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The Topper's Last Read. Every Morning.

PART I · HEADLINES TO ECONOMY

Sunday, 16 August 2026

"The Topper's Last Read"

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INSIDE PART I

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How to read the date stamps. Every card carries a green date badge showing when the item actually happened. Yesterday was Independence Day and today is a Sunday, so the news spine of this edition runs 14–16 August 2026, with the Red Fort address of 15 August as its centre. Where an item is older, the true date is stated plainly in the card. Nothing here is dressed up as more recent than it is.

SECTION 01

Top Headlines — 16 August 2026

1. **PM unveils "Saptadhara"** — a seven-stream national strategy for Viksit Bharat 2047, in the 80th Independence Day address from the Red Fort (15 Aug), with a stated horizon of five to seven years.
2. **One crore youth to be trained in Artificial Intelligence within a year** under a new nationwide AI skilling mission announced from the ramparts (15 Aug).
3. **A modern voluntary Civil Defence Force and a Vibrant Civil Defence Network announced** — the most under-reported institutional announcement of the address (15 Aug).
4. **Nuclear target restated: 100 GW by 2047**, with five new reactors in six to seven years, resting on the SHANTI Act of December 2025 (15 Aug).
5. **₹85,000 crore committed to Samudra Manthan**, the deep-sea exploration mission — a new outlay figure on a mission announced in 2025 (15 Aug).
6. **"VIHAAN" networking chip achieves first-pass silicon success** on Independence Day, built on the indigenous C-DAC VEGA RISC-V core under MeitY's Design Linked Incentive scheme (15 Aug).
7. **Vande Mataram rendered at the Red Fort ceremony for the first time** in independent India, in the song's 150th year (15 Aug).
8. **India to host the 12th BRICS Environment Ministers' Meeting** at Bharat Mandapam on 18 August, preceded by the Environment Working Group on 17 August (PIB, 16 Aug).
9. **Home Minister lays foundation for a new Saras Dairy plant at Alwar** and e-inaugurates works across 17 Rajasthan districts (16 Aug).
10. **Defence production touches a record ₹1.78 lakh crore** and exports ₹38,424 crore in FY 2025-26, the Raksha Mantri's Independence Day eve address confirms (14 Aug).
11. **White House report places India in Tier 1 of alleged transshipment risk**; MEA says India is studying the findings and its rules-of-origin regime is robust (13–14 Aug).
12. **Monsoon 2026 turns violently erratic** — Assam's flood toll rises past 85, with extremely heavy rainfall warnings for Odisha and Gangetic West Bengal for 16–17 August.

SECTION 02

GS2

GS3

15 AUG

Government Policies & Interventions

15 August 2026 · Source: PMO / PIB · 80th Independence Day address

"Saptadhara": Seven Streams, Five to Seven Years, and No Nodal Agency

Why in News: In his 80th Independence Day address from the Red Fort on 15 August 2026 — his thirteenth consecutive address, and at roughly 75 minutes his shortest in four years — the Prime Minister set out a new organising framework for national strategy called *Shakti ki Saptadhara*, or the seven streams of strength. It is explicitly framed as the modern successor to the civilisational idea of the *Sapt Sindhu*, the seven rivers. The stated delivery horizon is "the coming five to seven years," which is the single firmest deadline in the speech.

Background: Independence Day addresses have increasingly become the vehicle for announcing organising frameworks rather than individual schemes — Atmanirbhar Bharat, Panch Pran, and the Viksit Bharat 2047 goal all originated or were consolidated in this format. Such frameworks are not statutes and carry no budgetary force of their own; their operational significance comes from whether ministries subsequently reorganise programmes and outlays around them. That is the test to apply here.

⚡ KEY FACTS — THE SEVEN STREAMS

- **1. Manufacturing Power** — components and finished products, "design to complete manufacturing"; the stated mantra is *cost, quality, scale*; zero-defect precision manufacturing and reliability as a supply-chain node.
- **2. Agriculture & Food Processing** — farm-to-export chains; millets, spices, fruits and flowers as global brands; chemical-free farming.
- **3. Technology & Innovation** — AI, quantum, space, robotics and data centres; export of Digital Public Infrastructure and UPI; Made-in-India 6G.
- **4. Gati Shakti** — high-speed rail, highways, inland waterways, airports, multimodal logistics; a stated shift to "port-led development".
- **5. Raksha Shakti** — full self-reliance and the ambition to become a global *supplier*; drones and counter-drone systems; hypersonics; cyber security.
- **6. Green & Blue Economy** — green hydrogen, renewables, storage, green mobility and green jobs; fisheries, coastal tourism and ocean technology.
- **7. Soft Power** — yoga, Ayurveda and "Heal in India"; handicrafts, films, VFX, animation and gaming; wildlife tourism; hosting global sporting events.
- **Corporate league targets stated separately:** 50 Indian companies in the Fortune 500; at least one Indian bank in the world's top five; one to two Indian pharmaceutical companies in the global top five.

🔗 MAINS DIMENSIONS / ANALYSIS

- The framework's real contribution is integrative. Manufacturing, defence and technology have until now been pursued through separate missions with separate ministries; naming them as streams of a single strategy is an attempt to force inter-ministerial coherence, which has been the persistent weak point of Indian industrial policy.
- **The sharpest available criticism, and it is a fair one:** no rupee outlay, no nodal agency, no implementing ministry and no review mechanism was attached to any of the seven streams. A framework without an owner and without a monitoring cadence tends to become a vocabulary rather than a programme.
- The five-to-seven-year horizon is unusual in that it deliberately falls short of 2047. It is best read as a mid-course marker: what must be irreversible by roughly 2032 if the 2047 goal is to remain arithmetically reachable.

- Two streams contain genuine internal tension. "Green and Blue Economy" sits alongside a separate announcement that 99% of India's coastline has been reclassified from "No Go" to "Go Ahead" — expansion of coastal economic activity and protection of coastal ecology are not automatically compatible, and the Coastal Regulation Zone framework is where that tension will be litigated.
- Soft power is the one stream with no measurable target attached, which makes it the easiest to claim success in and the hardest to hold to account.

💡 Let's Remember This Through a Trick

The seven streams in order spell a rough journey: **M-A-T-G-R-G-S** — *Make, Ateat (agriculture), Think, Go (Gati), Guard (Raksha), Grow green, Glow (soft power)*. Or simply remember that the framework borrows its name from the *Sapt Sindhu*, the seven rivers of the Rig Veda — seven streams, then and now.

🎯 Probable Prelims MCQ (Statement-Based)

Consider the following statements about the "Saptadhara" framework announced in 2026:

1. It identifies seven streams including manufacturing, defence and soft power.
2. It is named with reference to the *Sapt Sindhu* of the Vedic tradition.
3. A specific budgetary outlay was announced for each of the seven streams.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (a) 1 and 2 only. No outlay was attached to any stream.

📄 PYQ LINKAGE

GS3 2023: "Explain the difference between computer-aided manufacturing and manufacturing with the aid of robotics"; GS2 2020 on government policies and interventions for development in various sectors.

GS3

GS2

15 AUG

Disaster Management & Internal Security

15 August 2026 · Source: PMO / PIB

A Voluntary Civil Defence Force for a War That Targets Data Centres

Why in News: Among the announcements in the 15 August address, the one with the clearest institutional content received the least attention: the creation of a **Vibrant Civil Defence Network** and a large modern **voluntary Civil Defence Force**.

The stated rationale is that India's existing civil defence architecture is "outdated" — designed for the wars of the last century, when the threat was aerial bombardment of cities. Modern conflict, the address argued, targets refineries, banking systems, data centres and factories.

Background: Civil defence in India rests on the **Civil Defence Act, 1968**, enacted in the aftermath of the 1962 and 1965 conflicts, which empowers the Centre to make rules for protecting persons and property against hostile attack. It was designed around air-raid precautions, blackout drills, wardens and rescue services in designated "categorised towns". The Act was amended in 2009 to allow civil defence resources to be used for disaster management as well, bringing it into contact with the **Disaster Management Act, 2005** and the NDMA architecture. In practice the corps has been thinly resourced and largely dormant outside a handful of states.

- The **Civil Defence Act, 1968** is the governing statute; civil defence is administered through the **Ministry of Home Affairs**, with the Directorate General Fire Service, Civil Defence and Home Guards.
- The **2009 amendment** extended the Act's purposes to include disaster management, allowing the same volunteer corps to serve both wartime and peacetime emergencies.
- Civil defence is organised in **categorised towns** notified by the Centre, historically selected for proximity to borders, ports, and strategic industrial installations.
- The **Home Guards** are a distinct voluntary force, raised under state legislation, and should not be confused with Civil Defence — a standard Prelims trap.
- The threat categories named in the announcement — refineries, banking systems, data centres, factories — correspond to what is termed **critical infrastructure**, protected in the cyber domain by the **National Critical Information Infrastructure Protection Centre (NCIIPC)** under the IT Act, 2000.
- The **Disaster Management Act, 2005** creates the NDMA (chaired by the PM), SDMA, DDMA and the NDRF; civil defence volunteers are a potential force multiplier for this structure at the local level.
- No outlay, no target volunteer strength and no timeline were announced.

MAINS DIMENSIONS / ANALYSIS

- The announcement reflects a real doctrinal shift: the distinction between the military front and the civilian rear has substantially collapsed. Drone attacks, cyber intrusions into power grids, and strikes on energy infrastructure mean the first responders in a future conflict may be municipal staff and volunteers, not soldiers.
- India already has overlapping volunteer structures — Civil Defence, Home Guards, NCC, NSS, NYKS, Aapda Mitra, and now MY Bharat. The risk is duplication rather than capacity. The value of the new announcement depends entirely on whether it consolidates these or adds a ninth body to eight.
- The statutory question is unresolved: a genuinely modern civil defence force protecting data centres and financial systems is doing work the 1968 Act barely contemplates. Either the Act needs amendment or the force will operate on a shaky legal footing.
- There is a strong federal dimension. Civil defence is administered through the states, and police and public order are State subjects under Entry 1 and 2 of the State List. A "national network" therefore requires cooperative federalism rather than central direction.
- Comparatively, states that maintain serious civil-defence capacity — Israel's Home Front Command, Switzerland's shelter system, Finland's total-defence model — treat it as a permanent institution with statutory funding, not a periodic mobilisation.

Let's Remember This Through a Trick

1968 defends against bombs; 2009 defends against disasters; 2026 proposes to defend against data outages.

Three dates, three threat models, one statute doing all the work.

Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. Civil Defence in India is governed by the Civil Defence Act, 1968.
2. The Act was amended in 2009 to extend its purposes to disaster management.
3. Home Guards and Civil Defence are the same organisation under different names.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (a) 1 and 2 only. Home Guards are a separate force raised under state legislation.

PYQ LINKAGE

GS3 2020: "Disaster management is a collective responsibility"; GS3 2022 on the role of NDRF and community participation in disaster response.

GS2

GS1

15 AUG

Vulnerable Sections — Scheduled Tribes

15 August 2026 • Source: PIB / Ministry of Tribal Affairs

Rebuilding the ITDA: A National Framework for India's Oldest Tribal Delivery Machinery

Why in News: On 15 August 2026 the Union Minister for Tribal Affairs, along with a Member of NITI Aayog, released a **National Framework and Operational Guidelines for Strengthening of Integrated Tribal Development Agencies (ITDAs) and Integrated Tribal Development Projects (ITDPs)**. There are roughly **192 such agencies and projects** nationally. They are the primary field-level machinery for delivering tribal development, and they have gone largely unreformed since their creation.

Background: ITDAs and ITDPs were created in the **Fifth Five Year Plan period (1974–79)** as the delivery arm of the **Tribal Sub-Plan (TSP)** strategy, which required states to earmark plan funds for tribal areas in at least the proportion of their ST population. An ITDA typically covers a contiguous area where the Scheduled Tribe population exceeds **50%**. The Special Central Assistance to the Tribal Sub-Plan channels additional funds, conventionally split **70% for income-generating activities and 30% for infrastructure**. After the Planning Commission was replaced, the TSP was renamed the Development Action Plan for Scheduled Tribes (DAPST), and the ITDA structure lost some of its planning anchor — which is precisely the gap this framework addresses.

KEY FACTS

- Approximately **192 ITDAs/ITDPs** operate nationally, created in the **1970s–80s** under the Tribal Sub-Plan strategy.
- An ITDA area is conventionally one where the **ST population exceeds 50%**; smaller pockets are covered through MADA (Modified Area Development Approach) and clusters.
- **Special Central Assistance to TSP** is conventionally split **70% income-generating / 30% infrastructure**.
- Constitutional anchors: **Article 244 and the Fifth Schedule** (Scheduled Areas outside the North-East), the **Sixth Schedule** (Autonomous District Councils in Assam, Meghalaya, Tripura, Mizoram), **Article 275(1)** grants-in-aid, and **Article 338A** (National Commission for Scheduled Tribes).
- Statutory overlays that an ITDA must now work with: **PESA, 1996** (extension of Panchayats to Scheduled Areas) and the **Forest Rights Act, 2006**.
- Related current schemes: **PM-JANMAN** for Particularly Vulnerable Tribal Groups, **Dharti Aaba Janjatiya Gram Utkarsh Abhiyan**, Eklavya Model Residential Schools, and Van Dhan Vikas Kendras.
- Scheduled Tribes are approximately **8.6%** of India's population per the 2011 Census, with **75 notified PVTGs**.

MAINS DIMENSIONS / ANALYSIS

- The ITDA's original design flaw is structural: it was conceived as a *planning and coordinating* body but was given neither line authority over sectoral departments nor an independent budget of consequence. It coordinates without commanding, which explains chronic underperformance.
- The framework's significance lies in timing. With PESA and the Forest Rights Act now mature, and with Gram Sabhas holding real statutory powers in Scheduled Areas, an ITDA that plans *for* tribal communities rather than *with* their Gram Sabhas is legally as

well as ethically obsolete.

- The persistent accountability question is the diversion and lapse of Tribal Sub-Plan funds — money earmarked for tribal areas being spent on general infrastructure that happens to pass through them. Any strengthening framework must be judged on whether it fixes fund-tracking, not on whether it adds committees.
- There is a live federal tension: tribal welfare is a State subject in implementation but the Centre supplies much of the money, and the Governor holds special powers over Scheduled Areas under Paragraph 5 of the Fifth Schedule. Reform of the ITDA touches all three.
- For answer writing, the honest position is that India's tribal development problem has rarely been the absence of institutions — it has been institutions with mandates far larger than their authority.

Let's Remember This Through a Trick

Fifth Schedule = Scheduled Areas everywhere else; Sixth Schedule = four North-Eastern states only. And for the ITDA: *"more than half tribal, seventy for income, thirty for bricks."*

Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. Integrated Tribal Development Agencies were created during the Fifth Five Year Plan period.
2. The Sixth Schedule applies to Assam, Meghalaya, Tripura and Mizoram.
3. PESA, 1996 extends the provisions of Part IX of the Constitution to Scheduled Areas.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (d) All three.

PYQ LINKAGE

GS1 2022 on tribal communities and development; GS2 2018 & 2023 on the Fifth and Sixth Schedules and mechanisms for the welfare of vulnerable sections.

THEIAS AKADEMIA Polity held to exactly three cards today under our section-balance rule. The freed slots go to culture, IR, defence, technology and economy — breadth across the syllabus beats depth in one paper. theiasakademia.com

SECTION 03

Art, Culture & National Symbols

GS1

GS2

15 AUG

Modern Indian History & National Symbols

15 August 2026 · Source: PIB / Ministry of Culture

Vande Mataram at 150: Why India Has a National Song and a National Anthem

Why in News: On 15 August 2026, *Vande Mataram* was rendered at the Red Fort Independence Day ceremony for the first time in independent India — played by the Army band after the flag hoisting and before the National Anthem. The rendition marks the song's **150th year**, counted from its composition in 1875. The Ministry of Culture's *Har Ghar Tiranga* campaign this year carried the theme "Spirit of Vande Mataram."

Background: *Vande Mataram* was composed by **Bankim Chandra Chattopadhyay** in **1875** and published seven years later within his novel ***Anandamath* (1882)**. It was first sung at the **1896 Calcutta session of the Indian National Congress**, reportedly by Rabindranath Tagore, and became the mobilising cry of the **Swadeshi movement during the Partition of Bengal in 1905**. Objections were raised in the 1930s, principally that the later stanzas identify the motherland with Hindu deities, which some Muslim leaders held to be incompatible with their faith. In **1937 the Congress Working Committee**, on a subcommittee that included Tagore and Nehru, resolved that only the **first two stanzas** would be sung at public functions. This is why India ended up with two songs rather than one.

⚡ KEY FACTS

- **Composed 1875** by Bankim Chandra Chattopadhyay; **published 1882** in the novel *Anandamath*. The 150th anniversary counts from the composition, not the novel — a common error.
- Language: Sanskritised **Bengali**, with the opening stanzas in Sanskrit.
- **First sung at the 1896 Calcutta session** of the Indian National Congress.
- **1937:** the Congress Working Committee resolved that only the **first two stanzas** would be sung at official occasions.
- **24 January 1950:** Constituent Assembly President **Dr Rajendra Prasad** made a statement — not a resolution, and not a constitutional provision — that *Jana Gana Mana* would be the **National Anthem** and that *Vande Mataram* "shall be honoured equally with it and shall have equal status." On the same day the Assembly also adopted the National Emblem.
- **Neither song is mentioned in the text of the Constitution.** The National Anthem is protected by the **Prevention of Insults to National Honour Act, 1971**; there is **no statutory code of conduct** for the National Song.
- *Jana Gana Mana* was written by **Rabindranath Tagore**, first sung at the **1911 Calcutta session** of the Congress; its formal rendition takes **52 seconds**.
- The Hindi translation of *Vande Mataram* in wide use was rendered by **Aurobindo Ghose** in English prose as "I bow to thee, Mother."

🎯 MAINS DIMENSIONS / ANALYSIS

- The two-song settlement is one of the clearest surviving artefacts of the Constituent Assembly's method: where a symbol carried genuine communal difficulty, the Assembly neither imposed nor abandoned it, but negotiated a status that allowed both attachment and dissent to coexist.
- The legal asymmetry is real and examinable. Because the anthem has statutory protection and the song does not, courts have consistently held that a person may be required to *stand* for the anthem but that compulsion to *sing* either is a different question — and one that engages Article 19(1)(a) and Article 25.
- The song's history is a case study in how a literary text acquires political meaning it was not written to carry. *Anandamath* is a novel about a monastic rebellion; the hymn within it became the anthem of a mass movement thirty years later.
- For GS1, the 1905 Swadeshi context is the essential link: *Vande Mataram* was the first Indian political slogan that functioned across linguistic boundaries, and its suppression by the colonial administration in schools and public meetings turned it into an instrument of civil disobedience in its own right.
- A balanced answer should acknowledge that objections to the later stanzas were made in good faith by leaders committed to the national movement, and that the 1937 compromise is better understood as inclusive statesmanship than as capitulation.

MEMORY TECHNIQUE — RETURNING TOPIC

This subject appeared in yesterday's edition only as a single Prelims question. It returns today as a full card because 15 August produced a genuinely new development — the first rendition at the Red Fort ceremony in independent India. **Fix the four dates now: 1875 composed, 1882 published, 1896 first sung, 1937 two stanzas, 1950 equal status.** Five dates, one song.

Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. *Vande Mataram* was first sung at the 1896 session of the Indian National Congress.
2. The Constitution of India expressly designates *Jana Gana Mana* as the National Anthem.
3. The Prevention of Insults to National Honour Act, 1971 protects the National Anthem.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 1 and 3 only (c) 2 and 3 only (d) All three

Answer: (b) 1 and 3 only. The Constitution's text does not name either song; the anthem's status rests on the Constituent Assembly President's statement of 24 January 1950.

PYQ LINKAGE

GS1 2021 on the Swadeshi movement; Prelims 2017 and 2019 have both tested Constituent Assembly decisions and national symbols.

SECTION 04

International Relations

GS2

GS3

13-14 AUG

Bilateral Relations & External Trade

Report released 13 August 2026; India's response at the MEA briefing of 14 August 2026

The Transshipment Report: India in Tier 1, and Why Rules of Origin Now Matter More Than Tariffs

Why in News: On **13 August 2026** the White House Office of Trade and Manufacturing Policy released a 25-page report titled "*The Great Transshipment Scam: Rise, Scope, and Costs.*" It alleges that Chinese exporters route goods through more than forty countries to evade United States duties, and it places **India in Tier 1** — described as "diversified scale leaders" — alongside Canada, the EU, Japan, Mexico, South Korea, Taiwan and Israel. At the MEA's briefing on **14 August**, the Official Spokesperson said India is studying the findings and the methodology, that India has robust customs and rules-of-origin laws, and that violations are dealt with in accordance with law.

Background: Transshipment fraud is the practice of routing goods through a third country to disguise their origin and capture that country's more favourable tariff treatment. It became commercially significant after the United States imposed tariffs on Chinese goods from 2018. The legal instrument that governs the question is the **rules of origin** — the criteria determining a product's economic nationality. Under WTO practice, origin is conferred either by wholly obtaining the good in a country or by **substantial transformation**, tested through a change in tariff heading, a value-addition threshold, or a specified processing operation. India tightened its own regime through the **CAROTAR Rules, 2020** (Customs Administration of Rules of Origin under Trade Agreements), which shifted the burden onto importers to demonstrate origin claims.

⚡ KEY FACTS

- The report is authored by the **White House Office of Trade and Manufacturing Policy**, released **13 August 2026**, running to 25 pages.
- US Department of Commerce figures cited: in **2025, roughly USD 67 billion** of US-bound goods were transshipped from China through just three hubs — **Mexico, India and Vietnam**.
- Estimated lost US tariff revenue: **approximately USD 26–28 billion** (sources differ within this range).
- The report **does not disaggregate India's individual share** of the USD 67 billion — an important limitation when assessing the claim.
- The United States proposes an **AI-enabled "Detective Border"** enforcement system to identify origin fraud.
- India's domestic instrument is **CAROTAR, 2020**, which places the onus on the importer to possess origin information and allows customs to deny preferential treatment pending verification.
- The WTO's **Agreement on Rules of Origin** governs non-preferential origin; preferential origin is determined by each trade agreement's own protocol.
- Context: a bilateral understanding announced on **2 February 2026** reduced US tariffs on most Indian goods from 50% to 18%.

🔗 MAINS DIMENSIONS / ANALYSIS

- The strategic point is that as tariff walls rise, the contested terrain shifts from the tariff *rate* to the origin *determination*. A country can win a favourable tariff and still lose the benefit if its origin certifications are distrusted.
- India's exposure is genuine but double-edged. India has been a principal beneficiary of "China plus one" relocation, and legitimate relocation of manufacturing looks superficially similar in trade data to illegitimate rerouting. The burden of distinguishing the two now falls on Indian customs administration.
- The methodological criticism India has implicitly raised is substantive: an aggregate figure across three very different economies, without country-level disaggregation, cannot support a country-specific allegation. India is right to ask for the methodology before accepting the classification.
- There is an institutional opportunity here. If India can demonstrate a rules-of-origin regime credible enough to satisfy partner customs authorities, that credibility itself becomes a trade advantage — particularly with the India-EU agreement awaiting signature, where origin protocols will be heavily negotiated.
- The deeper systemic issue is the erosion of multilateral dispute settlement. With the WTO Appellate Body non-functional, allegations of this kind are increasingly resolved by unilateral executive action rather than adjudication, which disadvantages middle powers most.

💡 Let's Remember This Through a Trick

Two tests decide origin: **"wholly obtained" or "substantially transformed."** And remember India's own rule by its acronym — **CAROTAR 2020**: the *importer* must prove the carrot came from the field it claims.

 Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. Rules of origin determine the economic nationality of a product for customs purposes.
2. "Substantial transformation" may be tested through a change in tariff classification or a value-addition threshold.
3. CAROTAR Rules, 2020 place the onus on the importer to possess information on the origin of goods.

Which of the statements given above is/are correct?

- (a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (d) All three.

 PYQ LINKAGE

GS2 2020 & 2023 on the effect of bilateral trade measures on India's interests; GS3 2021 on India's external sector and trade policy.

GS2

GS1

14 AUG

India & its Neighbourhood / Global Groupings

14 August 2026 · Source: MEA bi-weekly media briefing

India's Arctic Turn: The Northern Sea Route Enters the India-Russia Conversation

Why in News: At the Ministry of External Affairs briefing on **14 August 2026**, responding to the Russian President's remark that India is showing growing interest in the **Northern Sea Route**, the Official Spokesperson confirmed that connectivity, including Arctic shipping, is an active part of India-Russia discussions. This is a quiet but consequential development: an Indian interest that has until now been framed as scientific is being framed as commercial and strategic.

Background: The Northern Sea Route runs along Russia's Arctic coast from the Kara Gate near Novaya Zemlya to the Bering Strait, connecting the Atlantic and Pacific across the top of Eurasia. Retreating sea ice has extended its navigable season. For India, the route matters because the alternative — the Suez Canal and the Red Sea — has proved vulnerable, and because it shortens the Europe-to-East Asia passage by a claimed 30–40% relative to Suez. India's Arctic presence dates to the **Svalbard Treaty of 1920**, which India signed, and was consolidated with the **Himadri research station at Ny-Alesund, Svalbard, established in 2008**. India became an **Observer at the Arctic Council in 2013** and released its **Arctic Policy in March 2022**.

KEY FACTS

- The **Northern Sea Route (NSR)** runs along Russia's Arctic coast between the Kara Gate and the Bering Strait; Russia asserts regulatory control over transit, a claim contested by some states under UNCLOS.
- **UNCLOS Article 234** permits coastal states to adopt special laws for ice-covered areas within the EEZ — the legal basis Russia invokes for NSR regulation.
- India signed the **Svalbard Treaty in 1920**; its research station **Himadri at Ny-Alesund, Svalbard**, was established in **2008**.
- India has been an **Observer at the Arctic Council since 2013**; the Council's eight members are Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States.
- India's **Arctic Policy was released in March 2022**, built on six pillars including science, environmental protection, economic and human development, connectivity, governance and capacity building.

- India also operates the moored observatory **IndARC** in the Kongsfjorden fjord; the nodal body is the **National Centre for Polar and Ocean Research (NCPOR)**, Goa, under the Ministry of Earth Sciences.
- The complementary bilateral project is the **Chennai-Vladivostok Eastern Maritime Corridor**, which shortens the India-Russian Far East passage substantially compared with the Suez route.
- India is one of thirteen Observers at the Arctic Council; China, Japan, South Korea and Singapore are also Observers — a useful comparison for Asian Arctic interest.

MAINS DIMENSIONS / ANALYSIS

- The Arctic illustrates the uncomfortable logic of climate geopolitics: the same ice loss that constitutes an ecological catastrophe creates a commercial shipping lane, and states that are net losers from warming may nonetheless be net gainers from Arctic access. India has to hold both positions honestly.
- Route diversification is the strategic driver. Disruption in the Red Sea and the vulnerability of the Strait of Malacca have made India's dependence on a small number of chokepoints a first-order security concern; the NSR and the Eastern Maritime Corridor are hedges rather than replacements.
- The legal question is genuinely unsettled. Whether Article 234's ice-covered-areas exception permits the degree of regulatory control Russia asserts — mandatory pilotage, fees, permission requirements — is disputed. India's position as a user state rather than a coastal state gives it an interest in a narrow reading.
- There is a sanctions and payments dimension that any honest answer must acknowledge: deepening Arctic logistics cooperation with Russia carries exposure to third-country secondary sanctions, and this constrains how fast commercial arrangements can move.
- The scientific case remains the strongest Indian claim to Arctic standing. The Arctic and the Himalaya-Tibetan cryosphere are teleconnected, and Arctic sea-ice variability has documented links to Indian monsoon behaviour — which makes Arctic research a monsoon-forecasting investment, not a distant curiosity.

Let's Remember This Through a Trick

Himadri in the Arctic, Maitri and Bharati in the Antarctic, Himansh in the Himalaya. One family of Indian polar stations, three cryospheres. And the dates: **Svalbard 1920, Himadri 2008, Observer 2013, Policy 2022.**

Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. India is a member of the Arctic Council.
2. India's Arctic research station Himadri is located at Ny-Alesund, Svalbard.
3. India released its Arctic Policy in 2022.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (b) 2 and 3 only. India is an *Observer*, not a member — Council membership is confined to the eight Arctic states.

PYQ LINKAGE

Prelims 2014 & 2018 tested Arctic Council and polar research; GS2 2023 on India's engagement with global commons and multilateral forums.

Defence & Security

GS3

GS2

14 AUG

Defence Indigenisation & Technology

14 August 2026 · Source: PIB / Ministry of Defence · Raksha Mantri's Independence Day eve address on Akashvani

₹1.78 Lakh Crore and a Scramjet That Ran for Twenty Minutes: India's Defence Production Ledger

Why in News: In his Independence Day eve address to the armed forces broadcast on Akashvani on **14 August 2026**, the Raksha Mantri set out the fullest official statement of India's defence-industrial position in a year. Domestic defence production reached a record **₹1.78 lakh crore in FY 2025-26**, and exports an all-time high of **₹38,424 crore**. The address also confirmed a set of technology milestones, the most striking being a ground test of an actively cooled full-scale scramjet combustor sustained for over **1,200 seconds**.

Background: India was for decades the world's largest arms importer, with a domestic industry confined to ordnance factories and defence public sector undertakings operating on licensed production. The shift began with the opening of defence manufacturing to the private sector and to FDI, the introduction of positive indigenisation lists barring the import of specified items, the Make-in-India categories in defence procurement, and the corporatisation of the Ordnance Factory Board into seven DPSUs in 2021. The numbers below measure that transition — and also reveal how far it still has to run.

Indicator	Then	FY 2025-26 / 2026-27
Domestic defence production	₹46,000 cr (2014)	₹1.78 lakh crore
Defence exports	₹686 cr (FY 2013-14)	₹38,424 crore (+ over 5,500%)
Defence budget	₹2.53 lakh cr (FY 2013-14)	₹7.85 lakh crore
Capital expenditure	₹94,588 cr	₹2.19 lakh crore
Defence R&D budget	₹15,283 cr (FY 2014-15)	₹29,100 crore (+90%)

⚡ KEY FACTS

- **Public sector accounts for about 76%** of production; the **private sector 24%**, up from 22% the previous fiscal — the single most revealing number in the set.
- **145 defence exporters** shipping to **more than 80 countries**; the stated target is **₹50,000 crore of exports by 2029**.
- The **Defence Acquisition Council granted Acceptance of Necessity for projects worth over ₹8.75 lakh crore** in the past year; **503 capital procurement contracts worth ₹2.28 lakh crore** were signed in the current fiscal.
- **Active Cooled Full-Scale Scramjet Combustor ground-tested for over 1,200 seconds** — a scramjet is a supersonic-combustion ramjet with no rotating compressor, which requires the air to remain supersonic through the combustor; sustained ground testing at this duration places India in a small group pursuing air-breathing hypersonic propulsion.
- Missile milestones confirmed: an **advanced Agni with MIRV** (Multiple Independently targetable Re-entry Vehicles); the **Long-Range Land Attack Cruise Missile**; **RudraM-II** air-to-surface; **NASM-SR** naval anti-ship; and the **Pinaka**

long-range guided rocket.

- The indigenous **"Kusha" Long-Range Surface-to-Air Missile** completed its maiden flight test on **23 July 2026** from the Integrated Test Range at Dr APJ Abdul Kalam Island, Odisha.
- Veterans' welfare: the **ECHS budget rose 300%** over five years; under the Armed Forces Flag Day Fund the **Penury Grant doubled to ₹8,000**, the Education Grant to ₹2,000 and the Marriage Grant to ₹1,00,000.
- The first batch of **women cadets trained at the National Defence Academy was commissioned** across the three Services; **"Samudra Pradakshina"** is the first tri-service all-women circumnavigation sailing expedition.

MAINS DIMENSIONS / ANALYSIS

- The headline production figure is genuine, but the 76:24 public-private split is the number that should govern any assessment. A defence-industrial base still three-quarters state-owned has limited exposure to the competitive pressures that drive cost and cycle-time discipline elsewhere.
- The export figure deserves careful reading. A 5,500% rise from a base of ₹686 crore is arithmetically dramatic and substantively real, but a large share of exports remains components and sub-systems rather than complete platforms — which is where the margin and the strategic influence lie.
- The scramjet result is the item of genuine technological significance. Hypersonic glide and cruise weapons compress decision timelines to the point where existing missile-defence architectures may not be able to respond, which is why the same address referenced both offensive hypersonics and a layered defensive shield.
- The procurement reform mentioned — doubling financial powers of Field Commanders and routing over ₹1.25 lakh crore of procurement through the revenue route — targets the real bottleneck, which has never been sanctioned but the time between sanction and delivery.
- A credible critique: Acceptance of Necessity is not a contract. ₹8.75 lakh crore of AoN converts into actual capability only after trials, negotiation and delivery, a pipeline that historically takes years and frequently attrits. Distinguish intent from induction in any answer.

Let's Remember This Through a Trick

Production 1.78, exports 0.38, budget 7.85 — in lakh crore, the three numbers that describe Indian defence in 2026. And the split to never forget: **76 public, 24 private**.

Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. A scramjet engine sustains combustion in supersonic airflow and has no rotating compressor.
2. MIRV technology allows a single missile to carry multiple independently targetable warheads.
3. The Kusha missile is a long-range surface-to-air system.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (d) All three.

PYQ LINKAGE

GS3 2018 & 2023 on defence indigenisation and technology missions; Prelims has repeatedly tested missile types and propulsion (ramjet, scramjet, cryogenic).

Science & Technology

GS3

15 AUG

Indigenisation of Technology

15 August 2026 · Source: PIB / Ministry of Electronics & Information Technology

"VIHAAN": First-Pass Silicon Success, and What RISC-V Means for Indian Chip Sovereignty

Why in News: On **15 August 2026**, MeitY announced that **VIHAAN**, a broadband networking and security system-on-chip developed by a Chennai-based fabless startup under the **Design Linked Incentive (DLI) Scheme**, achieved **first-pass silicon success**. The chip was taped out on Republic Day 2026 and returned working silicon on Independence Day 2026. Production tape-out is targeted for **2027**. Critically, it is built on the **64-bit VEGA processor developed by C-DAC**, which uses the royalty-free **RISC-V** instruction set architecture.

Background: Two terms carry the whole story. A **tape-out** is the point at which a completed chip design is sent to a foundry for fabrication; because a single mask set costs a very large sum, a design error discovered afterwards means a costly re-spin. **First-pass silicon success** means the returned chip worked as designed with no re-spin required — an uncommon outcome and a genuine measure of design-team maturity. A **fabless** company designs chips but does not own a fabrication plant. An **instruction set architecture** is the vocabulary a processor understands; the dominant ISAs are proprietary and licensed, while **RISC-V is open and royalty-free**, which removes both the licence cost and the possibility of a licence being withdrawn.

⚡ KEY FACTS

- **VIHAAN** is a broadband networking and security SoC for fibre broadband, developed by a fabless startup under MeitY's **Design Linked Incentive (DLI) Scheme**.
- Built on the **64-bit C-DAC VEGA** processor family, based on the **RISC-V** royalty-free open ISA.
- **Tape-out on Republic Day 2026; first-pass silicon success on Independence Day 2026; production tape-out targeted 2027.**
- The **India Semiconductor Mission (ISM)** operates with a corpus of **₹76,000 crore**; **12 semiconductor projects across 6 states** have been approved, with investment exceeding **₹1.6 lakh crore**.
- **Scheme A** of the ISM provides **50% fiscal support** of project cost for semiconductor fabs.
- **Three plants are already in commercial production and exports have begun**, per the 15 August address; a further **five to eight facilities** were announced. *Note: official sources differ on the timeline for these — PIB and one national daily give seven to eight years, while the PMO's own summary gives one to two years. We report both rather than choose.*
- Semiconductor manufacturing has three distinct stages: **design, fabrication**, and **ATMP/OSAT** (assembly, testing, marking and packaging). India's strength has historically been design; fabrication is the gap.

🔗 MAINS DIMENSIONS / ANALYSIS

- The strategic significance of RISC-V is understated in most coverage. Chip sovereignty is not only about owning fabrication plants; it is about not depending on a foreign licence for the instruction set your processors execute. An open ISA removes an

entire category of chokepoint that no amount of domestic fabrication would address.

- First-pass silicon success is a design-capability signal, not a manufacturing one. It says India can now produce complex working designs; it says nothing about whether India can fabricate them at advanced nodes, which remains the harder problem.
- The Design Linked Incentive scheme is arguably better matched to India's actual comparative advantage than fab subsidies. India already supplies a very large share of the world's chip-design engineering talent; converting that from service work for foreign firms into Indian-owned intellectual property is a lower-capital, higher-return path.
- The honest caution is that semiconductor targets have a global history of slipping. Fabs are capital-intensive, cyclical, and dependent on equipment supply chains concentrated in a handful of firms. The divergence between official timelines noted above is itself a small illustration of how uncertain the schedule is.
- For a Mains answer, the useful framing is that India is attempting to enter the value chain at both ends simultaneously — design at the top, ATMP at the bottom — while leaving advanced fabrication for later. Whether that is sequencing or avoidance is the real debate.

Let's Remember This Through a Trick

Design → Fab → ATMP. India is strong at the first, weak at the second, building the third. And remember the phrase: *"taped out on Republic Day, working silicon on Independence Day"* — the two national days bracketing one chip's life.

Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. RISC-V is an open, royalty-free instruction set architecture.
2. A "fabless" company designs semiconductors but does not own a fabrication facility.
3. "Tape-out" refers to the packaging and testing stage of chip manufacture.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (a) 1 and 2 only. Tape-out is the release of the completed design to the foundry, not packaging.

PYQ LINKAGE

GS3 2022 & 2023 on indigenisation of technology and developing new technology; Prelims 2023 on semiconductors and critical technologies.

GS3

GS2

15 AUG

Awareness in IT & Skill Development

15 August 2026 · Source: PMO / PIB

One Crore Youth, One Year, No Ministry Named: The AI Skilling Mission

Why in News: The 15 August address announced a nationwide mission-mode programme to train **one crore — ten million — young people in Artificial Intelligence within the coming year**, that is, by August 2027. It is the largest numerical commitment in the speech. No outlay was stated and no implementing ministry or nodal agency was named. A second announcement in the same passage promised a **free online coaching network** for competitive examinations, built on Digital Public Infrastructure, explicitly aimed at the cost burden private coaching imposes on poor and middle-class families.

Background: India's AI policy architecture has developed as a set of missions and advisories rather than a statute. The **IndiaAI Mission**, approved in 2024, organises work across compute capacity, datasets, application development, future skills, startup financing and safe-and-trusted AI. Skilling more broadly runs through the Skill India Mission, PMKVY and the National Skill Development Corporation. What India does **not** have is a dedicated statute regulating artificial intelligence — a gap the Supreme Court noted earlier this month when it declined to entertain a public interest litigation seeking judicial regulation of high-risk AI, holding the matter to be for the legislature.

⚡ KEY FACTS

- Target: **1 crore (10 million) youth trained in AI within one year**, in mission mode, nationwide. **No outlay, no nodal ministry, no delivery partner named.**
- Companion announcement: a **free online coaching network** for competitive examinations and sports, built on **Digital Public Infrastructure**, to reduce household spending on private coaching.
- The **IndiaAI Mission (2024)** is the existing institutional vehicle, structured around seven pillars including **IndiaAI Compute Capacity, IndiaAI Datasets Platform, IndiaAI FutureSkills** and **Safe & Trusted AI**.
- India currently has **no dedicated statute regulating artificial intelligence**; governance rests on the IT Act, 2000, the Digital Personal Data Protection Act, 2023, and executive advisories.
- The **Digital Personal Data Protection Act, 2023** supplies the closest binding constraint on AI systems processing personal data, through consent, purpose limitation and the Data Protection Board.
- **Puttaswamy (2017)** established informational privacy as part of Article 21 and set the proportionality test that any AI regulation would have to satisfy.
- Comparative reference points: the **EU AI Act** uses a risk-tiered approach (unacceptable, high, limited, minimal); the **Council of Europe Framework Convention on AI** is the first binding international AI treaty.
- India is a founding member of the **Global Partnership on Artificial Intelligence (GPAI)** and hosted its summit in New Delhi.

🎯 MAINS DIMENSIONS / ANALYSIS

- Scale is the whole argument in favour. If AI displaces routine cognitive work as automation displaced routine manual work, then a country with India's demographic profile has a narrow window to convert a labour surplus into a skills advantage. Ten million in a year is the right order of magnitude for that problem.
- Scale is also the whole argument against, because "trained in AI" is undefined. A one-week awareness module and a six-month applied machine-learning course would both count towards the number. Without a published competency framework and independent assessment, the target measures throughput rather than capability — the recurring weakness of Indian skilling programmes.
- The free coaching announcement has a genuine equity rationale — private coaching is a substantial and regressive household expenditure — but a state-funded coaching platform is treating the symptom. The underlying cause is an examination system whose content diverges from what schools teach, which is a curriculum problem, not a delivery problem.
- The sharpest structural observation is the mismatch between ambition and architecture: India is committing to train ten million people in a technology it has not yet legislated on. Skilling without a governance framework produces capability without guardrails, and the two ought to advance together.
- The federal dimension matters for delivery. Education and skill development are on the Concurrent List, and any national target of this size depends on state training institutions, ITIs and universities — none of which were named.

📌 MEMORY TECHNIQUE — RETURNING THEME

Artificial intelligence has now appeared in this product three times in a fortnight, from three different directions: as **compute** (a national supercomputer), as **regulation** (the Supreme Court declining to legislate from the bench), and

now as **skilling**. That is not repetition — it is the shape of a policy field forming in real time. Hold the three together: *compute, courts, competence*.

 Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. India has enacted a dedicated statute regulating artificial intelligence.
2. The IndiaAI Mission includes pillars on compute capacity and safe and trusted AI.
3. India is a founding member of the Global Partnership on Artificial Intelligence.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (b) 2 and 3 only. India has no dedicated AI statute.

 PYQ LINKAGE

GS3 2023: "Introduce the concept of Artificial Intelligence. How does AI help clinical diagnosis?"; GS2 2021 on the digital divide and skill development.

GS3

GS2

15 AUG

Energy & Infrastructure

15 August 2026 · Source: PMO / PIB; SHANTI Act passed December 2025

100 GW by 2047: The SHANTI Act, the Kalpakkam Breeder, and the End of the State Monopoly

Why in News: The 15 August address restated India's target of **100 GW of nuclear capacity by 2047** — roughly a tenfold increase — and said **five new reactors** would become operational within six to seven years. It also claimed that India has this year mastered **fast breeder reactor technology**, referring to the 500 MWe Prototype Fast Breeder Reactor at Kalpakkam attaining first criticality in April 2026. The enabling legal change is the **SHANTI Act** — the Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India Act — passed in December 2025.

Background: India's civil nuclear programme was designed by Homi Bhabha as a **three-stage programme** tailored to India's resource endowment: modest uranium reserves but among the world's largest thorium reserves. Stage I uses natural uranium in pressurised heavy water reactors, producing plutonium. Stage II uses that plutonium in fast breeder reactors, which produce more fissile material than they consume and can breed uranium-233 from a thorium blanket. Stage III uses uranium-233 in thorium-based reactors. Reaching Stage II has taken far longer than planned, which is why first criticality of the PFBR is a genuine milestone rather than a routine one. Until the SHANTI Act, the **Atomic Energy Act, 1962** reserved nuclear power generation to the state, and the **Civil Liability for Nuclear Damage Act, 2010** deterred foreign suppliers through its supplier-recourse provision.

 KEY FACTS

- **Target: 100 GW of nuclear capacity by 2047.** Note this is a restatement of a target already carried in the Union Budget, not a new announcement.
- The **SHANTI Act, passed December 2025**, repeals the **Atomic Energy Act, 1962** and the **Civil Liability for Nuclear Damage Act, 2010**, and opens the sector to private and foreign participation.

- The **500 MWe Prototype Fast Breeder Reactor (PFBR) at Kalpakkam, Tamil Nadu, attained first criticality in April 2026**. It is built by BHAVINI; the fuel is a uranium-plutonium mixed oxide and the coolant is liquid sodium.
- **First criticality** means the reactor has achieved a self-sustaining chain reaction for the first time — it precedes commercial power generation.
- Bhabha's **three-stage programme**: Stage I PHWRs on natural uranium; Stage II fast breeder reactors on plutonium with a thorium blanket; Stage III thorium-uranium-233 reactors.
- India holds roughly **25% of the world's thorium reserves**, concentrated in the monazite sands of Kerala, Tamil Nadu, Odisha and Andhra Pradesh, while its uranium reserves are modest.
- Institutional map: **NPCIL** operates the PHWR fleet; **BHAVINI** the fast breeder; **AERB** is the regulator; **DAE** the parent department, reporting directly to the Prime Minister.
- India is **not a party to the Nuclear Non-Proliferation Treaty** but obtained a **Nuclear Suppliers Group waiver in 2008** following the India-US civil nuclear agreement, with IAEA safeguards on designated civilian facilities.

MAINS DIMENSIONS / ANALYSIS

- The legal change is more consequential than the target. For sixty-three years nuclear generation was a state monopoly by statute; repealing that, together with the liability regime that deterred foreign vendors, removes the two binding constraints simultaneously. Whether capital actually arrives is now a commercial question rather than a legal one.
- The liability question deserves an honest treatment. The 2010 Act's supplier-recourse provision was a considered response to Bhopal — the principle that a supplier of defective equipment should not be insulated from consequences. Repealing it improves investment prospects and weakens a genuine safety incentive. Both statements are true, and a good answer says so.
- The PFBR milestone matters because Stage II is the bridge to thorium. Without operating breeders, India's thorium endowment remains geological rather than usable, and the entire three-stage rationale stalls at Stage I.
- Arithmetic caution: reaching 100 GW from roughly 8–10 GW in twenty-one years requires a construction rate India has never approached. Nuclear projects worldwide routinely overrun on time and cost, and the target should be read as directional.
- The strongest case for nuclear is grid-level rather than plant-level: solar and wind are now cheap but intermittent, and a decarbonised grid needs firm, dispatchable, low-carbon capacity. That is the role nuclear is being asked to fill, and it is why the 160 GW solar figure and the 100 GW nuclear target belong in the same sentence.

Let's Remember This Through a Trick

Stage I burns uranium, Stage II breeds plutonium, Stage III burns thorium. And for the law: **SHANTI (2025) repealed 1962 and 2010** — one Act replacing two, ending the state monopoly and the supplier-liability deterrent together.

Probable Prelims MCQ (Statement-Based)

Consider the following statements about India's nuclear programme:

1. The second stage of the three-stage programme uses fast breeder reactors.
2. The Prototype Fast Breeder Reactor at Kalpakkam uses liquid sodium as coolant.
3. India is a signatory to the Nuclear Non-Proliferation Treaty.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (a) 1 and 2 only. India is not a party to the NPT.

SECTION 07

Economy

GS3

GS1

15 AUG

Blue Economy & Resources

15 August 2026 · Source: PMO / PIB · ₹85,000 crore figure new; mission announced 2025

₹85,000 Crore for Samudra Manthan — and a Coastline Reclassified

Why in News: The 15 August address attached a figure of **₹85,000 crore** to **Samudra Manthan**, the deep-sea exploration mission announced in 2025. The outlay is the new element. In the same passage the address stated that **99% of India's coastline has been reclassified from "No Go Area" to "Go Ahead Area,"** describing the earlier position as "a poverty of thought." Read together, the two statements describe a decisive tilt towards maritime economic exploitation.

Background: India's ocean ambitions rest on the **Deep Ocean Mission**, approved in 2021 under the Ministry of Earth Sciences, whose flagship component is **Matsya-6000**, a crewed submersible designed to carry three people to 6,000 metres under the **Samudrayaan** project. The commercial prize is polymetallic nodules on the abyssal seafloor — potato-sized concretions rich in manganese, nickel, cobalt and copper, precisely the critical minerals that battery and electronics supply chains depend on. India holds exploration contracts from the **International Seabed Authority**, the body established under UNCLOS to administer mineral resources of the Area, which is designated the **common heritage of mankind**. Coastal development, meanwhile, is governed by the **Coastal Regulation Zone Notification** issued under the Environment (Protection) Act, 1986.

⚡ KEY FACTS

- **₹85,000 crore** cited for **Samudra Manthan**; the mission itself was announced in the 2025 Independence Day address.
- The **Deep Ocean Mission** was approved in **2021** under the **Ministry of Earth Sciences**; **Matsya-6000** is the crewed submersible under the **Samudrayaan** project, designed for **6,000 metres** with a three-member crew.
- **Polymetallic nodules** contain manganese, nickel, cobalt and copper; India holds an exploration contract in the **Central Indian Ocean Basin** and a contract for **polymetallic sulphides** on the Central and South-West Indian Ridges.
- The **International Seabed Authority**, headquartered in **Kingston, Jamaica**, administers the seabed beyond national jurisdiction — "the Area" — declared the **common heritage of mankind** under UNCLOS Part XI.
- India's **Exclusive Economic Zone** extends 200 nautical miles and covers roughly **2.37 million sq km**; the coastline is about **7,500 km** including island territories.
- The **Coastal Regulation Zone Notification** is issued under the **Environment (Protection) Act, 1986**; the 2019 notification introduced the current CRZ-I to CRZ-IV classification and relaxed several development norms.
- Related maritime programmes: **Sagarmala** (port-led development), the **Maritime India Vision 2030**, **PM Matsya Sampada Yojana**, and the **MAHASAGAR** outlook for the Indian Ocean region.

MAINS DIMENSIONS / ANALYSIS

- Deep-sea minerals are the clearest instance of a resource whose extraction is justified by the energy transition and whose extraction may itself be ecologically severe. Nodule collection disturbs abyssal sediment across wide areas, and abyssal ecosystems recover on timescales measured in decades to centuries. A serious answer holds both.
- The international law is unsettled and moving. Several states have called for a moratorium or precautionary pause on commercial seabed mining pending the ISA's exploitation regulations. India's position as an exploration contractor gives it standing to shape those rules rather than merely comply with them.
- The coastline reclassification is the more immediately consequential domestic decision, and it deserves scrutiny rather than applause or condemnation. Coastal regulation restricts activity in the zone that supplies storm-surge protection, fish nursery habitat and mangrove cover; relaxation trades resilience for economic access at a time when cyclone intensity is rising.
- There is a livelihood dimension frequently missed. CRZ rules were also protective of traditional fishing communities' access to the shore; any relaxation that enables coastal infrastructure has distributional consequences for those communities, and the CRZ-III fishing-village provisions are where that plays out.
- The technological achievement of Matsya-6000 should not be conflated with commercial viability. Very few states can put humans at 6,000 metres; the number that can mine profitably at that depth is currently zero.

Let's Remember This Through a Trick

Matsya-6000 goes to 6,000 metres with 3 people — the name is the depth. And the four metals in a nodule: **Mn, Ni, Co, Cu** — "Manganese Nodules Contain Copper."

Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. The International Seabed Authority was established under the United Nations Convention on the Law of the Sea.
2. Polymetallic nodules are a source of manganese, nickel, cobalt and copper.
3. The Coastal Regulation Zone Notification is issued under the Environment (Protection) Act, 1986.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (d) All three.

PYQ LINKAGE

GS3 2021 on the Deep Ocean Mission and blue economy; GS1 2022 on coastal zone regulation and its implications; Prelims 2019 on the International Seabed Authority.

GS3

GS2

16 AUG

Cooperatives & Rural Economy

16 August 2026 · Source: Ministry of Cooperation / Ministry of Home Affairs · Alwar, Rajasthan

A Dairy Plant at Alwar, and the Architecture of Indian Cooperation

Why in News: Today, **16 August 2026**, the Union Home and Cooperation Minister laid the foundation stone for a new plant at the **Alwar Saras Dairy Complex** in Rajasthan, and e-inaugurated works reported at **₹6,262 crore across 17 districts** of the state, alongside the distribution of appointment letters to **10,548 newly appointed personnel**. Separately, **₹667 crore**

was reported disbursed to 66.74 lakh farmers during the two-day visit. The occasion is worth reading not as an inauguration but as a window into how India's cooperative sector is actually organised.

Background: India's dairy cooperative structure follows the **Anand Pattern** — a three-tier design pioneered in Kaira district, Gujarat, and scaled nationally through **Operation Flood** (1970 onwards) under the National Dairy Development Board and Verghese Kurien. Village-level Dairy Cooperative Societies federate into District Milk Unions, which federate into State Milk Marketing Federations. *Saras* is the brand of the Rajasthan Cooperative Dairy Federation, as *Amul* is of Gujarat's. Cooperation was a subject buried within various ministries until a dedicated **Ministry of Cooperation was created in July 2021**, and the **97th Constitutional Amendment of 2011** gave cooperatives constitutional standing.

⚡ KEY FACTS

- The **Ministry of Cooperation** was created in **July 2021**; its motto is "**Sahkar se Samridhi**" — prosperity through cooperation.
- The **97th Constitutional Amendment Act, 2011** inserted **Article 19(1)(c)**'s right to form cooperative societies, **Article 43B** (Directive Principle on promotion of cooperatives) and **Part IXB** on cooperative societies. The Supreme Court in *Union of India v. Rajendra N. Shah* (2021) struck down Part IXB insofar as it applied to **State** cooperative societies, for want of ratification by half the states — leaving it operative only for multi-State cooperatives.
- **Cooperative societies are Entry 32 of the State List**; multi-State cooperatives fall under **Entry 44 of the Union List** — the constitutional basis for the federal division here.
- The **Anand Pattern** is a three-tier structure: village society → district union → state federation.
- **Operation Flood**, launched 1970 under the **National Dairy Development Board**, made India the world's largest milk producer; it is associated with **Verghese Kurien**.
- **White Revolution 2.0** was launched in 2024, targeting expansion of milk procurement by cooperatives and the creation of new village-level societies.
- India accounts for roughly a quarter of global milk production and is the world's largest producer.
- Reported figures for today's event: **₹6,262 crore across 17 districts** (statewide), a plant of about **₹200 crore** at Alwar, and **10,548 appointment letters**.

🎯 MAINS DIMENSIONS / ANALYSIS

- The dairy cooperative is the most successful institutional innovation in independent India's rural economy, and its mechanism is worth stating precisely: it removed the intermediary between producer and market, and it paid on measured fat content rather than negotiated price. Both features transferred bargaining power to very small producers.
- The distributional case is strong. Dairying is one of the few rural income sources dominated by landless and marginal households and by women, and cooperative membership converts a daily subsistence activity into a bankable income stream.
- The persistent weakness is governance capture. Cooperatives at district and state level have frequently become instruments of political patronage, with elections deferred, boards superseded and professional management displaced. Any expansion of the cooperative footprint runs into this before it runs into economics.
- The federal question is live after *Rajendra N. Shah*. A Union Ministry of Cooperation operating in a field that is substantially a State subject must work through persuasion, model laws and central schemes rather than direction — and the constitutional limits of that approach have not been fully tested.
- The forward-looking issue is environmental. Indian dairying's expansion has come substantially from herd size rather than yield per animal, which raises both methane intensity per litre and fodder demand. Reconciling White Revolution 2.0 with climate commitments will require productivity gains, not merely more animals.

💡 Let's Remember This Through a Trick

Three tiers, three articles, one judgment. Village-district-state; Articles 19(1)(c), 43B and Part IXB; and *Rajendra N. Shah* (2021), which left Part IXB standing only for **multi-State** cooperatives.

 Probable Prelims MCQ (Statement-Based)

Consider the following statements:

1. The 97th Constitutional Amendment inserted Article 43B relating to cooperative societies.
2. Cooperative societies is an entry in the State List, while multi-State cooperative societies fall under the Union List.
3. The Supreme Court struck down Part IXB in its entirety in 2021.

Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1 and 3 only (d) All three

Answer: (a) 1 and 2 only. Part IXB was struck down only insofar as it applied to State cooperative societies; it survives for multi-State cooperatives.

 PYQ LINKAGE

GS3 2022 on cooperatives and rural livelihoods; GS2 2021 on the creation of the Ministry of Cooperation and federal implications; Prelims 2020 on Operation Flood.

THEIAS AKADEMIA Note the technique used twice in this section: a dairy plant becomes a card on cooperative federalism, and an outlay figure becomes a card on seabed law. The event is the doorway; the institution is the room. theiasakademia.com

VERIFIED · PART I

Proof of Precision

Every card dated. Every conflict disclosed.

12

NEWS CARDS

3

POLITY (CAPPED)

0

STATIC FILLER

6

SYLLABUS SECTIONS

2

SOURCE CONFLICTS DISCLOSED

Governance (GS2)

Culture (GS1)

IR (GS2)

Defence (GS3)

S&T (GS3)

Economy (GS3)

- ✓ Where official sources gave different semiconductor timelines, both are printed rather than one chosen silently
- ✓ The 100 GW nuclear target is flagged as a Budget restatement, not presented as a new announcement
- ✓ Every card converts an event into an institution — no ceremony, award list or inauguration is carried as a card in its own right

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