original Akash surface-to-air missile (inducted 2015), Akash-NG is designed to intercept fast, manoeuvring aerial targets including fighter aircraft and emerging threats such as stealthier UAVs, at a longer range and with a smaller, more mobile launcher footprint.

KEY FACTS

- Developer: DRDO, with production support from Bharat Dynamics Limited (BDL) and Bharat Electronics Limited (BEL).
- Type: surface-to-air missile (SAM), canisterised, mobile-launch configuration.
- Range: engages targets at roughly 70-80 km, an improvement over the original Akash's approximately 25-30 km range.
- Guidance: active radar seeker-based terminal guidance, improving single-shot kill probability against manoeuvring targets compared to the command-guided original Akash.
- Role: fills the medium-range tier of India's layered air-defence grid, below the long-range S-400 Triumf and above short-range systems like Akash and SPYDER.

- Primary intended user: the Indian Air Force, with development trials conducted from the Integrated Test Range, Chandipur, Odisha.
- Strategic significance: reduces import dependence in the medium-range SAM category, aligning with the Atmanirbhar Bharat defence-manufacturing push.
- Complements India's wider air-defence modernisation alongside the indigenous Quick Reaction Surface-to-Air Missile (QRSAM) and the imported S-400 system.

MAINS DIMENSIONS / ANALYSIS

- Significance: medium-range air defence is the tier most exposed to saturation drone/missile attacks seen in recent regional conflicts, making Akash-NG's faster reaction time and active-seeker guidance operationally significant.
- Criticism: analysts note indigenous SAM programmes have historically faced long gaps between successful trials and full-rate induction, and Akash-NG's induction timeline has itself slipped more than once.
- Comparative angle: Akash-NG vs S-400 vs the original Akash forms a classic "layered defence" comparison across range, guidance and role.
- Analytical angle: as drone warfare reshapes short/medium-range air-defence requirements globally, Akash-NG's active-seeker upgrade reflects DRDO's broader shift toward "fire-and-forget" missile guidance.
- Way forward: analysts recommend accelerating user trials and co-locating production with BEL/BDL capacity expansion to avoid the induction delays seen with other DRDO SAM programmes.

LET'S REMEMBER THIS THROUGH A TRICK

Layer it like a cake: Short-range (Akash/SPYDER, ~25-30 km) → Medium-range (Akash-NG, ~70-80 km) → Long-range (S-400, ~400 km) — India's layered air-defence grid, bottom to top.

PYQ LINKAGE

DRDO's indigenous missile systems are a recurring GS3 "Defence Technology" theme; revise alongside the S-400 Triumf and the Quick Reaction Surface-to-Air Missile (QRSAM).

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. Akash-NG uses active radar seeker-based terminal guidance, unlike the command-guided original Akash missile.
2. Akash-NG is primarily developed as a long-range system intended to replace the S-400 Triumf.
3. Akash-NG is developed by DRDO with production support from Bharat Dynamics Limited and Bharat Electronics Limited.

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 only (d) 2 and 3 only

Answer: a. Statement 2 is wrong — Akash-NG is a medium-range system, a distinct tier from the long-range S-400.

PROBABLE MAINS QUESTION

"India's layered air-defence architecture depends as much on indigenous medium-range systems as on imported long-range ones." Discuss with reference to Akash-NG. (150 words)

#AkashNG

#DRDO

#AirDefence

#AtmanirbharBharat

#LayeredDefence

THEIAS AKADEMIA Weighing a layered air-defence strategy against fiscal and strategic trade-offs is itself an exercise in applied governance judgement — the kind of structured reasoning TheIAS Akademia's **EMP (Ethics & Moral Philosophy)** programme trains systematically for GS4. Learn more at theiasakademia.com.

5 SCIENCE & TECHNOLOGY

1 CARD

GS3

Emerging Technologies · Quantum Communication

Static Topic — not tied to a current event · Source: National Quantum Mission; Department of Science & Technology

Quantum Key Distribution: The Physics Behind India's 'Unhackable' Communication Push

Why in News: As government and defence agencies increasingly invest in quantum-safe cybersecurity — including recent industry agreements aimed at scaling quantum-safe hardware — Quantum Key Distribution (QKD), the core technology making such communication possible, remains a foundational Science & Technology concept every aspirant must understand independent of any single contract announcement.

Background: QKD is a method of securely sharing cryptographic keys using the principles of quantum mechanics rather than classical mathematical hardness assumptions (as in RSA encryption), making it theoretically immune to the kind of code-breaking a future large-scale quantum computer could perform on today's internet security. India's National Quantum Mission (approved 2023, outlay roughly ₹6,003 crore over 2023-31) has quantum communication, including QKD, as one of its four thrust areas.

⚡ KEY FACTS

- Core principle: relies on the quantum no-cloning theorem and the observer effect — any attempt to intercept a quantum-encoded key disturbs its quantum state, instantly revealing eavesdropping.
- Most common protocol: BB84, proposed in 1984 by Bennett and Brassard, using the polarisation states of single photons to encode key bits.
- National Quantum Mission (NQM): approved by the Union Cabinet in April 2023, outlay approximately ₹6,003 crore for 2023-2031, under the Department of Science and Technology.
- NQM's four technology verticals: quantum computing; quantum communication (including QKD); quantum sensing & metrology; and quantum materials & devices.

- India has demonstrated free-space QKD links over distances exceeding 100 km and satellite-based QKD trials, building toward a planned quantum communication network linking key government installations.
- Driving use case: securing strategic and financial-sector communication against "harvest now, decrypt later" attacks, where data intercepted today could be decrypted once sufficiently powerful quantum computers exist.
- Complements (but is distinct from) post-quantum cryptography (PQC) — a classical-mathematics-based, quantum-resistant approach that needs no special quantum hardware.
- Key institutional players in India's QKD demonstrations include DRDO, ISRO, premier IITs and private quantum-technology firms.

MAINS DIMENSIONS / ANALYSIS

- Significance: QKD underpins the "quantum-safe" layer of India's broader cybersecurity and critical-infrastructure protection strategy as quantum computing matures globally.
- Criticism: QKD requires dedicated optical-fibre or free-space line-of-sight infrastructure and has a limited range before needing "trusted-node" repeaters, making nationwide scaling expensive compared to software-only post-quantum cryptography.
- Analytical angle: the QKD-versus-PQC debate mirrors a classic hardware-versus-software security trade-off, and most national strategies, India's included, now pursue both in parallel rather than picking one.
- Comparative angle: China currently leads in QKD deployment scale (its Beijing-Shanghai quantum backbone and the Micius satellite), making this an area of active India-China technological competition.
- Way forward: experts recommend prioritising QKD deployment for the most sensitive government and defence networks first, while adopting post-quantum cryptographic standards for broader civilian internet security.

LET'S REMEMBER THIS THROUGH A TRICK

Remember BB84 as 'Bennett-Brassard, '84' — and the core idea as 'look and it breaks': any eavesdropper measuring a quantum key necessarily disturbs it, so interception is always detectable.

PYQ LINKAGE

Quantum technologies are an increasingly frequent GS3 "Science & Technology" theme; revise alongside the National Quantum Mission (2023) and its four thrust areas.

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. Quantum Key Distribution relies on the quantum no-cloning theorem, which makes any interception of the key detectable.
2. The BB84 protocol for Quantum Key Distribution was proposed in the 1990s.
3. The National Quantum Mission includes quantum communication as one of its four thrust areas, alongside quantum computing, sensing and materials.

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 only (d) 2 and 3 only

Answer: a. Statement 2 is wrong — the BB84 protocol was proposed in 1984, not the 1990s.

PROBABLE MAINS QUESTION

Explain the scientific principle underlying Quantum Key Distribution and assess its role within India's National Quantum Mission in securing critical communication infrastructure. (150 words)

#QuantumKeyDistribution

#NationalQuantumMission

#BB84

#QuantumSafeCybersecurity

#EmergingTech

6 ECONOMY

2 CARDS

GS3

Inflation & Price Indices · Consumer Price Index

12 October 2026 · Source: Ministry of Statistics and Programme Implementation (MoSPI)

Retail Inflation Jumps to 5.54% in September 2026 as Vegetable Prices Spike

Why in News: MoSPI's press release dated 12 October 2026 showed All-India retail inflation, measured by the Consumer Price Index (CPI, base 2024=100), surging to 5.54% in September 2026 — up sharply from 4.83% in August — driven overwhelmingly by a jump in food inflation to 7.74% from 5.97% a month earlier, with onion prices alone up 108.09% year-on-year. The release lands just five days after the RBI's Monetary Policy Committee had already raised the repo rate and shifted to a "calibrated tightening" stance, intensifying scrutiny of whether that stance will now need to tighten further.

Background: CPI inflation is the headline metric the RBI's Monetary Policy Committee targets under its Flexible Inflation Targeting (FIT) mandate, with a target of 4% within a tolerance band of +/-2% (i.e., 2-6%) under Section 45ZA of the RBI Act, 1934. September's data was compiled on the new CPI base year of 2024=100, replacing the earlier 2012=100 series, as part of MoSPI's periodic base-year revision exercise.

⚡ KEY FACTS

- Headline CPI inflation, September 2026: 5.54% combined (rural 6.08%, urban 4.88%) — up from 4.83% in August 2026.
- Food inflation (Consumer Food Price Index): 7.74% combined, up from 5.97% in August.
- Steepest price increases: onion (+108.09%), silver jewellery (+87.80%), ginger (+62.85%), garlic (+54.62%).
- Sharpest declines: potato (-11.50%), tomato (-8.62%), motor cars/jeeps (-4.51%).
- Highest State-level headline inflation: Tamil Nadu (6.81%), Odisha (6.70%), Madhya Pradesh (6.68%).
- Personal care, social protection & miscellaneous goods recorded the highest divisional inflation at 13.75%; Health recorded the lowest at 1.40%.
- Data compiled on the revised CPI base year 2024=100; the October 2026 CPI reading is scheduled for release on 12 November 2026.

- Release comes just five days after the RBI MPC's 7 October 2026 decision to raise the repo rate to 5.50% and shift its stance to "calibrated tightening."

MAINS DIMENSIONS / ANALYSIS

- Significance: a near-one-percentage-point monthly jump in headline CPI is unusually sharp, keeping inflation within but near the upper end of the RBI's 2-6% tolerance band, complicating the just-announced tightening cycle.
- Criticism: economists note onion/vegetable-driven food-price shocks are typically transient and supply-side (weather-linked) rather than demand-driven, reviving the debate on whether the RBI should react to headline or core (non-food, non-fuel) inflation.
- Analytical angle: the sharp rural-urban gap (6.08% vs 4.88%) reflects food's larger weight in the rural consumption basket, with implications for real rural wage growth and MSP-linked farm incomes.
- Federal/regional angle: the concentration of high inflation in Tamil Nadu, Odisha and Madhya Pradesh — rather than a uniform national pattern — points to localised vegetable-supply disruptions rather than one all-India shock.
- Way forward: most economists expect the RBI to hold its "calibrated tightening" course rather than front-load further hikes, watching whether the food-price spike reverses by the October reading due 12 November 2026.

LET'S REMEMBER THIS THROUGH A TRICK

Two inflation gauges, two audiences: WPI tracks what producers/wholesalers pay (no services, no weight for what households actually buy); CPI tracks what households actually pay (includes services, and is what the RBI's 4% target is built on) — when both spike together, as in September 2026, it signals broad-based, not just input-cost, inflation.

PYQ LINKAGE

CPI-vs-WPI distinctions and the RBI's Flexible Inflation Targeting framework form an almost-annual GS3 Economy theme.

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. The Consumer Price Index is the index targeted by the RBI's Monetary Policy Committee under its Flexible Inflation Targeting framework.
2. As per data released in October 2026, India's food inflation (CFPI) declined in September 2026 compared to August 2026.
3. The current CPI series uses 2024 as its base year, replacing an earlier 2012-based series.

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 and 3 only (d) 1 only

Answer: a. Statement 2 is wrong — food inflation rose from 5.97% to 7.74%.

PROBABLE MAINS QUESTION

Analyse the September 2026 spike in India's retail (CPI) inflation and discuss whether monetary policy is the appropriate instrument to respond to a largely food-price-driven inflation shock. (250 words)

GS3

Monetary Policy · Inflation-Targeting Framework

Statutory review due in 2026 · Source: RBI discussion paper; RBI Act, 1934

Due for Renewal: Why 2026 Is a Make-or-Break Year for India's Inflation-Targeting Framework

Why in News: With September's CPI inflation (5.54%) running close to the upper edge of its tolerance band just as the RBI has itself circulated a discussion paper reviewing the Flexible Inflation Targeting (FIT) framework, 2026 marks the statutory five-year review point for the framework first adopted in 2016 — placing fundamental questions about whether India should target headline or core inflation, and whether the 4% target itself should change, squarely back on the table.

Background: The FIT framework was institutionalised via the Finance Act, 2016 amendment to the RBI Act, 1934, inserting Section 45ZA, which empowers the Central Government, in consultation with the RBI, to fix an inflation target once every five years; the current target (4% CPI inflation, with a 2-6% tolerance band) was set for the five-year period 2021-2026, meaning a fresh target must now be notified for the period beyond 2026.

⚡ KEY FACTS

- Legal basis: Section 45ZA of the RBI Act, 1934 (inserted by the Finance Act, 2016), empowering the Government, in consultation with the RBI, to fix the inflation target once every five years.
- Current target: 4% CPI inflation with a tolerance band of $\pm 2\%$ (2% to 6%), set for 2021-2026 — now due for a fresh five-year notification.
- The Monetary Policy Committee (MPC) is a six-member body — three RBI nominees including the Governor, three external members appointed by the Government — that sets the policy repo rate to meet this target, under Section 45ZB.
- "Failure" is statutorily defined as average inflation outside the tolerance band for three consecutive quarters, triggering a mandatory RBI report to the Government explaining the failure and a time-bound remedial plan.
- The RBI's discussion paper on the review reportedly examines a narrower tolerance band and a possible shift in policy emphasis toward "core" inflation (excluding volatile food and fuel).
- India adopted inflation targeting relatively late compared to peers like Brazil (1999), South Africa (2000) and Indonesia (2005), following the recommendations of the Urjit Patel Committee (2014).
- The current framework replaced the RBI's earlier "multiple indicator approach" (followed since 1998), which balanced inflation, growth, exchange-rate and financial-stability objectives without a single numerical anchor.

🎯 MAINS DIMENSIONS / ANALYSIS

- Significance: the review decision — keep 4%, lower it, or shift the base metric to core inflation — will shape India's monetary-policy stance for the next five years at a moment of volatile, food-driven headline inflation.
- Criticism: votaries of a shift to core inflation argue targeting headline CPI forces the RBI to react to supply-side food shocks (like September's onion-driven spike) that interest-rate policy cannot actually fix, causing

needless growth sacrifice.

- Analytical angle: opponents of a core-inflation shift counter that food carries nearly 40% weight in India's CPI basket, and ignoring it would make the inflation target irrelevant to what most Indian households actually experience.
- Comparative angle: most inflation-targeting central banks (the US Federal Reserve, the Bank of England) track core measures alongside headline figures for policy communication even while formally targeting headline inflation — a middle path India could adopt.
- Way forward: a widely discussed compromise is retaining the 4% headline target while giving the MPC explicit discretion to "look through" transient food-price shocks in its official communication, without changing the statutory target itself.

LET'S REMEMBER THIS THROUGH A TRICK

Remember the five-year clock: FIT adopted 2016 (Finance Act amendment inserting Section 45ZA) → first target period 2016-21 → renewed 2021-26 → next renewal due in 2026 — a fresh notification is required every five years, like clockwork.

PYQ LINKAGE

The Flexible Inflation Targeting framework and the Urjit Patel Committee are a recurring GS3 "Monetary Policy" theme; revise alongside the Monetary Policy Committee's composition under Section 45ZB.

PROBABLE PRELIMS MCQ (STATEMENT-BASED)

Q. Consider the following statements:

1. Section 45ZA of the RBI Act, 1934 requires the inflation target to be reviewed and fixed afresh once every five years.
2. The Monetary Policy Committee has a majority of members nominated directly by the Reserve Bank of India.
3. "Failure" to meet the inflation target is statutorily defined as average inflation outside the tolerance band for three consecutive quarters.

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 only (d) 2 and 3 only

Answer: a. Statement 2 is wrong — the MPC has three RBI nominees and three externally appointed members, an even split, not an RBI majority.

PROBABLE MAINS QUESTION

"2026 is a statutory inflection point for India's Flexible Inflation Targeting framework." Discuss the case for and against shifting the RBI's target from headline to core inflation. (250 words)

#FlexibleInflationTargeting

#RBIAct1934

#MonetaryPolicyCommittee

#Section45ZA

#InflationTarget2026

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