01-02-2026

Prelims articles:

1. Rubaya mines:

Context: Mine collapses in Congo, leaving at least 200 dead.

About Rubaya Mines:

- Rubaya (Bibatama) mines are major coltan mining sites in Masisi Territory, North Kivu, DRC.
- Mining license is held by Société Minière de Bisunzu (SMB), linked to Senator Édouard Mwangachuchu.
- Key mining sites include Bibatama, Luwowo, Gakombe, Koyi, Mataba, and Bundjali.
- The mines produce -1,000 metric tons of coltan annually, about 50% of DRC's output.
- Around 3,500 artisanal miners work in the mines, as per a 2019 Sofala Partners report.
- Exported ore concentrate contains ~33% tantalum (Ta:Os) and ~-5% niobium (Nb:O:).
- The concentrate also contains radioactive elements (uranium and thorium), creating NORM handling risks.

2. East Kolkata Wetlands:

Context: Experts warn that rapid encroachment on protected wetland zone, a natural filter for sewage, can lead to long-term damage to the ecosystem of city and its surroundings.

More about:

- A deadly warehouse fire in east Kolkata has highlighted rampant illegal construction and encroachment in the ecologically sensitive East Kolkata Wetlands, a Ramsar-listed zone crucial for natural sewage treatment.

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- The wetlands span about 12,500 hectares, treat nearly 65% of Kolkata's sewage daily, and save the city around ₹4,680 million annually in water treatment costs, making their degradation a serious environmental and urban risk.

About East Kolkata Wetland:

- Located east of Kolkata, West Bengal (approx. 22°27′N, 88°27′E).
- Covers about 12,500 hectares (125 sq km).
- Declared a Ramsar Site (No. 1208) in 2002.
- Comprises natural and man-made wetlands: salt marshes, sewage farms, agricultural fields, settling ponds, and fish ponds.
- Functions as a natural sewage treatment system for Kolkata.
- Treats nearly 65% (~900 million litres/day) of Kolkata's sewage.
- Hosts the largest sewage-fed aquaculture system in the world.
- Wetland system was developed by local farmers and fishermen using traditional knowledge.
- Named and highlighted by Dhrubajyoti Ghosh, noted wetland ecologist and IUCN advisor.
- Acts as a resource-recovery ecosystem, reusing nutrients from wastewater for fishery and agriculture.
- Wetlands save Kolkata the cost of artificial sewage treatment plants, offering major economic benefits.
- Originated due to a natural shift of the Bidyadhari River, a tributary of the Ganga.
- Eastward slope of Kolkata helps gravity-driven flow of wastewater into the wetlands.
- British-era canals were constructed to divert city sewage into the wetlands.
- Considered a global model of sustainable urban wetland management.

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3. El Nino:

Context: El Nino might occur after July; a clear picture will emerge after April: IMD.

More about:

- **Current ENSO Status:** ENSO-neutral conditions are likely to continue until July, according to the India Meteorological Department (IMD).
- **Possibility of El Niño :** There is a chance that conditions may shift towards El Niño after July, with clearer signals expected by April.
- **What Is El Niño:** El Niño occurs when the central equatorial Pacific Ocean warms by at least 0.5°C for five consecutive overlapping three-month periods.
- **Impact on Indian Monsoon:** Historically, 6 out of 10 El Niño years have been associated with below-normal monsoon rainfall in India.
- **El Niño and La Niña Cycle:** El Niño is the opposite phase of La Niña, which involves cooling of the Pacific, and both are part of a natural cyclical phenomenon.
- **Recent El Niño Event:** The last global El Niño occurred in 2023-24, during which India experienced below-normal rainfall.

About El Nino and La Nina:

Aspect	Normal Climatic Conditions	El Niño	La Niña
ENSO Phase	Neutral phase	Warm phase of ENSO	Cold phase of ENSO
Sea Surface Temperature (Equatorial Pacific)	Warm water piled in western Pacific	Unusual warming in central & eastern Pacific	Unusual cooling in central & eastern Pacific
Pressure System	Low pressure over	Pressure pattern	Pressure gradient

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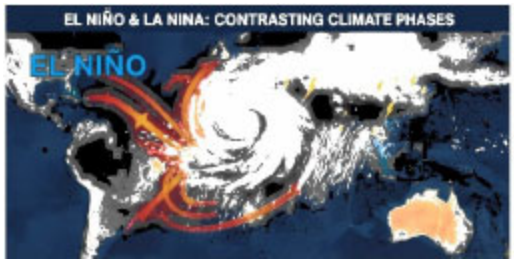
	Indonesia & Australia; High pressure near Peru	weakens or reverses	strengthens
Trade Winds	Strong easterly trade winds (cast → west)	Weakened or reversed trade winds	Stronger than normal trade winds
Ocean Water Movement	Warm surface water pushed westwards	Warm water spreads west → east	Cold water upwells more strongly near South America
Convection & Rainfall Heavy rainfall over (Pacific)	Heavy rainfall over Indonesia & Australia	Rainfall shifts to central/eastern Pacific	Enhanced rainfall over western Pacific
Rainfall over India	Normal monsoon rainfall	Often below-normal monsoon	Often above-normal monsoon
Frequency	Most common condition	Every 2-7 years	Less frequent than El Niño
Duration Global Impacts	Persistent baseline state Stable global climate patterns	~9-12 months Droughts, heatwaves, weaker monsoons	~9-12 months

Floods, stronger monsoons, cooler global temps



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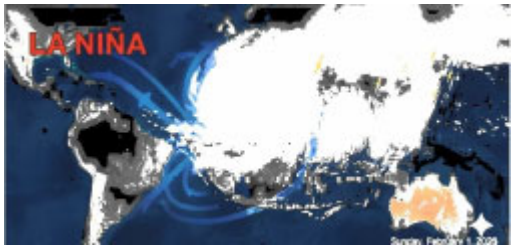

4. Guru Ravidas:

Context: President of India Smt Droupadi Murmu greets fellow-citizens on the eve of birth anniversary of Guru Ravidas Ji.

About Guru ravidas:

- Guru Ravidas (1377-1527 CE) was a prominent saint-poct of the Bhakti movement.
- He is also known as Raidas, Rohidas, and Ruhidas.
- He was born in Seer Govardhanpur, Uttar Pradesh, now called Shri Guru Ravidas Janam Asthan.
- His birthplace is an important pilgrimage site for his followers.
- Despite a poor socio-economic background, he emerged as a major spiritual and social thinker.
- Guru Ravidas was a disciple of Ramananda, a leading Bhakti poet.
- He emphasised nirguna bhakti (formless, attribute-less God) over saguna worship.
- His teachings focused on human dignity, equality, and spiritual freedom.
- He strongly opposed caste discrimination and untouchability.
- Guru Ravidas advocated gender equality and social justice.
- He was a renowned poet, with 41 hymns included in the Guru Granth Sahib.
- Meera Bai regarded Guru Ravidas as her spiritual guru.
- His teachings later became the foundation of the Ravidassia religion.
- Ravidassias revere Guru Ravidas as a saint-guru, whose ideas influenced Sikh thought.
- Guru Ravidas Jayanti is celebrated to mark his birth anniversary.

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5. 2 New Wetlands to India's Ramsar List:

Context: Union Environment Minister Shri Bhupender Yadav announces Addition of 2 New Wetlands to India's Ramsar List, ahead of World Wetlands Day 2026.

More in news:

- The Minister stated in a post on social media platform 'X' that Patna Bird Sanctuary in Etah district of Uttar Pradesh and Chhari-Dhand in Kutch district of Gujarat have been included in the Ramsar sites list.
- With two new additions, India now has 98 Ramsar sites.

About Patna Bird sanctuary:

- Patna Bird Sanctuary is located in Etah district, Uttar Pradesh, near Jalesar (Ghungroo Nagari/Bell City).
- It is a protected wetland centred around a lentic (still-water) lake.
- The sanctuary was established in 1991.
- It covers an area of 1.09 sq km, making it the smallest bird sanctuary in Uttar Pradesh.
- It serves as an important wintering ground for migratory birds.
- The lake's water quality supports rich avifaunal diversity during winter.
- In summer, the lake is dominated by macrophytic vegetation, especially water hyacinth and Potamogeton species.

About Chhari-Dhand:

- Chari-Dhand Wetland Conservation Reserve is located in Kutch district, Gujarat, on the edge of the Banni grasslands and the Rann of Kutch.
- It is a seasonal desert wetland that becomes swampy during a good monsoon.
- The wetland receives water from north-flowing rivers and surrounding hill catchments.

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- It covers an area of about 80 sq km.
- The site lies in Nakhtrana Taluka, around 80 km southwest of Bhuj.
- It is situated about 7-8 km from Fulary village and 30 km from Nakhtrana town.
- The wetland is legally protected as a Protected/Reserve Forest in India.
- The term 'Chari' refers to salt-affected land, while 'Dhand' (Sindhi word) means a shallow saucer-shaped wetland.
- It supports rich biodiversity and is home to nearly two lakh birds.
- Large numbers of migratory and endangered bird species visit the wetland during monsoon and winter seasons.

About Ramsar convention:



- The Ramsar Convention provides guidelines for the conservation and wise use of wetlands worldwide.
- It is the only international environmental treaty focused on a specific habitat (wetlands).
- The Convention was adopted at Ramsar, Iran, in 1971 and came into force in 1975.
- Cobourg Peninsula (Australia) became the world's first Ramsar Site in 1974.
- India joined the Ramsar Convention on February 1, 1982.
- The Montreux Record identifies Ramsar sites requiring priority conservation attention.

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- The Montreux Record was adopted in Brisbane in 1996.
- Kcoladeo National Park (Rajasthan) and Loktak Lake (Manipur) were added to the Montreux Record in 1990 and 1993, respectively.

6. Bharat Pary 2026:

Context: Bharat Parv 2026 was concluded on January 31st.

About Bharat Parv:

- Bharat Parv 2026 is a six-day national cultural and tourism festival organised by the Ministry of Tourism.
- It was held from January 26 to January 31, 2026.
- The festival has been organised annually since 2016.
- Bharat Parv is conducted at the Lawns and Gyan Path in front of the Red Fort, New Delhi.
- It is part of the Republic Day celebrations.
- The event showcases India's cultural, artistic, culinary, and spiritual heritage.
- It promotes the national initiatives "Ek Bharat, Shreshtha Bharat" and "Dekho Apna Desh."
- Bharat Parv serves as a major platform highlighting India's unity in diversity and tourism potential.

Mains specific articles:

1. Great Nicobar Project: (GS paper 3)

Context: The 72,000-crore Holistic Development of Great Nicobar Island project aims to transform the island into a major transshipment, urban and defence hub, led by NITI Aayog.

Details of the project:

- **Project Overview:** The 272,000-crore Holistic Development of Great Nicobar Island project aims to transform the island into a major transshipment, urban and defence hub, led by NITI Aayog.

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- **Spatial Scale:** The project covers about 166 sq. km, nearly 18% of the island's land area, involving large-scale diversion of forest land.
- **Transshipment Terminal:** An international container transshipment terminal at Galathea Bay is planned, with a projected capacity of 14.2 million TEUs, leveraging the bay's natural depth.
- **Airport Infrastructure:** A new dual-use (civilian and military) airport is planned for round-the-clock operations and strategic surveillance in the Indian Ocean.
- **Urban Township:** A new township with industrial and residential zones is proposed, with the population expected to rise from 8,000 to over 3.5 lakh in 30 years.
- **Power and Utilities:** Infrastructure will be supported by a 450-MVA gas- and solar-based power plant.

Significance of the project:

- **Geopolitical Rationale:** The island's proximity to the Strait of Malacca gives India strategic leverage over a key global trade and energy route.
- **Economic Rationale:** The project aims to reduce India's dependence on foreign transshipment ports and lower logistics costs.

Concerns about the project:

- **Nicobarese Displacement History:** The project site overlaps with ancestral Nicobarese lands lost after the 2004 tsunami, blocking their return.
- **Forest Rights Act Concerns:** Questions remain over the validity of tribal consent, with allegations of coerced or uninformed approvals.
- **Legal and Institutional Scrutiny:** The NGT initially stayed the project but later allowed it to proceed based on a sealed-cover committee report.
- **Transparency Issues:** Use of sealed-cover proceedings in environmental clearance has been widely criticised.

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2. Why is India-EU trade agreement significant? (GS paper 2)

Context: India-EU Free Trade Agreement negotiations concluded on January 27 after nearly two decades, marking one of India's most significant trade deals.

More about:

- **Why It Is Called the 'Mother of All Deals':** The FTA links the second- and fourth-largest customs blocs, covering a combined market of about $24 trillion with massive trade volumes.
- **Scale of Bilateral Trade:** India-EU merchandise trade stood at 11.5 lakh crore in 2024-25, while services trade reached *7.2 lakh crore.
- **EU's Importance in India's Trade Basket:** The EU alone accounts for nearly 12% of India's total trade, more than most recent FTAs combined.
- **EU Tariff Elimination for Indian Exports:** The EU will immediately remove duties on 70.4% of tariff lines covering 90.7% of India's exports.
- **Phased Tariff Removal by the EU:** Another 20.3% of tariff lines will see tariffs eliminated over 3-5 years, and 6.1% will see partial reductions or quota-based access.
- **Overall EU Market Access:** EU concessions together cover over 99% of the value of India's exports to the region.
- **Services Sector Commitments:** The EU has offered deeper commitments across 144 service sub-sectors including IT, professional services, education, and business services.
- **Labour-Intensive Sector Gains:** Sectors like textiles, apparel, leather, footwear, gems and jewellery, toys, chemicals, and marine products will see near-zero duties from day one.
- **Agricultural and Food Product Benefits:** Preferential access is granted for tea, coffee, spices, fruits, vegetables, grapes, gherkins, and processed food products.
- **Traditional Medicine and AYUSH:** AYUSH practitioners can offer services in EU countries where no domestic regulatory barriers exist.

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- **India's Tariff Concessions to the EU:** India will eliminate duties immediately on 49.6% of tariff lines and phase out tariffs on another 39.5% over 5-10 years.
- **Overall Indian Offer:** India's tariff concessions cover about 92.1% of tariff lines and 97.5% of trade value.
- **Wine Imports from the EU:** Duties on European wine will be reduced from about 150% to 20-30% over seven years under quota limits.
- **Automobile Tariff Reductions:** Tariffs on European cars above 225 lakh will fall gradually from 110% to 10%, subject to quotas.
- **Protection of Mass-Market Cars:** Cars priced below *25 lakh are excluded to protect domestic automobile manufacturers.
- **Sectors Excluded by India:** Sensitive agricultural sectors such as dairy, poultry, beef, cereals, edible oils, tobacco, and major food crops are excluded.
- **Sectors Excluded by the EU:** The EU excluded products like beef, sugar, rice, chicken meat, milk powder, honey, bananas, and ethanol, with quotas on select items.
- **CBAM-Related Concerns:** The deal does not resolve EU's Carbon Border Adjustment Mechanism, though India secured a non-discrimination assurance.
- **Investment Climate Challenge:** India will need further domestic reforms to attract investments seeking tariff-free access to the EU.
- **Implementation Timeline:** Despite procedural hurdles, the government expects the FTA to be implemented in 2026.

3. Pune Rural Intervention in Young Adolescents (PRIYA) trial: (GS paper 2)

Context: PRIYA trial links B12 intake to long-term health in babies.

More about:

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About Vitamin B12

- Vitamin B12 is a water-soluble vitamin, also known as cobalamin.
- It is essential for healthy nerve cells, red blood cell formation, and DNA synthesis.
- The human body cannot produce vitamin B12, so it must come from diet or supplements.
- It is naturally found in animal-based foods like meat, fish, eggs, milk, and dairy products.
- Plant foods lack B12 unless they are fortified.
- Vitamin B12 is stored in the liver.
- The body can store B12 for 2-5 years and excretes excess amounts through urine.

Vitamin B12 Deficiency

- Vegetarians and vegans are at higher risk due to lack of B12 in plant foods.
- Older adults and people with stomach surgery may have poor B12 absorption.
- People with celiac disease or Crohn's disease are also at risk.
- Severe deficiency can cause fatigue, muscle weakness, digestive issues, nerve damage, vision problems, and mood changes.
- B12 deficiency may lead to anemia (low iron) and reduced blood cell counts.

- **Vitamin B12 Deficiency in India:** A large section of the Indian population, especially vegetarians, is deficient in vitamin B12, which is crucial for blood formation and nerve function.
- **Pregnancy and Foetal Health:** B12 deficiency during pregnancy is linked to neural tube defects, poor foetal growth, and long-term health risks.
- **Pune Maternal Nutrition Study (PMNS):** Initiated in 1993 by Dr. Chittaranjan Yajnik, PMNS examined parental nutrition and its impact on foetal growth.
- **Concept of 'Diabesity":** PMNS found that low B12 and high folate levels in mothers increased the risk of insulin resistance and obesity in offspring.

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- **PRIYA Trial:** The Pune Rural Intervention in Young Adolescents (2012-2020) tested whether improving B12 status in adolescence could reduce future diabesity risk.
- **Intergenerational Research Design:** The trial followed supplemented adolescents until the birth of their first child, marking the first in vivo human intergenerational study on B12 deficiency.
- **Supplementation Strategy:** Adolescents received vitamin B12 and multi-micronutrients in addition to standard care.
- **Neonatal Outcomes:** Supplementation improved the ponderal index of neonates, indicating healthier weight relative to height.
- **Gene Expression Analysis:** Researchers analysed cord blood mononuclear cells to study changes in gene expression.
- **Epigenetic Findings:** Higher cord blood B12 levels correlated with increased expression of genes encoding methylases.
- **Role of Vitamin B12:** B12 appears to regulate not just methylation processes but also the expression of methylation regulators.
- **Surprising Mechanism:** The study suggests B12 may act as a "regulator of regulators" in gene expression.
- **Developmental Origins Hypothesis:** Findings support the idea that the intrauterine environment influences long-term health through epigenetic mechanisms.

Quick Bites:

➢ Mos for Women and Child Development, Smt. Savitri Thakur to lead Indian delegation at 64th Session of the United Nations Commission for Social Development. Steel Authority of India Limited (SAIL), a Maharatna PSU under the Ministry of Steel, in collaboration with MyGov, has launched "-e-BRATION:Steel Built India, SAIL Built Trust" on 30th January, 2026. This nationwide creative contest invites Indian citizens to showcase their storytelling prowess through engaging reels, cinematic stories, and communicative digital ads.

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- The Indian Coast Guard (ICG), established on February 1, 1977 with just seven surface platforms, has evolved into a "formidable maritime force" comprising 155 ships and 80 aircraft, officials said on Saturday. The ICG will observe its 50th Raising Day with an event here on Sunday, marking five decades of dedicated service to the nation

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02-02-2026

Prelims articles:

1. 10,000-crore dosage for biopharma:

Context: The Union Budget has proposed a biopharma strategy for healthcare advancement through knowledge, technology, and innovation with an outlay of ₹10,000 crore over the next five years to develop India as a global biopharma manufacturing hub.

More about:

- Biopharma SHAKTI Announcement: The Union Budget announced Biopharma SHAKTI to build a strong ecosystem for domestic production of biologics and biosimilars, part of the seven strategic and frontier sectors identified by the government.
- Rationale for Biopharma Push: The initiative responds to India's rising burden of non-communicable diseases such as diabetes, cancer, and autoimmune disorders, where biologic medicines play a critical role.
- Importance of Biologic Medicines: Biologics were highlighted as essential for improving longevity and quality of life while ensuring affordability.
- Capacity Building in Education and Research: The strategy includes setting up three new NIPERS, upgrading seven existing institutes, and creating a network of over 1,000 accredited clinical trial sites across India.
- Regulatory Strengthening: The Central Drugs Standard Control Organisation (CDSCO) will be strengthened through a dedicated scientific review cadre and specialist support to meet global regulatory standards and faster approval timelines.

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- Nature of Biopharmaceuticals: Biopharmaceuticals are complex, large-molecule products made using living systems through biotechnology, making them more difficult to manufacture and characterise than small-molecule drugs.
- Industry Support and Valuation Shift: Industry leaders welcomed the initiative, noting that the *10,000-crore programme will help India transition from volume-based to value-based pharmaceutical leadership.
- Boost to Innovation and High-Value Therapies: Expansion of clinical trials and regulatory reforms are expected to enhance India's ability to develop complex, high-value therapies.
- Global Regulatory Alignment: Emphasis on predictable, science-led regulation aligned with global standards is expected to accelerate medical innovation and patient access in India.
- Expansion into Biosimilars: Analysts noted that Biopharma SHAKTI will enable Indian pharma companies to diversify from low-cost generics into advanced biologics and biosimilars.

2. Rare earth corridors to cut China imports:

Context: Finance Minister Nirmala Sitharaman announced in her Union Budget 2026 speech that the government will support the mineral-rich States of Odisha, Kerala, Andhra Pradesh, and Tamil Nadu in establishing rare earth corridors to promote the mining, processing, research, and manufacturing of critical minerals.

More about:

- **Budget Announcement on Rare Earth Corridors:** The Union Budget 2026 announced support for Odisha, Kerala, Andhra Pradesh, and Tamil Nadu to establish rare earth corridors covering mining, processing, research, and manufacturing of critical minerals.
- **Geopolitical Context:** The move comes amid China's use of rare earth dominance as a strategic tool in its tariff war with the U.S., highlighting global supply chain vulnerabilities.

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- **India's Import Dependence:** India remains heavily dependent on China for rare earths, with over 45% of its imports sourced from China.
- **Import Trends:** India's rare earth imports increased from $14.1 million in 2014 to $17.5 million in 2024.
- **Reasons for China's Dominance:** China's leadership is driven more by strong mining, processing, and research capabilities than by mere resource availability.
- **Nature of Rare Earth Elements:** Rare earth elements are a group of 17 metals, classified into light rare earths and heavy rare earths, despite not being geologically rare.
- **Classification of REES:** Light rare earths include lanthanum, cerium, praseodymium, neodymium, samarium, and europium, while heavy rare earths include gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, scandium, and yttrium.
- **Exclusion of Promethium:** Promethium is excluded from commercial rare earth lists as it is radioactive and not found in mineable quantities.
- **Strategic Importance:** Rare earths are critical for clean energy technologies such as electric vehicles and wind turbines, defence systems, and high-tech electronics like smartphones and hard drives.
- **Global Reserves and Production:** While several countries possess rare earth deposits, China holds nearly half of global reserves and accounts for over 60% of global production.
- **Refining and Export Dominance:** China controls about 92% of global refining capacity and has been the largest exporter in the last five years, supplying nearly 30% of global demand.

3. Seven rail corridors get green signal:

Context: Finance Minister Nirmala Sitharaman, in her Budget speech, announced seven high-speed rail corridors, which will connect five South Indian States and others, and will be developed at a total cost of *16 lakh crore.

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More about:

- **Announcement of High-Speed Rail Corridors:** The Union Budget announced seven high-speed rail corridors to be developed at a total cost of 216 lakh crore.
- **Growth Connectors Vision:** The corridors were described as "growth connectors" aimed at boosting regional connectivity and economic integration.
- **Corridor Routes Identified:** The seven routes are Mumbai-Pune, Pune-Hyderabad, Hyderabad-Bengaluru, Hyderabad-Chennai, Chennai-Bengaluru, Delhi-Varanasi, and Varanasi-Siliguri.
- **Southern India Connectivity Boost:** Five South Indian States will be interlinked, acting as a growth multiplier for the region.
- **Reduced Travel Time (South):** Chennai-Bengaluru in 1.5 hours, Bengaluru-Hyderabad in 2 hours, Hyderabad-Chennai in 2 hours 55 minutes, Pune-Hyderabad in 1 hour 55 minutes, and Mumbai-Pune in 45 minutes.
- **Reduced Travel Time (North):** Delhi-Varanasi travel time reduced to 3 hours 50 minutes; Varanasi Siliguri via Patna to 2 hours 55 minutes.
- **Project Scale and Cost:** The corridors will span about 4,000 km with an overall investment of 16 lakh crore.
- **Railways Budget Allocation: 2,78**,030 crore allocated to the Ministry of Railways for FY 2026-27, up from 12,55,466 crore in FY 2025-26 (RE), marking a 10.8% increase.
- **Capital Expenditure for Railways:** Total capital expenditure for Railways has been pegged at *2,93,030 crore.
- **Safety-Related Spending:** 1,20,000 crore earmarked for safety measures including track maintenance, locomotives, coaches, rapid installation of Kavach, and overhead electrical systems.

  Road Transport and Highways Allocation: The Ministry of Road Transport and Highways received a capital outlay of ₹3.09 lakh crore for FY 2026-27, a 10.7% increase over the revised estimate.

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- **Higher NHAI Funding**: Allocation to the National Highways Authority of India increased to *1.87 lakh crore from *1.70 lakh crore in the previous year.

4. Waste-to-energy:

- **Meaning of Waste-to-Energy (WtE):** Waste-to-energy refers to technologies that convert non-recyclable waste into usable energy such as heat or electricity.
- **Major WtE Technologies:** Common methods include incineration, gasification, and anaerobic digestion to generate power or biogas from waste.
- **Incineration Process:** Waste is burned at high temperatures to produce steam, which drives turbines to generate electricity.
- **Gasification Technique:** Waste is heated with limited oxygen to convert it into combustible gas.
- **Anaerobic Digestion:** Organic waste is broken down by bacteria in the absence of oxygen to produce biogas.
- **Benefits in Waste Reduction:** WtE facilities can reduce waste volume by about 90%, extending landfill life and reducing the need for new landfills.
- **Climate Benefits:** Diverting organic waste from landfills prevents methane emissions, a potent greenhouse gas.
- **Environmental Concerns:** Burning waste emits carbon dioxide and, if poorly controlled, toxic pollutants such as dioxins, furans, and heavy metals.
- **Pollution Control Measures:** Modern WIE plants use advanced scrubbing and filtration systems to capture harmful emissions.
- **Criticism of WtE:** Critics argue WiE may discourage recycling and composting by creating continuous demand for waste.
- **Status of WIE in India:** India has at least 21 operational WtE plants and 133 biogas facilities.
- **Regulatory Framework:** WIE plants are governed by the Solid Waste Management Rules, 2026, which mandate waste segregation and promote refuse-derived fuel to reduce landfill pressure.

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5. Australian Open:

Context: Carlos Alcaraz swept past Novak Djokovic to win his first Australian Open on Sunday and become the youngest man to complete a career Grand Slam, denying the Serbian great an unprecedented 25th Major.

About Australian open:

- **About the Tournament:** The Australian Open is an annual Grand Slam tennis tournament organised by Tennis Australia at Melbourne Park, Melbourne.
- **Grand Slam Status:** It is the first of the four Grand Slam tournaments each year, held before the French Open, Wimbledon, and the US Open.
- **Timing and Duration:** Usually held in mid-January and lasts for two weeks, with the men's final traditionally played on the last Sunday of January.
- **Events Featured:** Includes singles, doubles (men's, women's, mixed), juniors, wheelchair, legends, and exhibition events.
- **Court Surface Evolution:** Originally played on grass courts, it shifted to hard courts in 1988; surfaces used include Rebound Ace, Plexicushion, and GreenSet.
- **Historical Background:** First held in 1905 as the Australasian Championships.
- **Nickname and Popularity:** Known as "the Happy Slam" and is the highest-attended Grand Slam tournament.
- **Record Attendance:** Over 1.2 million spectators attended the 2025 Australian Open, including qualifying matches.
- **Innovation in Play Conditions:** First Grand Slam to introduce indoor play during rain or extreme heat with retractable roofs at Rod Laver Arena, John Cain Arena, and Margaret Court Arena.

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Winners of 2026 Australian Open:

Event	Champions	Runners-up (Finalists)
Men's Singles	Carlos Alcaraz (Spain)	Novak Djokovic (Serbia)
Women's Singles	Elena Rybakina (Kazaklıstan)	Aryna Sabalenka (Belarus)
Men's Doubles	Christian Harrison (USA)/Neal Skupski (Great Britain)	Jason Kubler (Australia) / Marc Polmans (Australia)
Women's Doubles	Elise Mertens (Belgium) / Zhang Shuai (China)	Anna Danilina (Kazakhstan) / Aleksandra Krunić (Serbia)
Mixed Doubles	Olivia Gadecki (Australia) / John Peers (Australia)	Kristina Mladenovic (France) / Manuel Guinard (France)

6. Rafah Border Crossing:

Context: Gaza's main border crossing in Rafah will reopen for Palestinians on Monday, Israel said, with preparations under way at the war-ravaged enclave's main gateway that has been largely shut for almost two years.

About Rafah Border Crossing:

- **Location and Significance:** The Rafah Border Crossing is the only crossing point between Egypt and the Gaza Strip and Gaza's sole border with a country other than Israel.
- **Historical Control:** Opened by Israel after the 1979 Egypt-Israel peace treaty, it remained under Israeli control until 2005.
- **2005 Transfer of Authority:** Control was transferred to Egypt and the Palestinian Authority, with monitoring by the EU (EUBAM Rafah), giving Palestinians partial control of an international border for the first time.

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- **Post-2007 Developments:** After Hamas took control of Gaza in 2007, the EU withdrew, Israel imposed a blockade on Gaza, and Egypt largely closed the Rafah crossing, opening it only intermittently.
- **Egypt-Israel Agreement:** Under a 2007 agreement, Egypt controls the crossing, but imports through Rafah require Israeli approval.
- **Recent Conflict and Control:** Israel took control of the crossing on May 7, 2024, during the Gaza war, withdrew in January 2025 under a ceasefire, but reoccupied it on March 18 during Operation Might and Sword; it remains occupied.
- **Recent Openings and Closures:** Trucks entered Gaza through Rafah on October 12, 2025, but Israel closed the crossing again indefinitely two days later.
- **Rafah Land Port:** Known as the "Salah al Din Gate," it is located on Salah al-Din Road, Gaza's main north-south highway.
- **Damage and Attacks:** The original Rafah land port was bombed by Israel in October 2009, reportedly to destroy tunnels.
- **New Crossing Infrastructure:** A new Rafah Crossing Point ("Al Awda") was built south of Rafah, while a separate commercial gate on Salah al-Din Road, opened in 2018, is used mainly for truck traffic between Egypt and Gaza.

Mains specific articles:

1. States' devolution at 41% ; South's share up: (GS Paper 3)

Context: The 16th Finance Commission (16th FC) has recommended that the Centre retain the 41% share of tax devolution to States as has been in force since 2021.

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More about:

- **Vertical Devolution Retained:** The 16th Finance Commission (FC) recommended retaining the 41% share of tax devolution to States, unchanged since 2021; the Centre has accepted this recommendation.
- **Budget Announcement:** Finance Minister Nirmala Sitharaman announced acceptance of the 16th FC recommendations in the Budget speech.
- **Finance Commission Grants:** 1.4 lakh crore has been provided to States for FY 2026-27 as Finance Commission Grants, including Rural Local Body, Urban Local Body, and Disaster Management Grants.
- **Change in Horizontal Distribution:** While the vertical share remains the same, the 16th FC revised the formula for distributing funds among States.
- **Benefit to Southern States:** The revised formula increases the share of Tamil Nadu, Kerala, Andhra Pradesh, Telangana, and Karnataka.
- **Submission and Tabling of Report:** The 16th FC submitted its report to the President on November 17, 2025; it was tabled in Parliament subsequently.
- **Centre's Fiscal Constraint:** The Commission noted that the Centre's share in the divisible pool is the only instrument available to assist its finances.
- **Shrinking Divisible Pool:** The share of the divisible pool in gross tax revenues declined from 89.1% in 2014-15 to about 74-80% during 2020-24 due to increased cesses and surcharges.
- **Revised Weightage Criteria:** Population weightage increased to 17.5%; demographic performance reduced to 10%; area reduced to 10%; forest cover retained at 10%; per capita GSDP distance reduced to 42.5%.
- **State-wise Share Increase:** Andhra Pradesh (4.217% from 4.047%), Karnataka (4.131% from 3.647%), Kerala (2.382% from 1.925%), Tamil Nadu (4.097% from 4.079%), Telangana (2.174% from 2.102%).

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2. Labour-intensive textile sector, MSMEs to get new schemes: (GS paper 3)

Context: Labour-intensive textile and apparel and Micro, Small and Medium-scale Enterprise (MSME) sector impacted by geopolitical developments in the last two years received a boost from the Budget with new schemes and higher allocations.

More about:

- **Budget Boost to Labour-Intensive Sectors:** Textile, apparel, and MSME sectors affected by geopolitical disruptions over the past two years received significant support through new schemes and higher budget allocations.
- **Sharp Rise in Allocations:** Budgetary allocation for textiles will increase by nearly 25% in FY 2026-27, while MSME sector allocation will be doubled compared to the current year.
- **High-Tech Tool Rooms:** Central Public Sector Enterprises will set up high-technology tool rooms in two locations as digitally enabled, automated service bureaux for design, testing, and large-scale manufacture of high-precision components at lower cost.
- **Construction Equipment Manufacturing Scheme:** A new Scheme for Enhancement of Construction and Infrastructure Equipment will be launched to promote domestic manufacturing of high-value, technologically advanced equipment.
- **Container Manufacturing Support:** 210,000 crore will be allocated over the next five years for a dedicated container manufacturing scheme.
- **Comprehensive Textile Sector Measures:** Special initiatives include promotion of sports goods, a National Fibre Scheme for manmade fibre, silk, and wool, mega textile parks on challenge mode for technical textiles, and a Textile Expansion and Employment Scheme for modernising traditional clusters.
- **Support to Weavers and Artisans:** A National Handloom and Handicraft Programme will provide targeted support to weavers and artisans; Mahatma Gandhi Gram Swaraj initiative will strengthen khadi, handloom, and handicrafts.

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- **Sustainable and Skilled Textiles Push:** Tex-Eco Initiative will promote globally competitive and sustainable textiles, while Samarth 2.0 will strengthen the textile skilling ecosystem.
- **Revival of Legacy Industrial Clusters:** A scheme to rejuvenate 200 legacy industrial clusters is proposed, along with creation of a ₹10,000 crore SME Growth Fund to nurture future champions.
- **Risk Capital for Micro Units:** The Self-Reliant India Fund will be topped up with ₹2,000 crore to enable micro enterprises to access risk capital.
- **Mandatory Use of TREDS:** TREDS will become a compulsory transaction settlement platform for all MSME purchases by CPSES.
- **Enhanced MSME Credit Flow:** Credit guarantee support through CGTMSE for invoice discounting on TReDS, linkage of GeM with TREDS, and securitisation of TReDS receivables as asset-backed securities to develop a secondary market.

Quick Bites:

- Adampur Airport will now onwards be known as Shri Guru Ravidass Maharaj Ji Airport. Sri Guru Ravidas Ji Airport, Adampur, is a domestic airport and an Indian Air Force base serving the cities of Jalandhar and Hoshiarpur in Punjab, India. The airport changed its name to Sri Guru Ravidas Ji Airport and was inaugurated by Prime Minister Narendra Modi on 1 February 2026.
- Air Marshal Inderpal Singh Walia assumed the appointment of Air Officer Commanding-in-Chief, Eastern Air Command, IAF on 01 February 2026.

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03-02-2026

Prelims articles:

1. **Pennaiyar river dispute: SC directs Centre to form tribunal:**

Context: The Supreme Court on Monday directed the Centre to constitute a tribunal to adjudicate the dispute between Tamil Nadu and Karnataka over the sharing of Pennaiyar river water.

More about:

- **Legal Dispute Initiation:** In 2018, Tamil Nadu approached the Supreme Court challenging Karnataka's construction of dams and diversion structures on the Pennaiyar river.
- **Core Objection:** Tamil Nadu argued that Karnataka had no right to utilise Pennaiyar waters in a manner detrimental to the interests of Tamil Nadu.
- **National Asset Argument:** The State contended that the waters of an inter-State river are a national asset and cannot be claimed exclusively by any single State.
- **Treaty Claim:** Tamil Nadu maintained that the 1892 agreement governing Pennaiyar river waters was valid and binding on all party States.
- **Relief Sought:** Tamil Nadu sought a ban on Karnataka initiating any new projects in the Pennaiyar basin until the Centre constituted an inter-State river water tribunal.

About Ponnaiyar River:

- The South Pennar (Dakshina Pinakini / Thenpennai / Pennaiyar) is the second longest river in Tamil Nadu after the Kaveri, with a length of 497 km.
- It originates in the Nandi Hills of Karnataka and flows through Tamil Nadu before draining into the Bay of Bengal. The river basin covers about 3,690 sq km across Karnataka and Tamil Nadu.

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- Major industrial towns along its banks include Chandapura, Anekal, Hosur, Bagalur, and Chengam. The river is heavily polluted due to industrial effluents and sewage, especially from Bengaluru and Hosur regions.
- Important dams on the river include Kelavarapalli, Krishnagiri, and the Sathanur Dam, the largest with a capacity of 7.3 TMC ft.
- The river is largely seasonal, flowing mainly during the southwest and northeast monsoons.
- Monsoon flows help recharge groundwater and feed several tanks and reservoirs in the basin.
- Several famous temples are located on its banks, including Penneswaraar and Veerateshwarar temples.
- The river supports irrigation in parts of Karnataka and multiple districts of Tamil Nadu, including Krishnagiri and Tiruvannamalai.
- It forms a delta near Cuddalore, where the river finally meets the sea.

Inter State Water Disputes Legal Frameworks:

- **Constitutional Basis:** India's framework balances State autonomy with national interest in managing inter-State river water disputes.
- **Article 262:** Empowers Parliament to provide for adjudication of inter-State river disputes and bars court jurisdiction once such a law is enacted.
- **Entry 17 (State List):** Gives States control over water supply, irrigation, canals, and hydropower, subject to Union powers over inter-State rivers.
- **Entry 56 (Union List):** Authorises Parliament to regulate and develop inter-State rivers and river valleys in the public interest.
- **Inter-State River Water Disputes Act, 1956:** Enables States to seek constitution of tribunals by the Union government for binding dispute resolution.
- **River Boards Act, 1956:** Provides for river basin boards for coordinated development and management, though it remains largely unimplemented.

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- **2002 Amendment to ISRWD Act:** Introduced timelines one year for tribunal formation and three years for award delivery following Sarkaria Commission recommendations.
- **Dispute Resolution Committees:** Recent reforms mandate pre-tribunal negotiations through committees to promote amicable settlements.
- **Inter-State River Water Disputes (Amendment) Bill, 2019:** Proposes a permanent tribunal with multiple benches, fixed timelines, and a centralised data bank.
- **Judicial Interpretation:** The Supreme Court cannot directly adjudicate disputes but can interpret tribunal awards and ensure their effective implementation.

2. Classical languages:

Context: The Ministry of Education works for the Promotion and preservation of the Classical Language.

Sl. No.	Classical Language	Date of Recognition
i.	Tamil	12.10.2004
ii.	Sanskrit	25.11.2005
iii.	Telugu	31.10.2008
iv.	Kannada	31.10.2008
v.	Malayalam	08.08.2013
vi.	Odial	01.03.2014
vii.	Marathi	04.10.2024
viii.	Assamese	04.10.2024
ix.	Bangla	04.10.2024
x.	Pali	04.10.2024
xi.	Prakrit	04.10.2024

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As per the Census of India 2011, (Office of the Registrar General & Census Commissioner, India), the top five most spoken languages in the country are as follows:

- Hindi
- Bengali
- Marathi
- Telugu
- Tamil

3. Galvanizing Organic Bio-Agro Resources Dhan (GOBARdhan) scheme:

Context: The information was provided by THE MINISTER OF STATE FOR JAL SHAKTI SHRI V. SOMANNA in a written reply to a question in Rajya Sabha today.

About GOBARdhan scheme:

- Galvanizing Organic Bio-Agro Resources Dhan (GOBARdhan) scheme was launched under Swachh Bharat Mission (Grameen) in year 2018.
- GOBARdhan is an integral component of solid waste management under SBM(G) for ensuring cleanliness in villages by converting bio-waste including animal waste, kitchen leftovers, crop residue and market waste into biogas and bio slurry to improve the lives of villagers.
- GOBARdhan projects support biodegradable waste recovery by incentivizing Gram Panchayats to convert cattle dung and solid agricultural waste into biogas and bio-slurry.

4. Skill India Programme:

Context: The Union Cabinet, on 7th February 2025, approved the continuation of the Central Sector Scheme of Skill India Programme (SIP) for the period FY 2022-23 to 2025-26. The SIP comprises three components namely (i) Pradhan Mantri Kaushal Vikas Yojana 4.0 (PMKVY 4.0),

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(ii) Pradhan Mantri National Apprenticeship Promotion Scheme (PM-NAPS) and (iii) Jan Shikshan Sansthan (JSS).

More about:

- **Skill India Programme: Inclusive and Demand-Driven Approach:** Under the Skill India Programme, skilling, reskilling and upskilling initiatives are demand-driven and cover all sections of society, including marginalised groups, with special focus on backward, tribal and remote areas, subject to eligibility criteria.
- **Targeted Outreach to Marginalised Groups:** The Ministry of Skill Development and Entrepreneurship is implementing skilling components under multiple schemes such as PM-JANMAN, Vibrant Village Programme, NAMASTE and other allied initiatives to specifically address the needs of marginalised and vulnerable communities.
- **Jan Shikshan Sansthan (JSS) for Community-Based Skilling:** JSS is a community-driven scheme that provides flexible, affordable and doorstep skill training, particularly targeting women, SCS, STS, OBCs, minorities and other disadvantaged groups.
- **Tribal Skilling under Dharti Aaba Abhiyan:** Under the Dharti Aaba-Janjatiya Gram Utkarsh Abhiyan, MSDE has strengthened last-mile skilling through JSS by establishing 30 Tribal Skilling Centres across 30 tribal-dominated districts in 15 States and Union Territories.
- **PMKVY 4.0: Industry-Linked and Demand-Based Training:** PMKVY 4.0 operates as a demand-driven scheme with training aligned to district and State requirements. It focuses on empowering candidates to choose diverse career paths, supported by industry-relevant courses and embedded On-the-Job Training.
- **Livelihood and Entrepreneurship Orientation:** Under JSS, dedicated Livelihood Cells guide candidates towards entrepreneurship and livelihood promotion, enhancing self-employment opportunities.

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- **Promotion of Apprenticeships:** The National Apprenticeship Promotion Scheme aims to expand apprenticeship training and increase engagement of apprentices in industrial establishments.
- **Digital Platforms for Employment Linkages:** Details of trained candidates are available on the SIDH portal, while the Skill India Digital Hub connects candidates to job and apprenticeship opportunities.
- **Strengthened Monitoring and Governance:** PMKVY 4.0 incorporates comprehensive reforms including Aadhaar-based e-KYC, face authentication, geo-tagged attendance, QR-coded digital certificates, real-time dashboards, strengthened accreditation through NCVET, independent monitoring via Kaushal Samiksha Kendra, revised KPIs, and a robust penalty and recovery framework.

5. Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIS (PM SETU) scheme:

Context: The Cabinet has approved the Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIS (PM SETU) scheme to enhance the overall quality and relevance of vocational training in the country.

The key objectives of the scheme are:

- To improve the quality of training delivery in Industrial Training Institutes (ITIS) and NSTIS;
- To modernize infrastructure and equipment as per industry standards;
- To introduce industry-aligned long-term and short-term courses, especially in new and emerging sectors;
- To strengthen industry linkage for demand-driven skilling and better employment outcomes; and
- To enhance the capacity of National Skill Training Institutes (NSTIs) for training of trainers.

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The scheme comprises of two components:

- **Component I** - Upgradation of 1,000 Government ITIS (200 Hub ITIs and 800 Spoke ITIS) in a Hub and Spoke model wherein upgradation includes smart classrooms, modern labs, digital content, and new courses aligned to industry needs.
- **Component II** - Capacity Augmentation of five NSTIs located in Bhubaneswar, Chennai, Hyderabad, Kanpur, and Ludhiana, including setting-up sector-specific National Centres of Excellence for skilling, with focus on advanced training of trainers with global partnership.

More about PM SETU scheme:

- PM-SETU improves employability through industry-relevant skills and workplace exposure.
- It provides career guidance, placement support, and indirect self-employment facilitation.
- The scheme strengthens institutional systems and industry linkages.
- ITIs are selected by State/UT governments in consultation with industry.
- States/UTs submit ITI upgradation proposals in partnership with industry.
- A National Steering Committee chaired by MSDE Secretary guides and monitors the scheme.
- Twenty-five States/UTs have formed State Steering Committees led by Chief Secretaries. Ten States/UTs have invited industry participation through proposals.
- PM-SETU upgrades ITI and NSTI infrastructure and training outcomes.
- It is a vocational training scheme, not a dedicated startup support programme.

Mains specific articles:

1. **Wetlands as a national public good: (GS paper 3)**

Context: World Wetlands Day 2026 observed on February 2, 2026, with the theme "Wetlands and traditional knowledge: Celebrating cultural heritage", highlighting the deep links between wetlands, culture, and livelihoods in India.

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Key nature of Indian wetland system:

- **Traditional Knowledge & Livelihoods:** Across India, communities have sustainably managed wetlands through practices like Tamil Nadu's tank (kulam) systems, Kerala's kenis in Wayanad, and traditional fishing in Srikakulam, Andhra Pradesh.
- **Ecology-Economy Nexus:** Wetlands function simultaneously as ecosystems, economic resources, habitats, and cultural heritage, supporting social wellbeing for generations.
- **Extent of Degradation:** Despite their value, wetlands are among the most threatened ecosystems- nearly 40% have disappeared in the last 30 years, and about 50% of remaining wetlands are ecologically degraded.
- **Policy Framework in India:** India has multiple legal and policy instruments, including the Wetlands (Conservation and Management) Rules, 2017, NPCA guidelines, CRZ regulations, and Ramsar site commitments.
- **Implementation Gap:** The core challenge is not lack of laws but weak, inconsistent implementation, coordination, and enforcement on the ground.
- **Role of Ramsar Sites:** India's 98 Ramsar sites represent global responsibility and should translate recognition into concrete conservation action.
- **Multiple-use Vulnerability**: Wetlands' multifunctional nature makes them prone to encroachment, land conversion, infrastructure expansion, and real estate pressure.
- **Hydrological Disruption**: Dams, embankments, sand mining, channelisation, and groundwater overuse disrupt natural water flows essential for wetland health.
- **Urban Wetland Stress:** Urban wetlands face pollution, sewage inflows, lack of buffer zones, and unrealistic expectations to manage floods while remaining ecologically intact.
- **Pollution & Eutrophication:** Untreated sewage, industrial effluents, agricultural runoff, and solid waste degrade wetlands, leading to biodiversity loss and reduced flood-buffering capacity.
- **Coastal Wetland Threats:** Mangroves and lagoons face a "double bind" of landward development pressure and seaward threats from sea-level rise and cyclones.

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- **Institutional Capacity Constraints:** State wetland authorities often suffer from limited staff, funds, technical skills, and enforcement capacity.
- **Shift in Conservation Approach:** Calls for moving from short-term projects to long-term programmes, from beautification to ecological functionality, and from siloed governance to watershed-scale planning.

Policy intervention:

- **Priority Action 1** - Boundary Protection: Clear notification, demarcation, public maps, and participatory ground-truthing of wetland boundaries are essential.
- **Priority Action 2** - Wastewater Management: Wetlands must not replace sewage treatment plants; treated inflows are critical, with constructed wetlands only as supplements.
- **Priority Action 3** - Catchment Protection: Conservation must extend to feeder channels, hydrological connectivity, and regulation of activities in catchments.
- **Priority Action 4** - Disaster Risk Reduction: Coastal, riparian, and urban wetlands should be treated as nature-based infrastructure for flood and cyclone resilience.
- **Priority Action 5** - Capacity Building: A national mission is needed to train wetland managers in hydrology, ecology, GIS, law, and community governance.
- **Role of Technology:** Remote sensing, drones, and time-series data can improve mapping, monitoring, and detection of encroachment and degradation.
- **Community & Institutional Collaboration:** NGOs and research institutions, such as MSSRF, demonstrate the value of participatory, livelihood-linked wetland management.
- **Aligning Science, Policy & People:** Effective wetland conservation requires coordination among governments, cities, industry, academia, and citizens.

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2. Sixteenth Finance Commission (FC-16): (GS Paper 2)

Context: In its much-awaited recommendations, which were also tabled on Sunday, the Sixteenth Finance Commission (FC-16), as anticipated, has recommended that the vertical devolution ratio - the States" share in the divisible pool of Central taxes - be retained at 41% for the period 2026-31.

More about:

- **Vertical Devolution: Status Quo Maintained:** FC-16 has retained States' share at 41% of the divisible pool for 2026-31. States had demanded 50%, citing fiscal stress under GST. The Commission acknowledges shrinking fiscal space and growing reliance on market borrowings, but avoids increasing devolution.
- **Fiscal Stress under GST Regime:** GST has reduced States' autonomy over taxation. There is a mismatch between expenditure responsibilities and assured revenues. Borrowing has become the primary adjustment mechanism for States.
- **Horizontal Devolution: Formula Tweaked:** The "tax effort" criterion has been replaced with "Contribution to GDP". Its weight has been increased sharply from 2.5% under FC-15 to 10% under FC-16. The objective is to reward productive, efficient, and better-governed States.
- **Gradualism over Redistribution:** FC-16 stresses gradual change to avoid shocks to transfer-dependent States. The weight for demographic performance has been reduced, as penalising population growth is seen as inappropriate when India is close to its demographic dividend peak. The weight for population size has been modestly increased.
- **Limited Gains for Industrialised States:** Industrialised States such as Tamil Nadu and Maharashtra see only incremental gains. This reflects the Commission's cautious and conservative approach.
- **Missed Opportunity on Structural Reforms:** The Commission flags the shrinking divisible pool due to the growing use of cesses and surcharges. However, it does not recommend their inclusion

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in the divisible pool. A phased increase in vertical devolution, such as raising the States' share to 45% by 2031, could have strengthened fiscal federalism.

- **Nature of Transfers: Centralised Bias Continues:** Total transfers to States are projected to rise by 12.2% between 2025-26 (RE) and 2026-27 (BE). Around 1.2 lakh crore, or about 42% of this increase, comes through Centrally Sponsored Schemes. This reinforces a governance model in which States act largely as implementers of Union priorities rather than autonomous fiscal actors.
- **Overall Assessment:** FC-16 recognises the fiscal stress faced by States. However, it falls short of the structural reforms required to rebalance Indian fiscal federalism, placing greater emphasis on stability and caution than on transformative change.

3. What is the next phase for rural women entrepreneurship? (GS paper 1 and 3)

Context: The Deendayal Antyodaya Yojana National Rural Livelihoods Mission has been enhancing rural women's entrepreneurship and political power in India by empowering over 10 crore households through self-help groups.

More about:

- **DAY NRLM: Scale and Impact:** The Deendayal Antyodaya Yojana-National Rural Livelihoods Mission has mobilised around 10 crore rural households into 91 lakh SHGs, federated into 5.35 lakh Village Organisations and 33,558 Cluster-Level Federations. SHGs have accessed over 211 lakh crore in bank credit with low NPAs of about 1.7%, and the number of Lakhpati Didis has crossed two crore, indicating significant livelihood enhancement.
- **Women's Economic and Political Empowerment:** Beyond income generation, the programme has strengthened women's political empowerment, reflected in State-level women-centric DBT schemes such as Ladli Laxmi, Maiya Samman, Ladki Bahin, and the Mukhyamantri Mahila Rozgar Yojana in Bihar, which transferred 10,000 to over one crore women.

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- **Need to Strengthen Cluster-Level Federations:** As DAY NRLM is set for appraisal for 2026-27 to 2030-31, the focus needs to shift to revitalising CLFs, the backbone of the SHG ecosystem. Concerns exist that CLFs have become overly dependent on government functionaries, limiting their autonomy. Strengthening them as genuinely community-owned institutions, free from excessive government interference, is essential, drawing lessons from models like Kudumbashree and Jeevika,
- **Financial Management and Accountability:** Large funds lying idle with CLFs pose risks of misuse. Around ₹56.69 lakh crore has been provided as capitalisation support, along with additional Central and State funds and interest earnings. Robust systems of community monitoring through social audits, complemented by statutory audits, are required to ensure transparency and accountability.
- **Reforming Savings and Credit Practices:** CLFs need flexibility in designing savings and loan products instead of uniform interest rates and repayment periods. Community-led decision-making can ensure judicious fund use, promote equitable development, and generate revenue for CLF activities.
- **Scaling Credit Access for SHG Members:** While SHGs have leveraged substantial bank credit, many members find loan sizes inadequate as enterprises grow. Transitioning to individual loans is constrained by the absence of personal credit histories. Generating CIBIL scores for individual members and enabling CLFs to support individual loan facilitation and repayment can enhance bank confidence and credit flow.
- **Innovative Financing and Partnerships:** With economic diversification, DAY NRLM must move beyond debt financing towards equity, venture capital, and blended finance. Partnerships with SIDBI, NBFCs, neo-banks, and other financial institutions are needed to develop customised financial products suited to rural women entrepreneurs.
- **Improving Coordination and Convergence:** Livelihood sub-schemes under DAY NRLM often function in silos. Annual State and UT-level livelihood action plans, based on Village Prosperity

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and Resilience Plan data, can ensure synchronised interventions. CLFs should evolve into business hubs offering integrated livelihood and enterprise services.

- **Institutionalising Convergence Across Departments:** Although convergence with departments such as Animal Husbandry, Agriculture, and Food Processing has yielded results, it remains officer-dependent. Establishing a Convergence Cell at NITI Aayog can institutionalise coordination, prevent duplication, and improve resource utilisation.
- **Marketing and Professional Support:** Lack of marketing remains a major constraint. A dedicated national-level marketing vertical focusing on branding, packaging, quality, pricing, and logistics is required. Select CLFs can serve as logistics hubs, supported by professional, market-facing organisations at the State and UT levels, alongside adequate placement of skilled professionals while respecting the organic growth of community institutions.

4. Survey of Migration in the country: (GS paper-1)

Context: National Statistics Office (NSO), Ministry of Statistics and Programme Implementation (MOSPI) has proposed to conduct a Survey on Migration during July 2026-June 2027.

Migration Data Collection

- MOSPI conducts migration surveys at regular intervals, with the most recent data from PLFS 2020-21 and Multiple Indicator Survey 2020-21.
- A forthcoming Survey on Migration will provide comprehensive data on rural-urban and inter-state migration, reasons, seasonal and return migration, and employment profiles. The data will aid policymakers, planners, researchers, and development practitioners in targeted interventions for urban planning, housing, transportation, employment, social security, and skill development.

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Migration Rate in India

According to PLFS 2020-21, the overall migration rate in India was estimated at 28.9%. The migration rate was 10.7% among males and 47.9% among females at the all-India level.

Gender-Specific Migration Patterns

- Among females, marriage was the predominant reason for migration, accounting for 86.8% of female migrants.
- Among males, migration for employment or better job opportunities was the highest, contributing 22.8% of male migration.
- These patterns highlight the social drivers of female migration and labour market factors influencing male migration in India.

Quick Bites:

➢ Raksha Mantri Shri Rajnath Singh has approved the grant of 'Miniratna' Category-I status to Yantra India Limited (YIL). The YIL is one of the newly formed Schedule 'A' DPSUS functioning under the administrative control of the Department of Defence Production. In May 2025, Raksha Mantri had approved grant of Miniratna-I Status to three of the seven DPSUs - Munitions India Limited, Armoured Vehicles Nigam Limited and India Optel Limited.

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04-02-2026

Prelims articles:

1. **Suborbital tourism:**

Context: On January 31, Blue Origin, the private space company owned by Jeff Bezos, announced that it was suspending its New Shepard suborbital space tourism programme for at least two years to focus on its "lunar capabilities" instead.

What is Suborbital Tourism

- A form of space travel where passengers reach the edge of space without completing an orbit around Earth

Altitude and Boundary

- Flights typically reach about 100 km above Earth
- This altitude is known as the Kármán line, widely accepted as the boundary of space

Flight Path and Mechanics.

- Suborbital vehicles do not attain orbital speed
- They follow a parabolic (are-shaped) trajectory, similar to a thrown object

Duration of the Experience

- Total flight time is usually between 10 and 15 minutes

Weightlessness Experience

- Engines shut down near the peak of the flight
- Passengers experience several minutes of microgravity
- Allows floating inside the cabin and viewing Earth's curvature against space

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Re-entry and Return

- Due to insufficient speed for orbit, gravity pulls the craft back
- The vehicle re-enters the atmosphere and lands safely

Key Companies Involved

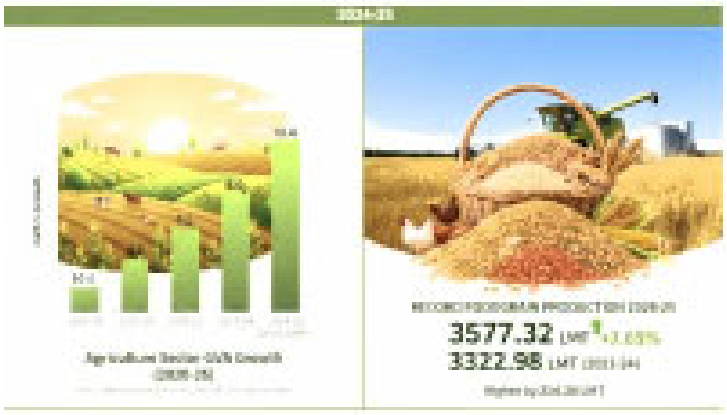
- Blue Origin and Virgin Galactic are leading providers of suborbital tourism

Why It Is More Accessible

- Requires less energy compared to orbital missions
- Needs simpler heat shielding and technology
- Serves as a more feasible entry point for private space travel

2. Agriculture GVA Grows by 10.4% in 2024-25: Provisional Estimates:

Context: The Gross Value Added (GVA) percentage growth in the agriculture and allied sector including crops, livestock, fisheries and horticulture, during the last five years (at current prices) is as under:



Years	2020-21	2021-22	2022-23	2023-24	2024-25(PE)
At current prices	10.0	10.6	8.5	9.6	10.4

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In addition to this, the total foodgrain production in the country during 2024-25 is estimated at a record 3577.32 LMT which is higher by 7.65% i.e. 254.34 LMT than the production of foodgrain of 3322.98 LMT achieved during 2023-24.

3. Oilseed Cultivation Expands; Production Rises to 429.89 Lakh Tonnes:

- **Increase in oilseed cultivation area:** The area under oilseed crops has risen from 301.92 lakh hectares in 2023-24 to 304,40 lakh hectares in 2024-25, reflecting expansion in cultivation.
- **Growth in oilseed production:** Oilseed output increased significantly from 396.69 lakh tonnes in 2023-24 to 429.89 lakh tonnes in 2024 25, indicating improved productivity and output.
- **Launch of NMEO-Oilseeds:** The National Mission on Edible Oils-Oilseeds was approved on 3 October 2024 to boost domestic oilseed production and promote self-reliance in edible oils under the Atmanirbhar Bharat initiative.
- **Price and trade support measures:** Minimum Support Price and import tariff policies are being used to ensure remunerative prices for farmers, protect them from market volatility and reduce dependence on edible oil imports.
- **Farmer income support mechanisms:** Procurement of oilseeds under the PM-AASHA scheme helps farmers secure better prices and provides income support, reinforcing incentives for higher domestic production

4. Solid Fuel Ducted Ramjet (SFDR):

Context: Defence Research & Development Organisation (DRDO) has carried out a successful demonstration of Solid Fuel Ducted Ramjet (SFDR) technology from the Integrated Test Range (ITR), Chandipur off the coast of Odisha. The successful demonstration places India into an elite league of nations possessing this technology that enables developing long-range air-to-air missiles to give tactical edge over the adversaries.

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What it is: Solid Fuel Ducted Ramjet (SFDR) is an advanced air-breathing propulsion technology used mainly in long-range, high-speed missiles. It uses solid fuel but draws oxygen from the atmosphere instead of carrying an onboard oxidiser, unlike conventional rockets.

How it works: The missile is first accelerated to supersonic speed using a booster. Once sufficient speed is achieved, air enters the intake, gets compressed, and mixes with the solid fuel gases in the combustion chamber. Continuous combustion produces sustained thrust throughout the flight.

Key technological features: It combines the simplicity of solid fuel with the efficiency of ramjet propulsion. Thrust can be regulated during flight, enabling better speed control, range, and manoeuvrability compared to traditional solid rocket motors.

Advantages over conventional rockets: Because it does not carry oxidiser, it has higher fuel efficiency and longer range. Continuous thrust avoids the "burn-out and coast" phase, improving terminal speed and making interception by air defence systems more difficult.

Military significance: SFDR enables long-range, high-supersonic cruise missiles with better accuracy and agility. It is particularly valuable for beyond-visual-range (BVR) air-to-air missiles and next-generation surface-to-air and air-to-surface missiles.

Mains specific articles:

1. **Balochistan: (GS paper 2)**

Context: On January 30-31, the Balochistan Liberation Army (BLA) carried out coordinated attacks across at least nine districts of Balochistan, targeting police stations, military outposts and a high-security prison in Quetta, the provincial capital.

More about:

- **Recent violence and allegations:** Pakistan launched large-scale military operations in Balochistan, killing at least 145 militants, and accused India of backing the attacks, India

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categorically rejected the allegations, calling them an attempt to deflect attention from Pakistan's internal issues.

- **Strategic and economic importance of Balochistan:** Balochistan is Pakistan's largest province, covering nearly 40% of its land area, rich in minerals, oil, gas and coal, strategically located along the Arabian Sea, and central to projects like the China-Pakistan Economic Corridor, though persistent violence threatens investments.
- **Rising insurgency and security situation:** Violence has intensified since the Taliban takeover of Afghanistan in 2021, with at least 254 attacks in 2025 causing over 400 deaths, reflecting a significant year-on-year increase.
- **Historical roots of unrest:** The province has witnessed multiple rebellions since its annexation in 1948, driven by political marginalisation, economic neglect and disputes over control of natural resources.
- **Human rights concerns:** Human rights organisations report widespread enforced disappearances, extrajudicial killings and heavy-handed military operations, with Amnesty International citing over 10,000 Baloch disappearances since 2011.
- **Militant evolution and coordination:** Groups such as the Baloch Liberation Army and Balochistan Liberation Front have unified under a common front, expanded attacks, used suicide bombers and briefly seized territory, directly challenging state authority.
- **State response and protests:** Pakistan has relied on forceful security operations, including Operation Green Bolan after the Jaffar Khan Express hijacking in March 2025, alongside crackdowns on Baloch rights protests.
- **Cycle of violence and blame:** Islamabad continues to blame India for the insurgency, while India maintains that Pakistan must address long-standing political, economic and human rights grievances in Balochistan to break the cycle of violence.

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About Balochistan:



- Balochistan, the largest Pakistani province, is spoarsely populated and impoverished when compared to the rest of the country.
- At the same time, its location as well as abundance of natural resources, especially oil, make it strategically vital for Pakistan.
- It strategically bridges the Middle East and Southwest Asia to Central Asia and South Asia.
- It is the closest ocean frontage for the landlocked countries of Central Asia.

2. Why has the government increased capital spending for the defence sector? (GS paper 3)

Context: The government has announced a record ₹7,84,678 crore for defence in the FY2026-27 Union Budget, addressing urgent military needs amid geopolitical tensions. The increased funding aims to enhance domestic capabilities and support the Aatmanirbhar Bharat initiative.

More about:

- **Shift in defence spending approach:** India's defence budget has long struggled between manpower costs and modernisation needs, but the FY2027 allocation signals a decisive shift

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towards strengthening military capability and supporting a growing domestic defence industry, with spending nearing 8 lakh crore.

- **Overall defence allocation:** The Ministry of Defence expenditure has reached a historic high of about 27,84,678 crore in FY27 (BE), accounting for 14.7% of total central government expenditure, reflecting stabilisation after earlier declines and helping insulate national security from fiscal pressures.
- **Rising capital outlay:** Capital expenditure, crucial for modernisation and big-ticket acquisitions, has risen to 27.9% of the defence budget in FY27, amounting to 2,19,306 crore, a sharp increase from earlier years and a year-on-year jump of nearly 240,000 crore.
- **Operational and strategic drivers:** The increased capex reflects post-Operation Sindoor requirements, including replenishment of depleted war reserves, enhanced stockpiling of precision-guided and loitering munitions, and preparedness for a potential two-front challenge involving China and Pakistan.
- **Institutionalisation of emergency procurement:** Spending trends indicate that emergency procurement mechanisms, earlier used as ad hoc measures, may now be institutionalised to enable faster induction of critical technologies and systems.
- **Managing committed liabilities:** Higher capital allocation aims to ease the burden of past contractual obligations and create fiscal space for new projects such as the Advanced Medium Light Aircraft and Project 751 submarines, which require upfront funding flexibility.
- **Changing expenditure composition:** The share of pensions has declined to 21.8% and salaries to 22.4% of the total defence budget in FY27, down significantly from FY20 levels, suggesting moderation of revenue expenditure partly due to reforms like the Agnipath scheme.
- **Boost to domestic defence industry:** Nearly 75% of the capital acquisition budget is reserved for domestic industry under Aatmanirbhar Bharat, indicating government confidence in indigenous capacity, though timely delivery and absorption capacity remain key challenges.

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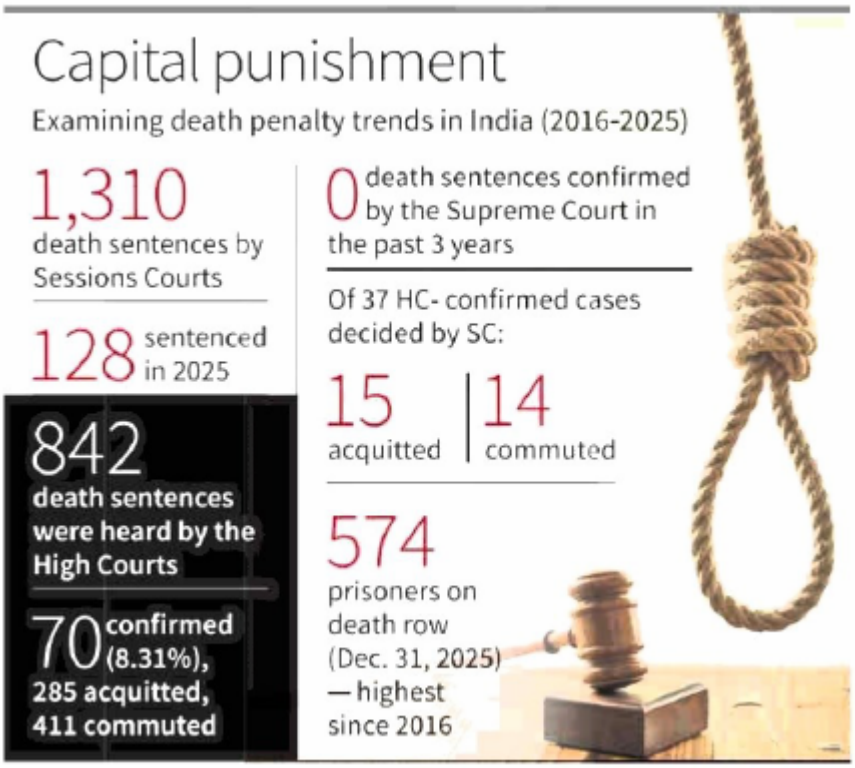
3. SC has not upheld death penalty in 3 years: report: (GS paper 2)

Context: The Supreme Court has not confirmed a single death penalty in the past three years, according to an annual statistics report on death penalties in India, published by the Square Circle Clinic, a criminal justice initiative at the NALSAR University of Law, Hyderabad.

More about:



- **Death sentences by lower courts:** Between 2016 and 2025, Sessions Courts across India awarded 1,310 death sentences, including 128 in 2025 alone, indicating continued reliance on capital punishment at the trial court level despite scepticism in higher courts.

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- **High Court outcomes:** Of the death sentences reviewed by High Courts, only 8.31% were confirmed, while 283 individuals were acquitted and 411 death sentences were commuted, highlighting extensive correction of trial court verdicts.
- **Supreme Court review of confirmed cases:** In cases where Sessions Court death sentences were upheld by High Courts, the Supreme Court has not confirmed any, acquitting or commuting all 37 such cases it has decided so far.
- **Concerns over wrongful convictions:** The high rate of acquittals and commutations suggests serious errors at the Sessions Court level, raising concems about wrongful convictions and improper application of the death penalty.
- **Death row population and delays:** As of December 31, 2025, India had 574 prisoners on death row, with many spending over five years awaiting resolution, and some remaining incarcerated for nearly a decade before acquittal.
- **Procedural violations in sentencing:** Despite binding Supreme Court guidelines requiring mitigation hearings, psychological assessments and prison conduct reports, nearly 95% of death sentences in 2025 were imposed without following these procedures.
- **Evolving sentencing trends:** Courts are increasingly resorting to life imprisonment without remission as an alternative to the death penalty, reflecting a gradual shift in sentencing practices.

4. 84% waste-pickers from SC, ST, OBC groups: govt.: (GS paper 1 and 2)

Context: The Union government on Tuesday released data for the first time on the ongoing enumeration of waste-pickers across the country.

More about:

- **First national data on waste-pickers:** The Union govemment has released data for the first time on the enumeration of waste-pickers, showing that 1.52 lakh workers have been profiled and validated across urban areas in 35 States and Union Territories.

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- **Social composition nationwide:** At the national level, 84.5% of the profiled waste-pickers belong to Scheduled Castes, Scheduled Tribes and Other Backward Classes, while 10.7% are from General category communities, with the remainder classified under "Other".
- **State and UT variations:** While SC, ST and OBC communities dominate nationally, Delhi and Gea show a reverse pattern where General category waste-pickers form a majority, and in West Bengal, General category workers constitute 42.4% of those enumerated.
- **Gender-wise distribution:** Of the total waste-pickers profiled, 48.7% are women, 51.3% are men, and a very small fraction, 0.007%, are transgender persons.
- **Detailed caste breakdown:** Among all workers profiled, 60.3% are from Scheduled Castes, 13.7% from Other Backward Classes, 10.5% from Scheduled Tribes, and 10.7% from the General category, reflecting strong caste concentration in waste-picking work.
- **NAMASTE scheme framework:** The enumeration is part of the NAMASTE scheme of the Ministry of Social Justice and Empowerment, which aims to formally recognise waste-pickers through urban local bodies, provide protective equipment, and eliminate deaths from hazardous sewer and septic tank cleaning.
- **Definition of waste-pickers:** Under NAMASTE, waste-pickers are defined as informally engaged workers involved in collecting and recovering reusable and recyclable solid waste from streets, bins and waste facilities for livelihood.
- **Related enumeration of sanitation workers:** The scheme has also profiled about 89,000 sewer and septic tank workers so far, most of them men, with over 90% belonging to SC, ST and OBC communities, though State-wise data for this group is yet to be released.

Quick Bites:

➢ The Sudanese Army broke a paramilitary siege on the key southern city of Kadugli on Tuesday, Anny chief Abdel Fattah al-Burhan said, in the latest reversal of a paramilitary offensive through

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the Kordofan region. Kadugli has been besieged for much of Sudan's nearly three-year war between the army and RSF.

- The fourth edition of the Joint Defence Cooperation Committee (JDCC) meeting between India and Tanzania was held in Zanzibar from 02-03 February 2026.
- Paradip Port Authority (PPA) has been awarded the First Prize at the Swachhata Pakhwada Awards 2025, instituted by the Ministry of Ports, Shipping and Waterways (MoPSW), in recognition of its outstanding performance in cleanliness, sustainability and community participation.

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05-02-2026

Prelims articles:

1. NASA's Artemis II mission.

Context: NASA said that it will be delaying until March the launch of its first crewed flyby mission to the moon in more than half a century after encountering leaks during final tests.

More about:

- Artemis II is the first crewed flyby mission to the Moon in more than 50 years.
- Its launch was postponed to March after hydrogen leaks and technical issues were detected during the "wet dress rehearsal" test of the Space Launch System (SLS) rocket and Orion spacecraft.
- The mission will send four astronauts on a 10-day flyby of the Moon, preparing for later missions that aim to land humans on the lunar surface.

What are Artemis Accords?

- Artemis, named after the Greek Moon goddess, is a comprehensive agreement drawn up by the US to bring together nations that share a common vision for civil space exploration.
- It serves as a framework for cooperation and collaboration in space exploration, building upon the foundation of the Outer Space Treaty of 1967,
- The Artemis Accords were jointly launched by the United States Department of State and NASA on October 13, 2020, with seven partner countries, such as Canada, Italy, Japan, Luxembourg, UAE, and the UK.
- On June 21, 2023, India became the 27th nation to sign the Artemis Accords.
- The Artemis programme includes plans for a base on the lunar surface, multiple spacecraft to ferry

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humans and cargo, an orbiting space station, and a constellation of satellites to help with navigation and communication.

- The first Artemis crewed mission to the moon's surface is likely in 2026.

About Artemis II mission:

- Artemis II will be the first mission to carry humans to the Moon's vicinity since 1972.
- It is the second scheduled flight of the Artemis programme and the first crewed Artemis mission.
- It will be the first mission to fly astronauts aboard the Space Launch System (SLS) rocket and Orion spacecraft.
- After the uncrewed Artemis I mission in 2022, Artemis II will mark the first human joumey beyond low Earth orbit in over 50 years.
- Four astronauts will undertake an approximately 10-day mission to fly around the Moon and return to Earth.
- The crew will include three NASA astronauts and one astronaut from the Canadian Space Agency (CSA).
- The mission will test spacecraft systems in preparation for Artemis III, which aims to land astronauts on the Moon by 2028.
- Several scientific payloads will study space radiation, human health and behaviour, and communications.
- Astronauts and mission controllers will collect performance data on Orion and crew operations to assess readiness for lunar landing missions.
- Orion will perform a high-speed reentry and splash down in the Pacific Ocean off the coast of San Diego.

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2. Bharat Taxi:

Context: Union Minister for Home Affairs and Cooperation Amit Shah will launch India's first cooperative-based ride-hailing platform, Bharat Taxi.

More about:

- Bharat Taxi has been conceptualised as a transformative initiative in the mobility sector, placing drivers-referred to as sarathis (charioteers) at the centre of ownership, operations, and value creation, thereby freeing them from exploitative aggregator-based models.
- During the programme, the top six performing sarathis will be honoured for their outstanding contributions.
- Each honoured sarathi will be provided with a personal accident insurance cover of 25 lakh and family health insurance cover of 25 lakh.
- On the occasion, nine memoranda of understanding (MoUs) will be exchanged with key public and private stakeholders.
- Bharat Taxi aims to expand to all States and cities across the country in the next two years.

3. Madabhushi Ananthasayanam Ayyangar:

Context: Lok Sabha Speaker, Shri Om Birla, paid floral tributes to former Lok Sabha Speaker, Shri M. Ananthasayanam Ayyangar, in the Central Hall of Samvidhan Sadan, on his birth anniversary.

About M. Ananthasayanam Ayyangar

- Madabhushi Ananthasayanam Ayyangar (1891-1978) was the first Deputy Speaker and later Speaker of the Lok Sabha.
- He also served as the 5th Governor of Bihar from 1962 to 1967.
- He was born in Thiruchanoor near Tirupati in the Madras Presidency (now Andhra Pradesh).

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- He studied at Devasthanam High School, Tirupati, and Pachaiyappa's College, Chennai.
- He obtained a law degree from Madras Law College in 1913.
- He initially worked as a Mathematics teacher and later practised as a lawyer between 1915 and 1950.
- Inspired by Mahatma Gandhi, he participated in the Indian freedom struggle and was imprisoned twice.
- He was elected to the Central Legislative Assembly in 1934.
- He was elected to the first Lok Sabha from Tirupati in 1952 and to the second Lok Sabha from Chittoor in 1956.
- He became the first Deputy Speaker of the Lok Sabha in 1952 under Speaker G.V. Mavalankar.
- After the death of Mavalankar in 1956, he was elected as Speaker of the Lok Sabha.
- The Dowry Prohibition Act, 1961, was passed in a joint session of Parliament during his tenure as Speaker.

4. BRICS Centre for Industrial Competencies (BCIC):

Context: India joined the BRICS Centre for Industrial Competencies (BCIC) at an event organised by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, at Vanijya Bhavan, New Delhi.

About BRICS Centre for Industrial Competencies (BCIC)

- The BCIC, launched in partnership with the United Nations Industrial Development Organization (UNIDO), serves as a one-stop centre providing integrated support services to manufacturing companies and Micro, Small and Medium Enterprises (MSMEs) across BRICS countries, with a focus on strengthening Industry 4.0 competencies.
- The National Productivity Council (NPC) has been designated as the India Centre for BRICS Industrial Competencies.

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- Under the policy guidance of DPIIT and with technical support from UNIDO, NPC will spearhead India's engagement with BCIC and contribute to capacity building, productivity enhancement and adoption of advanced manufacturing practices.

5. Yuva Sahakar Scheme and Swayamshakti Sahakar Scheme:

Context: National Cooperative Development Corporation (NCDC), a statutory organization under the Ministry of Cooperation, is implementing Yuva Sahakar and Swayam Shakti Shakar Scheme. Both the schemes are fully funded and supported by NCDC.

More about:

- "Yuva Sahakar Scheme is being implemented with the aim to encourage newly formed cooperative societies with new and/or innovative ideas.
- The objectives of Swayamshakti Sahakar Yojna are to facilitate access to affordable, cost-effective and reliable financial services to the poor, to facilitate women Self Help Groups (SHGs) to access adequate bank credit to undertake the common/collective socio-economic activities & to promote sustainable livelihood.

6. SabhaSaar:

Context: The Ministry of Panchayati Raj launched SabhaSaar, an Al-enabled voice-to-text meeting summarisation tool.

About SabhaSaar platform:

- SabhaSaar is a digital platform designed to capture, record, and analyse Gram Sabha proceedings in a structured manner.
- The platform helps monitor key parameters such as the frequency and type of Gram Sabha meetings and levels of participation.

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- It enables recording of meeting details, including date, type, and conduct of Gram Sabha meetings.
- Sabha Saar supports preparation of meeting minutes through voice-to-text transcription.
- The platform allows tracking of action points and follow-up on Gram Sabha decisions.
- The Al model powering SabhaSaar operates on cloud and Al infrastructure provided through the IndiaAl Compute Portal under the IndiaAl Mission of Meity.
- Data is processed within the government framework and is not shared with external third-party service providers.

7. Anusandhan National Research Foundation (ANRF):

Context: ANRF to Celebrate Foundation Day on 5 February 2026 in New Delhi.

About Anusandhan National Research Foundation (ANRF):

- Established under the ANRF Act, 2023 to promote research and innovation across India. Aims to seed, grow, and foster a research culture as envisaged in the National Education Policy (NEP).
- The Science and Engineering Research Board (SERB) has been subsumed into ANRF.
- **Funding target:** 250,000 crore for the period 2023-2028.

Mains specific articles:

1. The Budget and the imperative of fiscal consolidation: (GS paper 3)

- **Focus on Viksit Bharat and Technology Sectors:** A significant portion of the Union Budget 2026-27 speech focused on expenditure programmes aimed at achieving the goal of Viksit Bharat by 2047. Priority has been given to advanced technology sectors such as Artificial Intelligence, biopharma, semiconductors, and critical minerals. However, concems remain regarding the effectiveness of implementation and the pace at which these initiatives will deliver results.
- **Restructuring of Expenditure and Changing Priorities:** The Government has been restructuring expenditure to create fiscal space for new priorities. The share of revenue expenditure in total

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expenditure has declined from 88% in 2014-15 to about 77% in 2026-27 (BE). Within this, central subsidies have reduced significantly. Correspondingly, the share of capital expenditure has increased, supporting economic growth.

- **Trends in Capital Expenditure:** Although capital expenditure has remained high as a percentage of GDP in the post-COVID period, its growth rate has slowed. Growth declined from 28.3% in 2023-24 to 10.8% in 2024-25 and further to 4.2% in 2025-26 (RE). It is budgeted to grow by 11.5% in 2026-27 (BE), keeping it almost unchanged at about 3.1% of GDP.
- **Revenue Receipts and Tax Buoyancy Concerns:** Tax revenue projections for 2026-27 are considered realistic, but overall tax buoyancy is low at 0.8, below the benchmark of 1. Direct taxes show better buoyancy (1.1), while indirect taxes remain weak (0.3), largely due to slower GST growth. The govemment may need to review the indirect tax structure to improve buoyancy.
- **Transfers to States and Finance Commission Recommendations:** The Sixteenth Finance Commission retained the States' share in the divisible pool at 41%, and tax assignments to States remain unchanged at 3.9% of GDP. However, the discontinuation of revenue deficit grants and reduction in other Finance Commission grants have lowered overall transfers, with total FC grants declining from 0.43% of GDP in 2025-26 (RE) to 0.33% in 2026-27 (BE).
- **Concerns on Fiscal Consolidation:** The pace of fiscal consolidation has slowed in recent years. The annual reduction in the fiscal deficit-GDP ratio has declined from 0.7 percentage points in 2024-25 to 0.4 in 2025-26 and only 0.1 in 2026-27 (BE). The shift in focus from fiscal deficit to debt-GDP targeting has also raised concerns about transparency.
- **Debt Burden and Interest Payments:** A high debt-GDP ratio results in rising interest payments, which reduce fiscal space for development expenditure. The effective interest rate on central government debt is estimated at 7.12% in 2026-27, and interest payments are projected to consume nearly 40% of revenue receipts.
- **Importance of Fiscal Discipline for Investment:** Maintaining the fiscal deficit at around 3% of GDP is important to ensure adequate investible resources for the private sector. Excessive public

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borrowing by the Centre and States could crowd out private investment and slow economic growth.

- **Overall Assessment:** The Budget provides a broad roadmap for achieving developed-country status by 2047 and identifies key priority sectors. However, sustained growth will require stronger fiscal consolidation, improved tax buoyancy, and transparent medium-term fiscal targets to ensure macroeconomic stability.

2. Issues surrounding UGC regulations: (GS paper 1 and 2)

Context: The Supreme Court has stayed the University Grants Commission (Promotion of Equity in Higher Education Institutions) Regulations, 2026 (UGC regulations, 2026), holding that they are ambiguous and can be misused.

More about:

❖ **Background of the Regulations**

- In 2012, the UGC issued regulations to promote equity and prevent discrimination in universities.
- Discrimination was broadly defined to include denial of access, undignified conditions, or segregation based on caste, religion, gender, disability, and other grounds.
- Institutions were required to establish Equal Opportunity Cells and appoint anti-discrimination officers for grievance redressal.
- Following the suicides of Rohith Vemula (2016) and Payal Tadvi (2019) amid allegations of caste discrimination, petitions were filed in the Supreme Court seeking stricter enforcement.
- During hearings, the UGC set up a committee to review the framework, leading to the revised UGC Regulations, 2026.

❖ **Why the 2026 Regulations Are Controversial**

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- The 2026 regulations define discrimination as unfair or biased treatment against students, faculty, or staff on specified grounds.
- A key controversy concerns the definition of "caste-based discrimination," which focuses on discrimination against SC, ST, and OBC communities.
- Critics argue this definition appears biased by presuming members of general categories as potential perpetrators.
- Concerns were also raised about the absence of provisions to penalise false or motivated complaints.

❖ **Supreme Court Observations**

- In Mritunjay Tiwari vs Union of India, the Supreme Court noted that some provisions are ambiguous and open to misuse.
- The Court framed key legal questions, including whether a separate definition of caste-based discrimination is necessary when discrimination is already broadly defined.
- Another question concerns whether such a definition could affect sub-classification among underprivileged groups.

❖ **Constitutional Principles Involved**

- Article 14 guarantees equality before the law and equal protection of the laws.
- Article 15 prohibits discrimination on specific grounds but allows special provisions for SCS, STs, and OBCs.
- These provisions reflect both formal equality (equal treatment) and substantive equality (measures to address historical disadvantages).
- Laws such as the Protection of Civil Rights Act, 1955, and the SC/ST (Prevention of Atrocities) Act, 1989 reflect this approach of differential protection.

❖ **Way Forward and Broader Perspective**

- The government may justify recognising caste-based discrimination as a distinct and serious form of discrimination in India.

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- However, ambiguities in the regulations should be addressed through consultation with stakeholders.
- Strict enforcement of anti-discrimination measures remains essential to protect underprivileged groups and ensure safe educational environments.

3. Indian cities could see far higher temperature rise than projected, says study: (GS paper1)

Context: Study includes 18 Indian cities, and finds that all of them warm faster than nearby rural areas.

❖ **Study on Rising Temperatures in Cities**

- A study indicates that climate models may underestimate how much hotter India's non-metropolitan cities can become compared to rural areas, by about 0.5°C to 2°C.
- Researchers from the University of East Anglia analysed 104 medium-sized cities in tropical and sub-tropical regions under a 2°C global warming scenario.
- The study focused on how much faster cities warm relative to their surrounding countryside rather than average regional temperature rise.

❖ **Key Findings for Indian Cities**

- The study examined 18 Indian cities and found that all of them warm faster than nearby rural areas.
- On average, Indian cities could experience about 45% more warming than projected by Earth System Models (ESMs).
- Patiala in Punjab emerged as an extreme case where land surface temperatures could rise at nearly double the projected rate.
- This implies that a projected 2°C rise could translate to about 4°C in urban areas when urban heat effects are considered.

❖ **Implications of Higher Urban Warming**

- Additional warming increases risks of heat strokes and heat-related illnesses.

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- It can worsen water availability challenges and increase demand for cooling.
- Higher temperatures may also raise public expenditure on urban infrastructure and climate adaptation.

❖ **Urban Heat-Island Effect**

- The urban heat-island effect refers to the tendency of cities to remain hotter than nearby rural areas due to built surfaces, reduced vegetation, and heat retention.
- This effect amplifies warming in cities beyond the levels projected by conventional climate models.

4. Denotified tribes seek constitutional recognition, separate Census entry: (GS paper 1)

Context: Denotified tribes, nomadic tribes, semi-nomadic tribes seek 'separate column' in 2027 caste census, claiming they have been politically misclassified among SC, ST, OBC groups; they want sub-classification to highlight backwardness within grouping.

Denotified, Nomadic and Semi-Nomadic Tribes (DNT/NT/SNT):

- Denotified, Nomadic and Semi-Nomadic Tribes are among the most vulnerable and deprived communities in India.
- Denotified Tribes are those communities that were earlier "notified" as criminal tribes under the Criminal Tribes Act of 1871 during British ruke.
- After Independence, the Criminal Tribes Acts were repealed in 1952 and these communities were officially "de-notified."
- Some of the denotified communities were traditionally nomadic in nature.
- Most DNT communities are today included within SC, ST, or OBC categories, but some remain outside all three classifications.
- Several committees since Independence have examined their issues, including the Criminal

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Tribes Inquiry Committee (1947) and the Ananthasayanam Ayyangar Committee (1949).

- The Kaka Kalelkar Commission (1953) and the B.P. Mandal Commission (1980) also made recommendations regarding backward communities, including DNTS.
- The National Commission to Review the Working of the Constitution (2002), chaired by Justice M.N. Venkatachaliah, noted that DNTs were wrongly stigmatised as crime-prone and faced exploitation.
- South Asia is estimated to have the largest nomadic population in the world.
- In India, roughly 10% of the population belongs to Denotified and Nomadic communities.
- There are about 150 Denotified Tribes and nearly 500 Nomadic Tribe communities in India.

❖ **Demand for Separate Recognition in Census**

- Denotified, nomadic, and semi-nomadic tribes (DNT/NT/SNT) are demanding a separate column in Census 2027.
- They are also seeking constitutional recognition in a separate Schedule similar to SC, ST, and OBC categories.
- The Social Justice Ministry has recommended their inclusion in the caste enumeration, and the Registrar-General of India has agreed in principle.

❖ **Historical Background**

- The Criminal Tribes Act of 1871 classified several nomadic and semi-nomadic communities as "criminal tribes."
- The law was repealed in 1952, after which these communities were termed denotified tribes.
- The Scheduled Castes list itself had earlier origins in the Government of India (Scheduled Castes) Order, 1936.

❖ **Issues in Enumeration and Identification**

- Community leaders fear that without a separate column or code in Census forms, these groups may again remain uncounted or misclassified.

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- Leaders are also demanding recognition of "graded backwardness" and sub-classification within DNT communities.
- This demand draws support from a 2024 Supreme Court judgment permitting sub-classification within SCs and STs.

❖ **Status of Denotified Tribes**

- The Idate Commission identified about 1,200 DNT communities, many of which were later included in SC, ST, or OBC lists.
- However, 267 communities were found to be left unclassified in its 2017 report.
- Many DNT groups remain highly marginalised and struggle to compete within broader reservation categories.

❖ **Challenges in Welfare Implementation**

- Despite schemes such as the SEED scheme, only a small proportion of beneficiaries receive support.
- A key problem is that many States are not issuing proper DNT community certificates.
- Goverment expenditure on the SEED scheme has been far below planned levels, limiting its impact.

❖ **Overall Concern**

- Communities argue that proper enumeration, certification, and constitutional recognition are essential to address long-standing marginalisation and ensure access to welfare benefits.

Scheme for Economic Empowerment of Denotified, Nomadic and Semi-Nomadic Communities (SEED):

- The Scheme for Economic Empowerment of Denotified, Nomadic and Semi-Nomadic Communities (SEED) was launched in February 2022 by the Ministry of Social Justice and Empowerment. The scheme aims to promote the socio-economic development of Denotified,

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Nomadic and Semi-Nomadic communities.

- It provides free coaching to students for competitive examinations, including Civil Services and professional courses such as medicine, engineering, and MBA.
- It offers health insurance coverage to families through the Pradhan Mantri Jan Arogya Yojana (PMJAY)
- The scheme supports livelihood initiatives to promote income generation among these communities.
- Financial assistance for housing is provided through schemes such as PMAY and IAY.
- The scheme has an outlay of about 200 crore for implementation over five years starting from 2021-22.
- The Development and Welfare Board for De-notified, Nomadic and Semi-Nomadic Communities (DWBDNCs) is responsible for implementation.
- An online portal has been developed for registration and to maintain a database of beneficiaries and community information.

Quick Bites:

- Gunmen killed at least 162 people in Nigeria's Kwara state in one of the deadliest attacks in the country in recent months, a Red Cross official said on Wednesday. The attack in the west-central state came after the military recently carried out operations in the area against what it called "terrorist elements".
- The 13th edition of the India-Kyrgyzstan Joint Special Forces Exercise KHANJAR, scheduled from 04 to 17 February 2026, has commenced in Missamari, Assam. Exercise KHANJAR is an annual training event conducted alternatively between India and Kyrgyzstan. The last edition of the exercise was conducted in Kyrgyzstan in March 2025.

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06-02-2026

Prelims articles:

1. **Mera Gaon Meri Dharohar (MGMD) Programme:**

Context: The information about the Mera Gaon Meri Dharohar (MGMD) Programme was given by Union Minister for Culture and Tourism Shri Gajendra Singh Shekhawat in a written reply in Rajya Sabha.

About Mera Gaon Meri Dharohar (MGMD) Programme:

❖ **Meaning and Purpose**

- Mera Gaon Meri Dharohar (MGMD) is a programme under the National Mission on Cultural Mapping (NMCM)
- It aims to culturally map villages across India and digitally document their heritage

❖ **Coverage**

- Cultural mapping has covered about 6.23 lakh villages across the country

❖ **MGMD Portal**

- A centralised digital platform developed to integrate and present village-level cultural data
- Serves as a national repository of cultural information collected through the mapping exercise

❖ **Features of the Portal**

- Comprehensive and interactive digital platform for cultural documentation
- Local communities and villagers can submit information through the "Contribute' tab
- Submitted information is validated and moderated before being published

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❖ **Objectives and Significance**

- Digital documentation and archiving of village heritage
- Availability of structured cultural data helps policy planning, research, and reference

❖ **Limitations**

- The programme does not provide grants or livelihood support
- No direct provisions for promotion of cultural tourism circuits under MGMD itself

2. iGOT Karmayogi platform:

Context: The information was given by the Union Minister of State (Independent Charge) for Science & Technology and Earth Sciences, and Minister of State in the Prime Minister's Office, Personnel, Public Grievances and Pensions, Atomic Energy and Space, Dr. Jitendra Singh in a written reply in Rajya Sabha.

More about:

❖ **iGOT Karmayogi Platform**

- A digital learning and capacity-building platform for government employees
- Developed under the National Programme for Civil Services Capacity Building (Mission Karmayogi)

❖ **Coverage and Implementation**

- Used by Central Ministries, Departments, and most States and Union Territories
- Karmayogi Bharat (SPV) and the Capacity Building Commission (CBC) have signed tripartite MoUs with 28 States/UTs for systematic implementation

❖ **Scale and Reach**

- More than 1.48 crore users onboarded
- Over 4200 courses available across domain, functional, and behavioural competencies
- More than 7 crore course completions recorded

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❖ **Language Accessibility**

- Courses available in 23 languages, including English and Hindi
- Around 829 courses in Hindi
- About 546 courses in various regional languages

❖ **Objectives and Significance**

- Enhances skills and competencies of civil servants
- Promotes continuous learning and professional development
- Aligns administrative capacity with evolving governance needs

❖ **National Learning Week (NLW) - Karmayogi Saptah**

- An initiative to promote continuous skill enhancement and lifelong learning among civil servants
- Focuses on role-specific, targeted learning and capacity building
- Helps ensure competencies of officials align with national priorities and development goals

3. 500 GW non fossil capacity by 2030, Net Zero Emissions by 2070:

Context: The Information was given by The Minister of State in the Ministry of Power, Shri Shripad Naik, in a written reply in the Lok Sabha.

As on 31.12.2025 the total installed generation capacity is 5,13,730 MW, comprising of 2,46,942 MW (48.07%) of fossil-fuel sources and 2,66,788 MW (51.93 %) of non-fossil fuel sources.

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Installed Capacity (MW) of the Country					
		as on 30-09-2025		as on 31-12-2025	
Category		Installed Capacity (MW)	% share in Total	Installed Capacity (MW)	% share in Total
Fossil Fuel	Coal	2.17,438	43.41%	2,19,610	42.75%
	Lignite	6,620	1.32%	6,620	1.29%
	Gas	20,132	4.02%	20,122	3.92%
	Diesel	589	0.12%	589	0.11%
	Total Fossil Fuel	**2,44,800**	**48.87%**	**2,46,942**	**40.87%**
Non-Fossil Fuel	RES (including Hydro)	2,47,310	49.37%	2,58,008	50.22%
	Hydro (including PSPs)	50,108	10.00%	50,195	9.91%
	Wind, Solar & Other RE	1,97,201	39.37%	2,07,093	40.31%
	Wind	53,124	10.61%	54,511	10.61%
	Solar	1,27,332	25.42%	1,35,810	26.44%
	BM* Power/Cogen.	10,757	2.15%	10,757	2.09%
	Waste to Energy	854	0.17%	857	0.17%
	Small Hydro	5.134	1.02%	5,159	1.00%
	Nuclear	8,780	1.75%	8,780	1.71%
	Total Non-Fossil Fuel	2,56,090	51.13%	2,66,788	51.93%
	Total Installed Capacity	**5,00,889**	**100.0%**	**5,13,780**	**100.0%**

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All figures in MW							
Bio-Power							
As on	Small Hydro Power	Wind Power	Bio Mass Power/Cogeneration	Waste to Energy	Solar Power	Large Hydro	Total RES
2025 (Jan to Dec)	58.06	6,347.77	29.10	236.68	37,945.22	3,820.00	48,436.83

Mains specific articles:

1. **18 killed in blast at illegal coal mine in Meghalaya:**

   Context: An explosion in an illegally operated rat-hole coal mine in Meghalaya's East Jaintia Hills district killed 18 miners.

About Rat hole mining:

Meaning

- Rat-hole mining is a primitive, labour-intensive and hazardous method of coal mining in which very narrow tunnels are dug and miners crawl inside to extract coal.

Key Features

- Very small tunnels, usually about 3-4 feet deep and 2-3 feet wide Workers manually extract coal; in many cases child labour has been reported
- Practised mainly in northeastern India, especially Meghalaya, Assam and parts of Nagaland

Methods of Extraction

- **Side-Cutting Method:** Narrow tunnels are dug into hill slopes to reach thin coal seams found in hilly terrain

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- **Box-Cutting Method:** A rectangular pit is dag vertically and then horizontal tunnels resembling rat holes are made for coal extraction

Major Challenges

- **Safety Hazards:** Tunnel collapses, flooding, poor ventilation, suffocation and frequent accidents
- **Environmental Impact:** Deforestation, soil erosion, and water pollution due to Acid Mine Drainage; rivers and fertile lands affected
- **Social Issues:** Exploitation of cheap and child labour, poor wages and displacement of local communities

Regulation in India

- **Legal Status:** Rat-hole mining is illegal and treated as a law-and-order issue by state and district authorities
- **NGT Ban (2014):** National Green Tribunal banned rat-hole mining due to environmental damage and fatalities
- **Supreme Court (2019):** Upheld the NGT ban and declared such mining illegal under the Mines and Minerals (Development and Regulation) Act, 1957

Special Situations in the Northeast

- **Nagaland:** The Nagaland Coal Policy, 2006 allows regulated small-scale mining through Small Pocket Deposit Licences; Article 371A gives autonomy over land and resources
- **Sixth Schedule Areas:** Autonomous District Councils in Meghalaya and other tribal areas have powers over land and resources; local ownership of land and minerals and overlapping laws create regulatory ambiguities

2. New Strategic Arms Reduction Treaty (New START):

Context: The New Strategic Arms Reduction Treaty (New START) officially expired on February 5, marking the end of the last remaining bilateral agreement constraining the nuclear arsenals of the U.S. and Russia

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About New Strategic Arms Reduction Treaty (New START):

- New START Treaty is a bilateral nuclear arms control agreement between the USA and Russia aimed at limiting and reducing strategic nuclear weapons.
- START stands for Strategic Arms Reduction Treaty; the original START-I was signed in 1991 between the US and USSR and entered into force in 1994.
- New START was signed in 2010, entered into force in 2011, was valid till 2021, and later extended until 2026.
- The treaty focuses on long-range strategic nuclear weapons that can strike command centers, power hubs, and critical infrastructure.
- Russia and the US together possess about 87% of the world's nuclear warheads, making the treaty crucial for global security.
- New START aims to slow the nuclear arms race through verifiable and transparent reductions in strategic weapons.
- The treaty limits each country to 700 deployed ICBMs, SLBMs, and heavy bombers.
- It caps the number of deployed nuclear warheads at 1,550 for each side.
- A maximum of 800 deployed and non-deployed launchers and bombers is allowed.
- Compliance is ensured through on-site inspections, data exchanges, notifications, and oversight by the Bilateral Consultative Commission (BCC).

Meaning and Entry into Force

- New START (Strategic Arms Reduction Treaty) entered into force on 5 February 2011 between the United States and Russia to limit strategic nuclear weapons and ensure verification mechanisms

Key Provisions

- Capped deployed strategic nuclear warheads at 1,550 for each country

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- Required both sides to meet limits within seven years and maintain them thereafter
- Allowed up to 18 on-site inspections annually
- Mandated regular data exchange on nuclear forces
- Established a bilateral consultative commission to resolve implementation issues

Points of Dispute and Concerns

- Russia argued that U.S. missile defence systems could undermine deterrence by weakening retaliatory capability
- The U.S. raised concerns about conventional prompt global strike systems being counted under nuclear limits
- Russia developed new strategic weapons such as the Sunmat ICBM and Avangard hypersonic glide vehicle, which were counted under the treaty
- Other systems such as the Poseidon nuclear-powered underwater drone and Burevestnik nuclear-powered cruise missile fell outside treaty definitions

Suspension and Expiry

- The treaty was extended in 2021 for five years, setting expiry at 5 February 2026
- In February 2023, Russia suspended participation citing the Ukraine conflict and inspection constraints
- Verification mechanisms and inspections effectively ceased

Current Situation After Expiry

- For the first time since 1972, there are no legally binding limits on U.S. and Russian strategic nuclear arsenals
- Loss of inspections and formal verification has reduced transparency and predictability
- Intelligence now relies mainly on satellite and unilateral monitoring methods, which are less reliable

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Emerging Strategic Risks

- Growing integration of nuclear and non-nuclear strategic systems increases escalation risks
- Cyberattacks and other non-contact warfare methods can threaten nuclear command and control systems
- Analysts warn that reduced predictability is a major danger, even without rapid arsenal expansion

Implications for Global Arms Control

- Expiry complicates efforts to include China and other nuclear states in arms control frameworks
- The U.S. argues it should not remain constrained while China expands
- Russia argues constraints are unfair given NATO's overall capabilities
- China maintains its arsenal is much smaller and rejects joining disarmament frameworks at present

Possible Future Pathways

- Experts suggest restoring basic transparency measures between the U.S. and Russia
- Encouraging P5 countries to standardise definitions and adopt modest transparency practices
- Developing broader nonproliferation tools such as hotlines, launch notifications, incident-prevention mechanisms, and fissile material security arrangements to gradually involve more states

3. India, GCC nations sign terms of reference for FTA:

Context: Representatives of India and the six-nation Gulf Cooperation Council (GCC) on Thursday signed the Terms of Reference for negotiations on a free trade agreement (FTA).

More about:

- The GCC countries are together India's largest merchandise trade partners, with total merchandise trade exceeding that done with even the EU and the U.S.
- The Terms of Reference (TOR) were signed by India's chief negotiator for the FTA, Additional Secretary Ajay Bhadoo, and his counterpart representing the Secretariat General of the Gulf Cooperation Council, Raja Al Marzouki.

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- The signing of the ToR is a necessary precursor for the start of formal negotiations.
- The GCC countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE.

Quick Bites:

- Raksha Mantri Shri Rajnath Singh flagged-off a joint expedition to Mount Aconcagua in Argentina from South Block, New Delhi on February 05, 2026. The mountain at 6,961 metres stands as the highest peak of South America and the highest mountain outside Asia.
- The joint expedition is being undertaken by the Nehru Institute of Mountaineering (NIM), Uttarkashi and Jawahar Institute of Mountaineering & Winter Sports (JIM&WS), Pahalgam.
- PLASTINDIA 2026, one of the world's largest plastics exhibitions, commenced today at Bharat Mandapam, New Delhi.
- The 12th edition of the triennial event is being held from 5 to 10 February 2026 with the support of the Department of Chemicals and Petrochemicals (DCPC), Ministry of chemicals and fertilizers. Organised under the theme "Bharat Next".

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07-02-2026

Prelims articles:

1. **RBI holds policy rate, FY26 inflation outlook seen at 2.1%**

   Context: The Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) voted unanimously to keep the policy repo rate unchanged at 5.25% and decided to continue with a neutral stance.

More about:

- **Monetary Policy Committee Assessment:** The MPC observed that external headwinds have intensified since the last policy meeting, but successful trade deals provide a positive outlook. Near-term domestic inflation and growth prospects remain positive.
- **Inflation Outlook:** CPI inflation is projected at 4% in Q1 FY27 and 4.2% in Q2 FY27, remaining close to the inflation target. The slight upward revision is mainly due to higher prices of precious metals, while underlying inflation remains low.
- **Growth Outlook:** Economic activity remains resilient and the growth outlook is favourable. The MPC considers the current policy rate appropriate and will be guided by evolving macroeconomic conditions and new data series in future decisions.
- **GDP Growth Projections:** Real GDP growth projections for Q1 FY27 and Q2 FY27 have been revised upward to 6.9% and 7% respectively, with risks assessed as evenly balanced. Full-year projections are deferred until the April policy due to the upcoming release of a new GDP series. Risks to Inflation: Core inflation is expected to remain range-bound, but geopolitical uncertainty, energy price volatility, and adverse weather events pose upside risks.
- **Global Economic Concerns:** Escalating geopolitical frictions and rising trade tensions are disrupting the existing world economic order.

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- **Liquidity Management Strategy:** The RBI will remain proactive in liquidity management to ensure sufficient liquidity in the banking system, support productive economic needs, and facilitate monetary policy transmission.
- **Operational Approach to Liquidity:** Liquidity management will be pre-emptive, allowing for unexpected fluctuations in govemment balances and foreign exchange interventions.

About Monetary policy committee:

- The RBI Monetary Policy Committee (MPC) is a statutory body constituted under the RBI Act of 1934 by the Central Goverment.
- The RBI Monetary Policy Committee (MPC) was established based on the recommendation of the Urjit Patel Committee.
- It was formed with the objective of fixing the benchmark policy interest rate in order to keep inflation within a particular target level.
- The RBI Monetary Policy Committee (MPC) is a 6 member committee.
- There are in total three internal members and three external experts.
- The Monetary Policy Committee(MPC) is required to meet at least four times a year.
- The quorum required for the meeting of the MPC is four members.
- Each member of the MPC has one vote, and in the event of an equality of votes, the Governor has a second or casting vote.
- Once every six months, the Reserve Bank is required to publish a document called the Monetary Policy Report.

2. Advisory issued as avian flu infection detected in crow samples from Chennai:

Context: Following the detection of HSNI avian influenza (bird flu) virus in samples collected from a dead crow in Chennai, Tamil Nadu, the Directorate of Public Health and Preventive Medicine has issued an advisory for the public.

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More about:

- **Detection of Bird Flu Case:** H5N1 avian influenza virus was detected in samples collected from a dead crow in Chennai, prompting the Directorate of Public Health and Preventive Medicine to issue a public advisory.
- **Nature of the Disease:** Avian influenza is a viral disease that mainly spreads among birds, and transmission to humans is rare.
- **At-Risk Groups:** People who handle birds, especially sick or dead birds, and workers in slaughterhouses have a higher risk and are advised to exercise caution.
- **Symptoms and Medical Advice:** Individuals experiencing flu-like symptoms such as cough, cold, fever, or breathing difficulty are advised to seek medical care at the nearest government health facility.
- **Preventive Measures for the Public:** Residents are advised to report unusual bird deaths to the Animal Husbandry Department, maintain personal hygiene including regular hand-washing, and keep surroundings clean.
- **Food Safety and Travel Advisory:** People should avoid consuming improperly cooked eggs or meat and avoid travelling to areas where outbreaks have been reported.
- **Public Awareness:** The advisory also cautions residents against believing rumours and encourages reliance on official information.

About H5N1 or Bird flu:

- Avian influenza, often referred to as bird flu, is a highly contagious viral infection that primarily affects birds.
- In 1996, highly pathogenic avian influenza H5N1 virus was first identified in domestic waterfowl in Southern China.
- The "H" and "N" in the name of a flu virus stand for hemagglutinin and neuraminidase, two

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proteins on the surface of the virus that allow it to enter and exit host cells.

- Susceptible birds become infected when they have contact with contaminated excretions or surfaces that are contaminated with excretions.
- Human cases of H5NI avian influenza occur occasionally.
- However, as per WHO, there is no evidence of human to human spread of bird flu so far.

3. "Agni-3':

Context: Intermediate Range Ballistic Missile 'Agni-3' was successfully test-fired from the Integrated Test Range, Chandipur, Odisha on February 06, 2026.

About Agni missiles:

- Agni missile was developed under India's Integrated Guided Missile Development Programme (IGMDP) launched in 1983.
- IGMDP also led to the development of Prithvi, Akash, Trishul, and Nag missile systems.
- The Defence Research and Development Organisation (DRDO) initially conceptualised Agni as a two-stage technology demonstrator.
- The primary aim of the Agni demonstrator was to validate re-entry vehicle technologies.
- The missile used a solid-fuel first stage derived from the SLV-3 space launch vehicle.
- The upper stage was based on a modified Prithvi-l missile body.
- First flight test of the Agni demonstrator was conducted in 1989.
- An upgraded Agni demonstrator was tested in 1992.
- The upgraded version featured a manoeuvring re-entry vehicle (MaRV).
- It also incorporated an open interstage, eliminating the need for ullage motors between stages.
- Third successful flight test of the upgraded demonstrator was conducted in 1994.

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- After completing re-entry technology validation, the demonstrator was converted into a single-stage ballistic missile.
- This conversion led to the operational missile known as Agni-1.

Name	Type	Stages	Range km	Warhead (kg)
Al Agni-1	MRBM	One	700-1200	1000
A2-Apr-2	IRBM	Two and Half	2000-3000	1000
A3-Agni-3	IRBM	Two	3500-5000	1500
A4-Agni-4	IRBM	Two	3000-4000	1000
A5-Agni-5	ICBM	Three	5500-8000	1500

About Agni-3:

- Agni-Ill was first successfully flight-tested in 2007.
- Since its induction, Agni-III has undergone multiple successful tests, validating its reliability.
- It is a two-stage missile powered by solid propellants.
- Agni-III is an Intermediate-Range Ballistic Missile (IRBM).
- It is a surface-to-surface strategic ballistic missile.
- The missile is deployed in rail-mobile mode, enhancing survivability and flexibility.
- Maximum range of Agni-III is about 3,500 km.
- It can carry a payload of up to 1,500 kg.
- Agni-III has a very low Circular Error Probable (CEP), indicating high accuracy.
- Due to its precision, Agni-III is considered among the world's most accurate ballistic missiles in its range class.

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4. Agham Hydroelectric Project:

Context: Ladakh delegation presses for early movement on Agham Hydroelectric Project in meeting with Dr Jitendra Singh.

About Agham Hydroelectric Project:

- Agham Hydroelectric Project, a proposed hydropower initiative on the Shyok River in Ladakh.
- Proposed hydropower projects in Ladakh are primarily aimed at addressing energy shortages, reducing dependence on diesel-based generation, and supporting infrastructure, defence logistics, and local development in remote high-altitude areas.

Mains specific articles:

1. $120 million committed to Chabahar port in Iran completely paid: Centre: (GS paper 2)

Context: The Union government on Friday told Parliament that it has completely paid up its commitment of $120 million for Chabahar port, well before the U.S. sanctions waiver runs out in April 2026.

More about:

- **Uncertainty Over India's Future Role in Chabahar Port:** Iran's Ambassador to India stated that the Indian government has not yet conveyed its future plans regarding the Chabahar port project, even as political debate continues in India.
- **Budget and Financial Commitment:** The Union government recently ended its annual Budget allocation for Chabahar but clarified that India has fulfilled its commitment of contributing $120 million for procurement of port equipment under the 10-year MoU signed with Iran in May 2024.
- **Impact of U.S. Sanctions:** India indicated that managing the port may be difficult unless the United States withdraws sanctions. A conditional sanctions waiver issued by the U.S. remains valid until 26 April 2026, and India is engaging with stakeholders to address the implications.

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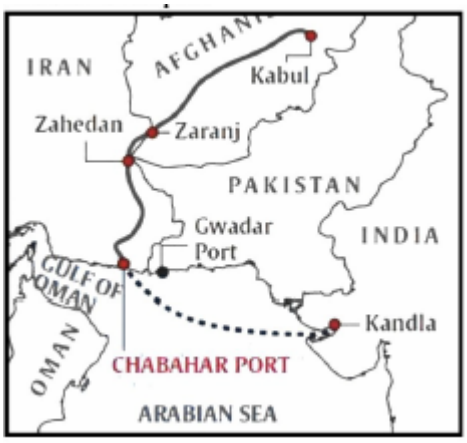
- **Parliamentary Questions and Political Criticism:** Congress MP Manish Tewari questioned the government on whether it was reducing engagement or withdrawing personnel and accused it of prematurely opting out of a strategically important project.
- **Strategic Importance of Chabahar Port:** The port, which India began developing in 2003, is considered important for access to Afghanistan and Central Asia and could serve as a catalyst for regional engagement.
- **Geopolitical Context:** Tensions between the U.S. and Iran remain high, with threats of military action alongside diplomatic efforts, including talks in Oman to prevent escalation.
- **Iran's Position:** Iranian Ambassador Mohammad Fathali expressed confidence that India would try to resolve the issue without giving up its interest, stating that Iran awaits India's decision on the future course of engagement.

About Chabahar port:



- It is a seaport in the Sistan-Baluchistan province of Iran, on the Gulf of Oman, at the mouth of the Strait of Hormuz.
- It can potentially help Tehran ward off the effect of Western sanctions.
- Offers India an alternative route that bypasses Pakistan, which does not allow India land access for

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trade with Afghanistan and Central Asia.

- It is also part of the proposed International North-South Transport Corridor (INSTC) There are two distinct ports in the Chabahar project, Shahid Beheshti and Shahid Kalantari.
- India's investment is restricted to the Shahid Beheshti port.
- India, Iran, and Afghanistan signed a trilateral agreement in April 2016.
- In December 2017, the first phase of Shahid Beheshti port was inaugurated, and India sent its first consignment of wheat to Afghanistan through Chabahar.
- In December 2018, India Ports Global Limited took over a part of the operations at Shahid Beheshti.

2. RBI plans ₹25,000 compensation for cyberfraud victims: (GS paper 3)

More about:

- **roposed RBI Compensation Framework:** The Reserve Bank of India has proposed a framework to compensate victims of small-value online frauds, with draft guidelines to be issued soon. Compensation Limit and Coverage Victims will be compensated up to 25,000 for losses incurred in small-value fraudulent transactions.
- **Sharing of Compensation Burden:** Both the victim and the bank will each bear 15% of the transaction value, while the remaining amount will be paid by the RBI from its Depositor Education and Awareness Fund, which has nearly 185,000 crore.
- **Method of Compensation Calculation:** The RBI will pay 85% of the amount lost or ₹25,000, whichever is lower. For example, a loss of 250,000 would result in compensation of 125,000, while a loss of 220,000 would result in compensation of 17,000.
- **Coverage of Small-Value Frauds:** Small-value transactions account for about 65% of online fraud cases in terms of number, though their value share is relatively low. No-Questions-Asked Provision Victims of such frauds may receive compensation even if they inadvertently shared OTPs, provided the loss was unintended and not mala fide.

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- **Safeguards Against Misuse:** The RBI will conduct necessary checks to prevent misuse of the scheme while keeping the compensation limit small to reduce risks.

About Depositor Education and Awareness Fund:

- Depositor Education and Awareness Fund (DEAF) was created by the RBI under Section 26A of the Banking Regulation Act, 1949.
- Banks must transfer eligible unclaimed amounts to the DEAF account maintained with the RBI.
- Amounts eligible for transfer are deposit balances or unclaimed sums lying idle for 10 years or more.
- Eligible accounts include savings, fixed/term, recurring, cumulative, and current deposit accounts.
- Other deposit accounts, irrespective of name or form, are also covered under DEAF.
- Cash credit and loan accounts are included after due appropriation by banks.
- Margin moncy and security deposits for Letters of Credit or Guarantees are transferable after 10 years.
- Unclaimed instruments such as demand drafts, pay orders, banker's cheques, NEFT credits, TTS, MTS, ATM unreconciled credits, and similar transitory accounts are covered.
- Vostro accounts and inter-bank clearing adjustments remaining unclaimed for 10 years are included.
- Undrawn balances in prepaid cards issued by banks are transferable, excluding travellers cheques or instruments without maturity.
- Rupee proceeds of foreign currency deposits converted as per forex rules are eligible for transfer.
- Unclaimed foreign currency amounts are converted into INR at the prevailing exchange rate at the time of transfer.

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- In case of a claim, only the INR amount transferred to the Fund is refundable, not foreign currency value.
- DEAF funds are used to promote depositors' education, awareness, and interests.
- All expenses for depositor education and awareness programs as specified by RBI are charged to the DEAF.

3. Centre lays down eligibility criteria for 'deep tech' start-ups in country: (GS Paper 3)

Context: The Centre has provided an official definition of what constitutes a "deep tech" start-up in India.

More about:

- **Official Definition of Deep Tech Start-ups:** The Department for Promotion of Industry and Internal Trade (DPIIT) has issued an official definition of a "deep tech" start-up as one that develops solutions based on new knowledge or advancements in scientific or engineering disciplines.
- **Key Characteristics:** Deep tech start-ups must spend a major share of funds on research and development, create or pursue significant novel intellectual property, and work toward commercialisation. They typically face long gestation periods, extended development timelines, high capital and infrastructure needs, and significant technical uncertainty.
- **Eligibility Criteria:** A regular start-up is defined as a company less than 10 years old or with turnover below 200 crore. Deep tech start-ups, however, can be recognised for up to 20 years and with turnover up to *300 crore, reflecting their longer development cycles.
- **Certification Process:** Companies must apply to DPIIT for certification as a deep tech start-up. DPIIT is the final authority and will decide based on guidance from an Inter-Ministerial Board of Certification that includes representatives from DPIIT, the Department of Science and Technology, and the Department of Biotechnology.

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- **Restrictions on Investments:** Recognised start-ups are restricted from investing in activities unrelated to their core knowledge-creation mandate, such as real estate or speculative financial assets, unless directly linked to their technological work.
- **Policy and Funding Support:** The definition is significant in the context of the government's push for technology-driven innovation. The Anusandhan National Research Foundation will manage the *1 lakh crore Research and Development Innovation (RDI) Fund, part of which will support deep tech start-ups.
- **Financing Provisions:** Companies receiving RDI Fund support may obtain financing at concessional interest rates of about 2-4% with repayment tenures of up to 15 years.

About Anusandhan National Research Foundation:

- Established under the ANRF Act, 2023 to promote research and innovation across India.
- Aims to seed, grow, and foster a research culture as envisaged in the National Education Policy → (NEP).
- The Science and Engineering Research Board (SERB) has been subsumed into ANRF. ♦ Funding target: 250,000 crore for the period 2023-2028.

Quick Bites:

- The Global CyberPeace Summit 2026, to be organised from February 8 to 10 in New Delhi, will focus on pressing digital challenges ranging from cybercrime, Al risks, misinformation, and critical infrastructure protection to digital governance.
- |The India-Australia Business Case Studies Compendium, titled "Pitch Perfect Australia-India: Perfect Conditions for a $100 Billion Partnership", was launched at the Indian Institute of Foreign Trade, Delhi Campus, bringing together policymakers, diplomats, industry leaders, and academia to discuss the next phase of economic collaboration between the two countries.

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- The Inaugural Session of the second batch of DAKSH (Development of Aspiration, Knowledge, Succession and Harmony), a flagship leadership development programme for senior executives of Central Public Sector Enterprises (CPSES), was held at the SCOPE Convention Centre, New Delhi.
- V.O. Chidambaranar Port Authority has become the first port in India to initiate the implementation of an advanced Anti-Drone System, marking a significant milestone in the protection of critical port infrastructure.
- The recently-launched PANKHUDI portal is a single-window digital platform of the Ministry of Women and Child Development (MWCD) designed to enable structured and transparent participation of individuals, NGOs, Corporates and NRIs in women and child development initiatives.

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08-02-2026

Prelims articles:

1. Bastar Pandum 2026:

Context: The President of India Smt Droupadi Murmu inaugurated the Bastar Pandum 2026 at Jagdalpur, Chhattisgarh today (February 7, 2026).

What is Bastar Pandum 2026?

- Bastar Pandum 2026 is a major three-day tribal cultural festival in the Bastar region of Chhattisgarh, inaugurated by the President of India, Smt. Droupadi Murmu, on February 7, 2026, at the historic Lalbagh Ground in Jagdalpur.
- The word "Pandum" in the Gondi language means "festival" or "celebration." For the people of Bastar, it signifies a way of life where every major milestone-from sowing seeds to the harvest of crops like mangoes-is celebrated as a community.
- **Objective:** To preserve, promote, and provide a global platform for the rich tribal heritage, folk arts, and ancient traditions of the Bastar division.

2. Kyasanur Forest Disease:

Context: The Indian Council of Medical Research (ICMR), under the Department of Health Research, Ministry of Health and Family Welfare, Government of India, is steadily progressing towards the development of an improved vaccine against Kyasanur Forest Disease (KFD).

More in news:

- At the request of the Karnataka government, the ICMR initiated development of a KFD vaccine.
- Indian Immunologicals Limited (IIL) and ICMR-National Institute of Virology (NIV) are jointly developing the vaccine.

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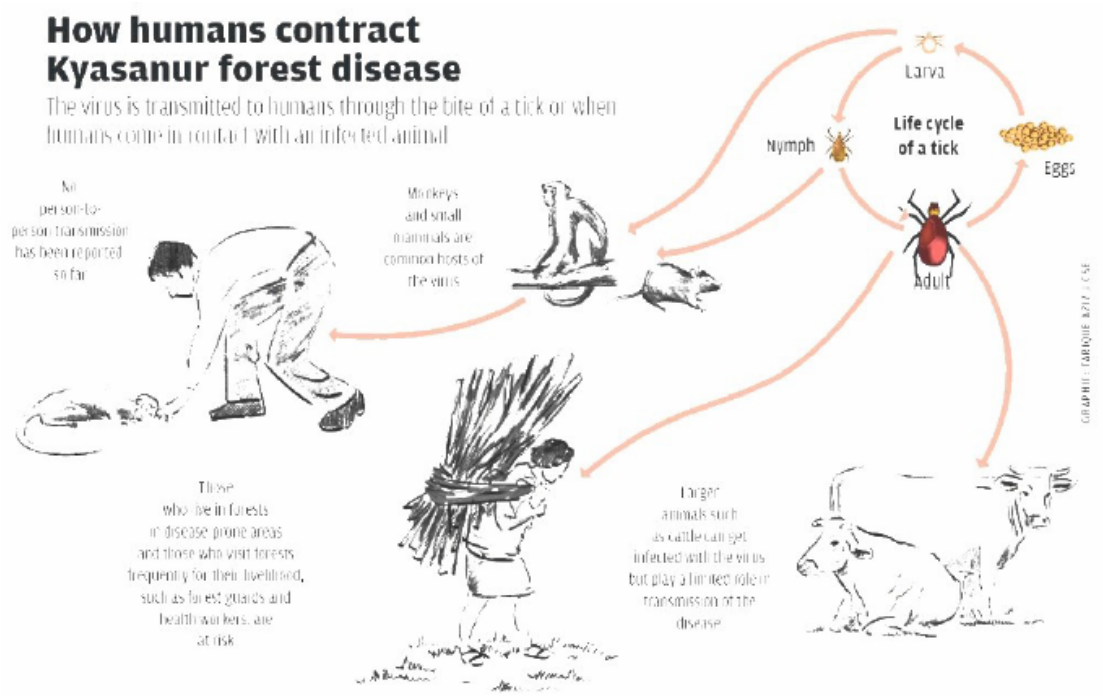
- The vaccine is a fully indigenous, two-dose, adjuvanted, inactivated vaccine.
- Final CDSCO approval will be sought if the vaccine proves safe and immunogenic.

What is Kyasanur Forest Disease?



- It is a zoonotic disease.
- The disease was first noticed in the Kysanur Forest area of Sorab Taluk in Shivamogga district in 1956.
- It is also known as "monkey disease/monkey fever" because of its association with monkey deaths.
- This virus has spread along the entire stretch of the Western Ghats region, which also includes Maharashtra, Kerala, Tamil Nadu and Goa.
- The disease spreads through ticks.
- Primates that come in contact with infective ticks contract the disease.

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- Human beings who visit the same forest area can contract the disease
- Symptoms start to appear three to eight days after the bite, of an infective tick.
- Fever, redness of the eyes, severe headache, and body pain are common symptoms.
- In severe cases, bleeding from the nose is noted.
- There is no specific treatment, doctors handle the symptoms, and monitor the vitals daily.
- An attempt to use a vaccine was given up after studies showed it to be ineffective.
- The ICMR is said to be in consultation with Indian Immunologicals for development of a vaccine.

3. Surajkund International Crafts Mela 2026:

Context: The 39th Surajkund International Crafts Mela 2026 has commenced at Surajkund in Faridabad, Haryana.

What is Surajkund International Crafts Mela?

- The International Surajkund Handicraft Mela is a major handicraft fair organised every year in Surajkund village in Faridabad district of Haryana.
- It is usually held between January and February and generally lasts for about 15 days.
- It is considered India's largest international handicraft fair and attracts artisans, craftsmanship lovers, and tourists from across the world.
- The fair presents a unique blend of art, culture, and traditional craftsmanship, symbolising the confluence of Indian and global handicrafts.
- Its main objective is to promote traditional handicrafts, art, and culture and to provide a platform for artisans and craftsmen to exhibit their work.

About 39th edition!

- **Theme:** The theme for the 2026 edition is "Local to Global - Atmanirbhar Bharat", focusing on promoting indigenous crafts on global platforms.

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- **Theme States:** Uttar Pradesh and Meghalaya are designated as the theme states, showcasing their unique crafts, traditions and cuisines.
- **Partner Country:** The Partner Country for the 2026 mela is Egypt.

Mains specific articles:

1. **CCMB scientists find new pathway for developing anti-fungal therapies:(GS paper 3)**

Context: Researchers at the CSIR- Centre for Cellular and Molecular Biology (CCMB) in Hyderabad have uncovered a significant insight into how fungi become dangerous.

More about:

❖ **Rising Threat of Fungal Infections**

- Fungal infections are increasingly causing hospitalisations and deaths worldwide
- Fungi also damage crops, reduce yields, and worsen food insecurity, creating a dual crisis in public health and agriculture

❖ **Research by CCMB, Hyderabad**

- Scientists at C3IR-Centre for Cellular and Molecular Biology (CCMB), led by Sriram Varalan, studied how fungi become infectious
- Research highlights a new approach to antifungal therapy by targeting fungal metabolism rather than only genetic pathways

❖ **Shape-Shifting Ability of Fungi**

- Fungi cxist in two forms: ycast form (small, oval) and filamentous form (larger, invasive)
- Yeast form helps fungi travel and find a suitable niche
- After anchoring, fungi transform into filaments that invade tissues aggressively

❖ **Triggers for Transformation**

- Inside the host, fungi face nutrient scarcity, temperature changes, and competition from microbes

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- These stresses trigger conversion to the filamentous form, which is harder for immune cells and drugs to eliminate

❖ **Key Scientific Finding**

- Researchers found a direct link between glycolysis (sugar breakdown) and production of sulfur-containing amino acids
- These amino acids are necessary for initiating invasive filament formation

❖ **Experimental Evidence**

- When sugar breakdown was slowed, fungi remained in the harmless yeast form
- Adding sulfur-containing amino acids restored their invasive ability
- Candida albicans lacking a key glycolysis enzyme struggled to change shape, was easily killed by immune cells, and caused only mild disease in mice

❖ **Significance of the Study**

- Fungal metabolism identified as a potential "Achilles' heel" of fungal pathogens
- Targeting metabolism could help develop safer and more effective antifungal therapies
- Findings may benefit both human health and agricultural protection against fungal diseases

2. How is India tackling mental health crisis?:(GS paper 1 and 2)

Context: Last month, the Economic Survey flagged the alarming rise of digital addiction and screen-related mental health problems, particularly among children and adolescents.

More about:

❖ **Recent Policy Developments**

- Economic Survey highlighted rising digital addiction and screen-related mental health problems, especially among children and adolescents.
- Union Budget announced measures to strengthen mental health infrastructure.

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- Proposal to establish a second NIMHANS in north India and upgrade institutions in Ranchi and Tezpur.

❖ **India's Mental Health Burden**

- India accounts for nearly one-third of global suicides, depression, and addiction cases.
- Suicide is among the leading causes of death in the 15-29 age group.
- WHO estimates economic loss due to mental health conditions in India at about $1.03 trillion (2012-2030).
- Around 70% 92% of people with mental disorders do not receive proper treatment.

❖ **Shortage of Professionals and Funding**

- India has about 0.75 psychiatrists per 1,00,000 people compared to the WHO recommendation of at least 3 per 1,00,000.
- Mental health spending has historically been around 1% of the total health budget.
- Budget allocation increased from ₹683 crore in 2020-21 to about ₹1,898 crore in 2024-25, but still remains low relative to need.

❖ **Expansion of Mental Health Services**

- Mental health services integrated into Ayushman Bharat through Health and Wellness Centres.
- More than 1.73 lakh sub-health centres and PHCs upgraded to Ayushman Arogya Mandirs.
- Mental health included in comprehensive primary healthcare packages.
- Over 20 centres of excellence sanctioned and 47 postgraduate departments established to train professionals.

❖ **Tele-MANAS Initiative**

- Tele Mental Health Assistance and Networking Auruss 3tates (Tele-MANA3) launched on October 10, 2022.
- Provides 24×7 free mental health support through toll-free helplines.

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- 33 operational cells across 36 States and UTs, supported by 23 mentoring institutes.

❖ **Key Shortfalls and Challenges**

- Mental health allocation remains less than 2% of the health budget, which itself is around 2% of GDP.
- Significant funding still directed toward tertiary institutions rather than grassroots programmes.
- Underutilisation of allocated funds at national level.
- Limited access to affordable and continuous care, with a large treatment gap.

❖ **Way Forward**

- Need for community-based, early-intervention and preventive mental health models
- Improve affordable access, continuity of care, and timely treatment
- Address severe shortage of trained mental health professionals
- Government emphasising a “whole-of-community" approach, including mental well-being in school curricula and workplace stress management policies

3. Why has AYUSH got a major push in Budget?:(GS paper 2)

Context: On February 1, Finance Minister Nirmala Sitharaman proposed a slew of resources for AYUSH in the 2026-27 Union Budget. A week earlier, India's new Free Trade Agreement (FTA) with the European Union opened the door for Indian doctors and products to enter the European market more easily.

❖ **Budget 2026 27 Allocations for AYUSH**

- Total allocation increased to ₹4,408 crore from ₹3,992 crore in 2025-26 and 2,122 crore in 2020-21.
- Announcement to establish three new All-India Institutes of Ayurveda for treatment, research, and education.

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- Funds proposed to upgrade the WHO Global Traditional Medicine Centre in Jamnagar.
- National AYUSH Mission allocation increased by 66% to 1,300 crore for modernising hospitals, co-locating AYU3II clinics in modem hospitals, and strengthening preventive healdiare.
- Budget provides support for upgrading AYUSH pharmacies and drug-testing laboratories Introduction of Bharat-VISTAAR, a multilingual Al assistant to help farmers growing medicinal plants with cultivation, pricing, and export certification.

❖ **Impact of India-EU Free Trade Agreement (FTA)**

- Indian AYUSH practitioners allowed to provide services in EU countries that do not specifically regulate traditional medicine.
- Indian companies receive legal assurance to open wellness centres and Ayurvedic clinics across EU countries.
- Mutual recognition of certain lab results and safety certifications to ease export of Ayurvedic products.
- Recognition of India's Traditional Knowledge Digital Library to prevent misappropriation of traditional remedics.

❖ **Institutional and Policy Resources in AYUSH**

- National AYUSH Mission and co-location policy integrate traditional medicine into primary and community health centres and district hospitals.
- Institutes of National Importance and specialised institutions provide education and care in Ayurveda, Homoeopathy, Siddha, Unani, Yoga, and Naturopathy.
- Research bodies such as the Central Council for Research in Ayurvedic Sciences support scientific studies Regulatory bodics like the National Commission for Indian System of Medicine and National Commission for Homoeopathy oversee education and standards.
- Pharmacopoeia Commission for Indian Medicine and Homoeopathy sets drug standards.

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- National Medicinal Plants Board works with State boards to promote cultivation of medicinal plants.
- Schemes such as AYURGYAN and Ayurswasthay Yojana promote education and community health.

❖ **Debate on Scientific Validity and Safety**

- Critics, including the Indian Medical Association, argue many AYUSH treatments lack rigorous clinical evidence.
- Concerns raised over heavy metals such as lead and mercury in some products.
- International health advisories have reported cases of lead poisoning linked to Ayurvedic imports.
- Controversy over "mixopathy", including training Ayurveda students in surgical procedures and allowing them to prescribe allopathic medicines.
- Legal and professional disputes continue over the scope of AYUSH practitioners' practice.

❖ **Economic Significance and Future Outlook**

- AYUSH sector estimated to reach about $26.5 billion (32.3 lakh crore) in 2026.
- Startups and MSMEs account for about 80% of the sector.
- Government aims to transform AYUSH into a regulated industry and driver of economic growth.
- Expansion of institutes, testing facilities, and standards may increase scientific scrutiny, evidence requirements, and institutional discipline in the sector.

Quick Bites:

➢ Andhra Pradesh launched the Amaravati Quantum Valley (AQV) project on February 7 to develop Amaravati as a global hub for advanced quantum technologies.

➢ Goa has become the second State in India, after Kerala, to publish a comprehensive State-level bird atlas, with the Bird Atlas of Goa released on February 7 during the ninth Bird Festival of Goa,

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marking a significant milestone in avian research, biodiversity documentation, and citizen-driven conservation.

- Alwar district has become the first in India to achieve 100% insurance coverage under the Centre's "Insurance for All by 2047" roadmap, marking a significant milestone in the country's social security framework.

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09-02-2026

Prelims articles:

1. **India-AI Impact Summit 2026:**

   Context: As part of this growing global engagement, the India-AI Impact Summit 2026 is slated to take place in New Delhi from 16-20 February. It will be the first-ever global AI summit to be hosted in the Global South.

More about:



- The Summit will serve as an impact-focused global platform, shaping AI into measurable outcomes across economies, aligning with the national vision of Welfare for All, Happiness of All and global principle of AI for Humanity.

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- It will bring together global leaders, policymakers, innovators, and experts to showcase applications and define AI pathways across governance, innovation, and sustainable development.



Chakra / Focus Area	Key Objective
Human Capital	Promote equitable skilling, reskilling, and workforce transitions to prepare people for an AI-enabled future of work.
Inclusion for Social Empowerment	Develop AI systems that are inclusive by design, empower diverse communities, and ensure equitable representation.
Safe and Trusted AI	Build trustworthy AI systems based on transparency, accountability, safety standards, and shared safeguards.
Science	Use AI to accelerate frontier scientific research, strengthen global scientific collaboration, and translate discoveries into societal benefits.

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Resilience, Innovation, and Efficiency	Develop sustainable and resource-efficient Al systems that support climate resilience and environmental sustainability.
Democratizing AI Resources	Ensure equitable access to foundational AI infrastructure, data, and tools to promote inclusive innovation and development.
AI for Economic Development & Social Good	Apply AI to improve productivity, drive innovation, and support inclusive economic growth and social welfare.

2. Leadership in Energy and Environmental Design (LEED Certification):

Context: India has emerged as a global leader in sustainable real estate. ranking second worldwide. outside the United States, in LEED-certified building space in 2025.

More about:

- Outside the US, China topped the list with 26 million GSM, while India followed with 16 million GSM of LEED-certified building area in 2025.
- Vietnam entered the global top ten for the first time, underlining the widening adoption of green building standards across emerging economies.

About Leadership in Energy and Environmental Design (LEED Certification):

- LEED is the world's most widely used green building rating system.
- Applicable to virtually all types of buildings and construction projects.
- Provides a framework for designing healthy, energy-efficient, and cost-saving green buildings.
- Promotes environmental, social, and governance (ESG) benefits.
- Recognized globally as a symbol of sustainability achievement and leadership.
- Projects carn points by meeting prerequisites and credits related to carbon, energy, water, waste, transportation, materials, health, and indoor environmental quality.
- Certification involves verification and review by the Green Business Certification Inc. (GBCI).

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- Certification levels based on points earned: Certified: 40-49 points. Silver: 50-59 points. Gold: 60-79 points and Platinum: 80+ points
- Developed by the United States Green Building Council (USGBC).

3. India Now Has In-Orbit 'Space Watch' Capability After Azista Images ISS:

Context: India's private space sector has marked a significant technological milestone as domestic aerospace firm Azista Space successfully demonstrated in-orbit imaging of another space object.

What happened?

- An Indian private company, Azista Space, used one of its satellites already orbiting Earth to track and photograph another object in space-the International Space Station (ISS).

Significance:

- The ISS is moving very fast (about 28,000 km/h).
- Photographing another satellite or spacecraft from orbit is technically difficult.
- It requires precise tracking, sensors, and guidance systems.
- By successfully doing this, the company proved that India's private sector can: Track objects in space, Monitor satellites and debris and Contribute to space situational awareness (space safety and monitoring)

❖ **Imaging Attempts and Technical Achievement**

- AFR satellite imaged the ISS twice: first from about 300 km and then from about 245 km.
- Both attempts achieved 100% mission success.
- Images captured with about 2.2-metre sampling resolution.
- Demonstrated electro-optical precision and real-time tasking capability of the satellite.

❖ **Why Imaging the ISS Is Significant**

- ISS is a fast-moving object in Low-Earth Orbit, requiring precise prediction and stabilised imaging.

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- Serves as a proof-of-concept for tracking more complex or non-cooperative targets in the future. Validates technologies needed for advanced orbital monitoring.

❖ **Role in Space Situational Awareness (SSA)**

- Capability falls under non-Earth imaging or "in-orbit snooping."
- SSA involves detecting, tracking, and analysing satellites, debris, and other objects in orbit.
- Increasing satellite congestion and competition make SSA essential for spacefaring nations.

❖ **Importance for India's Space Assets**

- India operates over 50 satellites in communication, navigation, Earth observation, and strategic sectors.
- These assets are valued at over 30,000 crore.
- Monitoring proximity, manoeuvres, and intent of nearby objects is crucial, especially during geopolitical tensions.

❖ **Private Sector Expansion in Space Activities**

- Advanced SSA capabilities were earlier largely demonstrated by national agencies like ISRO. ISRO has conducted precision rendezvous and manoeuvring experiments such as SPADEX. Azista's demonstration shows private companies entering high-end strategic space operations.

Mains specific articles:

1. **Budget boosts domestic space research while spending lags behind(GS paper 3)**

Context: The Union Rudget 2076-77 has earmarked 13,416 70 crore for the Department of Space which has brought some cheer to India's research community

❖ **Budgetary Push for Space and Astronomy**

- ₹13,416.20 crore allocated to the Department of Space in Budget 2026-27
- Major focus on deep-space exploration, astrophysics, and telescope infrastructure

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- **Aim:** strengthen India's scientific research capability and outreach

❖ **Major Projects Announced**

- 30-m National Large Optical-Infrared Telescope planned
- National Large Solar Telescope near Pangong Lake, Ladakh
- Completion of COSMOS-2 planetarium in Amaravati, Andhra Pradesh
- Upgradation of control systems of the Himalayan Chandra Telescope in Hanle

❖ **Significance of Telescope Investments**

- Few countrica (U.S., China, Japan, EU) heavily invest in advanced astronomy facilitica
- New facilities expected to enhance India's research capacity and global standing

❖ **Concerns over Underutilisation of Funds**

- Actual expenditure in previous years fell short of budget estimates
- Delays and bottlenecks affected major space missions
- Need for better execution, streamlined resources, and monitoring

❖ **Dependence on Foreign Facilities**

- Indian scientists rely on overseas telescopes for high-resolution data
- Limited access to international observatories due to competition and national priority policies
- Need to build strong domestic infrastructure to reduce dependence

❖ **Challenges in Building Large Observatories**

- High financial and technological requirements
- Necessity of international collaboration and resource pooling
- Importance of effective governance and funding continuity

❖ **Strengthening Domestic Ecosystem**

- Existing facilities like the Giant Metrewave Radio Telescope (GMRT) near Pune
- Development of data-processing centres and Al-based analysis
- Growing role of public-private partnerships in space research

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❖ **Role of Private Sector and Institutions**

- Establishment of IN-SPACE (Indian National Space Promotion and Authorisation Centre) in 2020
- Increasing number of space startups sellaberating with ISPO
- Need for statutory bodies to ensure quality control and alignment with national interests

❖ **Need for Strategic Planning**

- Policymakers must prioritise strategic resource allocation and collaboration
- Private sector participation must be balanced with national priorities

❖ **Brain Drain and Human Resource Development**

- Development of advanced domestic facilities may encourage students to pursue research in India
- Can help reduce migration of researchers to foreign institutions

❖ **Gaps in Current Capabilities**

- Lack of large optical telescopes comparable to global standards
- Absence of telescopes operating in sub-millimetre wavelengths
- Indian researchers forced to queue for observation time abroad

❖ **Future Prospects**

- Proposal for sub-millimetre telescope under Astronomy & Astrophysics Mega Science Vision 2035
- Realisation of these projects essential for India to emerge as a leader in space exploration and astrophysics.

Quick Bites:

➢ India's shooting contingent experienced a remarkable moment at the Asian Shooting Championships when Meghana Sajjanar won the bronze medal in the women's 10m air rifle event in New Delhi.

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10-02-2026

Prelims articles:

1. **Remembering Leo D'Souza, who transformed cashew industry:**

Context. Jesuit scientist and pioneer of plant tissue culture in India passed away on January 20 at the age of 93.

❖ **Contributions to Plant Tissue Culture**

- Established one of India's earliest tissue culture laboratories in 1975.
- Achieved a major breakthrough by developing and transferring the world's first tissue-culture cashew plant to soil (1990).
- Worked on micropropagation of cashew, coconut, ferns, algae, ragi, and ornamental and medicinal plants.

❖ **Focus on Cashew Research**

- Took up cashew research on the advice of M.S. Swaminathan to improve yields and support farmers and labourers.
- Promoted tissue culture as a method for rapid multiplication and quality improvement of cashew plants.

❖ **Academic and Institutional Role**

- Founded the Laboratory of Applied Biology, later moved to St. Aloysius College, Mangaluru.
- Secured approval to run a PhD programme in an undergraduate college.
- Mentored many students who later worked in academia and industry.

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❖ **Social Contributions**

- Advocated women's education and enabled admission of women at St. Aloysius College in 1986.
- Established and managed a rehabilitation home for orphaned and abandoned boys.

❖ **Legacy and Significance**

- Remembered as a pioneer of plant biotechnology in India and a champion of women's empowerment and socially relevant science.
- Emphasised using science for the welfare of poor farmers and workers.

2. Gross NPAs of SCBS at a historic low of 2.15% as of September:

Context: The gross non-performing assets (NPA) ratio of Scheduled Commercial Banks (SCBs) for domestic operations was at a historic low of 2.15% as of 2025-and (provisional data), which is lower than 2010-11 level, the Finance Ministry.

❖ **Decline in Gross NPAs**

- Gross Non-Performing Assets (NPAs) of Scheduled Commercial Banks (SCBs), including Public Sector Banks (PSBs), have been continuously declining over the last eight financial years.

❖ **Impact on Banks**

- Reduction in NPAs has lowered provisioning requirements.
- Lower provisioning has improved bank profitability.
- Improved profitability has supported business growth.

❖ **Improvement in Banking Health**

- Declining NPAs indicate better annet quality and improved underwriting standards in PSB,
- Stronger balance sheets and sustained profitability have reinforced banking sector stability.

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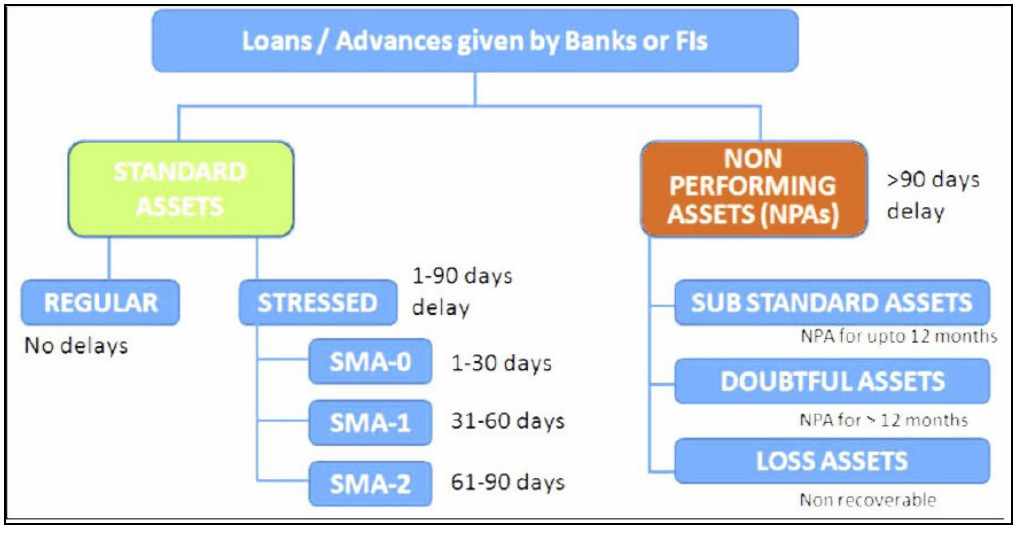
❖ **Policy Measures Behind the Improvement**

- RBI initiated the Asset Quality Review (AQR) in 2015 to identify stressed assets.
- Government implemented the 4R strategy:
- Recognition of NPAs.
- Resolution and recovery of stressed assets through effective laws and processes. • Recapitalisation of Public Sector Banks.
- Reforms in banks and the broader financial ecosystem.

About Non-Performing Assets (NPAs):

- Non-Performing Assets (NPA) are loans and arrears lent by banks or financial institutions whose principal and interests are delayed beyond 90 days.
- In the case of agricultural loans, NPAs are declared if the interest and/or instalment or principal remain unpaid for two harvest seasons. However, this period should not be longer than two years.



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3. Opposition mulls motion to remove Speaker Birla:

Content; Opposition parties belonging to the Indian National Developmental, Inclusive Alliance (INDIA) are considering moving a no-confidence motion against Lok Sabha Speaker Om Birla, accusing him of acting in a partisan manner and denying Leader of the Opposition Rahul Gandhi the opportunity to speak during the debate on the Motion of Thanks to the President for her Address to the joint sitting of Parliament.

What is a No-Confidence Motion (General Concept)

- A No-Confidence Motion is a parliamentary procedure through which members of a legislative body express that they no longer have confidence in a person or government holding office.
- In the Lok Sabha, the term is most commonly used for a motion against the Council of Ministers under Article 75(3), where the government must resign if the motion is passed by a majority.
- However, against the Speaker, the correct procedure is not called a "No-Confidence Motion" in the Constitution; it is formally a Resolution for Removal of the Speaker.
- **Article 94(c):** The Speaker or Deputy Speaker may be removed by a resolution of the Lok Sabha passed by a majority of all the then members of the House (effective majority).

Process and Procedure for Removal of the Speaker

❖ **Notice of Resolution**

- A written notice of intention to move a resolution for removal must be given.
- At least 14 days' notice is required before the motion is taken up.

❖ **Listing and Admission**

- The motion is included in the agenda after the notice period.
- The House takes up the resolution for discussion.

❖ **Presiding Officer During Discussion**

- The Speaker does not preside when a motion for his/her removal is under consideration.

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- The Deputy Speaker or another member presides.

❖ **Right of the Speaker**

- The Speaker has the right to speak and participate in the proceedings.
- However, the Speaker cannot vote in the first instance but may vote in case of a tie (casting vote), as per parliamentary practice.

❖ **Voting Requirement**

- The resolution must be passed by a majority of all the then members of the House (effective majority).
- If passed, the Speaker vacates office immediately.

4. Network Readiness Index 2025 (NRI 2025) report:

Context: India shines in Network Readiness Index Report 2025, prepared by Portulans Institute based in Washington DC.

More about the report:

❖ **Network Readiness Index (NRI) 2025**

- India ranked 45th in the Network Readiness Index 2025, improving by four positions.
- The score improved from 53.63 (2024) to 54.43 (2025).

❖ **About the Index**

- Covers 127 economies.
- Assesses performance across four pillars: Technology, People, Governance and Impact.
- Based on 53 indicators.
- Published by the Fortulans Institute, a non-profit research organisation based in Washington, D.C.

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❖ **India's Performance Highlights**

- 1st rank in annual investment in telecommunication services, Al scientific publications, ICT services exports, and e-commerce legislation..
- 2nd rank in FTTH/Building Internet subscriptions, mobile broadband traffic, and international Internet bandwidth.
- 3rd rank in domestic market scale and income inequality indicator.

❖ **Key Observations**

- India's network readiness exceeds expectations for its income level.
- Ranked 2nd among lower-middle-income countries.

5. Yotta and BHASHINI Collaborate to Enable Sovereign AI Cloud:

Context: Yotta Data Services, India's leading sovereign cloud infrastructure and platform services provider, announced the successful deployment of BHASHINI's end-to-end sovereign Al cloud transformation on Yotta's Government Community Cloud (GCC) and Shakti Cloud.

❖ **BHASHINI Migration to Sovereign AI Cloud**

- BHASHINI migrated fully to Yotta's Government Community Cloud (GCC) and Shakti Cloud, ensuring data and Al systems remain within India.
- Aligns with objectives of the IndiaAI Mission and strengthens Al self-reliance.

❖ **Key Features and Performance**

- Powered by NVIDIA H100 GPUs, enabled real-time multilingual services in 11+ Indian languages (tested at Maha Kumbh 2025).
- Achieved up to 40% performance improvement, 20-30% cost savings, and 99.99% uptime.

❖ **Strategic Significance**

- Demonstrates feasibility of shifting digital public infrastructure from global hyperscalers to indigenous cloud.

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- Supports data sovereignty, scalability, and vendor neutrality using open-source, cloud-agnostic architecture.

❖ **About BHASHINI**

- Al-based voice-first multilingual translation platform to bridge language, literacy, and digital divides.

❖ **About IndiaAl Mission**

- Government initiative under Meity to build Al infrastructure, promote innovation, and enable responsible, inclusive AI adoption in India.

6. Swavalambini Project:

Context: The Ministry of Skill Development and Entrepreneurship (MSDE) in collaboration with the Women Entrepreneurship Platform of NITI Aayog as knowledge partner, launched the Swavalambini - a Women Entrepreneurship Programme in six Higher Education Institutions (HEIS)/Universities of Assam, Meghalaya, Mizoram, Uttar Pradesh and Telangana as a pilot project.

- The Ministry is implementing the programme through its Autonomous Institutes, namely, National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida and Indian Institute of Entrepreneurship (IIE), Guwahati.

❖ **About Swavalambini pilot project:**

- Aims to help young women transition from business ideas to enterprise creation through structured training.
- Focuses on developing an entrepreneurial mindset among female students.
- Provides awareness about government schemes, support mechanisms, financial resources, and networks for entrepreneurship.

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❖ **Target Group**

- 1200 female students from Higher Educational Institutes (HEIS) and Universities.

❖ **Training Structure (Multi-Stage Approach)**

- Stage 1 - Entrepreneurship Awareness Programme (EAP): Introductory programme on entrepreneurial awarenees for all colected participante
- Stage 2 - Entrepreneurship Development Programme (EDP):
- 600 students shortlisted from EAP participants.
- Intensive training covering skilling, access to finance, market linkages, legal and compliance aspects, business services, and networking.

❖ **Mentorship and Support**

- 21 weeks of mentorship and handholding after training,
- Helps participants convert business ideas into sustainable enterprises.

Mains specific articles:

1. A chance for India to polish the Kimberley Process: (GS paper 2)

Context: India has assumed the chair of the Kimberley Process (KP) for the year 2026.

❖ **About Kimberley Process (KP)**

- A multinational mechanism to regulate the trade of conflict diamonds (rough diamonds used by rebel uninsurgent groups to finance conflicts and undermine governments).
- Initiated in May 2000 by southern African countries to prevent trade in conflict diamonds.
- Kimberley Process Certification Scheme (KPCS) established in 2003 after negotiations among 37 signatory parties.
- Currently has about 60 participants representing 86 countries.
- Covers around 99.8% of global rough diamond production.

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❖ **Structure and Working of KPCS**

- Participant countries individually enforce the certification scheme.
- Every shipment of rough diamonds must carry a KP certificate issued by a participant country.
- Trade in rough diamonds is allowed only between KP-compliant members.
- Participants must share accurate and timely statistics on diamond production and trade.

❖ **Global Diamond Production and India's Role**

- Major producers: Angola, Botswana, Canada, Congo, Namibia and Russia account for over 85% of global production.
- India is not a producer but imports about 10% of global rough diamonds.
- India is the world's leading cutting and polishing hub, especially Surat and Mumbai.
- India re-exports polished diamonds to major markets such as the U.S., UAE, China, Hong Kong and Israel.
- India's position in the value chain gives it significant influence in KP reforms.

❖ **Major Criticisms and Challenges of KP**

- Narrow definition of conflict diamonds focuses only on rebel financing, ignoring state-linked violence, human rights abuses, environmental harm, and trafficking.
- Decision-making is based on consensus, allowing political vetoes that can block action.
- Sanctions without support measures may increase smuggling and violence, as seen in the Central African Republic case.
- Lack of consensus on addressing state-related violence and broader social impacts.

❖ **Reform Opportunities for India as Chair**

- Form technical working groups to study violence, human rights risks and broader impacts beyond rebel conflicts.

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- Promote digital and tamper-proof KP certificates using blockchain technology to reduce fraud and improve transparency.
- Establish regional technical hubs in producing regions (especially Africa) to provide training, certification assistance, IT support and forensic capacity.
- Encourage independent or third-party audits and greater public disclosure of KP statistics.
- Strengthen civil society participation to maintain the tripartite structure.

❖ **Focus on Africa and Community Development**

- Emphasize the role of diamonds in livelihoods and local economies in Africa.
- Align KP efforts with Sustainable Development Goals such as poverty reduction, decent work and responsible consumption.
- Promote channeling of diamond revenues toward health, education and infrastructure in mining communities.
- Shift the KP approach from only preventing illegal trade to promoting responsible and inclusive diamond trade.

2. What is the new RRTS project in Kerala?: (GS paper 3)

Context: Proposals for a high-speed rail system in Kerala have once again snowballed into a controversy in the public sphere, with the Kerala government, in its latest move, approving a Regional Rapid Transit System (RRTS) for high-speed rail travel within the State, from Thiruvananthapuram to Kasaragod.

❖ **Kerala's New High-Speed Rail Proposal**

- Kerala government has approved a Regional Rapid Transit System (RRTS) from Thiruvananthapuram to Kasaragod.
- The State shifted from the earlier SilverLine semi-high-speed project citing lack of Central support.

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- A separate high-speed rail proposal by E. Sreedharan has also been discussed but details are not public.

❖ **What is RRTS**

- A high-speed regional rail system already implemented in the Delhi-Meerut corridor.
- Designed for speeds of about 160-180 kmph with relatively frequent stops.
- Can integrate with metro networks, airports, and other transport systems to improve last-mile connectivity.

❖ **Key Features of the Kerala RRTS**

- Most of the corridor will be built on viaducts (pillars), reducing land acquisition and environmental impact
- Helps prevent obstruction of natural water flow and reduces public opposition compared to embankment models.
- Integration planned with Kochi Metro and proposed metros in Thiruvananthapuram and Kozhikode.
- Links proposed with all four international airports in Kerala and potential extensions to neighbouring States.

❖ **Construction Plan and Phasing**

- Total proposed length: about 583 km from Thiruvananthapuram to Kasaragod.
- Phase 1: Travancore Line (Thiruvananthapuram-Thrissur, 284 km) including Thiruvananthapuram and Kochi Metros, target 2033.
- Phase 2: Malabar Line (Thrissur-Kozhikode, with Kozhikode Metro).
- Phase 3: Kannur Line (Kozhikode Kannur).
- Phase 4: Kasaragod Line (Kannur-Kasaragod).
- Entire network expected to be completed in about 10 years (around 2036).

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❖ **Funding Model**

- Estimated cost: about 1.92 lakh crore (subject to DPR finalisation).
- Proposed funding pattern: 20% State government, 20% Central government, and 60% long-term international loans.

❖ **Comparison with Other Rail Proposals**

- High-speed rail systems are designed for very high speeds and fewer stops, while RRTS allows more stops and better urban integration.
- SilverLine planned speed: up to 200 kmph with about 11 stops; estimated cost ₹63,941 crore (2019 estimate).
- Sreedharan's high-speed rail: up to 200 kmph with about 22 stops; estimated cost around 1 lakh crore. • RRTS speed lower (160-180 kmph) but designed for multimodal integration and urban transport needs.

❖ **Alignment and Planning**

- Alignment broadly similar across proposals, with adjustments in urban areas for RRTS to connect towns and metro systems.

❖ **Significance**

- Aims to create a State-wide multimodal transport network, improve connectivity, and reduce reliance on private vehicles.
- Represents Kerala's renewed effort to develop modern high-speed regional rail infrastructure.

3. Institutional Finance to the Fisheries Sector: (GS paper 3)

Context: The Indian fisheries sector is recognized as the "Sunrise Sector" has evolved from a primarily subsistence-driven activity into a dynamic engine of economic growth.

❖ **Fisheries Sector as a Sunrise Sector**

- Fisheries sector contributes about 1.12% to India's GVA and 7.26% to agricultural GVA

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- Provides nutritional security, affordable protein, and supports nearly 30 million livelihoods.
- India is the world's second-largest fish producer and largest aquaculture producer, contributing about 8% of global fish production.

❖ **Resource Base and Production Growth**

- India has a coastline of over 11,099 km and extensive inland water resources such as rivers, reservoirs, wetlands, and floodplains.
- Fish production increased from 95.79 lakh tonnes (2013-14) to 197 lakh tonnes (FY 2024-25).
- Inland fisheries contribute over 75% of total production.
- Shift from capture fisheries to culture-based aquaculture has improved production stability.

❖ **Exports and Economic Importance**

- Fisheries exports reached ₹62,408 crore (USD 7.45 billion) in FY 2024-25.
- Frozen shrimp is the major cxport commodity.
- USA and China are key export markets.
- GST on key fish products reduced from 12% to 5%, boosting consumption and competitiveness.

❖ **Government Initiatives for Modernization**

- Department of Fisheries focuses on infrastructure, market access, technology adoption, traceability, and climate resilience.
- Development of modern landing centers, cold chains, processing units, and deep-sea fishing.
- Promotion of river ranching, trout farming, and cold-water fisheries in Himalayan and Northeastern states.
- Target to increase fish production to 220 lakh tonnes by FY 2025-26.

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❖ **Digital Transformation - National Fisheries Digital Platform (NFDP)**

- NFDP provides a single-window digital ecosystem for credit, insurance, markets, and welfare schemes.
- About 30 lakh stakeholders registered.
- Enables online loan application, tracking, and performance-linked incentives.

❖ **Credit Needs and Financing Structure**

- Micro and small enterprises require ₹50,000 to ₹30 lakh credit.
- Large infrastructure and processing projects may need up to ₹10 crore or more.
- Banks collaborate to provide activity-linked lending products for working capital and asset creation.

❖ **Kisan Credit Card (KCC) for Fisheries**

- Introduced in 2018-19 for short-term operational needs.
- 4.76 lakh KCCs issued and ₹ 3,214.32 crore disbursed (as of June 2025).
- Interest rate 7%, reduced to 4% on timely repayment.

❖ **Fisheries and Aquaculture Infrastructure Development Fund (FIDF)**

- Corpus of ₹7,522.48 crore, validity extended till March 2026. Provides 3% interest subvention ensuring effective rate of at least 5%.
- 178 proposals worth over ₹6,369 crore approved (as of July 2025).

❖ **Credit Guarantee and Risk Reduction**

- ₹750 crore Credit Guarantee Fund managed by NABSanrakshan.
- Provides collateral-free coverage for loans up to ₹ 12.5 crore to encourage bank lending.
- PM-MKSSY Incentive and Digital Loan Processing
- Borrowers receive one-time incentive up to 25,000 to offset documentation costs.
- 12 nationalized banks onboarded on NFDP credit module.

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- Over 19,000 loan requests submitted and hundreds approved, with loan sizes ranging from ₹15,000 to ₹5 crore.

❖ **Inclusiveness and Beneficiaries**

- Beneficiaries include small fishers, aquaculture farmers, women entrepreneurs, start-ups, and enterprises.
- Credit limits range from ₹ 15,000 to ₹15 lakh or more, showing broad inclusiveness.

4. Task Force on Unified Framework for Development of Coaching Ecosystem in India: (GS paper 1)

Context: The Task Force on Unified Framework for Development of Coaching Ecosystem in India, in its report submitted to the Ministry has recommended creation of a unified national framework for coach education and accreditation.

Major recommendations:

❖ **National Coach Accreditation Roard (NCAR) - Propacal**

- Recommended to establish NCAB as an apex authority for coach education and accreditation.
- Functions include setting national standards, approving and monitoring coaching pathways, and accrediting coach education institutions.
- To design a unified core curriculum across sports and oversee licensing and renewal of coaches.
- Ensure quality assurance and alignment with NSQF and NEP 2020.

❖ **Structured National Coaching Pathway**

- Proposal for a tiered coaching system covering Grassroots, Intermediate, Elite, and National Team levels across the country.
- Includes community coaches and Physical Education (PE) teachers as feeder streams.

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❖ **Key Measures and Features**

- Clearly defined entry and progression criteria at each coaching level.
- Recognition of Prior Learning (RPL) to enable former elite athletes to transition into coaching.
- Bridge programmes for PE teachers to upgrade skills without affecting school duties.
- Five-star performance rating system linked to athlete development, certifications, and mentorship, enabling higher-level assignments and incentives.

Quick Bites:

➢ Thermal (seal and lignite) Installed Capacity Requirement Estimated at 2,07,000 MW by 2034-35.

➢ NITI Aayog Releases Study Reports on Scenarios Towards Viksit Bharat and Net Zero.

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11-02-2026

Prelims articles:

1. **New farming techniques and digital services:**

Context: The government has taken various initiatives to promote farming techniques and digital services to enhance farmer income and climate resilience.

❖ **Sustainable and Digital Agriculture Initiatives**

- Government implementing multiple schemes to promote sustainable agriculture, mechanization, insurance, and digital infrastructure for farmers.

❖ **National Mission for Sustainable Agriculture (NMSA) - Key Components**

- **Per Drop More Crop (PDMC):** Promotes drip and sprinkler irrigation to improve water-use efficiency.
- **Rainfed Area Development:** Encourages Integrated Farming Systems to reduce climate risks.
- **Soil Health & Fertility:** Promotes integrated nutrient management and balanced fertilizer use.
- **Mission for Integrated Development of Horticulture, Agroforestry, and National Bamboo Mission:** Support climate-resilient agriculture.
- **PM Fasal Bima Yojana and Restructured Weather Based Crop Insurance Scheme:** Provide insurance cover against crop loss due to natural calamities.

❖ **Sub Mission on Agricultural Mechanization (SMAM)**

- Implemented since 2014-15; now under Rashtriya Krishi Vikas Yojana (RKVY).
- Focus on small and marginal farmers, including women farmers.

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- Promotes Custom Hiring Centres, hi-tech hubs, farm machinery banks, and equipment distribution.
- *9404.47 crore released; over 21.6 lakh machines distributed; thousands of CHCs, hi-tech hubs, and FMBs established.
- Farm power availability increased from 1.73 kW/ha (2013-14) to 2.49 kW/ha (2018-19).

❖ **Prime Minister Dhan Dhaanya Krishi Yojana (DDKY)**

- Launched on 11 October 2025 to cover 100 districts.
- Aims to enhance productivity, promote diversification and sustainable practices, improve irrigation, storage, and credit access.
- Implemented through convergence of 36 schemes across 11 departments with state and private participation.

❖ **Digital Agriculture Mission and AgriStack**

- Creation of Digital Public Infrastructure (DPI) for agriculture including AgriStack and Krishi Decision Support System.
- AgriStack includes Farmers Registry, Crop Sown Registry, and Geo-referenced Village Maps.
- Provides a single source of truth for farmer identity, land, and crops.
- Over 8.48 crore Farmer IDs generated enabling DBT, credit, MSP procurement, and disaster retter.

❖ **Digital Tools and Platforms for Farmers**

- **Digital Crop Survey:** Provides plot-level crop data for better planning and logistics.
- **Krishi Decision Support System:** GIS-based platform integrating satellite, weather, soil, and crop data for advisories.
- **Kisan e-Mitra Al chatbot supporting 11 languages;** answers farmer queries on PM-Kisan and other schemes.

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- **National Pest Surveillance System:** Uses AI/ML to detect pest infestations; supports 65 crops and 400+ pests.
- **SATHI Platform:** Digital system for seed production, certification, distribution, and traceability through National Seed Grid.

2. Kaushal Rath app:

Context: Kaushal Rath flagged off with "Yuva Al for All" for Democratising AI Literacy Across India.

Kaushal Rath - Al Awareness Initiative:



- Launched by IndiaAI, Meity in collaboration with AISECT under the "Yuva AI for All" National AI Literacy programme.
- Aims to expand access to foundational Al education and bridge the digital divide in semi-urban and underserved regions.

❖ **Mobilc Al Training Facility**

- Kaushal Rath is a mobile computer lab equipped with internet-enabled systems, audio-visual tools, and structured training modules.

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- Travels to schools, colleges, ITIs, and community spaces to provide hands-on exposure to AI and Generative AI tools.

❖ **Launch and Purpose**

- Flagged off from India Gate, New Delhi by Union Minister of State Jitin Prasada.
- Designed to promote inclusive digital capacity building and responsible Al adoption.

❖ **Activities and Outreach**

- Provides on-the-spot course registrations.
- Demonstrates AI use eases to students and the public.
- Builds awareness ahead of the India AI Impact Summit 2026.

❖ **Key Features of the Course**

- 4-hour self-paced programme with six modules.
- No coding requirement; focuses on Al concepts, ethics, and real-world applications.
- Implemented with partners such as Future Skills Prime, iGOT Karmayogi, Coursera, and TCS ION.
- Participants receive certification after completion.

3. Grand Fair of 'Lakhpati Didis'-SARAS Aajeevika Mela - begins in Gurugram:

Context: SARAS Aajeevika Mela-2026, a national-level fair showcasing rural traditions, folk arts, and women's entrepreneurship. Being held at Leisure Valley Park Ground, Sector-29, Gurugram, Haryana.

About Lakhpati Didi scheme:

- Announced by the Prime Minister on 15 August 2023 during the Independence Day speech.
- Aims to empower women by promoting micro-enterprises in rural areas.
- Targets training of 2 crore women across the country.

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- Focuses on women members of Self-Help Groups (SHGs).
- Seeks to ensure a sustainable annual household income of at least *1 lakh.
- Implemented under Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM).
- Encourages multiple livelihood activities with value chain interventions.
- Provides skill training in areas like plumbing, LED bulb making, drone operation and repair, tailoring, and weaving.
- Ensures post-training income opportunities for women.
- Adopted by the Ministry of Rural Development through a whole-of-government convergence approach to boost the rural economy.

Mains specific articles:

1. Centre mandates label for photorealistic Al content: (GS paper 2 and 3)

Context: The Union government has notified amendments to the Information Technology Act, 2021, requiring photorealistic Al-generated content to be prominently labelled.

❖ **Amendments to IT Rules, 2026:**

- Union government notified amendments requiring photorealistic Al-generated content to be prominently labelled.
- Rules come into force on 20 February 2026.

❖ **Tighter Timelines for Content Takedown**.

- Social media platforms must remove certain unlawful content within 2-3 hours.
- Content declared illegal by a court or government: removal within 3 hours.
- Non-consensual nudity and deepfakes: removal within 2 hours.
- Earlier takedown window was 24-36 hours.

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❖ **Definition of Synthetically Generated Content**

- Includes audio, visual, or audio-visual material artificially created or altered using computer resources.
- Content appears real or indistinguishable from real persons or events.
- Final definition is narrower than the draft version released in October 2025.

❖ **Labelling and Disclosure Requirements**

- Platforms must seek disclosure from users if content is Al-generated.
- If disclosure is absent, platforms must label or remove such content, especially deepfakes.
- Al-generated imagery must be prominently labelled, with more flexibility than earlier draft rules.
- Automatic smartphone touch-ups are exempted.

❖ **Safe Harbour Provisions**

- Failure to comply or knowingly permitting illegal synthetic content may lead to loss of safe harbour protection.
- Intermediaries must exercise due diligence to retain legal protection.

❖ **Administrative Changes in Takedown Authority**

- States can now designate more than one officer to issue takedown orders.
- Earlier amendment limited each State to a single authorised officer.

2. Global warming and pollution are stripping vibrant colours from nature: (GS paper 3)

Context: More than half of the oceans have become greener over the last 20 years, and forests are turning brown prematurely. Various specics of flora and fauna have also been changing their colours to adapt to rising temperatures, loss of habitats, and pollution.

❖ **Butterflies and Deforestation**

- In the Amazon, butterflies in disturbed forests show duller and less diverse wing colours.

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- Less bright butterflies survive better due to improved camouflage in degraded habitats.

❖ **Melanin and Colour Adaptation**

- Colour changes linked to reduced melanin production, making animals lighter.
- Eumelanin produces dark shades; pheomelanin produces yellow and red hues.
- Lighter colours help insects avoid overheating during heatwaves.

❖ **Examples from Studies**

- Insects such as ladybirds and dragonflies are turning lighter in warmer regions.
- Drown morph of tawny owl becoming dominant in Europe duc to milder winters and UV protection.

❖ **Ecological Rules Explaining Colour Patterns**

- Bogert's rule: Cold-blooded animals darker in colder regions and lighter in warmer regions.
- Gloger's rule: Warm-blooded animals darker in humid regions and lighter in dry or cold areas.

❖ **Urbanisation and Pollution Effects**

- Birds in cities often darker and duller; heavy metals like lead may affect pigmentation.
- Urban plants produce fewer carotenoids, reducing attractiveness to pollinators.
- Flowers are altering UV pigments to protect from sunlight.

❖ **Impact on Behaviour and Reproduction**

- Colour changes may reduce mating success and shift courtship timing to cooler periods.

❖ **Marine Ecosystems and Coral Bleaching**

- Coral bleaching reported in Gulf of Mannar, Palk Bay, Lakshadweep, Andaman & Nicobar, and Gulf of Kachchh.
- Heat stress causes corals to expel algae, leading to whitening and biodiversity loss.
- Algal blooms make oceans greener, reduce oxygen, and ham marine life.

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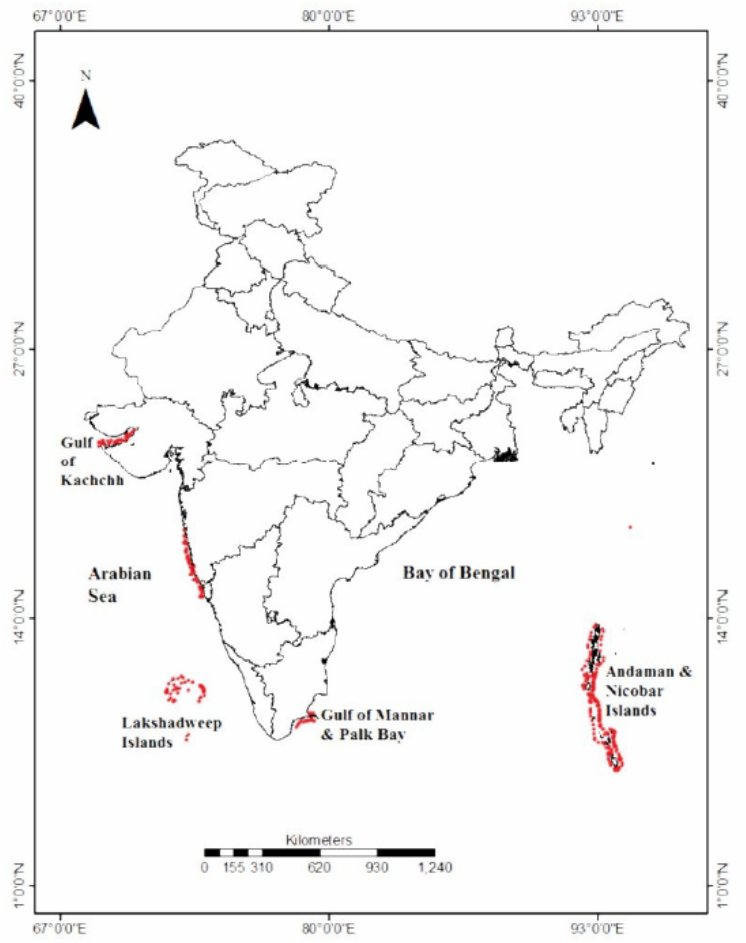
About Coral reefs:



- Coral reefs are underwater ecosystems made up of the skeletons of colonial marine invertebrates known as coral.
- They are underwater formations composed of coral polyps bound together by calcium carbonate.
- Coral reefs serve a vital function in marine ecosystems by providing habitat for marine plants and wildlife.
- Coral has a symbiotic relationship with 'zooxanthellae,' microscopic algae that live on coral.
- Through their photosynthetic activities, zooxanthellae aid the coral in nutrient production.

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- In exchange, the host coral polyp provides its zooxanthellac with a safe environment to live in as well as a steady supply of carbon dioxide for photosynthetic processes.

What is coral bleaching?

- When the temperature of the water around corals rises, the corals expel the zooxanthellae.
- An important visual symptom of theac effects is that the colour of the coral reef changea, and subsequently they die off. This event is called bleaching.
- Ocean acidification - which is when the pH of the water drops as more carbon dioxide dissolves in it is another well-known cause.
- More acidic water reduces the availability of calcium minerals that the corals need to build and repair their exoskeletons.

❖ **Knowledge Gaps and Conservation Measures**

- Limited studies in tropical and southern hemisphere regions.
- Measures include preserving microhabitats, regulating coastal development, improving water quality. and monitoring ecosystems.

❖ **Positive Developments**

- Regenerated forests in the Amazon help restore butterfly colours.
- Experts state ecosystem protection can still restore biodiversity and natural colour patterns.

Quick Bites:

➢ India has been designated as the Country of the Year at BIOFACH 2026, the world's leading trade fair for organic products, scheduled to be held from 10th to 13th February 2026 at Nuremberg. Germany. The Agricultural and Processed Food Products Export Development Authority (APEDA), under the Ministry of Commerce and Industry, Government of India, is organising

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India's participation at BIOFACH 2026. BIOFACH Germany is the world's largest and most influential exhibition dedicated exclusively to organic food and agriculture.

- India Showcases Indigenous Defence Might at World Defence Show 2026 in Riyadh, Saudi Arabia.
- CSIR-National Institute of Science Communication and Policy Research (CSIR-NISCPR), New Delhi, organised an International Symposium on "Human-Centred Al and Sustainable Development: Holistic Pathways for Energy Security" as an official pre-summit event of the India-Al Impact Summit 2026 at Vivekananda Hall, CSIR-NISCPR, Pusa.
- Seventeen-year-old Aditya Pandya has become India's youngest male analog astronaut after successfully completing a lunar-habitat-inspired mission conducted by AAKA Space Studio. The mission, held from February 1 to 8 in the white plains of Dholavira in Kutch, simulated
- Moon-like isolation and autonomous operations, marking an important milestone in India's emerging analog space research ecosystem and preparations for future space missions. Researchers have confirmed the discovery of a new species of dragonfly, Lyriothemis keralensis, commonly known as the Slender Bombardier, from the low-lying coastal regions of Kerala. The species was formally described after more than a decade of fieldwork and taxonomic study. marking a significant addition to India's documented insect biodiversity.
- India and the Netherlands have strengthened their clean energy partnership with the launch of the India-Netherlands Hydrogen Fellowship Programme and the signing of a major academic cooperation agreement in green hydrogen research.
- Olympic double bronze medallist Manu Bhaker won the silver medal in the women's 25m pistol event at the Asian Shooting Championship after a closely contested final. She and Vietnam's Nguyen Thuy Trang were tied at 35 in regulation, forcing a shoot-off, where Trang secured gold. INS Arnala is the Indian Navy's first indigenously designed and built Anti-Submarine Warfare Shallow Water Craft (ASW-SWC), marking a significant step in India's transition from a "Duyer's Navy" to a "Duilder's Navy" under the Aatmanirbhar Dharat initiative.

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12-02-2026

Prelims articles:

1. **Tamil Brahmi inscriptions discovered inEgypt shed light on ancient trade links:**

   Context: A path-breaking finding has shed new light on trade links between ancient Tamilagam, other parts of India, and the Roman Empire.

More about:

❖ **Discovery and Context**

- Nearly 30 inscriptions in Tamil Brahmi, Prakrit, and Sanskrit found in the Valley of the Kings, Egypt.
- Dated between the 1st and 3rd centuries CE.
- Provides new evidence of trade and cultural links between ancient Tamilagam, other parts of India, and the Roman world.

❖ **Researchers and Study**

- Identified during research conducted in 2024-2025.
- cholars involved: Charlotte Schmid (French School of Asian Studies, Paris) and Ingo Strauch (University of Lausanne, Switzerland).
- Inscriptions documented across six tombs in the Theban Necropolis.
- Study builds on earlier survey by French scholar Jules Baillet in 1926.

❖ **Nature of the Inscriptions**

- Visitors carved brief inscriptions and graffiti, mainly names, on tomb walls
- Practice followed an existing tradition, as Greek graffiti were already common
- Inscriptions found in corridors, rooms, entrances, and interior walls

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❖ **Origin of the Visitors**

- Individuals came from north-western, western, and southern India
- Majority of inscriptions linked to visitors from southern India

❖ **Important Names Identified**

- Name "Cikai Korran" appears eight times across five tombs
- Found near entrances and high on interior walls, including at heights of about four metres
- Other Tamil names identified: Catan, Kiran, and Kopān

❖ **Meaning and Significance of the Name Korran**

- "Cikai" possibly linked to Sanskrit sikha (tuft or crown)
- "Korran" derived from Tamil root korram meaning victory or slaying
- Associated with warlike symbolism, Chera goddess Korravai, and the term korravan (king)

❖ **Corroborating Evidence from Other Sources**

- Name Korran also found in Korrapuman inscription on a pottery sherd at Berenike (Egypt) discovered in 1995
- Occurs in Sangam literature, including references to Chera king Pittänkorran in Purananooru
- Similar names found in inscriptions at Pugalur, ancient Chera capital, dated to the 2nd-3rd century CE

❖ **Example of a Tamil Brahmi Inscription**

- Inscription reading "Kopan varata kantan" meaning "Kopan came and saw"
- Name Kopan also recorded in inscriptions at Ammankovilpatti in Tamil Nadu

❖ **Historical Importance**

- Demonstrates direct presence of Indian visitors in Egypt during early centuries CE
- Strengthens evidence of maritime trade, cultural exchange, and mobility between India and the Mediterranean world during the Roman trade period

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2. Study reveals surprising rise of lion-tailed macaques in human-dominated landscapes:

Context: The lion-tailed macaque one of India's most endangered primates - appears to be thriving not in the deep, undisturbed forests, but amid bustling human activity: plantations, tourist trails, hydel projects and expanding road networks.

More about

- Lion-tailed macaques in Anamalai Hills are increasing in non-protected areas (plantations, tourist zones, roadsides) due to easy access to human-associated food.
- 40-year study (37 groups) shows populations inside protected forests are more stable, with healthier age-sex ratios and sustainable growth.
- Though numbers appear higher outside forests, these groups face greater risks such as road accidens, electrocution, tourism disturbance, and habiat nagmemation.
- Being an arboreal species, macaques depend on intact forest canopy; canopy loss increases movement-related accidents.
- Scientists call for canopy restoration, traffic regulation, and tourism control to ensure long-term conservation in the Western Ghats.

About Lion-tailed macaques:

- **Species:** Lion-tailed macaque (Macaca silenus), an Old World monkey endemic to the Western Ghats of southern India.
- **Size and Appearance:** Among the smallest macaques; black body, distinctive silvery-grey mane around the face, and a long tail ending in a lion-like tuft (more prominent in males).
- **Nickname:** Called the "beard ape" or "wanderoo."
- **Behaviour:** Arborcal and diurnal; sleeps in troca, lives in hierarchical groups of about 10 20, shy and territorial, with males using loud calls to mark boundaries.

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- **Communication:** Highly vocal species with a complex system of about 17 different vocalisations.
- **Habitat:** Tropical moist evergreen forests, especially upper canopy layers, survives in fragmented rainforest patches in Karnataka, Kerala, and Tamil Nadu, including areas like the Anamalai Tiger Reserve and Valparai plateau.
- **Diet and Ecological Role:** Omnivorous; mainly fruits and seeds but also leaves, buds, insects, and small vertebrates, contributing to seed dispersal and forest health.
- **Population Status:** Roughly a few thousand mature individuals remain, with populations scattered in isolated forest patches.
- **Distribution:** Endemic to the southern Western Ghats, restricted to evergreen rainforest ecosystems.
- **Conservation Status:** IUCN Red List - Endangered; CITES - Appendix I; Wildlife (Protection) Act, 1972 - Schedule I.

3. Calling Rafale a 'hero', Vice Chief of Air Staff seeks more fighter planes:

Context: Vice Chief of the Air Staff Air Marshal Nagesh Kapoor on Wednesday described the Rafale fighter jet as the "hero" of Operation Sindoor, and said the Indian Air Force (IAF) was looking to induct more such multi-role fighter aircraft, with Rafale planes among the contenders.

About Rafale jets:

- Rafale is a 45 generation, twin-engine, delta-wing multirale fighter aircraft manufactured by Daccant Aviation, France.
- It can achieve a maximum speed of Mach 1.8 with a combat radius of over 1,000 km.
- The aircraft features a delta wing design with canards for high maneuverability and short take-off capability.

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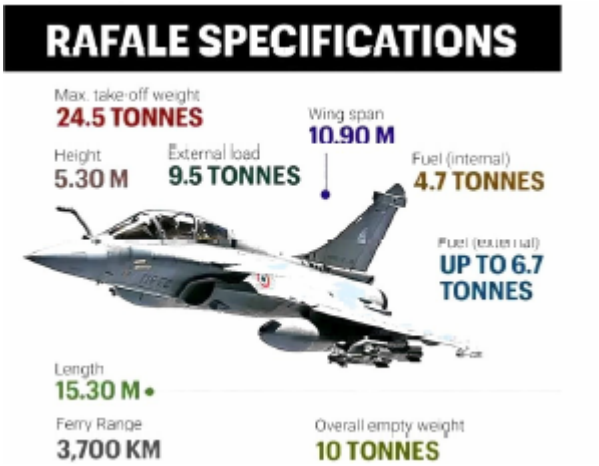

- Its aerodynamic structure ensures low drag, optimal wing loading, and relaxed stability for enhanced agility.
- Rafale is equipped with KBE2 AESA radar, from sector optronics, and advanced SPECTRA electronic warfare system for superior situational awareness.
- It is powered by two SNECMA M88 turbofan engines delivering 50 kN dry thrust and 75 kN with afterburner.
- The aircraft has supercruise capability, allowing supersonic flight without afterburners.
- It has 14 hardpoints and can carry external payloads up to 9,500 kg.
- Rafale C is the single-seat Air Force variant designed for high mission reliability.
- Rafale B is the twin-seat variant used for training while retaining full combat capability.
- Rafale M is the naval carrier-based variant with reinforced structure for aircraft carrier operations.
- Rafale N is a dedicated nuclear strike variant, while Rafale R is meant for technology development.

4. National Productivity Week:

Context: The National Productivity Council (NPC) will celebrate its 68th Foundation Day on 12 February 2026 and observe National Productivity Week from 12 to 18 February 2026 across the

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country. The theme for the 68th National Productivity Week is "Clusters as Growth Engine: Maximizing Productivity in MSMES".

About National Productivity Council (NPC):

- National Productivity Council (NPC) is an autonomous organisation under the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India.
- Established in 1958 to promote productivity and enhance India's global competitiveness.
- Vision focuses on becoming a knowledge leader in productivity and supporting sustainable and inclusive socio-economic development.
- Provides consultancy and training to government, public sector, and private sector organisations.
- Key service areas include Industrial Engineering, Environmental and Energy Management, Agri-Business, Economic Services, Quality Management, Human Resources Management, and Information Technology and Technology Management.
- Undertakes research and studies related to productivity improvement.
- NPC is a constituent of the Tokyo-based Asian Productivity Organisation (APO).
- India is a founding member of APO and currently holds the Chair.

5. Corruption Perceptions Index (CPI) 2025:

Context: Corruption globally is worsening, even in advanced democracies, as the number of countries scoring above 80 has decreased from 12 a decade ago to just five this year, according to Transparency International's 2025 Corruption Perception Index (CPI).

More about the report:

- The Corruption Perceptions Index (CPI), released annually by Transparency International, ranks 182 countries and territories based on perceived levels of public sector corruption.

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- It uses a scale from 0 (highly corrupt) to 100 (very clean).

Major highlights of 2025 report:

- India's rank of 91st with a score of 39 indicates that while digitalization and reforms have prevented a decline, the country still struggles with bureaucratic opacity and weak enforcement.
- At the top of the CPI 2025 rankings, Denmark retained its first position with a score of 89, followed by Finland and Singapore.
- At the bottom were South Sudan and Somalia, both scoring nine points. Among major democracies, the United Kingdom ranked 20th, while the United States stood at 29th, reflecting a broader concern about declining anti-corruption performance even in established political systems.

Mains specific articles:

1. As the Arctic warms, threat of invasive plants looms: (GS paper 3)

Context: Climate change and human activity are affecting Arctic ecosystems which have largely been shielded from devastating effects of alien species so far.

More about:

❖ **Arctic as a Symbol of Climate Change**

- The Arctic is a major example of visible climate change impacts, including melting glaciers and shrinking sea ice
- Growth of "last-chance tourism," where visitors travel to witness disappearing landscapes and experience ecological grief

❖ **Arctic Ecosystem and Biodiversity**

- Vegetation ranges from shrubs like bearberry in warmer areas to mosses and lichens forming tundra in colder regions
- Wildlife includes snowy owls, Arctic foxes, grizzly bears, seals, walruses, and belugas

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❖ **Threat from Alien Plant Species**

- Study in the journal NeoBiota warns that thousands of non-native plant species could invade the warming Arctic
- Around 2,554 vascular plants may find suitable climatic conditions in the future Arctic
- Example: common meadow ruc, a European and Russian shrub, found growing in Svalbard

❖ **Reasons for Increasing Invasions**

- Climate change is reducing natural barriers such as extreme cold and short growing seasons
- Rising human activity and transport increase opportunities for species introduction

❖ **Global Concern about Invasive Species**

- Intergovernmental Panel on Biodiversity and Ecosystem Services identifies alien species as a major threat to global biodiversity

❖ **Potential Hotspots of Introduction**

- Western Alaska
- Southwestern and southeastern Greenland
- Northern Iceland
- Fennoscandia
- Kanin-Pechora region

❖ **Previous Records of Alien Species**

- Earlier Arctic inventory recorded 341 taxa, of which 188 became naturalised in at least one region

❖ **Pathways of Introduction**

- Escape from confinement accounts for about 48% of invasive plant introductions
- Transport-stowaway contributes about 37%
- Seed contaminants and vehicle transport cach contribute about 14%
- A large share of introductions (about 43%) remains of unknown origin

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❖ **Other Indicators of Warming**

- Mosquitoes were recorded in Iceland for the first time in 2024 due to warming temperatures
- Antarctica remains the only continent without mosquitoes

2. Have States gained from the 16th FC?(GS paper 2)

Context: The 16th Finance Commission under the chairmanship of Dr. Arvind Panagariya has submitted its report for the period of 2026-31. The Central government has accepted its recommendations with respect to devolution of funds from Centre to States.

More about:

❖ **Constitutional Basis of Finance Commission**

- Article 280 provides for the constitution of a Finance Commission every five years
- Article 270 governs distribution of net tax proceeds between Centre and States
- Divisible pool includes corporation tax, personal income tax, CGST, and Centre's share of IGST
- Cess and surcharge are excluded from the divisible pool
- In 2025-26, the divisible pool forms about 81% of the Centre's gross tax revenue

❖ **Past Recommendations on Vertical Devolution**

- Till the 13th Finance Commission (2010-15), States' share in Central taxes was 32% and transfers included conditional grants under Centrally Sponsored Schemes
- 14th Finance Commission (2015-20) increased vertical devolution to 42% and reduced conditional transfers
- 15th Finance Commission (2020-26) reduced the share to 41% after the reorganisation of Jammu and Kashmir

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❖ **Criteria for Horizontal Devolution in the Past**

- Greater weight given to equity and need-based factors such as income gap, population, and area
- Lower weight given to efficiency factors such as forest cover, demographic performance, and tax effort

Table 1: Criteria for horizontal devolution amongst States

Criteria	13th FC 2010-15	14th FC 2015-20	15th FC 2020-26	16th FC 2026-31
Income distance	47.5	50	45	42.5
Population (1971)	25	17.5		
Population (2011)		10	15	17.5
Area	10	15	15	10
Forests		7.5	10	10
Fiscal discipline	17.5			
Demographic performance			12.5	10
Tax effort			2.5	
State's contribution to GDP				10
Total	**100**	**100**	**100**	**100**

❖ **Demands Made by States**

- Many States demanded increasing vertical devolution from 41% to 50%, while some suggested 45-48%.
- Demand to include cess and surcharge in the divisible pool or impose a cap on them.

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- Several States sought continued emphasis on equity criteria but reduction in weight to income distance.
- Industrialised States demanded inclusion of States' contribution to GDP as a criterion.

❖ **Recommendations of the 16th Finance Commission (2026-31) - Vertical Devolution**

- Retained States' share at 41%.
- Did not recommend inclusion or capping of cess and surcharge, citing constitutional and fiscal considerations.
- **Reasons:** States already receive significant tax share, CSS spending benefits States, and Union requires funds for defence and infrastructure.

❖ **Recommendations on Horizontal Devolution**

- Emphasised gradual changes in State shares to avoid sharp disruptions.
- Added a new criterion: States' contribution to GDP to recognise efficiency and growth.
- Adjusted weightages to create a directional change without drastic redistribution.

❖ **Impact of the Recommendations**

- Marginal increase in shares of southern and western States
- Marginal decrease in shares of large northern and central States
- Overall status quo maintained with a gradual shift toward recognising efficiency

❖ **Additional Observations of the Commission**

- Centre should progressively reduce reliance on cess and surcharge
- States should improve subsidy targeting, undertake power sector reforms, and control fiscal deficit and debt
- Both Centre and States should pursue public sector enterprise reforms

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3. Disaster Management (Amendment) Act, 2025:(GS Paper 3)

Context: To address the issue of urban disaster risk management and have a focused approach towards urban issues, an enabling provision '41A' has been made through amendment in the Disaster Management Act, 2005.

More about:

- Urban Disaster Risk and Need for UDMA
  - Rapid urbanisation in large urban agglomerations has created new and complex disaster management challenges
  - Amendment to the Disaster Management Act, 2005 inserted enabling provision under Section 41A
  - State Governments empowered to establish Urban Disaster Management Authorities (UDMAs) in State Capitals and cities with Municipal Corporations (excluding NCT of Delhi and UT of Chandigarh)
- Functions of Urban Disaster Management Authorities
  - Preparation of Urban Disaster Management Plans addressing city-specific risks such as flooding and heatwaves
  - Coordination and implementation of mitigation and preparedness measures
  - Responsibility lies with State Governments to establish UDMAS
  - So far, Karnataka has constituted a UDMA for Bruhat Bengaluru Mahanagara Palike
- **Disaster Management (Amendment) Act, 2025 - Key Provisions**
  - Mandates creation of a National Disaster Database
  - Database to include risk assessments, mitigation plans, and real-time disaster data
- **Use of Technology in Disaster Forecasting**
  - India Meteorological Department integrating AI and ML models for improved forecasting
  - Seven-day advance predictions for weather, floods, and cyclones

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- Mission Mausam (launched 2025) aims for high-resolution Al-based forecasts by 2030

❖ **High-Level Committee (HLC) in Disaster Financing**

- HLC approves financial assistance to States from National Disaster Response Fund (NDRF) and National Disaster Mitigation Fund (NDMF)
- Granted statutory status through the Disaster Management (Amendment) Act, 2025

❖ **Role of Inter-Ministerial Central Team (IMCT)**

- Ministry of Home Affairs facilitates deployment of IMCT after severe disasters.
- Teams conduct immediate on-ground assessment of damage for relief and assistance decisions

Quick Bites:

➢ The Indian Air Force (IAF) will demonstrate it's prowess through Exercise Vayushakti-26 at Pokhran Air to Ground Range, Jaisalmer on 27 February 2026.

➢ Indian National Science Academy (INSA) and the National Institute of Science Communication and Policy Research (CSIR-NISCPR) signed a Memorandum of Understanding (MoU) on 10 February 2026 at INSA, New Delhi, to promote collaborative activities on science communication and evidence-based science policy research and strengthen evidence-based policymaking in India.

➢ V.O. Chidambaranar Port Authority has become India's first Major Port to receive the prestigious IGBC Platinum Rating, the highest certification awarded by the Indian Green Building Council.

➢ Ministry of Social Justice and Empowerment had constituted the Renke Commission (National Commission for De-notified, Nomadic and Semi-Nomadic Tribes) in March 2005 to examine issues relating to De-notified, Nomadic and Semi-Nomadic Tribes. The Commission submitted its report in July 2008. On consideration of the recommendations of the Commission, the Central Government constituted the National Commission for De-notified, Nomadic and Semi-Nomadic Tribes (NCDNT) for a period of three years. Subsequently, on the recommendation of NCDNT,

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the Development and Welfare Board for De-notified, Nomadic and Semi-Nomadic Communities was established in February 2019.

- The Ministry of Statistics & Programme Implementation (MOSPI) is mandated to monitor the status of Ongoing Central Sector Infrastructure Projects costing Rs. 150 crore and above. MoSPI has developed a new web monitoring system called PAIMANA (Project Assessment Infrastructure Monitoring and Analytics for Nation-Building) which was officially launched on 25th September, 2025; replacing the erstwhile OCMS-2006 (Online Computerized Monitoring System).
- Mumbai has introduced India's first "musical road" on the northbound lane of the Mumbai Coastal Road, from Nariman Point towards Worli, beginning after the Worli tunnel exit. The specially engineered stretch produces a recognisable tune when vehicles travel over it at a prescribed speed, using sound and vibration to promote steady driving and enhance road safety while adding a novel driving experience.

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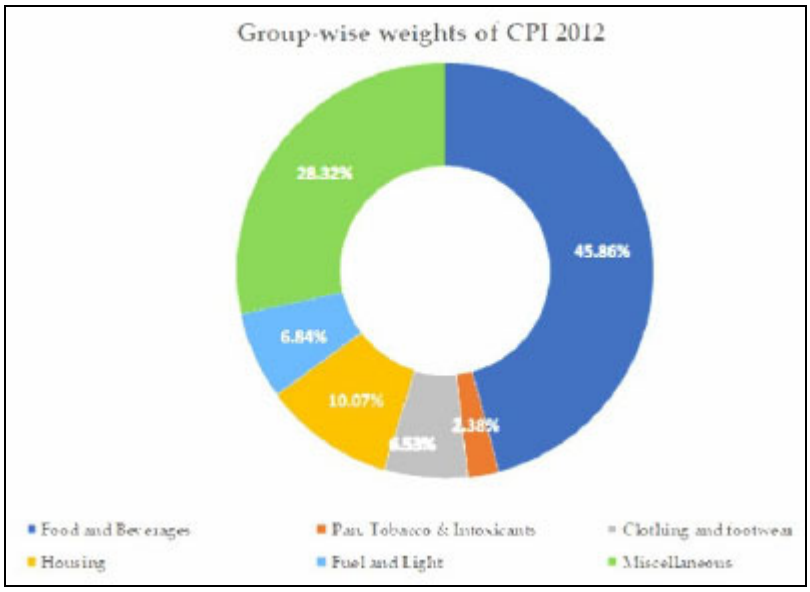
13-02-2026

Prelims Articles:

1. Consumer Price Index (CPI):

Context: The Ministry of Statistics and Programme Implementaion (MoSPI) on Thursday released the Consumer Price Index (CPI) data based on a new series with 2024 as base year, placing retail inflation in January 2026 at 2075%.

More about:



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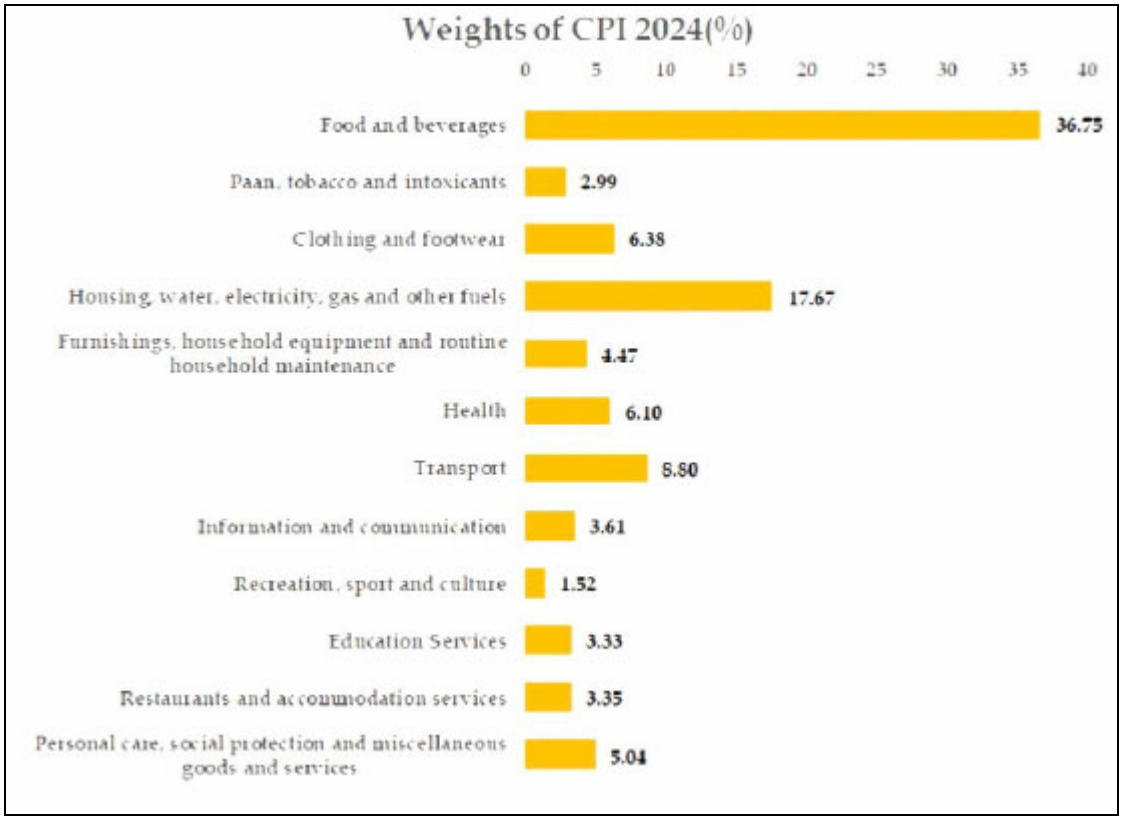

- **Release of New CPI Series:** Ministry of Statistics and Programme Implementation released a new series of the Consumer Price Index with 2024 as base year; retail inflation for January 2026: 2.75%
- **No Historical Comparison:** First data release under the new base year, so past comparison is not yet available.
- **Reason for Revision:** CPI basket and weights updated based on Household Consumption Expenditure Survey (HCES) 2023-24 reflecting changes in consumption patterns; highlighted by Chief Economic Adviser V. Anantha Nageswaran.
- **Increase in Items Covered:** Total items increased from 299 to 358; goods 259→ 308; services 40 → 50.
- **Wider Data Collection:** Price data now collected from 1,465 rural markets (earlier 1,181) and 1,395 urban markets (earlier 1,114); 12 online marketplaces included for the first time.

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- **More Detailed Classification:** Items now grouped into 12 broad groups instead of 6, giving more granular inflation estimates.
- **Change in Food Weight:** Weight of food and beverages reduced to 36.75% from 45.86%, which may reduce volatility in headline inflation.
- **Housing and Utilities Combined:** Housing expanded to include water, electricity, gas and other fuels; combined weight increased to 17.67% (earlier housing alone 10.07%).
- **New / Expanded Categories:** Furnishings and household maintenance (4.47%), Health (6.1%), Transport (8.8%), Information and communication (3.61%), Recreation, sports and culture (1.52%), Education services (3.33%), Restaurants and accommodation (3.35%), Personal care and miscellaneous (5.04%).
- **Other Weight Changes:** Paan, tobacco and intoxicants increased to 2.99% (from 2.38%); Clothing and footwear reduced to 2.38% (from 6.53%).
- **Significance:** Updated basket and weights make CPI more representative of current consumption and economic conditions and improve the accuracy of inflation measurement.

About Consumer Price Index:

- **About CPI:** Consumer Price Index measures the average change over time in prices paid by consumers for a fixed basket of goods and services used for daily consumption (retail level)
- **Latest Retail Inflation:** India's retail inflation (CPI) stood at 1.33% in December 2025.
- **CPI-Combined (Rural + Urban):** Base year 2012; used as the headline inflation indicater and for inflation targeting by the Reserve Bank of India.
- **CPI-Industrial Workers (IW):** Base year 2016; used for Dearness Allowance (DA) revision of industrial and central government employees.
- **CPI-Agricultural Labourers (AL):** Base year 2019; tracks inflation faced by agricultural workers; used for wage fixation and social security analysis.

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- **CPI-Rural Labourers (CPI-RL):** Base year 2019; measures price changes for rural labour households; used for minimum wage fixation and rural livelihood assessment.
- **Releasing Authority - NSO:** National Statistical Office releases CPI-Combined, CPI-Rural, and CPI-Urban for retail inflation measurement and policy use.
- **Releasing Authority - Labour Bureau:** Labour Bureau releases CPI-IW, CPI-AL, and CPI-RL mainly for wage fixation, DA revision, and labour welfare purposes.

2. Substantive Motion:

Context: Bharatiya Janata Party (BJP) MP Nishikant Dubey on Thursday said he had initiated a Substantive Motion against Leader of the Opposition in the Lok Sabha Rahul Gandhi for allegedly being "hand in glove" with "anti-national" forces.

What is Substantive Motion?

A Substantive Motion is an independent, self-contained proposal submitted for the approval of a Legislative House or Assembly, drafted to express a decision or opinion. The motion entails a debate followed by a compulsory vote if the notice is accepted and the motion is moved.

Various motions:

Type of Motion	Meaning/ Nature	Key Features	Examples
Substantive Motion	Self-contained, independent proposal capable of expressing the decision of the House	Does not depend on any other motion	All resolutions
Substitute Motion	Motion moved in	Expresses opinion	Motion replacing original policy

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	substitution of an original motion	independently but depends on original Motion	consideration
Subsidiary motion	Depends on or relates to another motion; cannot express decision independently	Further divided into Ancillary, Superseding and Amendments	-
Ancillary Motions	Regular procedural motions to proceed with business	Recognised by practice of the House	(i) That the Bill be taken into consideration (ii) That the Bill be business passed
Superseding Motions	Moved during debate to supersede the original question	Often dilatory in nature	(i) Re-commit to Select Committee (ii) Re-commit to Joint Committee (iii) Re-circulate Bill (iv) Adjourn consideration
Amendments	Interpose a new question between main motion and final decision	Can amend clause of Bill, resolution, motion or another amendment	Amendment to clause of a Bill

3. Tangkhul Hui and Kombai dog breeds:

Context: Indigenous breeds of dogs from Tamil Nadu and Nagaland are expected to team up to phase out foreign breeds in the dog squad of India's oldest paramilitary force by 2050.

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More about:

- **2025 Home Ministry Directive:** The Ministry of Home Affairs directed all armed forces to induct more indigenous Indian dog breeds into their dog squads to promote local breeds and enhance operational suitability.
- **Role of Assam Rifles:** The Assam Rifles, established in 1835 and functioning under dual control of the Home (administrative) and Defence (operational) Ministries, initiated efforts to comply with the directive.
- **Pilot Project with Tangkhul Hui:** Three years prior to the directive, Assam Rifles launched a pilot project inducting six Tangkhul Hui dogs into its squad.
- **About Tangkhul Hui Breed:** Indigenous to Ukhrul district of Manipur, the Tangkhul Hui is known for high disease resistance and has traditionally been used for hunting.
- **Identification of Kombai Breed:** The force has identified the Kombai breed from Tamil Nadu as a suitable partner breed for the Tangkhul Hui in operational roles.
- **Breeding Initiative:** The Assam Rifles Dog Training Centre (ARDTC) in Jorhat plans to induct two male and eight female Kombai dogs as parent stock to begin a structured breeding programme.
- **Long Development Cycle:** Introducing a new breed into operational service involves a 15-year process from identifying genetically superior stock to training and deployment as guard dogs and trackers.
- **Operational Significance:** Trained dog squads have been crucial in detecting and seizing arms and narcotics in the northeast region.
- **Full Induction Timeline:** The Tangkhul Hui and Kombai breeds are expected to be fully inducted into the Assam Rifles' dog squad by March 2027, with training conducted exclusively at the ARDTC, the force's only dedicated dog training facility.

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4. Maharshi Dayanand Saraswati:

Context: The Prime Minister, Shri Narendra Modi paid tributes to Maharshi Dayanand Saraswati ji on his birth anniversary.

About Maharshi Dayanand Saraswati:

- Swami Dayanand Saraswati was born as Mool Shankar on 12 February 1824 at Tankara in present-day Gujarat.
- He became a disciple of Swami Virjanand Saraswati at Mathura in 1860, who inspired him to work for the revival of Vedic religion.
- He founded the Arya Samaj in 1875 at Bombay to promote social reform and Vedic teachings.
- His famous work Satyarth Prakash emphasized the slogan "Go Back to the Vedas."
- He advocated monotheism, rejected idol worship, ritualism, and superstition, and promoted rational interpretation of the Vedas.
- He supported women's education, widow remarriage, and opposed child marriage, untouchability, and social discrimination.
- He believed in karma, reincarnation, and the Vedic chaturvarna system based on occupation rather than birth.
- He is credited with early use of the term "Swaraj" (India for Indians) in 1876, later popularised by leaders like Bal Gangadhar Tilak and Mahatma Gandhi.
- After his death in 1883, his followers established the Dayanand Anglo-Vodic Schools, which played a major role in modern education in India.
- He initiated the Shuddhi movement and strongly criticised social evils and colonial rule, influencing later social reform and nationalist movements.

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5. Project DigiCOAL- Driving Transparency Through Digital Transformation:

Context: In a significant recognition of Coal Ministry's ongoing efforts to modernise and digitise the mining sector, South Eastern Coalfields Limited (SECL), a subsidiary of Coal India Limited under the Ministry of Coal, showcased its flagship digital transformation initiative, DigiCOAL, at the National Workshop on "Digital Initiatives for Increasing Transparency in Governance" organised by the Central Vigilance Commission at the SCOPE Convention Centre in New Delhi.

About Driving Transparency Through Digital Transformation, DigiCOAL:



- **About DigiCOAL:** DigiCOAL is a comprehensive digital ecosystem aimed at improving operational oversight, transparency, and institutional accountability in mining activities.
- **Implementing Agency:** The initiative has been implemented by South Eastern Coalfields Limited to modernise mine management and monitoring.
- **Real-Time HEMM Fleet Monitoring:** Sensor-based systems track heavy earth moving machinery such as shovels, dumpers, and dozers, monitoring location, operating hours, and fuel consumption while detecting anomalies like fuel loss, idle time, and route deviations.
- **Video Analytics and Worker Connectivity:** Video analytics and connected worker systems improve safety compliance, operational control, and emergency response in mining areas.
- **Drone-Based Surveillance:** Drones are used for mine surveys, detection of encroachments, monitoring haul roads and slopes, and assessing drainage systems, especially during the monsoon season.

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- **Data-Driven Mine Planning:** Advanced analytics and optimised drilling and blasting techniques make production processes more scientific, efficient, and measurable.
- **Integrated Digital Platforms:** Digital land records, online training modules, spare-parts management systems, and a centralised digital war room create a unified and tamper-proof governance framework.

6. Kala Sanskriti Vikas Yojana (KSVY):

Context: The Ministry of Culture is implementing Kala Sanskriti Vikas Yojana (KSVY), under which financial assistance is provided to eligible cultural organizations/ individuals working in the field of performing arts.

About Kala Sanskriti Vikas Yojana (KSVY):

- Kala Sanskriti Vikas Yojana (KSVY) is a central sector umbrella scheme under the Ministry of Culture for the promotion of art and culture in the country. It has the following sub-schemes under which financial assistance is provided to cultural organizations/individuals:
  - Financial Assistance for Promotion of Guru-Shishya Parampara (Repertory Grant)
  - Scheme of Financial Assistance for Promotion of Art and Culture.
  - Scheme of Scholarship and Fellowship for Promotion of Art and Culture.
  - Financial Assistance for Construction of Tagore Cultural Complexes (TCC) Financial Assistance for Veteran Artists.
  - Seva Bhoj Yojana
  - National Gandhi Heritage Site Mission
  - National Award Scheme

Sub-Scheme/Component	Key Features
Financial Assistance for Promotion of Guru-Shishya	Support for performing arts groups (theatre, music, dance, children's theatre); 1 Guru+ max 18 Shishyas; Guru ₹

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Parampara (Repertory Grant)	15,000/month; Shishyas ₹ 2,000-10,000/month (age-based).
Financial Assistance to Cultural Organisations with National Presence	For registered cultural bodies with pan-India presence; must have spent 21 crore in 3 of last 5 years; Grant 21 crore (up to ₹5 crore in exceptional cases).
Cultural Function & Production Grant (CFPG)	Support for seminars, workshops, festivals, exhibitions, research, dance/drama/music productions; Grant ₹ 5 lakh (up to ₹ 20 lakh in exceptional cases).
Preservation & Development of Cultural Heritage of the Himalayas	For J&K, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh; supports research, training, audio-visual dissemination; Grant ₹ 10 lakh/year (up to ₹ 30 lakh).
Preservation & Development of Buddhist/Tibetan Organisations	Assistance to voluntary Buddhist/Tibetan bodies & monasteries for cultural propagation & research; ₹ 30 lakh/year (up to ₹ 1 crore).
Building Grants including Studio Theatres	For creation of cultural infrastructure (auditorium, rehearsal halls, studio theatres, etc.); ₹ 50 lakh (metro cities) and ₹ 25 lakh (non-metro cities).
Domestic Festivals & Fairs (Rashtriya Sanskriti Mahotsav)	Financial support for 'Rashtriya Sanskriti Mahotsavs" conducted via Zonal Cultural Centres to showcase artists nationwide.
Financial Assistance for Construction of Tagore Cultural Complexes (TCC)	For large cultural spaces (auditoriums, Rabindra Bhawans, Rangshalas); Max 15 crore; Funding pattern: 90:10 (NER), 60:40 (others).
Fellowship to Outstanding Persons in Culture	400 Fellowships (200 Jr: 25-40 yrs @ ₹10,000/month; 200 Sr: 40+ yrs @ ₹20,000/month); Duration: 2 years.
Scholarships to Young Artistes	400 Scholarships; Age 18-25; ₹ 5,000/month for 2 years; Advanced training in music, dance, theatre, folk arts, etc.
Tagore National Fellowship for	15 Fellowships (₹ 80,000/month + contingency) & 25 Scholarships

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Cultural Research	(₹ 50,000/month + contingency); Max 2 years; Research in cultural institutions.
Financial Assistance for Veteran Artists	₹ 6,000/month for artists aged 60+ with annual income ≤ ₹ 72,000; Assistance transferable to spouse after death.
Seva Bhoj Yojana	Reimbursement of CGST & Centre's IGST share on raw food items for free food (langar/prasad/bhandara) by charitable/religious institutions.

7. Dornier Aircraft:

Context: Ministry of Defence has signed a contract with Hindustan Aeronautics Limited (HAL), Transport Aircraft Division, Kanpur for the acquisition of eight Domnier 228 Aircraft under Buy (Indian) category.

About Dornier Aircraft:

- **Aircraft Type:** The Dornier 228 is a twin-turboprop Short Take-Off and Landing (STOL) utility aircraft designed for versatile civil and military operations.
- **Original Manufacturer:** It was designed and first manufactured by Dornier GmbH in Germany between 1981 and 1998, with about 245 aircraft built in Oberpfaffenhofen.
- **Indian Production Licence:** In 1983, Hindustan Aeronautics Limited (HAL) acquired a production licence and manufactured 125 aircraft at its Kanpur facility.
- **Transfer of Rights:** In 2002, Swiss firm RUAG acquired the rights to the aircraft from Fairchild.
- **Dornier 228 NG Variant (2009):** RUAG introduced the Next Generation (NG) version featuring upgraded avionics, a glass cockpit, five-blade propeller, and extended range capability while retaining the original airframe.
- **India's Continued Role:** HAL manufactured key structures (fuselage, wings, tail assembly) in Kanpur for the NG variant, which were then sent to Germany for final assembly.

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- **Civilian Variant in India:** In 2017, HAL introduced the Hindustan-Dornier 228 civilian version for regional connectivity and domestic operations in India.
- **Acquisition by General Atomics:** In 2020, RUAG sold the Dornier 228 programme to AeroTec Systems, a subsidiary of General Atomics.
- **New Version Announcement:** General Atomics announced plans to resume production with an upgraded model named Do228 NXT.
- **Operational Significance:** The Dornier 228 is widely used for surveillance, maritime patrol, transport, and regional connectivity due to its STOL capability and rugged performance.

Make Category (Defence Acquisition):

The 'Make' category is a key pillar of India's defence indigenisation drive under the Make in India initiative, promoting indigenous design, development, and manufacturing with public and private sector participation.

Make-I (Government Funded)

- Involves government-funded development of major defence platforms and systems.
- Focuses on high-value, complex projects such as light tanks and secure communication systems with Indian security protocols.

Make-II (Industry Funded)

- Fully industry-funded prototype development or upgrades for import substitution.
- No government funding provided.
- Approved projects include simulators for Apache and Chinook helicopters, wearable robotic systems for aircraft maintenance, autonomous combat vehicles, and integrated surveillance & targeting systems for mechanised forces.

Make-III (Manufacture in India for Import Substitution)

- Covers defence equipment not necessarily designed in India but manufactured domestically.

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- Allows Indian companies to collaborate with foreign Original Equipment Manufacturers (OEMs) for production within India.

About Defence Acquisition Procedure 2020:

- **Import Embargo List:** Enables notification of a list of weapons/platforms banned for import to boost domestic manufacturing.
- **Focus on Indigenisation & FDI**: Encourages Foreign Direct Investment (FDI) in defence manufacturing and promotes domestic production capabilities.
- **Innovation & Technology Push:** Emphasises Artificial Intelligence integration, use of indigenous software, and participation of Start-ups and MSMEs in defence acquisition.
- **Procurement Categories:**
  - Buy (Indian - Indigenously Designed, Developed and Manufactured)
  - Buy (Indian)
  - Buy and Make (Indian)
  - Buy (Global - Manufacture in India)
  - Buy (Global)
- **Higher Indigenous Content (IC) Requirement:** Increased from earlier 40-50% to 50-60%, depending on procurement category.
- **Exception - Buy (Global):** Only under this category can foreign vendors have 30% Indigenous Content sourced from Indian firms.

Category wise IC Requirement		
Category	**Vendors eligible to participate**	**Indigenous Content**
Buy (IDDM)	Indian	Indigenous design and ≥ 50%
Buy (Indian)	Indian	In case of indigenous design a ≥ 50%

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		otherwise ≥ 60
Buy and Make (Indian)	Indian	≥ 50% of the "Make portion and transfer of critical technologies from the foreign vendors as per the specified range, depth and scope
(Buy portion may be nil)		
Buy (Global Manufacture in India)	Foreign and Indian	≥ 50%
Buy (Global)	Foreign and Indian	Foreign Vendor-Nil Indian vendor > 30%

8. Vidyanjali scheme:

Context: Vidyanjali onboards over 8.5 lakh schools and 5 lakh volunteers since its launch. About Vidyanjali programme:

- Launched in September 2021 in alignment with the National Education Policy 2020, Vidyanjali seeks to strengthen Government and Government aided schools through structured community participation.
- The platform connects volunteers, alumni, institutions, civil society organisations and CSR partners directly with schools based on their identified needs.
- **Nodal Department:** Implemented by the Department of School Education and Literacy under the Ministry of Education.
- **Purpose:** To enable community participation in strengthening government and government-aided schools.
- **Dedicated Portal:** Provides an online platform where volunteers can directly connect with schools.

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- **Objective:** Improve school infrastructure, learning outcomes, and community ownership in education.

9. 'Technology Services - Reimagination Ahead' report:

Context: NITI Aayog's Frontier Tech Hub has released a ten-year roadmap on 'Technology Services - Reimagination Ahead", outlining how India's -$265B technology services sector can scale to $750-850B by 2035 while strengthening global competitiveness in the AI era and supporting the Viksit Bharat 2047 vision.

Summary of the report:

- The roadmap aims to strengthen global competitiveness in the AI era and support the vision of Viksit Bharat 2047.
- Artificial Intelligence is identified as a structural shift moving the sector from labour-arbitrage to IP-led, outcome-based, and platform-driven models.
- India has an opportunity to transition from services leadership to global leadership in building AI-native systems.
- Five priority growth levers identified: Agentic AI, Software & Products, Digital Infrastructure, Innovation-led Engineering, and India-for-India solutions.
- The roadmap calls for accelerated enterprise AI adoption and large-scale investment in IP and R&D.
- Workforce reskilling at a national scale is highlighted as essential for the AI transition.
- Regulatory predictability and global market access are emphasized to support sector growth.
- Government reforms mentioned include safe-harbour changes, simplified classifications, cloud tax incentives, and Semiconductor Mission initiatives.

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About NITI Frontier Tech Hub:

- The NITI Frontier Tech Hub was created as an action tank for Viksit Bharat to anticipate emerging mega-technology shifts and shape India's preparedness to unlock their potential for faster economic growth, inclusive societal outcomes, and strategic resilience advancing the country's journey towards becoming a frontier-technology nation.
- Collaborating with over 100 experts from government, industry, and academia, the Hub is shaping a 10-year roadmap across 20+ sectors to harness frontier technologies for economic growth, societal outcomes, and strategic resilience.

Mains Specific Articles:

1. **Farmers' pulse: (GS 3)**

   Context: Editorial analysis

- **Demand-Supply Gap:** Pulse production in India is around 2.5 crore tonnes while demand is about 3 crore tonnes, making imports necessary to bridge the shortfall.
- **Role of Pulses in Nutrition and Livelihoods:** Pulses provide nearly one-fourth of non-cereal protein intake and support about five crore farmers and their families.
- **Sensitivity of Imports:** Import decisions quickly reduce prices for consumers but can depress domestic prices, harming farmers and creating political sensitivity.
- **Trade Controversy:** Statements from the United States suggesting India committed to purchasing American pulses triggered concern among farmers, as it appears contrary to domestic agricultural interests.
- **Weak MSP and Procurement System:** Unlike rice and wheat, pulses lack reliable MSP procurement; government procurement under the Price Support Scheme has ranged only from 2.9% to 12.4% of production, and inadequate procurement centres force distress sales to private traders.

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- **Structural Constraints in Production:** Pulses are mostly grown in rain-fed areas with lower yields and higher risks, discouraging farmers from investing and leading to a cycle of low productivity and continued import dependence.
- **Government Initiatives:** A self-sufficiency Mission announced in October 2025 with a 211,440 crore outlay aims to expand cultivation to 310 lakh hectares and increase production to 350 lakh tonnes by 2030-31, though farmers remain sceptical due to past unfulfilled promises.
- **Need for Structural Reforms:** Long-term solutions require strengthening procurement infrastructure, ensuring genuine MSP guarantees, improving productivity in rain-fed regions, and creating market incentives for pulse cultivation.
- **Continuing Challenges:** Without these reforms, pulse farmers remain economically vulnerable, India remains dependent on imports, and trade agreements involving pulses will continue to be politically sensitive.

2. Too fake to be good: (GS 2)

Context: Editorial Analysis.

- **New Labelling Requirement:** The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2026 mandate that Al-generated images on social media must be clearly labelled so users can distinguish synthetic content from real imagery.
- **Refinement in Draft Rules:** Compared to the October draft, the Rules no longer prescribe a fixed size for disclosures and do not apply to Al-generated images that are not intended to appear real.
- **Need for Transparency in AI Content:** The rapid spread of synthetic imagery in online feeds makes disclosure essential to protect users from misinformation and manipulation.
- **Balanced Approach to AI Regulation:** As India moves toward broader Al governance, the labelling requirement is seen as a restrained and proportionate regulatory step.

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- **Challenges in Detection Technology:** Rules requiring proactive detection of synthetic content may need periodic review because AI tools are evolving quickly, making detection increasingly difficult for platforms.
- **Concern Over Shortened Takedown Timelines**: The Rules reduce the time allowed for removing flagged content to two or three hours, creating operational and legal pressure on social media platforms.
- **Risk of Over-Censorship**: To avoid losing safe-harbour protection, platforms may adopt a "take-down first, review later" approach, potentially affecting freedom of expression.
- **Barrier to Market Entry:** Strict compliance timelines may disadvantage smaller or new platforms that lack the resources to maintain round-the-clock review systems.
- **Lack of Consultation and Transparency:** The shortened timelines were introduced without prior public notice, and the absence of transparent consultation raises concerns about whether all stakeholders were heard.
- **Need for Democratic Scrutiny:** Since the IT Rules are already under judicial scrutiny, sudden changes to social media governance without parliamentary debate may have serious implications for free speech and regulatory legitimacy.

3. A case against the SHANTI Act: (GS 2 and 3)

Context: The SHANTI Act(Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India Act, 2025), passed in the Winter Session of Parliament, opens the nuclear power sector to private entities and alters the liability framework under the Civil Liability for Nuclear Damage Act (CLNDA).

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More about:

- **Purpose of the SHANTI Act:** The SHANTI Act, passed in Parliament, restructures the nuclear power sector by allowing private participation and modifying liability provisions earlier governed by the Civil Liability for Nuclear Damage Act (CLNDA).
- **Opening Nuclear Sector to Private Players:** The Act ends the Union government's exclusive control and permits private entities to operate nuclear power plants, expanding commercial participation in the sector.
- **Changes in Liability Framework:** Liability for nuclear accidents is channelled primarily to the operator, while suppliers are indemnified and no longer face the "right of recourse," meaning operators cannot sue suppliers for defective equipment.
- **Liability Caps Introduced:** Operator liability is capped between 100 crore and ₹3,000 crore depending on plant size, and total liability including government responsibility is capped at about ₹3,900 crore (300 million SDR). Clause 46 of the earlier law, which allowed victims to seek remedies under other laws including criminal law, has been removed.
- **Regulatory Structure:** The Act provides a legislative framework for the Atomic Energy Regulatory Board but limits its independence because members are selected through a committee constituted by the Atomic Energy Commission.
- **Rationale for Supplier Indemnity:** Multinational suppliers had expressed concerns about liability exposure, and international pressure, including from the United States, encouraged alignment with global liability norms that favour suppliers.
- **Concerns About Scientific and Safety Basis:** Past nuclear accidents have shown that design defects and equipment failures can be major causes, raising concerns that shielding suppliers from liability weakens accountability.
- **Comparison of Liability Cap with Potential Damage:** Historical nuclear disasters have caused economic losses running into tens of lakh crores, far exceeding the liability cap under the Act, implying that compensation available to victims in a major accident may be very limited.

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- **Moral Hazard and Safety Risks:** By limiting liability and indemnifying operators in cases such as grave natural disasters, the Act may reduce incentives for companies to invest in stronger safety and disaster-resilient infrastructure.
- **Limited Role of Nuclear Power in India:** Nuclear energy contributes only about 3% of electricity generation in India, and past capacity targets have repeatedly been missed due to high costs, safety concerns, and technological challenges.
- **Economic Implications:** Despite limited contribution to power generation, nuclear projects involve very large capital investments, creating major commercial opportunities for private operators and international suppliers, whose financial risks are reduced under the new liability regime.

Quick Bites:

- The state of Assam is going to witness a historic event, inauguration of an Emergency Landing Facility (ELF) on the Moran bypass in Dibrugarh district on 14 February 2026. This ELF is first of its kind in the North East region.
- World Radio Day, observed annually on February 13 commemorates the establishment of United Nations Radio in 1946. The theme of World Radio Day 2026 is "Radio and Artificial Intelligence: Al is a tool, not a voice." The first Community Radio Station was inaugurated on February 1, 2004 by Bharat Ratna Shri Lal Krishna Advani. Ram Singh Bouddh from Amroha, Uttar Pradesh, known as the "Radio Man of India," was recognized by Guinness World Records in 2025 for owning the world's largest collection of 1,257 radios.

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14-02-2026

Prelims articles:

1. **Lead Bank Scheme (LBS):**

Context: The Reserve Bank of India has issued draft revised guidelines for the Lead Bank Scheme (LBS) to improve its structure, clarify roles, and strengthen SLBC and Lead District Manager offices, inviting public comments till March 6, 2026.

About Lead Bank Scheme (LBS):

- **Introduction:** The Lead Bank Scheme (LBS) was introduced in 1969 by the Reserve Bank of India on the recommendations of the Nariman Committee to promote coordinated banking and expand institutional credit, especially in rural and semi-urban areas.
- **Background and Rationale:** Before bank nationalisation, banking services were concentrated in urban areas, while rural regions depended heavily on informal credit. LBS assigned one bank in each district to take responsibility for surveying credit needs and coordinating banking activities to support local development.
- **Aim of the Scheme:** The scheme aims to coordinate the activities of banks and development agencies to enhance the flow of credit to priority sectors and promote the role of banking in rural and overall economic development.
- **District-Level Lead Bank Concept:** Under LBS, a specific bank is designated as the Lead Bank for each district. It plays a leadership role in coordinating credit institutions, government departments, and development agencies to ensure effective credit delivery and implementation of schemes.
- **Institutional Framework:** At the national level, policy guidance is provided by RBI and the Government of India. At the state level, implementation is coordinated through the State Level

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Bankers' Committee (SLBC). At the district level, District Consultative Committees (DCC) and District Level Review Committees (DLRC) review and monitor banking and credit activities.

- **Role of Lead District Manager:** For preparing and monitoring District Credit Plans, a Lead Bank Officer-now called Lead District Manager was appointed in 1979 to strengthen coordination and implementation at the district level.
- **Objectives and Core Functions:** Key functions include assessing district credit needs, preparing and monitoring district credit plans, coordinating government-sponsored schemes, promoting financial inclusion, expanding banking outreach, and ensuring adequate credit flow to priority sectors such as agriculture, MSMEs, education, and housing.
- **Service Area Approach (SAA):** Introduced in 1989 as a part of the Lead Bank Scheme, the Service Area Approach allocated specific villages or areas to individual bank branches. Each branch was responsible for surveying the assigned area, preparing credit plans, and providing banking services to ensure focused and need-based lending, particularly to agriculture and rural sectors.
- **Significance of the Scheme:** The Lead Bank Scheme is a key mechanism for decentralised credit planning, financial inclusion, and balanced regional development by integrating banking policy with district-level development planning.

2. Sarojini Naidu:

Context: Lok Sabha Speaker Shri Om Birla paid floral tributes to Smt. Sarojini Naidu, in the Central Hall of Samvidhaan Sadan, on her birth anniversary (February 13).

About Sarojini Naidu:

- Sarojini Naidu was bom on 13 February 1879 in Hyderabad and became a leading poet, nationalist, and advocate of women's rights.

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- She entered active politics after the 1905 Partition of Bengal and was influenced by leaders like Gopal Krishna Gokhale, Rabindranath Tagore, Muhammad Ali Jinnah, and Annie Besant.
- A close associate of Mahatma Gandhi, she participated in the Non-Cooperation Movement, Civil Disobedience Movement, and Quit India Movement, facing imprisonment several times.
- She led volunteers during the 1930 Dharasana Salt Works raid after Gandhi's arrest, an event widely reported internationally.
- Naidu strongly promoted Hindu-Muslim unity and wrote the biography Muhammad Ali Jinnah: An Ambassador of Unity (1916).
- She co-founded the Women's Indian Association in 1917 and led delegations demanding women's franchise and equal political rights.
- She presided over the All India Women's Conference and campaigned against child marriage, dowry, and purdah while supporting the Child Marriage Restraint Act 1929.
- Internationally, she represented Indian women at the Round Table Conference and spoke at forums such as the East Africa Indian Congress and Asian women's conferences.
- In 1925 she became the first Indian woman President of the Indian National Congress at the Kanpur session.
- After Independence in 1947, she became the first woman Governor of the United Provinces (now Uttar Pradesh) and also served in the Constituent Assembly.
- She is remembered as the "Nightingale of India" for her lyrical English poetry reflecting Indian life, nationalism, and social reform.
- Her major poetry collections include The Golden Threshold (1905), The Bird of Time (1912), The Broken Wing (1917), and the posthumous The Feather of the Dawn (1961).
- Famous poems such as The Gift of India, Bangle Sellers, Indian Weavers, and The Pardah Nashin combined literary expression with themes of nationalism, sacrifice, and women's condition.
- She studied at King's College London and Girton College Cambridge, which shaped her literary and intellectual development.

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- National Women's Day in India is celebrated on 13 February every year to commemorate her birth anniversary and contributions to women's empowerment.
- Sarojini Naidu passed away on 2 March 1949 in Lucknow, leaving a legacy in nationalism, literature, and gender equality.

3. SHe-Box:

Context: The Ministry of Women and Child Development is organising a 'National Conference on Safety of Women at Workplace, (SHe-Box)' at Vigyan Bhawan on 14 February 2026.

About She-Box (Sexual Harassment e-box):

- She-Box Portal is a centralized online platform for registering and monitoring complaints of sexual harassment of women at the workplace.
- It acts as a national repository of information on Internal Committees (ICs) and Local Committees (LCs) across government and private sectors.
- The portal provides a common interface to file complaints, track status, and ensure time-bound processing.
- It facilitates assured redressal and a streamlined complaint-handling process for all stakeholders.
- Complaints can be monitored in real time by a designated nodal officer.
- The system ensures safe registration of complaints without making personal information publicly accessible.
- The upgraded version of SHe-Box was launched in 2017 in line with the Sexual Harassment of Women at Workplace Act 2013.
- Under the mechanism, complaints from private institutions are handled by Internal Committees, while those from government establishments may be handled by Local Committees headed by the District Magistrate/Deputy Commissioner or their nominee.

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4. Lysosomal Storage Disorders (LSDs):

Context: Researchers from 28 medical and research institutions across six states and two Union Territories have established India's first government-supported national biobank dedicated to Lysosomal Storage Disorders (LSDs). Funded by the Department of Biotechnology (DBT), the biobank aims to support the development of affordable screening tools and therapies for children affected by these life-threatening genetic disorders.

About Lysosomal storage diseases (LSDs):

- Lysosomal storage diseases (LSDs) are rare inherited genetic disorders in which toxic substances accumulate inside body cells.
- They occur mainly due to mutations in genes that encode lysosomal enzymes required for metabolism.
- Lysosomes are membrane-bound cell organelles containing digestive enzymes that break down wastes and worn-out cell components.
- In LSDs, deficiency of a specific enzyme or its activator prevents the breakdown of fats, sugars, or other complex molecules.
- The unmetabolized substances accumulate in tissues and organs, leading to progressive damage, disability, and sometimes early death.
- Common examples include Gaucher disease, Pompe disease, Fabry disease, and mucopolysaccharidoses (MPS).
- Most LSDs are inherited in an autosomal recessive pattern, meaning both parents must carry the defective gene.
- Exceptions include Hunter syndrome (MPS II) and Fabry disease, which are inherited in an X-linked manner.
- Symptoms often appear in infancy, during pregnancy, or carly childhood, though some forms may present in adulthood.

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- Early diagnosis and management are important to reduce complications and improve quality of life.

Mains specific articles:

1. The new CPI series will aid policymaking and bolster data stability:

Context: Editorial analysis

- **Background of the New CPI Series:** The Government of India has released a new Consumer Price Index (CPI) series with base year 2024, replacing the 2012 base year series. The new index is based on consumption patterns from the Household Consumption Expenditure Survey (HCES) 2023-24, reflecting structural changes in the economy over the past decade.
- **Rationale for Revision:** India's consumption behaviour has changed significantly due to factors such as free foodgrain distribution to nearly 80 crore beneficiaries and the emergence of new services like OTT streaming and online marketplaces. The old 2012 base year no longer accurately represented present consumption trends.
- **Reduction in Food Weightage:** The weight of food and beverages in the CPI has been reduced from 45.86% to 36.75%. This corrects the earlier overemphasis on food inflation, which had a disproportionately large impact on headline inflation despite declining food expenditure share in household budgets.
- **Greater Coverage and Granularity:** The new CPI includes a larger number of goods and services, improving representativeness. It reflects the growing importance of India's service sector and includes price data from more markets, including 12 online marketplaces for the first time.
- **Improved Stability of Inflation Measurement:** Since food inflation is highly volatile due to supply bottlenecks and weather conditions, lowering its weight can make the overall CPI more stable and realistic.

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- **Implications for Fiscal Policy:** More accurate inflation data enhances predictability in Budget-making. CPI-linked components such as deamness allowance (DA) and dearness relief (DR) can now be calculated more realistically.
- **Implications for Monetary Policy:** An updated CPI provides the Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) with a more accurate inflation measure, leading to better-informed decisions on policy interest rates.
- **Need for Back Data and Regular Revision:** The Ministry of Statistics and Programme Implementation (MOSPI) has provided a linking factor for comparison with old data but should release back series data for easier analysis. It must also adhere to its commitment of revising the CPI every five years instead of delaying updates for over a decade.

2. India believed Panchsheel pact settled border: CDS:

Context: General Chauhan was speaking on the topic, 'Frontiers, Borders and LAC: The Middle Sector", during the inauguration of Bharat Himalayan International Strategic Manch (BHISM), a think tank in Dehradun.

More about:

- **Statement by CDS:** Anil Chauhan stated that independent India sought to build good relations with China and had to determine its own frontiers after Independence.
- **Border Understanding after Independence:** He noted that Jawaharlal Nehru was aware of the McMahon Line in the east and India's claims in Ladakh, though boundaries were not clearly defined.
- **Panchsheel Agreement 1954:** India signed the Panchsheel Agreement in 1954, recognising Tibet as part of China and aiming to stabilise bilateral relations. India assumed this agreement settled the northern boundary from its perspective.

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- **Impact of China's Control over Tibet:** After China occupied Tibet, India lost the Himalayan buffer zone and faced a direct border with China. India recognised China diplomatically and supported its permanent seat in the United Nations.
- **Difference in Interpretation:** India believed the agreement reinforced border legitimacy by identifying six passes for trade and pilgrimage, whereas China maintained that the agreement dealt only with trade and not the boundary dispute.
- **Strategic Importance of Himalayan Frontiers:** The CDS emphasised the growing strategic importance of the Himalayan borders and highlighted government efforts toward infrastructure development and integrated long-term strategic planning in border areas.

About Panchasheel agreement:

- The Panchsheel Agreement was signed between India and China on 29 April 1954 to guide bilateral relations.
- It laid down the Five Principles of Peaceful Coexistence aimed at ensuring peace, cooperation, and stability between the two countries.
- Popular slogans linked with the agreement included "Hindi-Chini Bhai Bhai" and "Asia for Asians," symbolising Asian solidarity.
- Panchsheel was considered a major step in normalising India-China relations during the 1950s.
- The concept emerged from the global demand for new principles of international relations based on peace, harmony, and mutual respect.
- Panchsheel principles were incorporated into the Ten Principles of International Peace and Cooperation adopted in the Bandung Declaration (April 1955) by 29 Afro-Asian countries.
- The international importance of Panchsheel was reinforced when a resolution on peaceful coexistence based on these principles was adopted by the United Nations General Assembly on 11 December 1957.

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FIVE PRINCIPLES OF PANCHSHEEL AGREEMENT



Quick Bites:

- The Centre for Trade and Investment Law (CTIL), Indian Institute of Foreign Trade, in collaboration with the School of Law, Bennett University, organised the 3rd CTIL-Bennett International Moot Court Competition 2026 from 6-8 February 2026 at Greater Noida under the aegis of the WTO Chairs Programme. The three-day international moot court competition served as an academic platform for law students to engage with contemporary issues in international trade law and labour standards.
- Centre for Development of Telematics (C-DOT), the premier R&D centre of the Department of Telecommunications (DOT), Ministry of Communications, Government of India and Rashtriya Raksha University (RRU), Gandhinagar, an Institution of National Importance under the Ministry of Home Affairs, Government of India, sign a landmark Memorandum of Understanding (MoU) for jointly collaborating on products in telecom and Cyber security domain.
- The Director General of Indian Coast Guard (ICG), DG Paramesh Sivamani inaugurated the Waterjet Production & Testing Facility of M/s Marine Jet Power (MJP) India at Goa on February 13, 2026, marking a significant milestone in India's pursuit of maritime Aatmanirbharta. With this advanced production and testing facility under the Manufacturing and Transfer of Technology

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framework, India becomes the third country globally, after the United States and South Korea, to host such a facility.

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15-02-2026

Prelims articles:

1. Urban Challenge Fund:

Context: The Union Cabinet has approved the launch of the Urban Challenge Fund (UCF), a new Centrally sponsored scheme of the Union Housing and Urban Affairs Ministry with 1 lakh crore Central assistance.

More about:

❖ **Objective of the Scheme**

- The scheme aims to support transformative and bankable urban infrastructure projects through a competitive challenge mode, recognising that public finance alone is insufficient for urban development.

❖ **Funding Pattern and Investment Target**

- Central assistance will cover 25% of project cost.
- At least 50% of project cost must be raised from the market through municipal bonds, bank loans, and PPPs.
- Expected investment in the urban sector: about 34 lakh crore over five years.

❖ **Coverage and Eligibility**

- Cities with population of 10 lakh or more (2025 estimates).
- All State and Union Territory capitals.
- Major industrial cities with a population of 1 lakh or more.
- Urban local bodies in hilly and northeastern States and smaller ULBS (below 1 lakh population) eligible under the Credit Repayment Guarantee Scheme.

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❖ **Time Period**

- Operational from FY 2025-26 to 2030-31, extendable up to 2033-34.

❖ **Policy Vision and Approach**

- Reflects shift from grant-based financing to market-linked, reform-driven, and outcome-oriented urban infrastructure creation.
- Supports the vision of cities as growth hubs, creative redevelopment, and improved water and sanitation.

❖ **Project Selection and Reforms**

- Projects selected through transparent and competitive challenge mode.
- Emphasis on reforms in urban governance, financial systems, operational efficiency, and urban planning.

❖ **Private Sector Participation**

- Encouragement of private investment through risk-sharing frameworks and service-delivery benchmarks.

❖ **Creditworthiness and Financial Support**

- Dedicated ₹5,000 crore corpus to enhance creditworthiness of 4,223 cities, including Tier-2 and Tier-3 cities, to facilitate first-time access to market finance.

❖ **Credit Repayment Guarantee Scheme**

- Central guarantee up to 27 crore or 70% of loan amount (whichever is lower) for first-time loans.
- After successful repayment, guarantee up to 7 crore or 50% of loan amount (whichever is lower).
- Enables projects of about 20 crore initially and *28 crore in subsequent phases in smaller cities.

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2. Ganga Water Treaty 1996:

Context: Bangladesh will take a decision on the renewal of the 1996 Ganga Water Treaty based on its "national interest", according to Humaiun Kobir, foreign affairs adviser to Tarique Rahman, chairman of the Bangladesh Nationalist Party.

More about:

- Ganges Water Sharing Treaty was signed on 12 December 1996 between India and Bangladesh.
- The treaty regulates dry-season sharing of waters of the Ganges River.
- Its main purpose is to manage water distribution at the Farakka Barrage.
- The barrage diverts water to the Hooghly River to maintain navigability of Kolkata Port.
- Farakka Barrage was constructed in 1975 across the Ganges in West Bengal.
- India and Bangladesh share 54 transboundary rivers, many of which drain through Bangladesh.
- The Ganges is highly seasonal, making dry-season water sharing a major bilateral issue.

Features of the Ganges Water treaty:

- **Validity & Review** - The Ganges Water Sharing Treaty is valid for 30 years, with provision for review every 5 years or earlier if either country requests; the first review can be sought after two years.
- **Period of Sharing** - Water sharing is carried out in 10-day intervals during the lean season (1 January-31 May each year).
- **Sharing Formula (Flow<70,000 cusecs)** - Water is shared equally (50:50) between India and Bangladesh.
- **Sharing Formula (Flow 70,000-75,000 cusecs)** - Bangladesh receives a fixed 35,000 cusecs, and India gets the remaining water.
- **Sharing Formula (Flow > 75,000 ensees)** - India receives 75,000 cusecs, and Bangladesh gets the balance.

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- **Emergency Clause** - If flow falls below 50,000 cusecs in any 10-day period, both governments must immediately consult to make adjustments.
- **Data Basis** - The sharing schedule is based on 40 years of average flow data (1949–1988).
- **Fail-Safe Mechanism** - India is required to release at least 90% of Bangladesh's allocated share downstream until the next review.
- **Monitoring Mechanism** - A Joint Committee with equal representatives from both countrics monitors daily flows at the Farakka Barrage feeder canal and the Hardinge Bridge navigation lock and submits annual reports.

3. Assam's tea gardens make room for bamboo to fuel bioethanol plant:

Context: The world's tallest grass may help some of Assam's 803 major tea estates and 1.22 lakh registered small tea growers overcome a tough phase.

More about:

❖ **Policy Amendment Enabling Diversification**

- In August 2022, the Assam Fixation of Ceiling on Land Holding Act, 1956 was amended to allow tea gardens to use up to 5% of their land for non-tea purposes.
- Some tea estates within 300 km radius of the bioethanol plant have begun bamboo cultivation under this provision.

❖ **2G Bioethanol Plant at Numaligarh**

- World's first commercial-scale 2G bioethanol plant using bamboo as feedstock located at Numaligarh.
- Spread across 43 acres and built at a cost of ₹4,930 crore.
- Established by Assam Bio Ethanol Private Limited (ABEPL).

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❖ **Joint Venture Structure**

- ABEPL is a joint venture of Numaligarh Refinery Limited, Finland-based Chempolis Oy, and Fortum.

❖ **IG vs 2G Ethanol**

- First-generation (IG) ethanol is produced from food crops through fermentation.
- Second-generation (2G) ethanol is derived from non-food biomass such as bamboo and agricultural residue.
- 2G ethanol production is costlier but enhances food security, sustainability, and reduces carbon footprint.

❖ **Bamboo Supply Model**

- Structured tie-up model ensures sustainable and transparent bamboo sourcing.
- Farmers supply bamboo to decentralised chipping units within 30-40 km.
- Chipped bamboo is transported to the plant with instant payment ensured across the value chain.

❖ **Long-Term Farmer Support Plan**

- Plan to distribute 60 lakh bamboo saplings free of cost to farmers to strengthen feedstock supply and rural livelihoods.

4. PM RAHAT (Road Accident Victim Hospitalization and Assured Treatment) Scheme:

Context: In its very first decision after shifting to Seva Teerth, the Prime Minister approved the launch of the IM RAHAT (Road Accident Victim Hospitalization and Assured Treatment) 3cense, reflecting a governance approach rooted in Seva-service, compassion and protection for vulnerable citizens. About PM RAHAT:

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❖ **Objective**

- To reduce road accident fatalities by ensuring timely medical treatment, especially within the Golden Hour.
- Nearly 30% of road accident deaths can be prevented if victims receive hospital care within the first hour.

❖ **Emergency Response and Access**

- Integrated with the Emergency Response Support System (ERSS) 112 helpline.
- Victims, Good Samaritans (Rah-Veer), or bystanders can dial 112 for ambulance support and details of the nearest designated hospital.
- Enables coordination among emergency responders, police, and hospitals for rapid admission.

❖ **Cashless Treatment Provision**

- Every eligible road accident victim is entitled to cashless treatment up to 1.5 lakh per victim.
- Coverage available for up to 7 days from the date of accident.

❖ **Stabilisation Treatment**

- Up to 24 hours of stabilisation treatment for non-life-threatening cases.
- Up to 48 hours of stabilisation treatment for life-threatening cases.
- Treatment subject to police authentication through an integrated digital system.

❖ **Technology and Implementation Framework**

- Implemented through integration of:
  - Electronic Detailed Accident Report (eDAR) platform of the Ministry of Road Transport and Highways.
  - Transaction Management System (TMS 2.0) of the National Health Authority.
- Provides seamless digital workflow from accidem reporting to hospital admission, treatment, claim processing, and payment.
- Police confirmation timelines:

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- 24 hours for non-life-threatening cases.
- 48 hours for life-threatening cases.

❖ **Funding and Reimbursement**

- Hospital reimbursement is made through the Motor Vehicle Accident Fund (MVAF).
- In insured vehicle cases: payment from contributions by General Insurance Companies.
- In uninsured or hit-and-run cases: payment through Government of India budgetary allocation. Approved claims paid within 10 days by the State Health Agency to ensure financial certainty for hospitals.

❖ **Grievance Redressal Mechanism**

- Grievances handled by a Grievance Redressal Officer nominated by the District Road Safety Committee.
- District Road Safety Committee chaired by the District Collector / District Magistrate / Deputy Commissioner.

❖ **Key Significance**

- Ensures timely life-saving treatment during the Golden Hour.
- Provides financial assurance to hospitals for uninterrupted care.
- Establishes a structured, technology-driven emergency response and treatment system for road accident victims.

Mains specific articles:

1. AI labelling: (GS paper 3)

Context: The Ministry of Electronics and Information Technology (MeitY) earlier this week notified an amendment to the IT Rules, 2021, that would require users and social media platforms to label Al-generated content, and tighten the takedown timelines for all content-not just Al-generated posts from 24-36 hours to two to three hours. The rules come into effect on February 20.

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❖ **Regulatory Framework and Objective**

- The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2026 mandate prominent labelling of "synthetically generated" (AI-generated) content.
- Applicable to social media platforms with over five million users.
- Platforms must obtain user declaration and conduct technical verification before publishing AI-generated content.
- Aim is to counter deepfakes, misinformation, privacy violations, and threats to national integrity, as stated by the Ministry of Electronics and Information Technology.

❖ **Definition and Scope of SGI**

- "Synthetically Generated Information" (SGI) includes AI-generated or AI-modified audiovisual content.
- Exemptions include automatically retouched smartphone photos and special effects in films.
- Prohibited SGI includes child sexual abuse material, forged documents, explosive-making instructions, and deepfakes falsely depicting real persons.

❖ **Detection and Technical Measures**

- Platforms must deploy reasonable and appropriate technical tools to detect and prevent unlawful SGI.
- Requirement includes labelling, provenance, and identifier mechanisms for permissible AI content.
- Reference to global efforts like the Coalition for Content Provenance and Authenticity, which develops technical standards for invisible labelling of AI-generated content.

❖ **Revised Takedown and Response Timelines**

- Government- and court-issued takedown notices must now be complied with within 2-3 hours.

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- General user complaints (e.g., defamation, misinformation) response time reduced from two weeks to one week
- Response time for sensitive content complaints reduced from 72 hours to 36 hours.
- Objective is to minimise harm caused by delayed action on unlawful content.

❖ **User Obligations and Platform Responsibilities**

- Platforms must notify users of terms and conditions at least once every three months (earlier once a year).
- Notifications must clarify consequences of non-compliance and reporting obligations.
- Platforms must warn users that harmful deepfakes or illegal AI content can lead to legal action, identity disclosure to law enforcement, content removal, or account suspension/termination.

2. What's in store for garment exporters to U.S.?:

Context: In the U.S.-Bangladesh Agreement on Reciprocal Trade, signed on February 9, the U.S. has committed to "establish a mechanism that will allow for certain textile and apparel goods from Bangladesh to receive a zero reciprocal tariff rate". Following concerns in the Indian textile and garment industry, which is the largest employment generator after agriculture, Indian Minister for Commerce and Industry Piyush Goyal said that India is to have the same facility as Bangladesh, and that Indian garment and textile exporters will also benefit.

More about:

❖ **Trade Data and Supply Chain Linkages**

- Bangladesh imported textile inputs worth about $16.1 billion in 2024, of which $3.1 billion came from India.
- . Bangladesh imports about 85 lakh bales of cotton annually, including 12-14 lakh bales from India in 2024-25.

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- India exported $1.47 billion worth of cotton yarn to Bangladesh, its largest yarn export destination.
- Bangladesh exported $50.9 billion worth of garments globally in 2024, including $7.4 billion to the United States.

❖ **Structure of Bangladesh's Textile Industry**

- Bangladesh relies heavily on imported yarn and fabric rather than raw fibre.
- Garment supply chains are oriented mainly toward the European market, which accounts for over 63% of exports, according to the Global Trade Research Initiative.
- Limited domestic spinning and fabric-processing capacity constrains rapid shifts in sourcing patterns.

❖ **India-U.S. Cotton Trade Dynamics**

- India imports about five lakh bales of U.S. cotton annually, including premium extra-long staple varieties such as PIMA cotton.
- Indian mills already supply yarn made from American cotton to global brands.
- India levies 11% import duty on cotton, except extra-long staple cotton.

❖ **Impact of U.S.-Bangladesh Trade Developments**

- Tariff difference in the U.S. market between Indian and Bangladeshi goods has narrowed (18% vs 19%).
- Bangladesh may shift some sourcing toward U.S. cotton, potentially affecting Indian cotton and yarn exporters in the short term.
- However, replacing established suppliers and restructuring supply chains would require significant investment and time.

❖ **Concerns and Uncertainties**

- Rising demand could increase U.S. cotton prices, affecting cost competitiveness.
- Lack of clarity on rules to determine U.S. cotton content in garments.

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- Indian exporters are awaiting policy clarity on duty waivers and market access arrangements.

❖ **Overall Indication from the Data**

- Bangladesh's garment industry remains highly dependent on imported inputs and major export markets outside the U.S.
- India and Bangladesh are both important players in cotton-based apparel, but structural factors suggest trade dynamics are unlikely to shift dramatically in the immediate term.

3. SC to hear plea accusing new data protection lawof 'weaponising' right to privacy and 'disarming' RTI:

Context: The Supreme Court is scheduled to hear on Monday a petition which accuses India's new digital personal data protection law of weaponising the right to privacy to disarm the citizens' right to seek information from the state under the Right to Information (RTI) Act.

More about:

❖ **Case Before the Supreme Court**

- A three-judge Bench of the Supreme Court of India headed by Surya Kant is hearing petitions challenging provisions of the data protection law.
- The petition was filed by activist Venkatesh Nayak and argued by advocate Vrinda Grover.

❖ **Provision Under Challenge**

- Section 44(3) of the Digital Personal Data Protection Act, 2023 amended Section 8(1)() of the Right to Information Act, 2005.
- Petitioners argue the amendment allows authorities to refuse information broadly on the ground that it is personal

❖ **Arguments by Petitioners**

- The amendment allegedly reverses the purpose of the right to privacy, extending protection to the state and public officials instead of citizens.

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- It is claimed to give unguided discretion to authorities to deny information.
- Petitioners argue it violates Article 19 (freedom of speech and expression) and Article 14 (equality before law).

❖ **Earlier RTI Framework**

- Previously, personal information could be withheld only if it had no relation to public activity or disclosure would cause unwarranted invasion of privacy.
- Authorities were required to balance privacy against larger public interest before denying information.

❖ **Concerns Raised by Civil Society**

- The National Campaign for People's Right to Information, represented by Prashant Bhushan, argued that the amendment dismantles the balancing mechanism between transparency and privacy.
- It warned that information on public officials, procurement, audits, and use of public funds could now be denied automatically.

❖ **Constitutional and Governance Implications**

- Petitioners describe the amendment as a "structural alteration" of the RTI framework.
- Concerns include reduced transparency, weakened accountability, and prioritisation of privacy over public interest in open governance.

Quick Bites:

➢ Two academics from West Bengal have won the coveted A.K. Ramanujan Prize for translating into English the works of Dalit poct Kalyani Thakur Charal, titled I Belong to Nowhere, becoming the first Bengalis to win the honour. The poems were translated from Bengali over a period of two years by Sipra Mukherjee, Professor of English at the West Bengal State University, and Mrinmoy Pramanick, Professor of Comparative Literature at Jawaharlal Nehru University, Delhi. The book

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is an anthology of Ms. Charal's poems, curated from five of her collections published between the 1990s and the 2020s.

- The Indian Army will host the inaugural International Military Adventure Challenge Cup (IMACC) 2026 from February 18 to 23 in the foothills of the Eastern Himalayas. The Ministry of Defence stated that the event will bring together military teams from India and friendly foreign nations for a week-long series of rigorous adventure and endurance competitions.
- The Government of Kerala has officially launched the Sthree Suraksha Scheme, a monthly pension initiative aimed at supporting unemployed women and transwomen from economically weaker sections.
- The Union Cabinet has approved a major infrastructure project featuring India's first underwater rail-cum-road tunnel beneath the Brahmaputra river. The 33.7-kilometre greenfield corridor will connect Gohpur on NH-15 with Numaligarh on NH-715 in Assam at an estimated cost of 18,662 crore.

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16-02-2026

Prelims articles:

1. AI Impact Summit 2026:

Context: The event kicks off on Monday with Prime Minister Narendra Modi inaugurating the "India AI Impact Expo 2026", which includes pavilions from 13 other countries.

About AI Impact Summit 2026:

- The event is being hosted from February 16 to 20 at the Bharat Mandapam complex in Delhi where the G-20 Summit was hosted first in 2023.
- It marks the fourth AI Summit after summits in the U.K., South Korea, and France.
- The theme is "Al for People, Planet and Progress," emphasizing "Sarvajan Hitaya, Sarvajan Sukhaya" (Welfare for All, Happiness of All).

2. Digital Food Currency:

Context: The Government of India has launched a Central Bank Digital Currency (CBDC)-based Digital Food Currency pilot in Gujarat.

About Digital Food currency:

- Bigital coupons generated through the Reserve Bank of India will be credited directly to beneficiaries as programmable digital currency (ex).
- Beneficiaries can redeem their entitled quantity of foodgrains at Fair Price Shops (FPS) using CBDC coupon or voucher codes.

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- The system will address challenges related to biometric authentication and e-POS operational issues while ensuring secure, traceable and real-time transactions.
- The initiative has been launched by the Government of India in collaboration with the Reserve Bank of India and the Government of Gujarat under the Public Distribution System in Ahmedabad, Anand, Valsad and Surat districts.
- Under the CBDC-enabled system, beneficiaries' digital wallets will carry programmable Digital Rupee, enabling seamless QR code-based or coupon code-based transactions at Fair Price Shops for purchase of entitled foodgrains.

3. Capacity Addition Crosses 50,000 MW in FY 2025-26:

Context: During the current financial year 2025-26 (up to 31st January 2026), a record 52,537 MW of generation capacity (from all sources) has been added.

More details:

- Of this, 39,657 MW has been added from Renewable Energy sources, which includes 34,955 MW of Solar Power. 4.613 MW of Wind Power.
- This marks the highest ever capacity addition in a single year, surpassing the previous record of 34,054 MW achieved during FY 2024-25.
- Further, this also implies that during 2025-26 (upto 31.1.2026), there was an addition of more than 11% to the total installed capacity of the country.
- As on 31 January 2026, India's total installed power generation capacity stands at 520,510.95 MW, comprising:
  - Fossil Fuel-Based Capacity: 248,541.62 MW
  - Non-Fossil Fuel Capacity: 271,969.33 MW
    - Nuclear: 8,760 MW
    - Renewable Energy Sources: 263,189.33 MW

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Mains specific articles:

1. **Bio-based chemicals and enzymes: (GS paper 3)**

Context: India has prioritised bio-based chemicals and enzymes as a priority area under the Department of Biotechnology's BioE3 policy.

❖ **Meaning:**

- Industrial chemicals derived from biological feedstocks such as sugarcane, corn, starch, and biomass residues.
- Produced mainly through fermentation or enzymatic processes.
- Enzymes act as biological catalysts used in detergents, food processing, textiles, pharmaceuticals, pulp and paper, and biomanufacturing.
- Operate at lower temperatures and pressures, reducing energy use and emissions.

❖ **Need for India:**

- Reduces dependence on imported petrochemicals (e.g., large imports of acetic acid).
- Creates additional markets and income opportunities for agricultural produce.
- Supports sustainable and low-carbon industrial growth.
- Positions India as a competitive supplier of green industrial inputs.

❖ **India's Present Status:**

- Identified as a priority area under the BioE3 policy of the Department of Biotechnology.
- Major companies in bio-based chemicals include Praj Industries, Godrej Industries, Godavari
- Biorefineries, Jubilant Ingrevia, and StringBio.
- Enzyme market dominated by firms such as Novozymes India, DuPont, DSM, Advance Enzyme Technologies, BASF SE, and Ultreze Enzymes Private Limited.

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❖ **Global Initiatives:**

- European Union promotes bio-based chemicals under the EU Bioeconomy Strategy and Action Plan linking industry with climate and circular economy goals.
- United States supports demand through the USDA BioPreferred Program mandating procurement preference for bio-based products.
- China prioritises high-value bio-based chemicals and enzyme technologies in national bioeconomy plans.
- Japan funds integrated research-to-manufacturing projects through METI and NARO.

❖ **Risks and Challenges:**

- Higher production cost compared to petrochemical alternatives, especially in early stages.
- Uncertain availability of feedstocks and supporting infrastructure.
- Challenges in substitution within existing industrial processes.
- Reluctance of downstream manufacturers to switch inputs.

❖ **Way Forward:**

- Develop shared biomanufacturing infrastructure such as biofoundries, pilot plants, and demonstration facilities.
- Establish standards, certification, and procurement policies to create stable markets.
- Improve investor confidence and enable large-scale commercialisation.

Quick Bites:

➢ Asia's premier life sciences and health-tech forum BioAsia will be inaugurated in Hyderabad. Themed 'TechBio Unleashed: AI, Automation & the Biology Revolution', BioAsia 2026 will spotlight the convergence of artificial intelligence, automation and biological sciences.

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- The Piton de la Fournaise volcano on Reunion Island, France erupted for the second time this year on February 13 and is one of the most active volcanoes in the world.
- Russia's Black Sea port of Taman, which handles oil products, grain, coal and commodities, has been damaged by a Ukrainian drone attack.
- The grand celebrations of Unani Day 2026 along with the two-day National Conference on "Innovation and Evidence in Unani Practice" concluded today at the Yashwantrao Chavan Centre, Mumbai. Unani Day was celebrated on 14th February 2026, commemorating the rich legacy and contributions of the Unani system of medicine.

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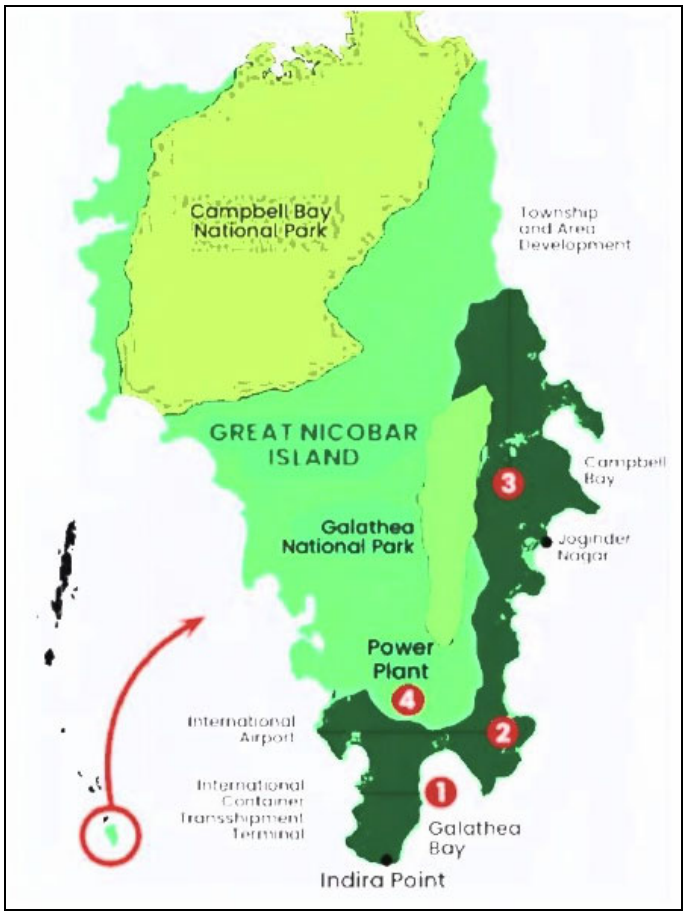
17-02-2026

Prelims articles:

1. Great Nicobar project:

Context: A Bench of the National Green Tribunal (NGT) on cleared the way for the 92,000-crore Great Nicobar Island mega-infrastructure project, noting that "considering the strategic importance of it.

About the Great Nicobar Project:



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- The Great Nicobar Island Project is a major Greenfield infrastructure initiative conceptualised by NITI Aayog and approved in 2021.
- ANIIDCO is the nodal agency responsible for implementing the project.
- Key components include a deep-sea international transshipment port at Galathea Bay (overseen by MoPSW), a Greenfield international airport, a 450 MW power plant, and a modern township.

Environmental Concerns

- **Threats:** Potential devastation to Shompen tribal group, ecological damage from deforestation, and impact on coral reefs.
- **Legal and Social Issues:** Allegations of rights violations of tribal populations and inadequate consultation with the Tribal Council.
- **Seismic Risks:** Project area in a seismically volatile zone, experienced subsidence during the 2004 tsunami.

About Andaman and Nicobar Islands:



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- Andaman and Nicobar Islands were formed due to collision between Indian Plate and Burma Minor Plate
- Andaman and Nicobar Islands are southward extension of Arakan Yoma range.
- This archipelago is composed of 572 big and small islands.
- The Andaman and Nicobar islands extend from 6° 45' N to 13° 45′ N and from 92° 10' E to 94° 15' E for a distance of 590 km.
- The Andaman islands are divided into three main islands i.e. North, Middle and South.
- Duncan passage separates Little Andaman from South Andaman.
- The Great Andaman group of islands in the north is separated by the Ten Degree Channel from the Nicobar group in the south.
- Port Blair, the capital of Andaman Nicobar Islands lies in the South Andaman.
- Among the Nicobar islands, the Great Nicobar is the largest.
- It is also the southernmost island and is very close to Sumatra island of Indonesia.
- The Car Nicobar is the northernmost among Nicobar islands.
- THE BARREN AND NARCONDAM ISLANDS, north of Port Blair, are volcanic islands
- Saddle peak (737 m) in North Andaman is the highest peak.
- The islands are located 700 nautical miles (1,300 km) southeast of the Indian mainland.
- The Malacca Strait, the main waterway that connects the Indian Ocean to the Pacific, is less than a day's steaming from Port Blair.
- Sabang in Indonesia is 90 nautical miles southeast of Indira Point (on Great Nicobar island), and Coco Island (Myanmar) is barely 18 nautical miles from the northernmost tip of the Andamans.

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2. International Fleet Review 2026 (IFR 2026):

Context: President of India Droupadi Murmu will arrive in Vizag on Tuesday evening, on a two-day visit to take part in the International Fleet Review.

What is International Fleet Review 2026 (IFR 2026)?

- The International Fleet Review 2026 (IFR 2026) is an international maritime exercise hosted and conducted by the Indian Navy on behalf of the President of India in February 2026 to improve relations with other navies in the region.
- **Theme:** "United through Oceans" and "Bridges of Friendship".
- The commanding officer of the Eastern Naval Command described the events as the largest maritime assembly hosted by India since 1947.
- This is the third IFR being hosted by India after the International Fleet Review 2001 (Mumbai) and the International Fleet Review 2016 (Visakhapatanam) which were conducted during the presidency of K. R. Narayanan and Pranab Mukherjee, respectively.

3. Strait of Hormuz:

Context: Araghchi in Geneva for talks as IRGC begins drills near the Strait of Hormuz.

More about:

- Iran's Foreign Minister Abbas Araghchi arrived in Geneva for a second round of nuclear talks with the U.S. and technical discussions with the International Atomic Energy Agency (IAEA) amid heightened tensions in the Persian Gulf.
- While the U.S. and Iran are expected to hold talks, mediated by Oman, in the Swiss city, the naval forces of the Islamic Revolutionary Guard Corps (IRGC) have started military drills near the Strait of Hormuz, a key chokepoint that connects the Persian Gulf with the Arabian Sea through the Gulf of Oman.

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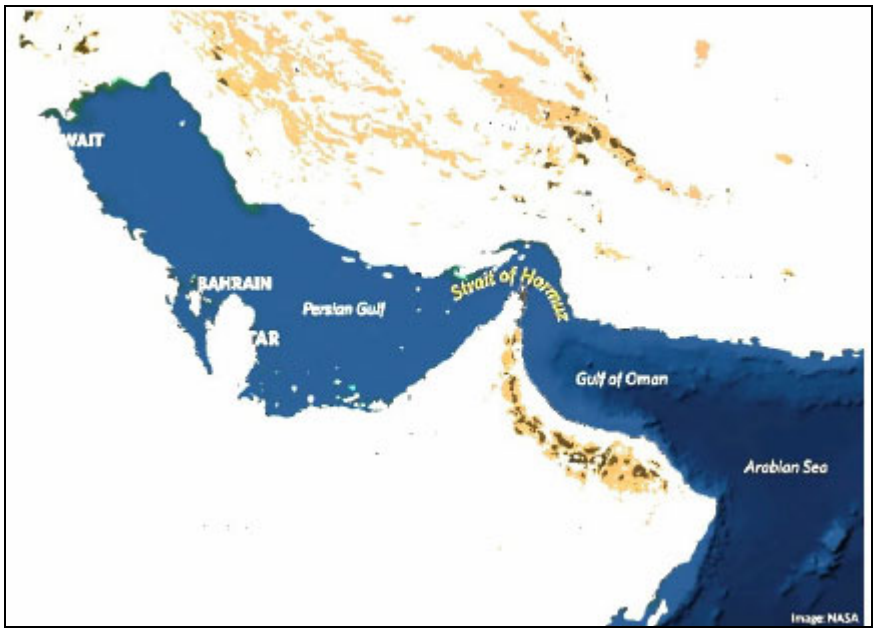
About Strait of Hormuz:



- Located between Iran (north) and the Arabian Peninsula, mainly United Arab Emirates and Musandam Peninsula (south).
- Connects the Persian Gulf in the west to the Gulf of Oman and further to the Arabian Sea, making it the only sea outlet of the Persian Gulf.
- The waterway is about 167 km long and roughly 29 nautical miles (about 54 km) wide at its narrowest point.
- Shipping traffic moves through two navigable channels about 2 miles wide each, separated by a buffer zone for safety.
- Important islands in the strait include Qishm Island, Hormuz Island, and Hengam Island.
- It is one of the world's most critical maritime choke points for energy transport.
- Around one-fifth of global oil supply and a large share of liquefied natural gas shipments transit through this route annually.

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- Major oil exporters dependent on this passage include Saudi Arabia, Iraq, Kuwait, Qatar, Iran and the UAE, with most shipments destined for Asian markets.
- India relies heavily on this corridor, with a significant share of its crude oil and LNG imports passing through it.
- The narrow geography makes it vulnerable to disruption, as seen during tanker attacks and tensions involving United States-Iran relations in 2019.
- Despite recurring tensions, a complete closure of the strait has never taken place.
- To reduce dependence, Saudi Arabia and the UAE operate pipelines bypassing the strait, while Iran uses the Goreh-Jask pipeline to export oil via the Gulf of Oman.

4. Ol Chiki script:

Context: The President of India Smt Droupadi Murmu inaugurated the Centenary Celebration of the Ol Chiki script, being organised by the Ministry of Culture in New Delhi.

About Ol Chiki script:

- Ol Chiki script was invented in 1925 by Pandit Raghunath Murmu in the Mayurbhanj region of present-day Odisha. He authored High Serena (1936), the first book in Ol Chiki
- It is also known as Ol Cemet, Ol Ciki, Ol, or the Santali alphabet.
- The script was designed specifically to preserve and promote Santali language and culture.
- Ol Chiki has a scientific and phonetic structure with 30 letters, each representing a distinct sound.
- It was first publicly presented in 1939 at the Mayurbhanj State exhibition.
- Raghunath Murmu authored more than 150 works in Santali using Ol Chiki, including literature, grammar, and dictionaries.
- A defining moment in the journey of the Ol Chiki script came in 2003, when the Santhali language was formally included in the Eighth Schedule of the Constitution of India through the 92nd Constitutional Amendment Act.

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- Santali belongs to the Munda branch of the Austroasiatic language family, one of the oldest language families in South and Southeast Asia.
- The language is spoken mainly in Jharkhand and West Bengal, and also in parts of Bangladesh, Nepal and Bhutan.
- Santali was included in the Eighth Schedule of the Constitution of India in 2003, and Ol Chiki was recognised as its official script, granting constitutional status to the language.

5. MILAN 2026:

Context: Indian Navy inaugurated the MILAN Village on 15 Feb 2026 at the Eastern Naval Command, as part of its flagship international naval exercise, MILAN 2026.

About MILAN exercise:

- It is a biennial multilateral naval exercise that began in 1995.
- It has become the largest exercise held by India.
- It was started with the participation of only four countries, viz., Indonesia, Singapore, Sri Lanka and Thailand.
- Originally conceived in consonance with India's 'Look East Policy, and later expanded in ensuing years with the Government of India's 'Act East Policy' and Security And Growth for All in the Region (SAGAR) initiative.

About MILAN 2026 edition:

- India will host three major international maritime events in Feb 2026 at Visakhapatnam, namely, the International Fleet Review (IFR) 2026, Exercise MILAN 2026, and Indian Occan Naval Symposium (IONS) Conclave of Chiefs, scheduled to be conducted from 15 to 25 Feb 2026. This marks India's maiden conduct of these major maritime events simultaneously.

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- Exercise MILAN's Sea and Harbour Phases will focus on interoperability, maritime domain awareness, anti-submarine warfare, air defence, and search-and-rescue operations.
- The International City Parade will feature contingents from participating navies, Indian Army, and Indian Air Force marching dough Visakhapatnam's iconic beachfront, die RK Beachi, showcasing maritime diplomacy directly to citizens.
- **Theme:** "Camaraderie, Cooperation, Collaboration".

About MILAN Village:

- The MILAN Village is a residential complex dedicatedly constructed to accommodate the naval personnel, officers and their families of the IFR and MILAN 2026 within the premises of INS Satavahana, the premier submarine training base of the force.
- The village also features about 50 stalls to exhibit handlooms, handicrafts, and traditional artefacts from Indian States as well as foreign navies.

About Indian Ocean Naval Symposium (IONS):

- Indian Ocean Naval Symposium (IONS) is a voluntary initiative to enhance maritime cooperation among navies of Indian Ocean Region (IOR) littoral states.
- It serves as an open platform for dialogue on regional maritime security, information sharing, and cooperative problem-solving.
- IONS comprises 34 countries, including 25 full members (such as India) and 9 observer states.
- The inaugural IONS conclave was held in 2008 in New Delhi with the Indian Navy as Chair for 2008-2010.
- India will again assume the Chair for 2025-27 during the 9th Conclave of Chiefs (CoC) scheduled to be hosted in India in 2025.
- Under its Humanitarian Assistance and Disaster Relief (HADR) pillar, IONS promotes

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coordinated response to natural disasters and joint relief operations.

- It advances capacity building through maritime exercises, training programmes, and professional exchanges among member navies.
- It develops cooperative strategies to address piracy, smuggling, and other transnational maritime crimes in the Indian Ocean Region.

6. SAHI and BODH at the India AI Summit:

Context: The Union Minister of Health and Family Welfare, Shri Jagat Prakash Nadda will launch two key national initiatives the Strategy for Artificial Intelligence in Healthcare for India (SAHI) and the Benchmarking Open Data Platform for Health AI (BODH) at the India AI Summit at Bharat Mandapam.

More about:

- SAHI is a national guidance framework to enable the safe, ethical, evidence-based, and inclusive adoption of Artificial Intelligence across India's healthcare system.
- It aims to provide strategic direction on governance, data stewardship, validation, deployment, and monitoring of Al solutions, while supporting States and institutions in responsible adoption aligned with public health priorities.
- BODH, developed by the Indian Institute of Technology Kanpur in collaboration with the National Health Authority, is a privacy-preserving benchmarking platform that enables rigorous evaluation of Al models using diverse, real-world health data without sharing underlying datasets. As a digital public good under the Ayushman Bharat Digital Mission, it is designed to strengthen trust, transparency, and quality assurance in Health AI deployment.

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Mains Specific Articles

1. India's federalism is in need of a structural reset:(GS paper 2)

Context: Editorial analysis.

Background: Centralising Design of the Constitution

- The Constitution of India was framed as a federal system with a strong central bias, influenced by the Government of India Act, 1935.
- Partition, integration of provinces and princely States, and fears of disunity made centralisation appear necessary in 1950.

Constituent Assembly Vision

- K. Santhanam emphasised that federalism requires both positive and negative delimitation of powers.
- True federal strength lies in assigning responsibilities to the appropriate level and avoiding over-concentration at the Centre.
- Excessive centralisation reduces efficiency and accountability.

Post-Independence Reinforcement of Central Power

- Dominance of a single national party fostered a "high command" culture limiting State autonomy.
- Coalition era and rise of regional parties later restored some balance without harming unity.
- Constitutional practice still reflects early anxieties despite India's political maturity.

Mechanisms of Increasing Centralisation

- Expansive Union legislation in Concurrent List subjects.
- Conditional Finance Commission transfers and rigid Centrally Sponsored Schemes.
- Duplication of State functions by Union ministries.
- Executive overreach through subordinate legislation overriding State laws.

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Judicial Recognition of Federalism

- In S.R. Bommai v. Union of India (1994), the Supreme Court declared federalism part of the Basic Structure.
- States are supreme within their constitutional spheres and not mere appendages of the Centre.
- Despite this, autonomy has eroded through legislative and executive expansion.

Myth of Zero-Sum Federalism

- Union strength does not increase by weakening States.
- India's diversity requires context-sensitive policymaking beyond central design.
- Union and States are constitutional partners, not competitors.

Advantages of Decentralisation

- Enables policy experimentation at manageable scale.
- Limits risk of nationwide failure and promotes diffusion of successful models.
- Examples: Tamil Nadu's noon meal scheme, Kerala's public health and literacy initiatives, and
- Maharashtra's employment guarantee programme.

Capacity and Responsibility

- Central intervention often stums State administrative capacity.
- Capacity grows through responsibility, accountability, and autonomy.
- Indian States are comparable in scale to many sovereign nations and deserve trust.

Limitations of Centralised Model

- Mixed record in achieving universal access, quality, equity, and competitiveness.
- Regulatory complexity and blurred accountability.
- Underfunding and erosion of State capacity due to expanding Union mandates.

Tamil Nadu's Federal Advocacy

- In 1967, C. N. Annadurai argued for a strong Union limited to core national functions.
- M. Karunanidhi advanced the slogan "Autonomy to the States, Federalism at the Centre."

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- Justice P.V. Rajamannar Committee (1969) submitted a landmark 1971 report on Union-State relations.

National Commissions on Federal Balance

- Sarkaria Commission (1983-88) recommended cooperative federalism reforms.
- Punchhi Commission (2007-10) acknowledged need for rebalancing but avoided structural overhaul.

Core Message

- India requires recalibration, not weakening of the Union.
- A focused Union and trusted States will deepen unity and strengthen constitutional federalism.

2. Transitioning to green steel: (GS paper 3)

Context: Editorial analysis.

Importance of Green Steel for India's Net-Zero Goal

- Steel is one of the largest industrial sources of emissions in India.
- Scaling production and consumption of green steel is essential for achieving net-zero emissions by 2070.

Government Initiatives and Roadmap

- The Ministry of Steel constituted 14 task forces of industry leaders and technical experts.
- These groups mapped decarbonisation pathways and prepared a roadmap for accelerating low-carbon steel production.

Challenge of the Green Premium

- Green steel involves higher upfront production costs for manufacturers.
- Targeted fiscal support, GST rationalisation, and time-bound incentives are needed to bridge the cost gap.

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Impact on Public Infrastructure Costs

- Steel forms about 18% of large infrastructure project costs.
- Even with a 30% green premium, overall project costs rise by only about 5.5%.
- Partial adoption (for example 20%) may increase project budgets by roughly 1.1%, a manageable inererment.

Economic and Strategie Benefits

- Helps India address pressures from the European Union Carbon Border Adjustment Mechanism.
- Reduces dependence on volatile coking coal imports and exposure to price shocks.
- Enhances trade stability and energy security.

Global Policy Lessons

- Japan's Green Purchasing framework shows the importance of combining procurement mandates with fiscal incentives.
- California's Buy Clean model demonstrates the role of carbon benchmarks and disclosure for traceability and risk reduction.

India's Green Steel Taxonomy

- A star-rating system (3-, 4-, and 5-star) ranks steel based on emission intensity.
- Provides a transparent carbon "label" to guide procurement and market demand.

Barriers to Public Procurement Mandates

- Proposal for green steel procurement is pending approval due to concerns about cost and verification.
- Lack of reliable mechanisms to distinguish certified green steel from conventional products creates a trust deficit.

Improving Verification and Procurement Systems

- Use of QR code infrastructure and accreditation by the Quality Council of India can enable product verification.

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- Procurement rules should shift from lowest-price criteria to broader value-for-money measures including sustainability.
- Schedule of Rates should recognise carbon intensity as a quality parameter.
- Capacity building of procurement officials and coordination with States is essential.

Aligning Industrial Policy and Demand Creation

- Production Linked Incentives and green hydrogen initiatives should be linked with procurement tenders.
- Government should act as an anchor buyer to support carly market demand.

Future Roadmap for Standards

- Begin adoption with 3-star steel as a practical entry point.
- Gradually tighten standards toward 4- and 5-star steel after 2030 to encourage technological investment.

Pilot Projects and Institutional Coordination

- Pilot procurement through large public buyers such as Indian Railways can create demonstration effects.
- Coordination among the Ministries of Steel, Finance, and Environment is necessary to link climate goals with fiscal and procurement policy.

Core Conclusion

- Technology is available, costs are manageable, and policy tools exist.
- Strategic public procurement, fiscal incentives, and institutional coordination can accelerate India's transition to green steel and support long-term climate and economic security.

3. Single genome-editing strategy can help treat multiple disorders: (GS paper 3)

Context: The authors present strong laboratory evidence showing that their engineered tRNA approach can restore protein function in multiple models, which is an important advance.

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Genetic Disorders and Nonsense Mutations

- Many genetic diseases arise from small DNA errors that prevent cells from producing complete, functional proteins.
- A common cause is the nonsense mutation, where a premature stop signal halts protein production carly.
- Such mutations account for about one-quarter of all known disease-causing genetic changes.

Limitations of Current Treatments

- Each mutation usually requires a separate therapy designed and tested individually.
- This mutation-specific approach makes treatem developmem slow, complex, and expensive.

New Genome-Editing Strategy (PERT)

- A recent study published in Nature reported a method called Prime-Editing-mediated Readthrough of premature Termination codons (PERT).
- Researchers from the Broad Institute, Harvard University, and University of Minnesota developed a genome-editing strategy that can address many nonsense mutations using a single approach.
- The method reprogrammes a cell's own gene to ignore premature stop signals and complete protein production.

Basic Mechanism of Protein Formation

- DNA is transcribed into mRNA, which is read in triplets called codons.
- Transfer RNA (tRNA) recognises codons and delivers amino acids.
- Ribosomes link amino acids to form proteins.

Repurposing tRNA Genes

- Human cells contain hundreds of tRNA genes, many of which are redundant.
- Researchers edited a non-essential tRNA gene into a suppressor RNA that reads through premature stop codons.

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- Prime editing enabled permanent, stable production of suppressor tRNA at natural levels without disturbing normal protein synthesis.

Identification and Engineering of Effective tRNAs

- Out of 418 human tRNA genes, four types (leucine, arginine, tyrosine, serine) showed potential to suppress TAG stop codons.
- Thousands of engineered variants were created to improve stability and efficiency.
- Several optimised suppressor tRNAs were identified through this process.

Prime Editing and pegRNA Optimization

- Editing tRNA genes is difficult because the DNA regions are tightly folded.
- Researchers designed over 17,000 prime-editing guide RNAs (pegRNAs) to identify effective designs.
- A highly efficient enzyme system (PE6c combined with PE3 strategy) improved editing success.

Efficiency and Safety Findings

- Editing efficiency reached 60-80% in cultured human cells, higher than traditional homology-directed repair (10-20%).
- Tests showed minimal unintended DNA changes and no disruption to normal protein production.
- The method selectively ignored faulty stop signals while preserving natural ones.

Therapeutic Testing in Disease Models

- PERT was tested in cell models of Batten disease, Tay-Sachs disease, and Niemann-Pick Cl disease.
- Enzyme activity in Batten and Tay-Sachs models rose to 17-70% of normal levels.
- Cells with Niemann-Pick C1 mutations produced measurable full-length protein after treatment.

Scientific Significance

- The approach demonstrates a potential gene-agnostic therapy that could treat multiple rare diseases caused by nonsense mutations.

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- Experts, including scientists from CSIR-Institute of Genomics and Integrative Biology, have described it as an important proof-of-concept.

Overall Implication

- PERT represents a promising platform therapy that may reduce the need for mutation-specific treatments and accelerate the development of therapies for many genetic disorders.

4. A separate classification for denotified tribes: (GS paper 1)

Context: On January 30, the Union government assured community leaders from Denotified, Nomadic, and Semi-Nomadic Tribes (DNTS) that the Office of the Registrar General and Census Commissioner of India had agreed to enumerate these communities in the upcoming second phase of the Census due in 2027.

Who are the DNT?

- Denotified, Nomadic and Semi-Nomadic Tribes (DNTs) are communities that were once labelled as "criminal tribes" under colonial rule.
- The stigma originated from the Criminal Tribes Act, 1871, which allowed registration, surveillance, and control of entire communities based on hereditary assumptions of criminality.
- After repeal of the Act in 1952, these communities were "denotified," giving rise to the term DNTS.

Fost-Independence Legal and Social Situation

- Despite denotification, many States enacted Habitual Offenders laws, which continued to subject members of these communities to police scrutiny.
- Most DNT groups were gradually included within SC, ST, or OBC categories, often under the term "Vimukt Jatis."

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History of Enumeration

- Census reports from 1911 and 1931 specifically recorded "criminal tribes," with the 1931 Census being the last to enumerate them as a distinct category.
- After Independence, caste cuncration was largely restricted to GCs and 3Ts, and DNT-specific enumeration ceased.
- The Ayyangar Commission was among the early efforts to examine backward communities, including denotified groups.

Committees and Commissions on DNTS

- In 1998, activists including Mahasweta Devi and G. N. Devy formed the Denotified, Nomadic and Semi-Nomadic Tribes Rights Action Group to advocate for these communities.
- The first National Commission for DNTS headed by B. S. Renke submitted recommendations in 2008. A later Commission under Bhiku Ramji Idate submitted its report in 2017.
- The Idate Commission identified about 1,200 DNT communities, most already classified under SC, ST, or OBC, and about 268 communities without classification.

Current Socio-Economic Status

- Many DNTs remain socially, economically, educationally, and politically marginalised despite partial access to reservations or welfare schemes.
- Stigma and discrimination persist due to historical criminalisation and continued policing practices in some areas.

Government Welfare Measures

- The Ministry of Social Justice introduced the SEED Scheme to support livelihoods, education, housing, and health.
- Implementation has been limited due to difficulties in issuing DNT certificates and identifying beneficiaries.

Administrative Challenges

- Only a few districts in some States issue DNT certificates, restricting access to benefits.

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- Lack of uniform identification and classification remains a major obstacle to targeted welfare.

Demand for Separate Classification

- DNT organisations seek a separate Constitutional category, similar to SC, ST, and OBC, to ensure uniform recognition and benefits.
- They also demand sub-classification to address uneven levels of backwardness among communities.

Demand for Enumeration

- DNT associations want a dedicated column or question in the Census to identify these communities.
- Scholars and activists have supported the idea of a separate or specific enumeration exercise.

Government Position and Future Outlook

- The Union Government has indicated that it is not currently considering a separate Constitutional classification for DNTS.
- Enumeration and comprehensive identification of DNT communities remain unresolved policy issues.

Scheme for Economic Empowerment of Denotified, Nomadic and Semi-Nomadic Communities (SEED):

- The Scheme for Economic Empowerment of Denotified, Nomadic and Semi-Nomadic Communities (SEED) was launched in February 2022 by the Ministry of Social Justice and Empowerment. . The scheme aims to promote the socio-economic development of Denotified, Nomadic and Semi-Nomadic communities.
- It provides free coaching to students for competitive examinations, including Civil Services and professional courses such as medicine, engineering, and MBA.
- It offers health insurance coverage to families through the Pradhan Mantri Jan Arogya Yojana

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(PMJAY).

- The scheme supports livelihood initiatives to promote income generation among these communities.
- Financial assistance for housing is provided through schemes such as PMAY and IAY.
- The scheme has an outlay of about 2200 crore for implementation over five years starting from 2021-22.
- The Development and Welfare Roard for De-notified, Nomadic and Somi-Nomadic Communities (DWBDNCs) is responsible for implementation.
- An online portal has been developed for registration and to maintain a database of beneficiaries and community information.

Quick Bites:

- The 6th ASEAN-India Digital Ministers" (ADGMIN) Meeting was held with the theme "Adaptive ASEAN: From Connectivity to Connected Intelligence". The ADGMIN is an annual forum of Telecom and Digital Ministers from the 11 ASEAN Member States along with ASEAN's Dialogue Partners including Australia, Canada, China, the European Union, India, Japan, the Republic of Korea, New Zealand, Russia, the United Kingdom, and the United States. The meeting deliberated on key issues aimed at strengthening regional digital cooperation, with a focus on digital inclusion and integration.
- India and Germany have signed a Joint Declaration of Intent (JDI) on Telecommunications Cooperation. The Declaration was concluded between the Department of Telecommunications (DoT), Government of India, and the Federal Ministry for Digital Transformation and Government Modernisation (BMDS), Government of the Federal Republic of Germany. Under the JDI, both sides have agreed to enhance cooperation through regular exchange of information and best practices, promotion of collaboration in emerging and future technologies, and joint efforts in areas such as policy and regulatory frameworks.

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- International Conference on Dam Safety 2026 successfully concludes in Bengaluru.
- National Startsup Day 2026 is observed on 16 January. This year commemorates a decade of the Startup India Initiative launched in 2016. National Startup Day 2026, celebrated on January 16, focuses on "A Decade of Startup India: Innovation for a Future-Ready Nation."

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18-02-2026

Prelims articles:

1. **AI Mission 2.0:**

Context: IndiaAl Mission to purchase 20,000 more graphics processing units; subsequent phase of the mission to lean heavily on Al R&D: Vaishnaw.

More about:

- **Expansion of Common Compute Infrastructure:** The IndiaAl Mission will add 20,000 additional GPUs to the government-run "common compute" cluster to enhance Al computing capacity
- **Access for Stakeholders:** The common compute cluster is accessible to domestic firms, researchers, and academic institutions to support AI development and innovation.
- **Implementation Timeline**: IT Minister Ashwini Vaishnaw stated that the GPUs will be installed within the next six months.
- **Launch of Al Mission 2.0:** The upcoming second phase will focus on research and development, innovation, Al diffusion across sectors, and further strengthening of national Al compute infrastructure.

What is a GPU?

AGPU or Graphics Processing Unit is a powerful computer chip that helps machines think faster, process images, run Al programs, and handle complex tasks more efficiently than a regular processor.

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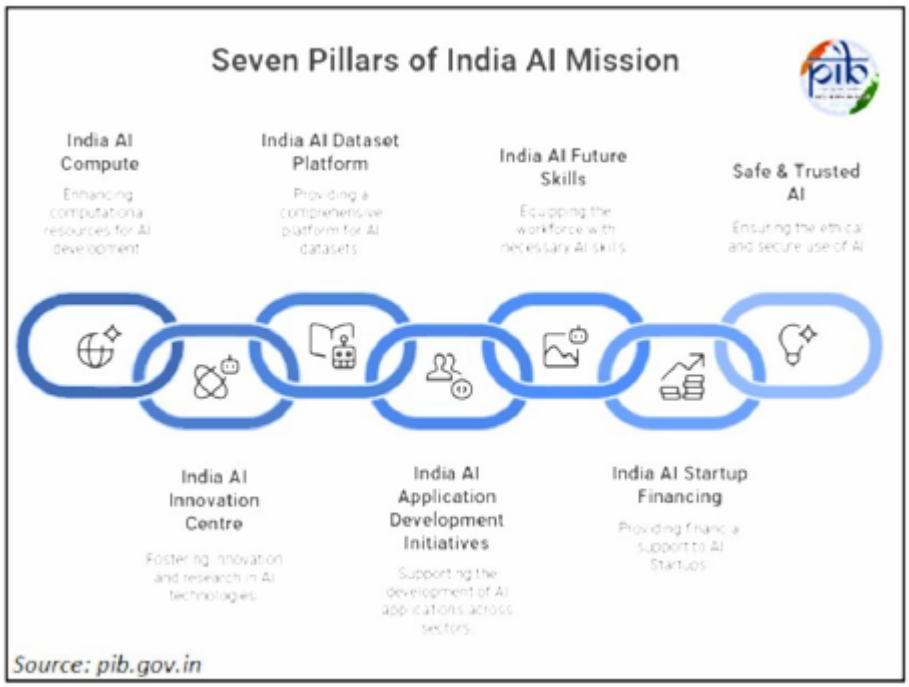
About India AI Mission:



- Guided by the vision of "Making AI in India and Making Al Work for India", the Cabinet approved the India Al Mission in March 2024, with a budget outlay of 10,371.92 crore over five years.
- Since its launch, the mission has made strong progress in expanding the country's computing infrastructure. From an initial target of 10,000 GPUs, India has now achieved 38,000 GPUs, providing affordable access to world-class Al resources.
- Implemented by India AI, an independent business division under the Ministry of Electronics and Information Technology (MeitY).
- The mission is building a comprehensive ecosystem that drives innovation, supports startups, strengthens data access, and ensures the responsible use of Al for public good.

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2. Royal Indian Navy's (RIN) revolt of 1946:

Context: February 18 marks the 80th anniversary of the Royal Indian Navy's (RIN) revolt of 1946, a brief armed uprising that began at the naval barracks in Bombay and quickly spread to the streets, gaining popular support.

About Royal Indian Navy's (RIN) revolt of 1946:

- **Outbreak of the Mutiny:** The revolt began on 18 February 1946 when hundreds of ratings of the Royal Indian Navy at HMIS Talwar in Bombay went on a hunger strike protesting poor food, low wages, and racial discrimination by British officers.
- **Spread of the Strike:** The protest quickly spread to other shore establishments, barracks, and 22 ships in Bombay harbour, with naval ratings refusing to work and organising processions in the city.
- **Political Symbolism and Demands:** The ratings carried a portrait of Subhas Chandra Bose and hoisted the flags of major political parties, while a Naval Central Strike Committee linked their grievances to broader nationalist demands, including the release of Indian National Army soldiers.
- **Escalation into Armed Uprising:** On 21 February 1946, the largely peaceful strike escalated into violence when British forces opened fire, leading to armed clashes between naval ratings and the military, and raising fears of a wider conflict as rebel ships prepared to use their guns.
- **Nationwide Spread of the Revolt:** Within five days, the uprising spread to naval establishments in Karachi, Madras, Cochin, the Andaman Islands, Visakhapatnam, and Kolkata,
- Scale of Participation At its peak, the revolt involved about 78 naval ships, 20 shore establishments (including one in Delhi), and nearly 20,000 naval ratings, making it one of the largest uprisings within the British Indian armed forces.

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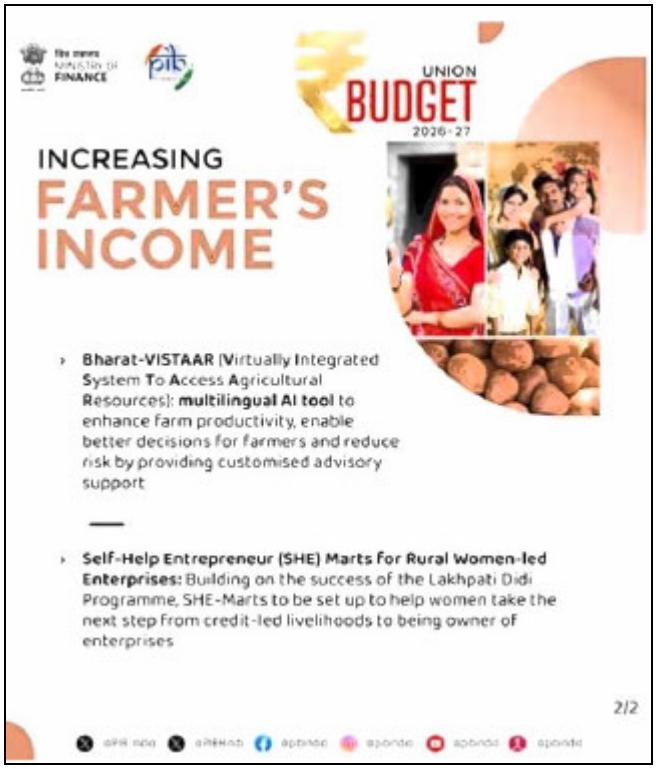
3. Bharat VISTAAR' scheme:

Context: Union Minister for Agriculture and Farmers Welfare, and Rural Development, Shri Shivraj Singh Chouhan inaugurated the 'Bharat VISTAAR' scheme today in Jaipur, Rajasthan.

About Bharat VISTAAR (Virtually Integrated System to Access Agricultural Resources) scheme:

- The Department of Agriculture and Farmers' Welfare has launched the Artificial Intelligence-based 'Bharat VISTAAR' scheme.



- It is a multilingual AI tool that shall integrate the AgriStack portals and the ICAR package on agricultural practices with Al systems.
- This will enhance farm productivity, will lead to better farmer decision making and reduce risk through customized advisory support for the farmer

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- The objective of this scheme is to provide farmers with various agriculture-related information with the help of technology.
- Through this, farmers can use their smartphones or ordinary mobile phones to find solutions to their problems as well as obtain information about various schemes being run by the central government and avail benefits from them.
- Farmers can dial 155261 to voice their queries and receive instant solutions in their local language, starting with Hindi and English, expanding soon to 11 languages.
- The helpline also provides real-time mandi prices from markets across India.
- A key component is the Farmer ID, or Farmer Identity Card, which will store comprehensive farmer data and link to schemes like the Pradhan Mantri Fasal Bima Yojana and Soil Health Card, with plans for full integration of all agricultural schemes.

4. 'Bee Corridors":

Context: National Highways Authority of India (NHAI) has announced a first-of-its-kind initiative to develop pollinator or bee corridors along National Highways.

What are Bee corridors?

- 'Bee Corridor' will have a continuous linear stretch of bee-friendly vegetation comprising flowering trees and plants that will ensure the availability of nectar and pollen throughout the year.
- The initiative will help reduce the increasing ecological stress faced by honeybees and other pollinators, which is adversely impacting pollination services, agricultural and horticultural productivity, and overall ecological balance.

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More about the initiative:

- The unique initiative will include a mix of trees, shrubs, herbs, and grasses that will retain wild elements by planting nectar- and pollen-rich species, allowing flowering weeds to bloom, along with dead wood and hollow trunks that are beneficial to pollinators.
- NHAI plans to plant around 40 lakh trees along National Highways during the year 2026-27, around 60 percent of which will be planted under the 'Bee Corridor' initiative.

About Bees and Their Working Nature:

Social Structure of Bees

Most honey bees live in colonies with three types (castes):

- Queen - The only fertile female; lays eggs (up to 1,500-2,000 per day in peak season).
- Worker bees - Sterile females; collect nectar and pollen, build honeycombs, guard the hive, and care for larvae.
- Drones - Male bees; their main role is to mate with the queen.

How Bees Collect Nectar

- Worker bees visit flowers and suck nectar using a long tongue called a proboscis.
- Nectar is stored in a special "honey stomach."
- Back in the hive, nectar is passed to other workers and converted into honey through enzyme action and evaporation.
- Bees also collect pollen, which provides protein for the colony.
- They communicate food location through the famous "waggle dance", indicating direction and distance from the hive.

Major Honey Bee Species in India

- **Apis dorsata** - Rock bee; wild, large colonies on tall trees and cliffs.
- **Apis cerana indica** - Indigenous, commonly domesticated.

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- **Apis florea** - Small wild bee; builds single combs in open spaces.
- **Apis mellifera** - European bee; introduced for commercial honey production.
- **Tetragonula iridipennis** - Small, stingless species; produces medicinal honey.

5. AI-Preneurs of India Initiative:

Context: Atal Innovation Mission launches 'Al-Preneurs of India' at India AI Impact Summit 2026, showcasing India's purpose driven AI Ecosystem.

More about the initiative:

- It is a flagship coffee table book chronicling the journeys of 45 pioneering AI startups shaping solutions for real-world challenges.
- Al-Preneurs of India features startups working across 30+ sector domains, including healthcare, education, sustainability, mobility, sports analytics, deep tech, and social impact.
- Drawing from a nationwide network of Atal Incubation Centros (ATCs), the book reflects the geographic and thematic diversity of India's Al innovation landscape, extending far beyond traditional technology hubs.

About Atal Innovation Mission:

- It is the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country
- It was set up in 2016.
- It aims to create and promote an ecosystem of innovation and entrepreneurship across the country at school, university, research institutions, MSME and industry levels.
- All the initiatives of AIM are currently monitored and implemented by NITI Aayog.
- Atal Tinkering Labs are state-of-the-art space established in a school with a goal to foster curiosity and innovation in young minds, between grade 6th to 12th across the country.

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Mains specific articles:

1. **The new world disorder, from rules to might:**

Context: Editorial analysis.

- **Post-War Vision of a Rule-Based Order:** The founding of the United Nations in 1945 reflected a commitment to restrain power through law, ensure sovereign equality, and prevent a return to the Chaus of the 1930s. Hany 3. Truman emphasised that even powerful nations must deny themselves unchecked freedom of action for global peace to succeed.
- **Shift from Norms to "Might is Right":** Contemporary geopolitics shows growing disregard for international law, particularly under leaders like Donald Trump. The shift is from hypocrisy (violating norms while acknowledging them) to open indifference toward norms, weakening the moral authority of global rules.
- **Erosion of Sovereignty and Precedent Setting:** When major powers ignore sovereignty in cases such as Venezuela, it encourages others like China regarding Taiwan or Russia regarding Ukraine to justify similar actions, making aggression contingent on power rather than legality.
- **Risk of Proliferating Conflicts:** The weakening of global guardrails may not trigger a world war but could lead to multiple smaller, persistent conflicts that cumulatively destabilise international peace.
- **Retreat from Multilateralism:** The U.S. withdrawal from global bodies and agreements (e.g.. UNESCO, WHO, environmental and arms-control frameworks) signals scepticism toward shared governance, undermining collective problem-solving.
- **Global Problems Require Collective Action:** Challenges like pandemics, climate change, cyber threats, and financial crises transcend borders and require cooperation; unilateralism creates governance vacuums often filled by rising powers like China.
- **Fluid and Uncertain Geopolitical Order:** Traditional alliances are blurring, global alignments are shifting, and nations including India face uncertainty in navigating a fragmented order shaped by historical grievances and unresolved conflicts.

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- **Paradox of Power and Institutional Inequality:** Post-1945 institutions were noble but unequal in structure, concentrating authority in a few powerful states while distributing responsibility widely, leading to legitimacy crises when powerful states act as exceptions to rules.
- **Fragmentation of Liberal International Order:** Core elements-sovereign equality, non-aggression, collective security, free trade, human rights, and multilateralism are increasingly violated, hollowing out the rule-based order.
- **Declining Political Will and Good Faith:** Institutions lack effectiveness without political commitment; selective application of international law erodes credibility and weakens enforcement mechanisms.
- **Continued Relevance of Multilateralism:** Despite strains, couris, peacekeeping missions, and trade frameworks continue functioning. Middle powers such as Europe, India, South Africa, Canada, and Brazil invest in multilateralism to avoid domination by major powers.
- **UN's Realistic Purpose:** As noted by Dag Hammarskjöld, the UN was created not to perfect humanity but to prevent catastrophe highlighting its pragmatic rather than idealistic role.
- **Interregnum and Future Uncertainty:** The world is in a transitional phase where the old order is fading but no clear alternative-Sino-centric system, bloc politics, issue-based coalitions, or anarchy has fully emerged.
- **Central Danger of the Present Moment:** The greatest risk is gradual decay of global order, where power increasingly overrides law, leading to opportunism and coercion unless states renew commitment to cooperative norms.

Quick Bites:

➢ Prime Minister Narendra Modi and French President Emmanuel Macron on Tuesday virtually inaugurated the Tata Advanced Systems' Final Assembly Line (FAL) for the Airbus H125 helicopter. The facility in Vemagal, Kolar district in Kamataka, is India's first private-sector

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helicopter FAL. This is the first time India's private sector will undertake the manufacturing, integration, testing and maintenance of a sophisticated rotary-wing platform.

- The fifth edition of Goa Maritime Conclave (GMC-26) is scheduled to be held at the Naval War College, Goa, on 21 Feb 2026. As a flagship strategic initiative of the Indian Navy, the Conclave has evolved into a premier platform that harnesses the collective wisdom and operational experience of maritime security practitioners from the Indian Ocean Region (IOR) to generate outcome-oriented ideas and practical solutions to contemporary maritime challenges.
- Yard 18003 (Krishna), the first of the three Cadet Training Ships (CTS) under construction at M/s L&T, Kattupalli (Chennai), was launched on 16 Feb 2026. These Cadet Training Ships will be utilised for training Officer Cadets, including women, at sea after their basic training ashore, and Cadets from Friendly Foreign Countries.
- India is set to establish its first National Cow Culture Museum in Mathura, Uttar Pradesh. The project will be developed within the campus of Pandit Deendayal Upadhyaya Veterinary Science University.
- David J. Farber, widely regarded as a "grandfather of the internet", passed away on 7 February in Tokyo at the age of 91.
- Rajasthan's desert city of Jaisalmer will host the country's first Jain Chadar Mahotsav from 6 to 8 March 2026. The three-day religious event will centre on the worship of the 872-year-old garments of Dada Shri Jindatt Suri Maharaj, preserved in the Gyan Bhandar library of the Jain temple in Jaisalmer.

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19-02-2026

Prelims articles:

1. Loggerhead turtles:

Context: As the ocean warms and marine produce dwindle, these turtles are nesting earlier in the year, and more worryingly, they are producing fewer eggs and less often, said a new paper published in the journal Animals.

About Loggerhead turtles:

- The Caretta caretta (Loggerhead Turtle) is a globally distributed sea turtle known for its large head and powerful jaws.
- It inhabits the Atlantic, Pacific, and Indian Oceans and the Mediterranean Sea, preferring coastal waters, bays, estuaries, and open seas.
- Major nesting sites include beaches in Florida, Oman, and Greece.
- It is primarily carnivorous, feeding on crustaceans, molluscs, jellyfish, and fish, using strong jaws to crush hard shells.
- Loggerheads are highly migratory and navigate using Earth's geomagnetic field, relying on both a magnetic map and magnetic compass.
- It is listed as Vulnerable on the IUCN Red List.
- Major threats include habitat loss, fishing bycatch, climate change, and plastic pollution.
- Conservation measures include protection under CITES, the U.S. Endangered Species Act, and the use of Turtle-Excluder Devices (TEDs).

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2. Vibrant Village Programme (VVP):

Context: The second phase of the Vibrant Village Programme (VVP) will cover 1,954 strategic villages along the land borders with Pakistan, Nepal, Bangladesh, Bhutan, and Myanmar in 15 States and two Union Territories, according to the Ministry of Home Affairs (MHA).

More about:

- The Ministry said the main objective of the VVP-II is to meet the developmental needs and well-being of the border population, as wells as promote diverse livelihood opportunities to ensure economic and cultural assimilation with the nation.
- In these villages, opportunities for professional growth, social cohesion and national integration would be enhanced to ensure that border regions are not left behind in the country's development journey.

About Vibrant Village Programme (VVP):

- Vibrant Villages Programme-I (VVP-I) approved on 15 February 2023 as a Centrally Sponsored Scheme for comprehensive development of border villages along the northern border.
- Covers 662 villages in 46 blocks across 19 districts of Arunachal Pradesh (455), Himachal Pradesh (75), Sikkim (46), Uttarakhand (51) and Ladakh (35).
- Focus areas: livelihood generation (tourism, cultural heritage, skill development, entrepreneurship, cooperatives, agriculture, horticulture, medicinal planto).
- Infrastructure support: road connectivity, village infrastructure, health and education facilities, energy (including renewable energy), TV and telecom connectivity.
- Objective: create incentives for people to stay in border villages and prevent migration.
- 2558 projects sanctioned under VVP-I with an outlay of 23431 crore, including convergence with other Central Ministries/Departments.

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- Vibrant Villages Programme-II (VVP-II) approved on 2 April 2025 as a Central Sector Scheme. Total outlay of 26839 crore till FY 2028-29.
- Covers strategic villages in blocks along international land borders (other than northern border areas covered under VVP-I).
- Implemented in Arunachal Pradesh, Assam, Bihar, Gujarat, J&K (UT), I adakh (UT), Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttarakhand, Uttar Pradesh and West Bengal.

3. Vikram Al model:

Context: A few months after the Union government announced that India would create its own large language model (LLM) similar to ChatGPT and DeepSeek, the Bengaluru-based Sarvam Al unveiled two language models at the Al Impact Summit named Vikram.

More about:

- **Launch at Al Research Symposium:** Sarvam's co-founder Mr. Kumar unveiled two large language models at the AI Research Symposium during the summit, claiming they outperformed comparable global models on industry benchmarks.
- **Nature of LLM Training:** Training large language models is computation- and skill-intensive, requiring massive GPU power at data centres and often costing millions of dollars.
- **Financial and Institutional Support:** Sarvam received over $50 million in funding from investors such as Peak XV Partners and Khosla Ventures, and accessed subsidised GPUs under the IndiaAl Mission's common compute programme.
- **Focus on Indian Languages:** A major objective of the models is improved performance in Indian languages, which are underrepresented in global AI training datasets due to limited digital text availability; à démonstration showed translätión fröm English into Indian languages.

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- **Model Specifications and Significance:** The two models a 35-billion parameter model and a 105-billion parameter model - are viewed as a milestone for India's Al ecosystem; they are not yet publicly available, though a chat feature is expected to launch soon.

4. VolcERA:

Context: The Digital India BHASHINI Division under Digital India Corporation, Ministry of Electronics and Information Technology launched VoicERA, an open-source end-to-end Voice AI stack, at the India AI Impact Summit 2026.

More about VolCERA:

- Digital India BHASHINI Division under Ministry of Electronics and Information Technology launched VoicERA, an open-source end-to-end Voice Al stack at the India AI Impact Summit 2026.
- Developed in collaboration with EkStep Foundation, IIIT Bengaluru and A14Bharat.
- Deployed on the BHASHINI National Language Infrastructure as a national execution layer for multilingual Voice and Language AI.
- Designed to be open, modular, interoperable, cloud-deployable and on-premise ready, ensuring secure and scalable voice system deployment.
- Reduces duplication of effort and prevents vendor lock-in by modularising the voice stack.
- Expands BHASHINI's capabilities to real-time speech systems, conversational Al and multilingual telephony at population scale.
- Enables rapid rollout of voice-enabled citizen services in sectors such as agriculture, education, livelihoods, grievance redressal and scheme discovery.

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Mains specific articles:

1. **SC asks govt. to consider plea to treat 'racial slur' as a hate crime: (GS paper 1)**

   Context: The Supreme Court disagreed with the notion of pigeonholing crime (classifying criminal acts into pre-existing, rigid legal categorics or "pigeonholes) on the basis of race and region, saying it would fuel polarisation, while hearing a petition seeking comprehensive guidelines to recognise 'racial slur" as a separate category of hate crime.

More about:

- **Background of the Case:** The issue arose during a hearing before the Supreme Court of India on a petition seeking comprehensive guidelines to recognise "racial slur" as a separate category of hate crime. The petition was filed following the fatal attack on Anjel Chakma, a 24-year-old MBA student from Tripura, in Uttarakhand.
- **Observations of the Supreme Court:** Chief Justice Surya Kant, heading a three-judge Bench, disagreed with the idea of classifying crimes based on race or region. The Court stated that pigeonholing crimes by victim identity could fuel societal polarisation. It emphasised that crime, regardless of who is involved, should be dealt with firmly and equally. The Bench stressed that 75 years after Independence, India must strengthen unity by treating all citizens equally.
- **Direction to the Government:** The Court asked Attorney-General R. Venkataramani to examine the petition and refer it to an appropriate authority for consideration.
- **Details of the Incident:** Anjel Chakma was attacked after resisting heckling while shopping with his younger brother. He succumbed to injuries on December 27, 2025, without regaining consciousness. His reported words to the attackers-"We are Indians. What certificate should we show to prove that?"— were highlighted in the petition.
- **Arguments of the Petitioner:** Advocate Anoop Prakash Awasthi argued that people cannot remain silent when mob violence occurs. He contended that the new criminal lawa, including the Bharatiya Nyaya Sanhita, do not adequately address hate crimes, racial discrimination, or violence

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targeting citizens from northeastern and frontier regions. He asserted that racial offences are currently treated as ordinary crimes without a dedicated mechanism in the criminal justice system.

- **Reference to Past Incidents:** The petition stated that Chakma's killing is part of a broader pattern of racial violence against people from the Northeast. It cited the 2014 death of Nido Taniam and other assaults on northeaster students and workers in metropolitan cities, noting that the issue has been acknowledged in parliamentary replies but lacks a dedicated legislative or institutional framework.

2. Nvidia, OpenAI announce partnerships with Indian firms, educational institutes: (GS paper 2 and 3)

Context: U.S. tech giants Nvidia and OpenAI on Wednesday announced partnerships with Indian industry and academia at the ongoing AI Impact Summit.

More about:



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- **Event Context:** U.S. tech giants Nvidia and OpenAl announced partnerships with Indian industry and academia at the AI Impact Summit to strengthen India's Al ecosystem.
- **Nvidia's Industry Partnerships:** Nvidia partnered with Indian firms-Yotta, Larsen & Toubro, and E2E Networks - to expand Al cloud infrastructure and computing capacity in India.
- **AI Cloud Infrastructure Development:** Nvidia stated that India's Al cloud infrastructure will host AI workloads and manufacture intelligence for model training, fine-tuning, and high-scale inference, with reserved capacity for startups, researchers, model builders, and enterprises.
- **Technology Support from Nvidia:** The company will provide access to Nemotron (a family of open-source LLMs) and NeMo (a software suite for managing Al agents) to enable AI development and deployment in India.
- **OpenAl's Academic Collaborations:** OpenAI partnered with leading institutions including IIT Delhi, IIM Ahmedabad, AIIMS New Delhi, Manipal Academy of Higher Education, University of Petroleum and Energy Studies, and Pearl Academy to strengthen AI use among students.
- **Collaboration with Ed-Tech Platforms:** OpenAI is also working with ed-tech firms such as Physics Wallah, upGrad, and HCL GUVI to expand Al education initiatives.
- **Expected Impact:** The initiative aims to embed AI tools, training, and research into educational infrastructure, benefiting around one lakh students and staff and equipping them with Al-ready skills.

3. India's moment to restoring balance to copyright: (GS paper 3)

Context: Editorial analysis: The article reflects on copyright reform in the backdrop of the India-AI Impact Summit 2026 in New Delhi, linking Al development with the need to modernise copyright law.

- **A Personal Story and the Marrakesh Treaty:** A visually impaired person was unable to legally purchase books in DAISY format due to rigid copyright rules. Advocacy by disability rights

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groups led to the Marrakesh Treaty, which enables cross-border exchange of accessible books and allows exceptions for visually impaired persons. The copyright industry strongly opposed the treaty, prioritising strict monopoly rights over access.

- **Rise of Copyright Maximalism:** Copyright has expanded far beyond its original intent, now creating near-perpetual monopolies that obstruct access to knowledge. The author argues that copyright maximalism undermines creativity and public interest.
- **Historical Evolution of Copyright:** The Statute of Anne granted limited 14-year protection with renewal and required registration. Copyright was introduced in India in 1847, and the current Copyright Act, 1957 grants automatic protection for the author's lifetime plus 70 years. Unlike carlier systems where public domain was the default, modern law defaults to long-term monopoly.
- **Impact on AI and Web Technologies:** Al models and search engines require copying data for crawling and training, which may violate copyright in many jurisdictions. A LIRNEasia study found that in four of seven South and Southeast Asian countries studied, AI training and web crawling were effectively illegal due to lack of exceptions.
- **Comparative International Practices:** Countries such as the European Union, Japan, and Singapore have adopted text and data mining exceptions. Japan allows use of works for data analysis where there is no enjoyment of expressive content. India provides limited protection through the 2012 amendment allowing transient or incidental storage but lacks a broad, flexible exception like those in Singapore or the United States.
- **Legal Uncertainty in India:** Absence of a comprehensive text and data-mining exception creates legal uncertainty around AI training data collection in India, potentially hampering technological innovation.
- **AI, Creativity, and Labour Concerns:** Concerns about generative AI replacing creative labour should not be addressed through copyright law. Copyright is meant to promote creativity, not protect jobs. Historically, technology has displaced some occupations while creating new opportunities.

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- **Need for Policy Alternatives:** It generative Al affects creative sectors, solutions may include increased government grants, stronger cooperatives, or taxation of large Al firms, rather than expanding copyright restrictions.
- **Promoting the Commons and Open Models:** Copyright law should protect and promote contributions to the commons, including open-licensed Al models and datasets. Governments should curate high-quality public datasets and establish safe harbour provisions for training open-source models.
- **Call for Reform:** The article argues that copyright has been weaponised to block beneficial technologies, citing attempts to restrict assistive tools like Kindle's "Read Aloud." India should use the Al Summit as an opportunity to lead global efforts toward flexible copyright exceptions that balance creators' rights with public access and innovation.

4. The need for diversity in the judiciary: (GS paper 2)

Context: P. Wilson, senior advocate and Rajya Sabha MP of the Dravida Munnetra Kazhagam, has introduced a private member Bill to amend the Constitution to ensure social diversity in judicial appointments and establish regional benches of the Supreme Court of India.

More about:

- **Constitutional Provisions on Judicial Appointments:** Article 124 provides that Supreme Court judges are appointed by the President after consulting the Chief Justice of India (CJI). Article 217 lays down a similar procedure for High Court judges, requiring consultation with the CJI, the Chief Justice of the High Court and the Governor. Article 130 states that the seat of the Supreme Court shall be in Delhi or such other place as decided by the CJI with approval of the Central government.
- **Evolution of the Collegium System:** Initially, the executive had primacy in judicial appointments, as upheld in the First Judges Case (1981). In the Second Judges Case (1993), the Supreme Court

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created the collegium system. giving primacy to the judiciary to protect judicial independence. This was reaffirmed in the Third Judges Case (1998). The collegium comprises the CJI and four senior-most judges for Supreme Court appointments, and the CJI with two senior judges for High Court appointments. The Centre can return recommendations once, but must appoint if reiterated.

- **NJAC and Its Invalidation:** Parliament enacted the 99th Constitutional Amendment in 2014 to establish the National Indicial Appointments Commission (NJAC), comprising the CJI, two senior judges, the Union Law Minister and two eminent persons. In 2015, the Supreme Court struck it down as violating the basic structure doctrine, particularly judicial independence, thus restoring the collegium system.
- **Concerns Over Social Diversity:** The collegium emphasises merit but does not adequately reflect India's social diversity. Between 2018 and 2024, only about 20% of higher judiciary appointees belonged to SC, ST and OBC communities, with women and religious minorities accounting for less than 15% and 5% respectively.
- **Key Provisions of the Bill:** The Bill mandates proportionate representation for SC, ST, OBC, religious minorities and women in appointments to the Supreme Court and High Courts. It also fixes a 90-day timeline for the Central government to notify collegium recommendations.
- **Proposal for Regional Benches:** To improve access to justice and address pendency of over 90,000 cases (as of January 2026), the Bill proposes regional benches of the Supreme Court in New Delhi, Kolkata, Mumbai and Chennai. These benches would exercise full jurisdiction except in constitutional matters, which would remain with the Constitution Bench in Delhi.
- **Way Forward: Ensuring Diversity:** The judiciary, through the collegium, must proactively ensure social diversity. The Bill provides a constitutional push toward inclusiveness. Long-term reform may involve reviving a restructured NJAC with broader representation from the legislature, Bar Council and academia, ensuring adequate representation of marginalised groups.
- **Regional Benches Under Existing Provisions:** Parliamentary committees and the Law Commission have previously recommended regional benches. Under Article 130, the Supreme

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Court can establish benches outside Delhi with executive approval, possibly starting with one region and expanding in a time-bound manner.

Quick Bites:

- Ministry of Fisheries, Animal Husbandry & Dairying (MoFAH&D) and Panchayati Raj to launch Access pass for fishing in EEZ on 20th February 2026 at Veraval, Gujarat.
- India and France Launch Indo French Centre for AI in Health (IF-CAIH) at All India Institute of Medical Sciences, New Delhi. The IF-CAIH is a pioneering initiative aimed at advancing AI-driven research, medical education and clinical innovation to address complex healthcare challenges.
- India-UK Offshore Wind Taskforce Launched. The platform delivers time-bound workstreams. Measurable milestones and visible progress, converting global lessons into solutions tailored to Indian conditions.
- Scientists from the Zoological Survey of India (ZSI) have discovered a new species of Diplura in the eastern Himalayas, marking a milestone in Indian entomology. The wingless, soil-dwelling micro-arthropod has been named "Lepidocampa sikkimensis".
- Kerala has approved India's first comprehensive graphene policy, aiming to position the state as a global hub for research, development and manufacturing of the advanced material. Graphene, often described as a wonder material, is known for its exceptional strength, conductivity and flexibility. The state government plans to establish a dedicated graphene industrial park in Palakkad.
- Telangana Chief Minister inaugurated the 23rd edition of BioAsia 2026, an international life sciences summit, at the Hyderabad International Convention Centre (HICC). This year's theme, 'TechBio Unleashed - AI, Automation, and the Revolutionary Changes in Life Sciences,"

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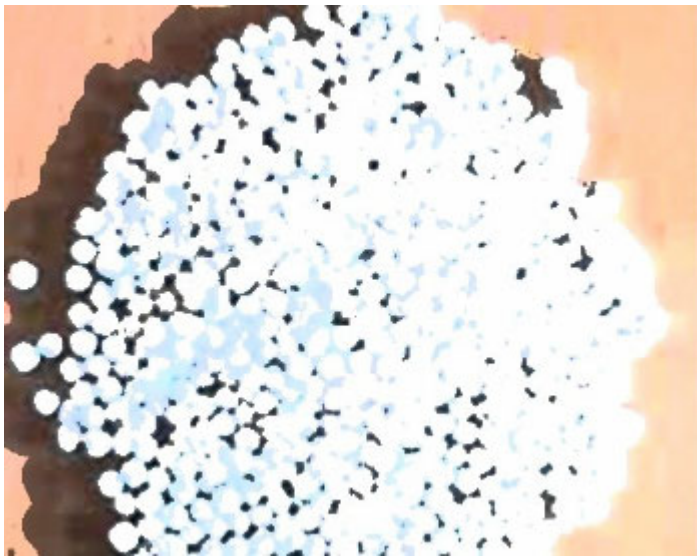
20-02-2026

Prelims articles:

1. Salem Sago:

Context: The Agricultural and Processed Food Products Export Development Authority (APEDA), under the Ministry of Commerce and Industries, facilitated the export of 0.5 MT of GI-tagged Salem Sago from Salem, Tamil Nadu to Canada.



More about:

- Tamil Nadu is the largest producer of tapioca sago (sabudhana) in India.
- Salem is the recognised hub of India's sago and starch industry.
- Sago is derived from tapioca roots and is a staple food in several parts of India.
- The GI tag for Salem Sago was granted in March 2023 to SAGOSERVE under the Government of Tamil Nadu.

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About Salem Sago:

- Salem district-based Salem Sago (locally called Javvarisi) is a tapioca pearl product widely known as sabudana in Indian cuisine.
- It is produced from wet starch powder extracted by crushing tapioca roots, which contain about 30-35% starch.
- Salem Sago has received a Geographical Indication (GI) tag recognizing its unique regional identity and quality.
- Over 80% of India's sago production comes from the Salem region, with a major share marketed through SAGOSERVE.
- The wet starch is used for making sago pearls, while dry starch powder serves as a raw material for various industrial applications.
- Sago has diverse uses across food, paper, textiles, construction, cosmetics, pharmaceuticals, mining, and alcohol industries, reflecting its strong economic value.

Agricultural and Processed Food Products Export Development Authority (APEDA):

- Agricultural and Processed Food Products Export Development Authority (APEDA) is a statutory body established under the APEDA Act, 1985, replacing the Processed Food Export Promotion Council (PFEPC).
- It functions under the Ministry of Commerce and Industry, Government of India.
- **Objective:** To develop and promote exports of scheduled agricultural and processed food products.
- Exporters of scheduled products (e.g., fruits, vegetables, meat, poultry, dairy, bakery items, honey, jaggery, etc.) must register with APEDA.
- APEDA provides financial accictance, guidelines, and information for the development and export promotion of scheduled products.

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- It is also entrusted with monitoring sugar imports into India.
- APEDA serves as the Secretariat to the National Accreditation Board (NAB) under the National Programme for Organic Production (NPOP) for organic exports accreditation.
- Key functions include setting standards and specifications, exporter registration, quality inspection, packaging and marketing improvement, training, industry development, surveys, and statistical data collection.
- APEDA is headed by a Chairman appointed by the Central Government and has its headquarters in New Delhi.

2. Gaganyaan Drogue Parachute:

Context: DRDO conducts a successful qualification test for Gaganyaan Drogue Parachute.

More about:

- India achieved a key milestone in the Gaganyaan programme with the successful qualification level load test of the Drogue Parachute at the Rail Track Rocket Sled (RTRS) facility of Defence Research and Development Organisation (DRDO) located at Terminal Ballistics Research Laboratory.
- The test, conducted on February 18, 2026, involved collaboration between Vikram Sarabhai Space Centre, ISRO, Aerial Delivery Research and Development Establishment (DRDO), and TBRL teams, simulating loads higher than maximum flight loads to ensure added safety margins.
- The successful dynamic test demonstrated India's capability in designing and manufacturing high-strength ribbon parachutes and highlighted TBRL's advanced testing infrastructure and technical expertise.

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About Gaganayan:

- It is India's ongoing project to send a 3-day manned mission to the Low Earth Orbit (LEO) with a crew of 4 members and bring them safely back to Earth.
- It will circle Earth at a low-earth-orbit at an altitude of 300-400 km from earth for 5-7 days.
- Its immediate aim is to demonstrate indigenous capability to undertake human space flights.
- Launch Vehicle Mark 3 (LVM-3):It is a 3-stage space launch vehicle operated by the ISRO to launch satellites and other space objects into Geosynchronous Transfer Orbits.
- The third stage of this vehicle uses a Cryogenic engine, which uses liquefied oxygen and hydrogen as fuel.
- It has been designed for launching communication satellites.
- GSLV delivers satellites into a higher elliptical orbit - GTO.

3. Gondwanaland:

Context: Open-cast coal mines in Jharkhand have revealed evidence of a 300-million-year-old ecosystem from the time when India was part of the southern supercontinent Gondwanaland.

More about:

- **Gondwanan Environment Reconstruction:** The findings indicate dense swampy forests and river networks occasionally influenced by marine incursions, offering insights into ancient sea transgressions and present-day sea level rise impacts.
- **Scientific Debate on Sea Incursions:** Earlier theories on Permian sea transgression were based on limited fossil and sediment evidence, making the extent of prehistoric marine flooding a debated subject.
- **Multidisciplinary Study:** A study led by Birbal Sahni Institute of Palacosciences under the Department of Science and Technology analysed palacobotanical and geochemical evidence from the Ashoka Coal Mine in the North Karanpura Basin, Jharkhand.

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- **Dominance of Glossopteris Flora:** The reconstruction revealed abundant fossils of Glossopteris, an extinct seed plant group that once dominated Gondwanan vegetation, with at least 14 species identified.
- **Globally Significant Discovery:** The first-ever juvenile male cone of Glossopteris was discovered in the Damodar Basin, providing crucial evidence to understand the reproductive biology of these ancient plants.

About Gondwanaland:



- **Meaning and Origin:** Gondwanaland was a southern supercontinent that existed from the Late Paleozoic to the Mesozoic era, named after the Gondwana region of central India.
- **Constituent Landmasses:** It included present-day India, South America, Africa, Antarctica, Australia, and Madagascar.
- **Geological Timeline:** It formed after the breakup of Pangaea around 180 million years ago and gradually fragmented due to plate tectonic movements.
- **Geological and Fossil Evidence:** Similar rock formations, coal deposits, and fossils such as Gilanopterin found warm southern continents provide strong evidence for its existence.

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- **Relevance for India:** The break-up of Gondwanaland led to the northward drift of the Indian Plate and eventual collision with Eurasia, resulting in the formation of the Himalayas.

4. National Centre of Excellence (NCoE):

Context: The Prime Minister, Shri Narendra Modi, announced the establishment of a National Centre of Excellence (NCOE) for Skilling in Aeronautics and Defence at National Skill Training Institute (NSTI), Kanpur, in collaboration with the Government of the French Republic under the Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIS (PM-SETU) scheme of Ministry of Skill Development and Entrepreneurship (MSDE).

More about:

- The proposed NCOE at Kanpur will focus on advanced skill training in aeronautics, Maintenance, Repair and Overhaul (MRO), airport operations, defence manufacturing and allied domains.
- It is envisaged as a world-class institution that will strengthen India's capacity in aviation skilling while supporting the country's growing aerospace and defence rensystem

About Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIS (PM-SETU) scheme:

- **Overall Outlay:** PM-SETU has a total financial outlay of ₹60,000 crore for skill development reforms.
- **Upgradation of IT IS:** The scheme aims to modernise 1,000 Industrial Training Institutes (ITIS) across India.
- **Key Objectives:** It focuses on infrastructure upgradation, industry-aligned curriculum, and improved employability outcomes.
- **National Centres of Excellence:** Sector-specific National Centres of Excellence are proposed, including an aviation-focused centre at Kanpur.

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- **Regional Sectoral Focus:** Additional centres at Ludhiana, Hyderabad, Chennai, and Bhubaneswar will cater to advanced manufacturing, emerging technologies, and high-growth service sectors aligned with regional strengths.

5. Lake Victoria:

Context: The waters of Lake Victoria, the world's largest tropical lake, have shifted to a persistent toxic green. What were once seasonal algal blooms have become a permanent feature.

About lake Victoria:

- **Largest Lake in Africa:** Lake Victoria is the largest lake in Africa and the world's largest tropical lake, covering about 69,484 sq. km.
- **Global Ranking:** It is the second-largest freshwater lake in the world after Lake Superior.
- **Location and Countries:** The lake is shared by Tanzania, Uganda, and Kenya and is crossed by the Equator.
- **Regional Names:** It is known as Victoria Nyanza in Kenya, Nalubaale in Uganda, and Ukerewe in Tanzania.
- **Physical Features:** The irregular-shaped lake has a maximum length of 359 km (north-south) and a width of 240 km, occupying a shallow depression between the Eastern and Western Rift Valleys.
- **Hydrological Importance:** The Kagera River is its main inflow, and the lake serves as the chief reservoir of the Nile River.

Mains specific articles:

1. How do graphics processing units work? (GS paper 3)

Context: The Hindu Explainer.

- **Meaning of GPU:** A Graphics Processing Unit (GPU) is a specialised processor designed to perform many simple calculations simultaneously, making it highly efficient for repetitive and

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parallel tasks compared to a Central Processing Unit (CPU), which handles fewer but more complex tasks quickly.

- **GPU vs CPU Architecture:** CPUs focus on complex control logic, large caches, and fast decision-making, whereas GPUs allocate more transistors to multiple smaller cores and wide data paths, enabling large-scale parallel computation.
- **Parallel Processing Advantage:** GPUs contain hundreds or thousands of cores that execute the same instructions across large datasets at once, making them ideal for graphics rendering and data-heavy computations.
- **Rendering Pipeline in Graphics:** The GPU processes graphics through four steps: vertex processing (positioning objects using matrix math), rasterisation (converting triangles into pixel candidates), fragment or pixel shading (determining final pixel colour using lighting and textures), and writing to the frame buffer (storing the final image for display).
- **Role of Shaders and Memory:** GPUs use small programs called shaders to perform repeated calculations in parallel. They rely on high-bandwidth Video RAM (VRAM), caches, and shared memory to handle massive data transfers efficiently.
- **Location of GPU in a System:** A GPU can be a separate chip on a graphics card connected to the motherboard or integrated with the CPU on the same die in systems-on-a-chip, commonly found in laptops and smartphones.
- **Size and Transistor Usage:** GPUs and CPUs use similar semiconductor technology (e.g., 3-5 nm nodes), but GPUs often contain more transistors due to their many compute units and high data-transfer requirements.
- **Use of GPUs in Neural Networks:** Neural networks rely heavily on matrix and tensor operations, which involve repetitive multiplications across large datasets. GPUs accelerate these operations due to their parallel cores and high memory bandwidth.

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- **Tensor Cores and AI Acceleration:** Modern GPUs include specialised tensor cores for faster matrix operations. For example, the NVIDIA H100 can perform extremely high tensor operations per second. Google has also developed Tensor Processing Units (TPUs) for similar Al workloads.
- **Energy Consumption of GPUs**: High-performance GPUs consume significant power; for instance, an Nvidia A100 PCIe uses about 250 w during training. Training with four GPUs for 12 hours may consume around 12 kWh, while continuous daily operation of a model may use approximately 6 kWh including server overhead.

2. M.A.N.A.V. (GS paper 3)

Context: During his inaugural address at the India AI Impact Summit 19, Prime Minister Narendra Modi outlined a nuanced approach to Al not as an autonomous force driven solely by data and algorithms, but as an extension of human aspirations, ethics, and dignity. He encapsulated this human-centric vision in the acronym M.A.N.A.V., presenting a roadmap where technological advancement progresses in harmony with societal values: Moral and Ethical Systems, Accountable Governance, National Sovereignty, Accessible and Inclusive Al, and Valid and Legitimate Systems.

About M.A.N.A.V.:

- **M.A.N.A.V. Vision Framework:** India's M.A.N.A.V. vision represents a comprehensive national strategy for Artificial Intelligence, combining policy direction with coordinated programmes across education, digital infrastructure, governance, and innovation ecosystems.
- **Action-Oriented Approach**: The vision is anchored in inclusivity, security, and public good, ensuring that AI development is socially responsible and backed by sustained institutional commitment.

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- **Ethical Foundation of AI:** The first pillar emphasises a strong moral and ethical framework, highlighting fairness, transparency, and human oversight as core principles in AI design and deployment.
- **Integration with Education Policy:** The National Education Policy 2020 prioritises digital and Al literacy, promoting computational thinking and ethical AI awareness from early stages of education.
- **Future-Ready Workforce:** Early exposure to Al concepts aims to build innovation capacity and prepare citizens for data-driven decision-making in a rapidly evolving technological environment.

Quick Bites:

- The Artificial Intelligence (AI) Impact Summit in 2027 will be held in Geneva, Switzerland's President Guy Parmelin, making a pitch for smaller countries to "come together" to ensure good governance of Al development, so it is not held in the hands of a few "big powers". Vice-President Shri C. P. Radhakrishnan releases book "The Sage who Reimagined Hinduism: The Life, Lessons and Legacy of Sree Narayana Guru" by Dr. Shashi Tharoor.
- The All India Official Language Conference for Eastern, North-Eastern and Northern Regions was organised by the Department of Official Language under the Ministry of Home Affairs at the International Indoor Exhibition Centre, Hapania, Agartala.
- World Day of Social Justice, observed annually on 20th February, underscores the global resolve to promote social inclusion, reduce inequalities and ensure equitable access to opportunities, particularly for marginalised and disadvantaged sections of society. The theme for world day on social justice, 2026 is based on "Empowering Inclusion: Bridging gaps for social justice." Kerala has declared tidal flooding along its coastline a State-specific disaster, enabling victims to receive financial assistance under the State Disaster Response Fund (SDRF). The decision marks the first time in India that tidal flooding has been officially recognised as a disaster category by a State.

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21-02-2026

Prelims articles:

1. **Merchandise Trade Indice:**

Context: Directorate General of Commercial Intelligence and Statistics Revises Base Year of Merchandise Trade Indices to FY 2022-23.

More about:

- **About the Indices:** Compiled by Directorate General of Commercial Intelligence and Statistics under the Ministry of Commerce & Industry to measure changes in unit values (prices) of India's exports and imports and assess terms of trade.
- **Updated Base Year:** Base year revised to FY 2022-23 (2022-23=100), replacing FY 2012-13, to reflect the current structure of India's merchandise trade.
- **Revised Commodity Basket:** Principal commodity classification reviewed to include emerging trade items and remove declining ones.
- **Revised Weighting Structure:** Weights updated using trade values of FY 2022-23 to represent latest export and import value shares.
- **Methodological Improvements:** Refinements in selection of common commodity basket and improved imputation methods for missing unit values, as detailed in the committee report.

2. **Export Promotion Mission (EPM):**

Context: The Union Minister of Commerce and Industry, Shri Piyush Goyal, launched seven additional interventions under the Export Promotion Mission (EPM), a flagship initiative of the

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Department of Commerce aimed at empowering Micro, Small and Medium Enterprises (MSMEs) for global markets.

About Export Promotion Mission (EPM):



- Announced in the Union Budget 2025-26, EPM consolidates multiple export-support schemes into a unified, digitally enabled framework.
- With an outlay of 125,060 crore (FY 2025 26 to FY 2030 31), it aims to enhance export competitiveness, especially for MSMEs and labour-intensive sectors.
- Anchored by the Department of Commerce with multi-stakeholder coordination, it is implemented by the Directorate General of Foreign Trade.
- It operates through two sub-schemes-Niryat Protsahan (financial support like trade finance, interest subvention, credit aid) and Niryat Disha (non-financial support like quality compliance, branding, logistics, and district-level capacity building).
- Delivered via a DGFT digital platform ensuring paperless processing, outcome-based monitoring, and faster response to global trade changes.
- Prioritises tarif-affected sectors and promotes inclusive export growth by supporting MSMES, first-time exporters, and low-export districts.

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Newly launched interventions:

- The newly launched interventions aim to address structural constraints faced by MSMEs, including high cost of capital, limited access to diversified trade finance instruments, compliance burdens in international markets, logistics disadvantages, and barriers to market entry.

Sub-Scheme	Intervention	Key Objective	Financial Assistance / Support Details
Niryat Protsahan	Support for Alternative Trade Instruments (Export Factoring)	Promote affordable working capital solutions for MSMEs through export factoring	2.75% interest subvention on factoring cost via RBI/IFSCA-recognised entities; assistance capped at 2:50 lakh per MSME annually; digital claim mechanism for transparency
Niryat Protsahan	Credit Assistance for E-Commerce Exporters	Support exporters using digital/e-commerce channels	Direct E-Commerce Credit Facility up to ₹50 lakh with 90% guarantee; Overseas Inventory Credit Facility up to 25 crore with 75% guarantee: 7.75% interest subvention subject to 15 lakh annual ceiling per applicant
Niryat Protsahan	Support for Emerging Export Opportunities	Enable exporters to access new/high-risk markets	Shared-risk and structured credit instruments to enhance liquidity and exporter confidence
Niryat Disha	Trade Regulations, Accreditation & Compliance Enablement (TRACE)	Help exporters meet international testing and certification standards	60% reimbursement under Positive List; 75% under Priority Positive List; annual ceiling *25 lakh per IEC

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Niryat Disha	Facilitating Logistics, Overseas Warehousing & Fulfilment (FLOW)	Support overseas warehousing and e-commerce export hubs	Assistance up to 30% of approved project cost for maximum 3 years; subject to ceilings and MSME norms
Niyat Disha	Logistics Interventions for Freight & Transport (LIFT)	Reduce freight burden for exporters in low-export districts	Up to 30% reimbursement of eligible freight expenditure; ceiling ₹20 lakh per IEC per financial year
Niryat Disha	Integrated Support for Trade Intelligence & Facilitation (INSIGHT)	Strengthen district-level export facilitation and trade intelligence	Up to 50% of project cost; up to 100% support for Central/State Govt institutions and Indian Missions abroad; subject to notified ceilings

3. Pax Silica Initiative:

Context: On the fifth day of the India AI Impact Summit 2026, India formally joined the Pax Silica coalition, marking a significant milestone in the strengthening of strategic technology and supply chain cooperation between India and the United States.

About Pax Silica Initiative:

- Pax Silica is a US-led coalition focused on building a secure, resilient, and innovation-driven silicon and AI supply chain ecosystem with trusted global partners.
- Pax Silica is envisioned as a strategic coalition of trusted nations committed to securing the "silicon stack", from critical minerals and semiconductor fabrication to advanced AI systems and deployment infrastructure.

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- The inaugural Pax Silica Summit was held in Washington, D.C. in December 2025.
- It aims to reduce coercive dependencies on a single country, safeguard Al-critical materials, and enable aligned nations to scale transformative technologies.
- The initiative responds to China's dominance in critical mineral refining (over 60% of lithium, cobalt, and rare earths) and recent rare earth export restrictions.
- Participating countries include Japan, Republic of Korea, Singapore, the Netherlands, United Kingdom, Israel, United Arab Emirates, and Australia.
- Partner nations host key firms such as Samsung, SK Hynix, Sony, Fujitsu, ASML, Rio Tinto, DeepMind, and Temasek, which power the global AI supply chain.
- Core commitments include joint projects on critical minerals, semiconductor design and fabrication, compute infrastructure, energy grids, and protection of sensitive technologies from countries of concern.

4. Tetanus and Adult Diphtheria (Td) vaccine:

Context: Union Minister for Health and Family Welfare Shri J.P. Nadda will launch the Tetanus and Adult Diphtheria (Td) vaccine on 21st February 2026 (Tomorrow) at the Central Research Institute (CRI), Kasauli, Himachal Pradesh.

About Tetanus and Adult Diphtheria (Td) vaccine:

- Tulanus (T) is a serious disease that causes painful muscle stiffness and spasins and can lead to severe health complications, including inability to open the mouth (lockjaw), difficulty in swallowing and breathing, and may result in death.
- Diphtheria (D) is a potentially life-threatening infection that can cause breathing difficulties, heart failure, paralysis, and death.
- The Td vaccine (Tetanus and adult Diphtheria Vaccine - Adsorbed, Reduced D-Antigen Content) provides protection against both tetanus and diphtheria.

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- It is prepared by combining purified diphtheria toxoid and purified tetanus toxoid.
- The antigens are adsorbed onto aluminum phosphate, which acts as an adjuvant, and thiomersal is added as a preservative.
- The introduction of the Td vaccine is aimed at strengthening protection among adolescents and adults and reducing morbidity and mortality associated with these vaccine-preventable diseases.

About Central Research Institute (CRI):

- The Central Research Institute (CRI), functioning under the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India since 1905, plays a pivotal role in vaccine production in alignment with the National Vaccine Policy.
- The Institute is engaged in the manufacture and supply of vaccines and antisera to meet the requirements of the Universal Immunization Programme (UIP) and other public health initiatives.
- The launch of the Td vaccine at CRI is expected to augment domestic manufacturing capacity and ensure sustained availability of quality-assured vaccines under the National Immunization Programme.

5. Aditya-L1:

Context: Observations and measurements made by India's maiden solar mission, Aditya-L1, have helped to decode the unusual dawn time geomagnetic disturbances during strong solar storms.

More about:

- **What are Geomagnetic Storms?** Geomagnetic storms are large disturbances in Earth's magnetic field caused by variations in the solar wind — a continuous stream of charged particles emitted by the Sun.
- **Cause of Disturbance:** Sudden increases or decreases in solar wind dynamic pressure striking Earth's magnetic shield (magnetosphere) trigger sharp changes in the magnetic field.

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- **Solar Cycle 25 Context:** During the peak phase of Solar Cycle 25, two intense geomagnetic storms occurred on 19 May 2024 and 10 October 2024.
- **Unusual Magnetic Response:** Scientists observed a striking and unusual pattern in Earth's magnetic field response during both storm events.
- **Technological Impacts:** Rapid magnetic field variations can affect satellites, navigation systems, communication networks and other space-based and ground-based technological systems.
- **Role of Indian Space Research Organisation:** ISRO highlighted the importance of understanding magnetic field responses to sudden solar wind pressure changes.
- **Contribution of Aditya-L1:** Combined data from the Aditya-L1 spacecraft and global ground magnetometer networks provided new insights into how extreme solar wind conditions alter geomagnetic disturbance patterns.

About Aditya-L1:

- It is India's first space-based solar mission to study the Sun. It was launched on September 2,2023.
- It was launched into a halo orbit around the Sun-Earth I agrange point 1 († 1),
- Aditya-L1 would provide an uninterrupted view of the Sun for prolonged periods. Aditya-L1 launched using a PSLV XL launch vehicle.
- It aims to establish a solar observatory at a halo orbit around the L1 lagrangian point of the Sun Earth system.
- It carries seven payloads to examine the Sun's properties using visible and X-ray spectrometers.
- This multi-wavelength observation capacity will probe the Sun's corona, the chromosphere, the photosphere, flares and coronal mass ejections.

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About Lagrangian Point 1 or L1:

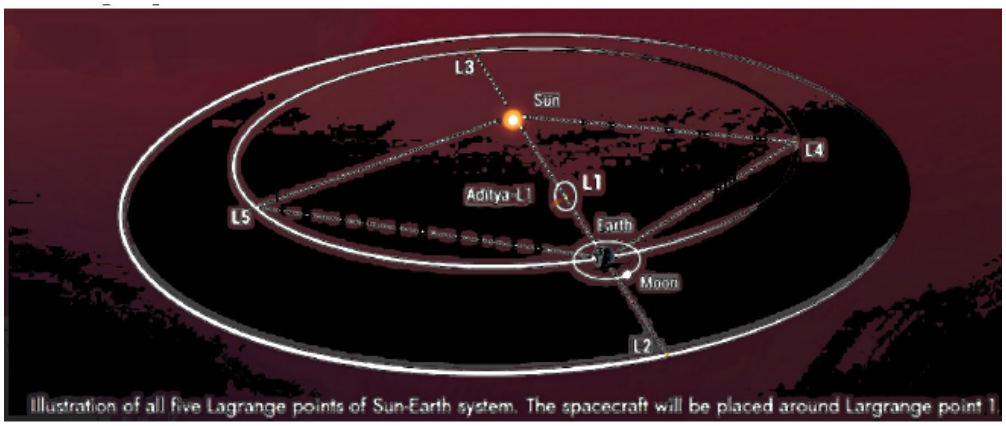

Illustration of all five Lagrange points of Sun-Earth system. The spacecraft will be placed around Largrange point 1

- It is one of the gravitationally stable points in space where the gravitational forces of two large bodies, like the Sun and Earth, balance out.
- It is located about 1.5 million km from Earth towards the Sun.
- It provides an uninterrupted view of the Sun without any eclipses or occultations.

6. Anti-Personnel Mine Ban Treaty (Ottawa Convention):

Context: Poland withdraws from treaty banning anti-personnel mines.

About Ottawa Convention:

- **Official Name:** Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti Personnel Mines and on their Destruction
- **Objective:** Puts obligations on State parties to not use, develop, stockpile anti-personnel mines under any circumstances. o Further obligates them to destroy such mines.
- Adopted at Oslo (1997), signed at Ottawa, opened for signature from 1997-1999, enforced in 1999.
- **Signatories:** 133, India not a signatory.
- **Depositary:** Secretary-General of the United Nations.

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7. Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) scheme:

Context: The Public Accounts Committee (PAC) of Parliament, criticised the government for what members described as "lackadaisical" implementation of the Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) scheme, a flagship programme of the Ministry of Skill Development and Entrepreneurship.

More about:

- The panel was examining a Comptroller and Auditor General (CAG) report that highlighted significant delays and shortfalls in both financial and physical progress under the scheme.
- According to the CAG, only 44% of the budgeted provision for SANKALP was disbursed between 2017-18 and 2023-24 (as of October 2023). The audit also flagged weak adherence to implementation guidelines and a sluggish pace of execution across components.

About SANKALP scheme:

- Launch SANKALP (Skills Acquisition and Knowledge Awareness for Livelihood Promotion) was launched in 2018.
- Nodal Ministry Implemented by the Ministry of Skill Development and Entrepreneurship (MSDE).
- Nature of Scheme It is a Centrally Sponsored Scheme supported through World Bank loan assistance.
- Alignment The programme aligns with the objectives of the National Skill Development Mission (NSDM).
- Objective Aims to transform and strengthen India's overall skilling ecosystem at both Central and State levels.
- Focus Areas Enhances institutional capacity, access, quality and outcomes in skill development programmes.

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- Inclusivity Promotes improved access and completion of skill training for women and other disadvantaged groups.
- Innovation Support Encourages innovative and best practices at the local level for effective skill delivery.

Mains specific articles:

I. 'Bhasha' matters in India's multilingual moment:(GS paper 1)

Context: The Hindu Editorial Analysis

- **India's Linguistic Diversity:** India has over 1,300 mother tongues and 121 constitutionally recognised languages (Census 2011), making linguistic diversity a national strength shaping children's learning and identity.
- **Language as Knowledge & Culture:** Loss of language means loss of cultural wisdom and accumulated knowledge; safeguarding languages is both a cultural and educational imperative.
- **Importance of MTB-MLE:** Mother-Tongue-Based Multilingual Education (MTB-MLE) ensures children learn best in the language they understand, improving comprehension, confidence and inclusion.
- **International Mother Language Day Context:** Observed on February 21, led by UNESCO, the theme "Youth voices on multilingual education" highlights the importance of valuing learners' linguistic identities.
- **UNESCO State of the Education Report 2025:** The 7th edition titled Bhasha Matters: Mother Tongue and Multilingual Education presento research, national evidence and 10 policy recommendations to strengthen multilingual education in India.
- **Language Barrier in Education:** Globally, over 250 million learners lack education in a familiar language; in India, about 44% of children study in a medium different from their home language (NCERT 2022), affecting foundational literacy and increasing dropout risk.

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- **Policy Support: NEP 2020:** The National Education Policy 2020 and National Curriculum Frameworks (2022-23) prioritise mother tongue/home language in early education.
- **State-Level Best Practices:** Odisha runs multilingual education in 21 tribal languages across 17 districts benefiting nearly 90,000 children; Telangana leverages DIKSHA-enabled multilingual digital resources.
- **Digital & AI Initiatives:** National programmes like PM eVIDYA, BHASHINI, Adi Vaani and AI4Bharat promote language documentation, local-language content creation and Al-based multilingual tools.
- **Roadmap for Reform:** Recommendations include clear state language-in-education policies, teacher training reforms, multilingual materials and assessments, community participation, gender-responsive strategies, responsible language technology use and sustainable financing.
- **National Mission Proposal:** Proposal for a National Mission for MTR-MIF to coordinate efforts across ministries, academia, civil society and technology partners for systemic reform.
- **Linguistic Diversity as Development Driver:** Multilingualism enhances equity, identity, social cohesion and learning outcomes; India stands at a transformative moment to embed inclusive multilingual education nationwide.

2. Centre notifies panel to clear pending CAA applications in Bengal: (GS paper 2)

Context: The Ministry of Home Affairs (MHA) on Friday notified another empowered committee comprising Census, postal and Intelligence Bureau (IB) officials to fast-track hundreds of pending citizenship applications under the Citizenship Amendment Act (CAA), amid the special intensive revision (SIR) of electoral rolls in West Bengal,

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More about:

- Several people belonging to the Matua community, comprising Hindu Namasudras with roots in Bangladesh, have applied for citizenship under the CAA as their names are not in the 2002 electoral list, the threshold for the ongoing SIR exercise.
- On March 11, 2024, days ahead of the announcement of the General Election, the MHA notified the Citizenship Amendment Rules, 2024 enabling the implementation of the CAA, four years after the legislation was passed.

About Citizenship amendment act 2019:

- The act amends the Citizenship Act 1955 to provide that the Hindus, Sikhs, Buddhists, Jains, Parsis and Christians from Afghanistan, Bangladesh and Pakistan, who entered India on or before December 31, 2014, will not be treated as illegal migrants.
- These types of migrants will be granted fast track Indian citizenship in six years.
- The amendment also relaxed the residence requirement for naturalisation of these migrants from eleven years to five.
- The provisions of the Act will not apply to the tribal areas of Assam, Meghalaya, Mizoram or Tripura as included in the Sixth Schedule to the Constitution and States of Arunachal Pradesh, Mizoram and Nagaland that are protected by the Inner Line Permit (ILP).
- Later, Manipur was added to the list of exempted States.

3. New IIT-M technique to accurately measure blood clotting time will help implant makers: (GS paper 3)

Context: Researchers at the Indian Institute of Technology, Madras have secured a patent for a technique that uses changes in reflected light on the surface of implants to detect blood clot formation. More about:

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- **What is Haemocompatibility? -** Haemocompatibility refers to the ability of a material or medical device to interact with blood without causing adverse reactions such as clotting.
- **Importance in Medical Devices:** It is a crucial parameter in designing blond-contacting devices like stents, heart valves and catheters to minimise thrombosis risks.
- **Need for Accurate Testing:** Haemocompatibility testing helps determine clotting time and assists in planning and titrating post-surgical anticoagulant dosage.
- **IIT-M Innovation:** Researchers from Indian Institute of Technology Madras developed an optics-based technique to measure blood clotting time more precisely.
- **Limitations of Existing Methods:** Conventional techniques such as the mechanical tilting method and free haemoglobin method lack high precision and sensitivity.
- **Optics-Based Working Principle:** When blood contacts a reflective implant surface, clot formation causes turbidity and alters reflectivity, triggering a measurable voltage change in a sensitive photodetector.
- **High Precision Measurement:** The time taken for voltage change corresponds to clotting time, with accuracy measured even in milliseconds.
- **Patent & Industry Use:** The technique has been patented and is under discussion with manufacturers for screening materials for blood compatibility at the research stage.
- **Clinical Significance:** It enables differentiation between similar materials with varying clotting behaviour, potentially reducing clot-related patient risks.
- **Wider Applications:** The method may also be adapted to detect trace impurities in water, offering broader industrial applications.

Quick Bites:

➢ The HCL-Foxconn joint venture, India Chip Pvt. Ltd., will establish an USAT semiconductor facility at YEIDA, Uttar Pradesh, with an investment of over ₹3,700 crore under the Modified ATMP Scheme. The project aims to boost domestic semiconductor manufacturing, reduce import

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dependence, and strengthen supply chains for seaters like mobile phones, laptops, automotive, and consumer electronics.

- BIOFACH 2026, in Nuremberg, Germany, recognised as the world's leading platform for organic food and agriculture, featured participation from over 90 countries, with India designated as the 'Country of the Year'.
- India is set to strengthen its sea-based nuclear deterrent with the commissioning of INS Aridhaman, the third indigenous Arihant-class nuclear-powered ballistic missile submarine (SSBN). Built under the Advanced Technology Vessel (ATV) project at the Ship Building Centre in Visakhapatnam, INS Aridhaman displaces around 7,000 tonnes, making it larger than its predecessors INS Arihant and INS Arighaat, which are 6,000-tonne platforms.
- Researchers have identified a new species of tiny crab measuring just three millimetres from the coral reefs of Agatti in the Lakshadweep Islands. The discovery was made by a team from the National Bureau of Fish Genetic Resources (NBFGR), Kochi, under the Indian Council of Agricultural Research. The species has been named "Galathea halasubramaniani" in honour of T Balasubramanian for his contributions to marine biology.
- The Kerala State Cabinet has approved the Kerala Nativity Card Bill, empowering the government to issue Nativity Cards as an authoritative identity document for availing State services and fulfilling social requirements.
- The United States clinched the Olympic gold medal in women's ice hockey with a dramatic 2-1 overtime victory over Canada in Milan.
- Palaeontologists have uncovered a new dinosaur species in the remote Sahara Desert of Niger, shedding fresh light on Africa's Cretaceous ecosystems. The species, named "Spinosarus mirabilis", lived around 95 million years ago and dominated ancient river systems as a top predator.

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22-02-2026

Prelims articles:

1. New Delhi Declaration:

Context: The AI Impact Summit 2026, held in New Delhi on 18-19 February, concluded with the adoption of the New Delhi Declaration on AI Impact, marking a significant milestone in global cooperation on artificial intelligence.

More in Detail:

A Shared Global Vision for AI:

Guided by the principle of "Sarvajan Hitaya, Sarvajan Sukhaya" (Welfare for all, Happiness for all), the Declaration underscores that the benefits of AI must be equitably shared across humanity.

It emphasizes:

- Strengthening international cooperation and multistakeholder engagement
- Respecting national sovereignty
- Advancing Al through accessible, and trustworthy frameworks

The Declaration is structured around seven key pillars, forming the foundation of global Al cooperation:

- Democratizing Al Resources
- Economic Growth & Social Good
- Secure & Trusted AI
- Al for Science
- Access for Social Empowerment
- Human Capital Development
- Resilient, Efficient & Innovative AI Systems

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2. Dedicated Quantum & AI University Campus:

Context: At the India Al Impact Summit, the National Institute of Electronics & Information Technology (NIELIT), under the Ministry of Electronics & Information Technology (MeitY), announced the establishment of India's first dedicated Quantum and Artificial Intelligence University campus in Amaravati.

More about:

- **Strengthening Deep-Tech Ecosystem:** The collaboration advances India's deep-tech ecosystem and supports Andhra Pradesh's vision of establishing a globally competitive quantum innovation hub through the proposed Andhra Quantum Mission.
- **Amaravati as Quantum Hub:** The Amaravati Quantum & Al campus under National Institute of Electronics & Information Technology (NIELIT) will function as a national Centre of Excellence for research, education and innovation in quantum technologies and artificial intelligence.
- **Talent & Innovation Ecosystem:** The NIELIT Quantum-Al University at Amaravati Quantum Valley aims to integrate quantum science, AI and industry-aligned skilling to create globally competitive deep-tech talent and strengthen India's innovation ecosystem.

About National Institute of Electronics & Information Technology (NIELIT):

- National Institute of Electronics & Information Technology (NIELIT), an Autonomous Scientific Society of the Ministry of Electronics and Information Technology (MeitY), has been a pioneer in skill development and digital empowerment.
- With its extensive presence through 56 NIELIT centers, over 750 accredited institutes, and 9,000+ facilitation centers, NIELIT has skilled and certified millions of students in emerging technologies in the E&ICT domain.

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- NIELIT has been conferred the status of "Deemed to be University" under the distinct category by the Ministry of Education having its main campus at Ropar (Punjab) and eleven constituent campuses.

3. Sarvam AI:

Context: At the India AI Impact Summit 2026, Union Minister Shri Amit Shah stated that Sarvam AI exemplifies why the future belongs to India. He noted that the company is ensuring technology reaches every citizen, advancing the vision of Viksit Bharat, where innovation serves as a trusted ally in empowering people and strengthening the nation.

What is Sarvam AI?

- Sarvam AI is an organization that is developing artificial intelligence tailored to India's needs by building foundational components and applying them to the country's unique linguistic, enterprise, and governance requirements.
- The company has built a full-stack Al platform, with everything developed, deployed, and governed entirely in India.
- These enterprise grade platforms reflect the country's linguistic diversity and are designed to support public service delivery.
- Its work directly addresses long-standing barriers in accessibility, multilingual communication, and dependence on foreign Al infrastructure.

Sarvam Al's models include:

- **Bulbul (Text-to-Speech):** Available in 11 Indian languages with 39 distinct speaker voices.
- **Saaras (Speech-to-Text):** Supports all 22 scheduled languages, 8kHz telephony audio, and code-mixed speech.

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- **Vision (Document Understanding):** Tailored for 22+ Indian languages, mixed scripts, and handwritten text

4. SARAS Aajeevika Mela 2026:

Context: SARAS Aajeevika Mela 2026, national-level fair (from February 10 to 26) is happening at Leisure Valley Park in Sector-29, Gurugram.

What is SARAS Aajeevika Mela?

- Saras Mela has been organized with the aim of empowering women and giving market to the goods produced by Self Help Groups.
- Organized by the Department of Rural Development..

5. Paraquat dichloride/methyl viologen:

Context: Leaders across Telangana state demand immediately ban weedicide/herbicide 'paraquat dichloride' as it is claiming the lives of at least 20 farmers every month.

What is Paraquat dichloride?

- Paraquat (paraquat dichloride/methyl viologen) is one of the world's most widely used herbicides for weed control and crop desiccation (e.g., cotton).
- It is highly toxic; the United States Environmental Protection Agency warns that even a small accidental sip can be fatal to humans
- The World Health Organization classifies paraquat as Category 2 (moderately hazardous and irritating).
- It is banned in over 70 countries, including China and the European Union, but remains in use in the US and India.

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- Paraquat is not listed under the Prior Informed Consent (PIC) procedure of the Rotterdam Convention.
- There is no specific antidote or effective alternative treatment for paraquat poisoning.
- Poisoning cases commonly report kidney, liver and lung damage.
- In India, its use is regulated by the Central Insecticides Board and Registration Committee under the Insecticides Act, 1968.
- A 2021 Agriculture Ministry notification restricts paraquat use to specified crops such as wheat, rice, tea, coffee, potato, grapes, maize, rubber and apple.
- It is also permitted for weed control in water bodies (ponds and canals), including invasive species like bulrush (Typha latifolia), Hydrilla and water hyacinth (Eichhornia crassipes).

6. Tetanus and adult diphtheria (Td) vaccine:

Context: Union Health Minister J.P. Nadda launched the indigenously manufactured tetanus and adult diphtheria (Td) vaccine at the Central Research Institute (CRI) in Kasauli, Himachal Pradesh.

About tetanus and adult diphtheria (Td) vaccine:

- Tetanus (T) is a serious disease that causes painful muscle stiffness and spasms and can lead to severe health complications, including inability to open the mouth (lockjaw), difficulty in swallowing and breathing, and may result in death.
- Diphtheria (D) is a potentially life-threatening infection that can cause breathing difficulties, heart failure, paralysis, and death.
- The Td vaccine (Tetanus and adult Diphtheria Vaccine - Adsorbed, Reduced D-Antigen Content) provides protection against both tetanus and diphtheria.
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- The introduction of the Td vaccine is aimed at strengthening protection among adolescents and adults and reducing morbidity and mortality associated with these vaccine-preventable diseases.

About Central Research Institute (CRI):

- The Central Research Institute (CRI), functioning under the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India since 1905, plays a pivotal role in vaccine production in alignment with the National Vaccine Policy.
- The Institute is engaged in the manufacture and supply of vaccines and antisera to meet the requirements of the Universal Immunization Programme (UIP) and other public health initiatives
- The launch of the Td vaccine at CRI is expected to augment domestic manufacturing capacity and ensure sustained availability of quality-assured vaccines under the National Immunization Programme.

Mains specific articles:

1. Access Pass for Fishing in India's Exclusive Economic Zone (EEZ): (GS paper 3)

Context: National Launch of Access Pass for Fishing in India's Exclusive Economic Zone (EEZ) Opens New Horizon Marine Fisheries Sector.

Background:

- **India's Marine Resource Dase:** India has a coastline of about 11,099 km and an Exclusive Economic Zone (EEZ) of nearly 24 lakh sq. km, offering vast marine resource potential.
- **Under-utilisation of EEZ:** Most fishing activity is confined to 40-50 nautical miles from the coast, while die EEZ (12-200 nautical miles) remains largely under-utilised despite high potential for tuna and tuna-like species.

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- **Union Budget 2025-26 Initiative:** The Government announced an enabling framework for sustainable utilisation of fisheries resources in the EEZ and high seas, with focus on Andaman & Nicobar Islands and Lakshadweep, which together account for 49% of India's EEZ and an estimated potential of 2.48 lakh tonnes.
- **Notification of New Rules (2025):** The Government notified the Sustainable Harnessing of Fisheries in the Exclusive Economic Zone Rules, 2025, under the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976.
- **Objective of the Rules:** The Rules aim to promote responsible and sustainable utilisation of marine fisheries in the EEZ while ensuring conservation of marine ecosystems.
- **Institutional & Legal Framework:** They provide a robust legal and regulatory framework aligned with international obligations and designed to enhance fishers' livelihoods.

Access Pass under the EEZ Rules:

The Access Pass is a key instrument under the FFZ Rules to empower Indian fishers to sustainably harvest high-value oceanic resources. It aims to:

- support the transition from near-shore to deep-sea fishing.
- promote fisher organisation into cooperatives and FFPOS,
- enhance incomes through higher catch, better prices and export-compliant practices such as traceability and certification.

About divisions of sea: Maritime Zone	**Key Features/Rights of Coastal State**
Territorial Sea	Full sovereignty and jurisdiction over surface, seabed, subsoil and airspace; subject to right of innocent passage for foreign vessels.
Contiguous Zone	Limited control to prevent and punish violations of fiscal, immigration,

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	sanitary and customs laws; jurisdiction applies only to surface and seabed, not airspace.
Exclusive Economic Zone (EEZ)	Sovereign rights for exploring, exploiting, conserving and managing living and non-living resources of seabed and subsoil; rights over energy production from water, currents and wind.
High Seas	Beyond national jurisdiction; regarded as common heritage of mankind; open to all states for peaceful uses such as navigation, marine scientific research and undersea exploration.

2. Chagos Islands: (GS paper 2)

Context: In a social media post, U.S. President Donald Trump asked the U.K. to "not give away Diego Garcia", referring to the site where a U.S-U.K. military base is located in the Chagos archipelago.



More about:

- **Location and Strategic Importance:** The Chagos Islands are located in the central Indian Ocean, about 1,600 km from the southern tip of the Indian subcontinent and around 2,000 km north-east of Mauritius. The archipelago consists of 60 islands grouped in seven coral atolls and forms the British Indian Ocean Territory. The largest island, Diego Garcia, hosts a major joint U.S.-U.K.

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military base with an airfield, deep-water port, and surveillance infrastructure, and has no permanent civilian population.

- **Colonial Background:** The islands were uninhabited when discovered by Portuguese explorers in the 16th century. France took control in the late 18th century, administering them as dependencies of Mauritius. In 1814, under the Treaty of Paris, Mauritius and its dependencies passed to Britain. Seychelles was separated in 1903. The BIOT was formally created in 1965 following a U.S.-U.K. agreement.
- **Mauritius Independence and Displacement**: Mauritius gained independence in 1968, after the U.K. paid £3 million to retain control of Chagos. In 1971, a military facility was built on Diego Garcia. The native Chagossians (Ilois), descendants of African slaves and Indian workers, were relocated mainly to Mauritius and Seychelles, with some moving to the U.K.
- **Legal Battles and International Ruling:** In 2000, the British High Court ruled the removal of Chagossians illegal and granted them the right to return; this was upheld in 2007 but reversed in 2008 by the House of Lords. In 2019, the International Court of Justice issued an advisory opinion stating that the decolonisation of Mauritius was unlawful and recommended that the U.K. end its administration of Chagos
- **Negotiations and Treaty (2022-2025):** Following the ICJ opinion, negotiations began in 2022 under Rishi Sunak. A draft agreement was outlined in 2024, and in May 2025 a treaty transferring sovereignty to Mauritius was signed by Keir Starmer and Navin Ramgoolam. The treaty awaits ratification by the U.K. Parliament.
- **Key Provisions of the Deal:** The agreement, estimated at £3.4 billion, transfers sovereignty of the Chagos Islands to Mauritius while leasing back the Diego Garcia military base to the U.K. for 99 years at an annual average cost of £101 million. A £40 million trust fund will support Chagossians, who may resettle on all islands except Diego Garcia.

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3. Why has NGT cleared the Nicobar project?:

Context: The National Green Tribunal (NGT) recently concluded a high stakes legal battle over the *Holistic Development of Great Nicobar Island", and ruled that all environment safeguards are in place for the Great Nicobar Island Project.

More about:

- **Project Overview:** The Great Nicobar Project is an integrated infrastructure development initiative proposed by the Andaman and Nicobar Islands Integrated Development Corporation Limited. It includes four components: an International Container Transshipment Terminal (ICTT), a 450 MVA gas and solar-based power plant, a large township and area development, and an international airport. The project requires diversion of 130.75 sq km of forest land (about 18% of the island's area) and is expected to generate over 1.28 lakli jubs by 2032.
- **Regulatory and Legal History**: The project began its regulatory process in May 2021, received Stage-I forest clearance in October 2022, and obtained environmental and CRZ clearances on November 11, 2022. These were challenged before the National Green Tribunal. In April 2023, the tribunal flagged deficiencies regarding coral conservation, environmental data adequacy, and zoning issues, and constituted a High-Powered Committee (HPC). After reviewing the HPC findings, the NGT upheld the clearance in the second round of litigation.
- **Strategic and National Importance:** The government considers the project a matter of strategic and defence significance. Great Nicobar Island is located about 40 km from the Strait of Malacca, one of the world's busiest shipping routes. The transshipment terminal aims to reduce India's dependence on foreign ports, enhance maritime trade participation, strengthen India's presence in the Indian Ocean, and curb illegal marine resource exploitation.
- **Ecological Concerns:** The island is a biodiversity hotspot with 20,668 identified coral colonies; 16,150 are proposed for translocation. The project impacts species such as the Leatherback Sea Turtle, Nicobar Megapode, and Saltwater Crocodile, particularly in Galathea Bay. Concerns

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include possible overlap with ecologically sensitive Island CRZ-IA zones, limited one-season Environmental Impact Assessment (EIA) data, and seismic vulnerability due to the region's high tectonic activity.

- **Impact on Tribal Populations:** The island is home to the Shompen and Nicobari tribes. The NGT observed that the project design does not aim to displace tribal habitation and that habitat rights will be protected under the Forest Rights Act. However, allegations have emerged from tribal leaders about coercion in signing no-objection certificates. ANIIDCO must allocate funds to the A&N Tribal Welfare Department for tribal protection and welfare.
- **NGT's Reasoning and Final Clearance:** The NGT adopted a balanced approach, prioritising both environmental safeguards and national security. It accepted findings of the Zoological Survey of India that only scattered coral colonies exist in the direct project area and that translocation is viable.

4. India, Brazil ink pacts on minerals, steel mining; agree to step up trade:

Context: India signed agreements to cooperate in rare earth and critical minerals, and steel mining with Brazil as Prime Minister Narendra Modi held talks with Brazilian President Luiz Inacio Lula da Silva in New Delhi.

More about:

- **Trade Expansion and Mercosur:** PTA Both countries committed to surpassing the $20 billion trade target by 2030 and to expand the Mercosur Preferential Trading Agreement to boost bilateral commerce.
- **Critical Minerals and Diversification:** The agreement on rare earths and critical minerals aims to diversify supply chains away from China's dominance in mineral processing and strengthen resource security.

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- **Digital and Renewable Partnership:** The leaders launched a joint declaration on a future digital partnership, with cooperation in renewable energy and biofuels, reinforcing the Global South's collaboration.
- **Impact of U.S. Tariff Developments:** Following tariff actions by Donald Trump and a ruling by the Supreme Court of the United States, both sides adopted a "wait and watch" approach to assess implications for ongoing trade negotiations.
- **Ambitious Trade Target:** Brazil proposed raising annual bilateral trade to $30 billion by 2030, nearly doubling current levels estimated at $12-15 billion.
- **Broader Strategic Cooperation:** India and Brazil agreed to deepen ties in defence, energy, healthcare, agriculture, pharmaceuticals, and South-South cooperation, while reaffirming support for multilateralism and peace.

Quick Bites:

- A 475-year-old cathedral in Vasai, Mumbai has received international recognition for its community-led restoration. The conservation of the Our Lady of Grace Cathedral in Papdy village earned the Award of Merit at the 2025 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation, announced in Bangkok.
- Vice-President C.P. Radhakrishnan on Saturday released the updated versions of the Constitution of India in Tamil and Gujarati languages, along with the 8th Edition of the Legal Glossary (English-Hindi) at Uprashtrapati Bhavan (Vice-President's Enclave) on the occasion of International Mother Language Day.

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23-02-2026

Prelims articles:

1. **Greenland:**

Context: Denmark and its territory Greenland on Saturday rejected Donald Trump's offer to send a naval hospital ship to the Arctic island coveted by the U.S. President. A day earlier, Mr. Trump said he was sending "a great hospital boat to Greenland to take care of the many people who are sick, and not being taken care of there".

About Greenland:

Political Status and Administration

- Greenland is an autonomous territory within the Kingdom of Denmark.
- It is the largest constituent part of the Kingdom; others are Denmark proper and the Faroe Islands.
- Citizens of Greenland are Danish citizens and thus EU citizens, though Greenland itself is not part of the EU.
- Capital and largest city: Nuuk.

Location and Geography

- World's largest island, located between the Arctic and Atlantic Oceans.
- Lies east of the Canadian Arctic Archipelago; part of the North American continent.
- Shares a 1.2 km land horder with Canada on Hans Island.
- Kaffeklubben Island is the world's northernmost undisputed land point.
- Extremely low population density - least densely populated country in the world.

Historical Background

- Inhabited intermittently for over 4,500 years by circumpolar peoples migrating from present-day Canada.

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- Norse settlement began in the 10th century; disappeared by the late 15th century.
- Inuit arrived in the 13th century and form the majority population today.
- Came under Danish control after Denmark-Norway separation in 1814.
- Integrated into Denmark in 1953, Home Rule granted in 1979, Sell-Government Act passed aller 2008 referendum.

Governance Structure

- Greenland has its own government (Naalakkersuisut) and parliament. Controls most domestic affairs and public services.
- Denmark retains authority over citizenship, defence, monetary policy and foreign affairs.
- Economy and Energy
- Economy heavily dependent on Danish financial aid (over 20% of GDP).
- Rich in mineral resources, gaining importance due to melting ice from global warming. About 67% of electricity is generated from renewable sources, mainly hydropower.

Strategic Importance

- Strategic location between Eurasia, North America and the Arctic.
- Important for Denmark, NATO and the European Union.
- Increasing geopolitical attention due to Arctic routes, minerals and climate change impacts.

Population and Society

- Population: -56,000 (2022), predominantly Inuit.
- Settlement concentrated along the southwest coast.
- High social development indicators: free education and healthcare
- Progressive society with strong LGBTQ rights.

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2. Namo Bharat Rapid Rail:

Context: Prime Minister inaugurated India's first Namo Bharat RRTS and dedicates Delhi-Meerut Namo Bharat Corridor to the Nation.

About Namo bharat Rapid rail:

- Namo Bharat (also known as RapidX) is India's first Regional Rapid Transit System (RRTS), operated by National Capital Region Transport Corporation in the National Capital Region (NCR).
- It is designed to replace conventional non-AC MEMU local trains with semi-high-speed rapid rail services.
- The Namo Bharat trainsets have an average operational speed of about 100 km/h.
- Deutsche Bahn has secured a 12-year contract (worth about 1,500 crore) to operate and maintain the Delhi-Meerut corridor.
- The three Phase-1 corridors-Delhi-Meerut, Delhi-Panipat, and Delhi-Alwar-will converge at Sarai Kale Khan station in Delhi and will be interoperable.
- Stations are integrated with airports, Indian Railways stations, inter-state bus terminals, and Delhi Metro to ensure seamless multimodal connectivity and promote public transport use.

3. SANVAD 2026 (Scholars' Assembly for Next-gen Ventures to Advance their Development):

Context: The Indian Council of Medical Research (ICMR), under the Department of Health Research (DHR), Ministry of Health and Family Welfare, organized SANVAD 2026 (Scholars' Assembly for Next-gen Ventures to Advance their Development) from 19th to 21st February 2026 at the ICMR-National Institute of Malaria Research (NIMR), New Delhi.

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About SANVAD 2026:

- SANVAD is an annual initiative of the Indian Council of Medical Research (ICMR) serving as a rotating national platform for engagement with doctoral scholars.
- It is hosted each year by a different ICMR institute to promote decentralization, institutional collaboration, and exposure to diverse research ecosystems.
- The first edition was held at ICMR-National Institute of Malaria Research.
- The 2027 edition will be hosted by ICMR-National Institute of Nutrition.
- SANVAD aims to enhance the quality, rigor, innovation, and leadership capacity of ICMR Ph.D. scholars.
- It fosters networking and collaboration with experts from academia, industry, and policy sectors.
- SANVAD 2026 was a three-day programme that brought together around 400 doctoral scholars along with senior scientists and policymakers from across India.

4. "Badhna Hai Toh Yahan Judna Hai" ("If you want to grow, you have to join here."):

Context: In a major push to deepen India's digital skilling ccosystem and accelerate progress toward a Viksit Bharat, Shri Jayant Chaudhary, Minister of State (I/C) for Skill Development and Entrepreneurship and Minister of State for Education, Government of India, launched a nationwide awareness campaign titled "Badlia Hai Tuli Yahan Judna Hai" on the sidelines of the India AI Impact Summit 2026.

More about the campaign:

- Legendary actor Amitabh Bachchan has joined the nationwide outreach campaign to promote the Skill India Digital Hub (SIDH).
- Skill India Digital Hub (SIDH) is India's integrated digital platform for skilling, employment, and lifelong learning.

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- SIDH has onboarded over 1.5 crore registered candidates, making it one of India's largest unified digital skilling platforms.
- It supports India's vision of Viksit Dharat by enabling citizens to upskill, reskill, and adapt to AI, automation, and digital transformation.
- Built as a mobile-first, Al-enabled platform, SIDH integrates multiple government skilling initiatives.
- It offers industry-aligned courses, personalized career recommendations, and an LMS-enabled central learning hub.
- Features include digitally verified credentials, QR-code-enabled digital CVs, Aadhaar-based eKYC, OTP login, and support in 21+ Indian languages.
- SIDH caters to students, graduates, professionals, entrepreneurs, and differently-abled individuals.
- It consolidates fragmented skilling and employment services into a single accessible platform, promoting inclusivity and credibility.
- The campaign Badhna Hat Toh Yahan Judna Hat will run across digital platforms and QR-enabled touchpoints to ensure seamless registration and mass outreach.

Mains specific articles:

1. Parliament's historic law, an extended wait for women:

Context: The Hindu Editorial analysis.

Background of the Women's Reservation Act, 2023

- Parliament passed the Women's Reservation Act in September 2023
- It provides 33% reservation for women in the Lok Sabha and State Legislative Assemblies. It was projected as a historis step toward gender justice after decades of political debate.

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Conditional Implementation Clause

- Reservation will come into force only after the first Census conducted post-2026.
- It also requires a subsequent delimitation exercise based on the new Census data.
- Therefore, implementation before the 2029 general elections is constitutionally impossible.

Constitutional Requirements

- The Act mandates two sequential steps: Census and Delimitation.
- Census is expected in 2027, data publication may take 12-18 months.
- Under Constitution of India Article 82, delimitation can begin only after official publication of Census data.
- The Delimitation Commission must redraw 343 parliamentary and over 4,000 Assembly constituencies.

Time Constraints and Logistical Challenges

- Past Delimitation Commissions never completed work in under three years.
- The 2002 Delimitation Commission took six years.
- The upcoming exercise will be more complex, involving seat reallocation among States for the first time since 1976.
- Even on an optimistic estimate, delimitation may conclude only by 2032-33, making 2034 the earliest possible implementation.

Political Logic Behind the Delay

- Immediate implementation within 543 seats would reserve 181 seats for women, displacing male incumbents.
- To avoid political costs, reservation was linked to future delimitation.
- After Census, Lok Sabha seats may increase to 800 or more, reducing displacement pressure.
- Political expansion was preferred over replacement of sitting MPs.

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Historical Background of the Bill

- The first Women's Reservation Bill was introduced in 1996.
- It lapsed multiple times across Lok Sabhas.
- It was passed in the Rajya Sabha in 2010 but never approved in the Lok Sabha.
- The 2023 Act extends women's wait instead of ending it.

Federal Tensions and Delimitation Freeze

- Delimitation was frozen in 1976 and extended in 2001 to avoid penalising States with lower population growth.
- Future delimitation may create a north-south representation imbalance.
- Linking women's reservation to delimitation ties gender justice to unresolved federal disputes.

Exclusion and Design Gaps

- Reservation does not apply to the Rajya Sabha or State Legislative Councils.
- No sub-reservation is provided for OBC women, unlike SC/ST women.
- Rotation of reserved constituencies after every election lacks operational clarity.
- Ambiguities may lead to legal disputes and political manipulation.

Possible Constitutional Solutions

- Parliament can amend the Constitution again to delink reservation from delimitation.
- Article 15(3) allows special provisions for women.
- **Options include:**
  - Implement reservation within existing constituencies temporarily.
  - Expand Lok Sabha immediately by adding women-only seats.
  - Incrementally increase seats before full delimitation.

Need for Political Will

- Parliament must clarify the implementation roadmap.
- Address gaps: include Upper Houses, OBC sub-quota, and clear rotation mechanism.

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- Representation delayed effectively becomes representation denied.

Conclusion

- Though constitutionally valid, the Act postpones women's representation until at least 2034.
- Immediate corrective constitutional action is necessary.
- Indian women have already waited decades; further delay undermines democratic justice.

2. Protecting the freedom of speech of MPs:

Context: The Hindu Editorial Analysis!

- **Context: Freedom of Speech in Parliament -** Recent events in Parliament have reignited debate over the scope of freedom of speech guaranteed to MPs under Article 105 of the Constitution. Though this freedom is subject to constitutional provisions and House rules, it cannot be overridden by them.
- **Article 105: Constitutional Frivilege -** Article 105 grants MPs freedom of speech in Parliament as a core parliamentary privilege. This freedom is essential for the effective functioning of the Legislature and cannot be eclipsed by procedural rules.
- **Misinterpretation of House Rules -** There is a growing misconception that House rules can override constitutional rights. However, rules are meant to regulate proceedings in harmony with the Constitution, not to curtail fundamental privileges.
- **Issue of Expunction of Remarks -** During the Budget Session, concerns arose over extensive expunction of Opposition speeches, particularly those of the Leader of Opposition in Rajya Sabha, Mallikarjun Kharge. Excessive deletions reportedly rendered speeches incoherent, raising questions about infringement of Article 105.
- **Rule 380 and Its Scope -** Rule 380 empowers the Speaker/Chairman to expunge only unparliamentary, defamatory, indecent, or undignified words. It does not authorize deletion of entire sentences or paragraphs unless strictly necessary.

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- **Need for Balanced Application -** While maintaining dignity of the House is vital, mindless or arbitrary application of expunction rules can stifle free and fearless debate, weakening parliamentary democracy.
- **Constitutional Restrictions on Speech -** Article 121 prohibits discussion on the conduct of Supreme Court or High Court judges except during impeachment proceedings. Additionally, House rules restrict references to sub judice matters, personal allegations, questioning bona fides of members, and defamatory claims without prior notice.
- **Weaponisation of Rules -** The problem arises when procedural rules are used as political tools to silence dissent, thereby undermining democratic debate.
- **Importance of Opposition -** A functioning democracy requires a strong Opposition. Constitutional expert Ivor Jennings emphasized that the Opposition's duty is to criticise the government, while the majority must allow such criticism.
- **Need for Mutual Forbearance -** As Jennings warned, parliamentary government depends on mutual respect: the majority governs, and the minority critiques. Without this balance, democratic functioning risks breakdown.

Quick Bites:

- South Korea on Sunday objected to the Takeshima Day event held by Japan's Shimane prefecture, calling it an unjust assertion of sovereignty over its territory. The cluster of disputed islands, known as Takeshima in Japan and Dokdo in South Korea, have long been a source of tension between the two neighbours.
- India created history at the 79th British Academy of Film and Television Arts (BAFTA) with Boong, a Manipuri film directed by Lakshmipriya Devi, winning the country's first award on the prestigious stage, considered the British equivalent of the Oscars. The movie won the award in the Best Children and Family Film category.

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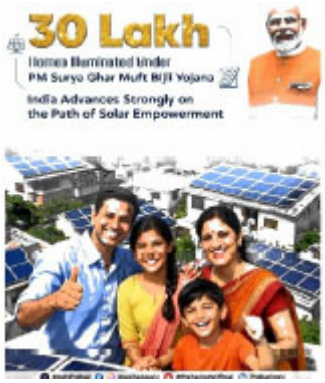
24-02-2026

Prelims articles:

1. **PM Surya Ghar scheme:**

Context: Prime Minister lauds milestone of 30 lakh households adopting rooftop solar under PM Surya Ghar scheme.



About PM Surya Ghar scheme:

- **PM Surya Ghar:** Muft Bijli Yojana was launched by Narendra Modi on 13 February 2024 with an outlay of *75,021 crore.
- The scheme aims to install rooftop solar systems and provide up to 300 units of free electricity per month to one crore households.
- It offers Central Financial Assistance (CFA) of 60% for systems up to 2 kW and 40% for additional capacity between 2-3 kW, capped at 3 kW.
- Beneficiaries can apply for subsidies through the National Portal and select approved vendors for installation.
- Households can avail collateral-free loans at around 7% interest for residential rooftop solar systems up to 3 kW.

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- The scheme includes a "Model Solar Village" component to establish one model village per district to promote rural solar adoption.
- ₹800 crore has been allocated for Model Solar Villages, with 1 crore awarded to each selected village to promote energy self-reliance.

2. Zero defect, Zero effect (ZED) scheme:

Context: Union Minister of Commerce and Industry Shri Piyush Goyal Calls Prime Minister Narendra Modi's 'Zero Defect, Zero Effect Vision the Core of India's Manufacturing Push; Says Quality Key to $30-35 Trillion Economy by 2047.

About Zero defect, Zero effect (ZED:

- Zero Effect Zero Defect Scheme (ZED) was launched in October 2016 and revamped in April 2022 to promote quality and environmentally sustainable manufacturing in MSMEs.
- The scheme provides Bronze, Silver, and Gold certifications based on 20 performance parameters such as quality management, process control, and waste management.
- It aims to promote Zero Defect (quality production) and Zero Effect (environment-friendly manufacturing) among MSMEs.
- The scheme supports the Make in India initiative by encouraging continuous quality upgradation.
- Financial assistance of up to 75% of certification cost (maximum ₹50,000) is provided.
- It offers up to 22 lakh for consultancy/handholding to help MSMEs upgrade to the next certification level.
- Assistance up to 23 lakh is available for technology upgradation and cleaner production solutions.
- Certification fees are ₹10,000 (Bronze), ₹40,000 (Silver), and ₹90,000 (Gold).
- Since December 2023, the scheme has been made free for women-led MSMEs, with 100% financial support for certification costs.
- ZED certification is valid for three years, after which MSMEs must reapply.

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- The scheme is currently applicable only to manufacturing MSMES.

3. INS Anjadip:

Context: The Indian Navy is set to enhance its Anti-Submarine Warfare (ASW) capabilities with the commissioning of Anjadip, the third vessel of the eight-ship Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) project.

About INS Anjadip:

- INS Anjadip is an Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) built indigenously for the Indian Navy.
- The vessel has been constructed by Garden Reach Shipbuilders & Engineers (GRSE), Kolkata, showcasing India's progress towards Aatmanirbhar Bharat in defence manufacturing.
- Designed for littoral (coastal and shallow water) combat, it focuses on detecting and neutralising enemy submarines.
- Equipped with indigenous ASW systems including Hull Mounted Sonar 'Abhay', Lightweight Torpedoes, and ASW Rockets.
- Capable of additional roles such as Coastal Surveillance, Low-Intensity Maritime Operations (LIMO), and Search & Rescue.
- The ship is 77 meters long and powered by a high-speed water-jet propulsion system, achieving speeds up to 25 knots.
- Named after Anjadip Island off Karwar coast, it strengthens India's maritime security, particularly along the Tamil Nadu and Puducherry coasts.

4. Lokayan 26:

Context: Indian Navy's Sail Training Ship INS Sudarshini arrived at Safaga, Egypt on 21 Feb 2026 as part of her ongoing Lokayan-26 deployment.

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About Lokayan 26:

- INS Sudarshini commenced the Lokayan 26 expedition on 20 January 2026, reflecting India's maritime heritage and the spirit of Vasudhaiva Kutumbakam.
- Lokayan 26 is a 10-month transoceanic voyage covering over 22,000 nautical miles and visiting 18 ports in 13 countries.
- The expedition promotes maritime partnerships and advances India's MAHASAGAR (Mutual and Holistic Advancement for Security and Growth Across Regions) vision.
- INS Sudarshini will participate in major international tall-ship events including Escale à Sète and SAIL 250.
- Over 200 Indian Navy and Coast Guard trainees will receive advanced sail training in long-range navigation and traditional seamanship.
- INS Sudarshini is the Navy's second sail training ship after INS Tarangini.

5. Traditional Knowledge Digital Library (TKDL):

Context: The National Institute of Industrial Property (INPI), Brazil and the Council of Scientific and Industrial Research (CSIR), India have entered into a cooperation arrangement on access to the Traditional Knowledge Digital Library (TKDL), a first-of-its-kind prior-art database of Indian traditional knowledge.

About Traditional Knowledge Digital Library (TKDL):

- Traditional Knowledge Digital Library (TKDL) was established in 2001 by the Government of India through collaboration between Council of Scientific and Industrial Research (CSIR) and the Ministry of AYUSH.
- Its primary objective is to prevent wrongful patenting and misappropriation of India's traditional knowledge.

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- TKDL contains over 5.2 lakh formulations and practices from Ayurveda, Unani, Siddha, Sowa Rigpa, and Yoga based on authoritative texts.
- Traditional knowledge is translated, structured, and mapped with modern scientific terminology for global accessibility.
- The database is available in English, German, French, Japanese, and Spanish to assist international patent examiners.
- Access to TKDL is provided to patent offices worldwide under Non-Disclosure Agreements (NDAs).
- With the inclusion of National Institute of Industrial Property (INPI), Brazil, 18 global patent offices now have access to TKDL.
- TKDL is considered a global benchmark for defensive protection of traditional knowledge. → Over 375 patent applications worldwide have been revoked, rejected, amended, withdrawn, or abandoned using TKDL-based prior-art evidence.

6. National Monetisation Pipeline 2.0 (NMP 2.0):

Context: Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman today launched the second phase of asset monetisation pipeline of Central ministries and public sector entities - 'National Monetisation Pipeline 2.0 (NMP 2.0)'. The second phase of the pipeline has been developed by NITI Aayog, in consultation with infrastructure line ministries, based on the mandate for 'Asset Monetisation Plan 2025-30' as announced in the Union Budget 2025-26.

Background:

- The National Monetisation Pipeline (NMP) envisages monetisation of 26 lakh crore through leasing of core central government assets during FY 2022-25.
- It covers infrastructure sectors such as roads, railways, power, oil & gas pipelines, telecom, and civil aviation.

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- NMP focuses only on core assets of central ministries and CPSES, excluding disinvestment and non-core asset monetisation.
- The government is coordinating with states to integrate state-level asset pipelines and expand NMP's scope.
- Monetisation of non-core assets like land and real estate is being shifted from Department of Investment and Public Asset Management (DIPAM) to the Department of Public Enterprises (DPE) under the Ministry of Finance.
- The NMP is designed to fund investments under the National Infrastructure Pipeline (NIP), which targets 111 trillion infrastructure investment by FY25.
- The NMP timeline is aligned to be co-terminus with the remaining period of the National Infrastructure Pipeline.

About National Monetisation Pipeline 2.0 (NMP 2.0):

- National Monetisation Pipeline 2.0 (NMP 2.0) estimates an aggregate monetisation potential of *16.72 lakh crore for FY 2026-2030.
- The target includes 35.8 lakh crore of private sector investment under the asset monetisation pipeline of central ministries and public sector entities.
- The five-year target is over 2.6 times higher than that of NMP 1.0.
- NMP 2.0 was released in the presence of the CEO of NITI Aayog and Secretaries of key infrastructure ministries.
- The pipeline covers sectors including roads, railways, power, petroleum & natural gas, civil aviation, ports, telecom, tourism, mining, coal, housing and urban affairs, and food & public distribution.
- The initiative reflects a whole-of-government approach, developed through multi-stakeholder consultations led by NITI Aayog and the Ministry of Finance.

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- Ministries have been encouraged to surpass the monetisation targets through proactive implementation efforts.

Mains specific articles:

1. **"PRAHAAR" National Counter-Terrorism Policy & Strategy: (GS paper 3)**

Context: The "PRAHAAR" National Counter-Terrorism Policy & Strategy, issued by the Ministry of Home Affairs, outlines India's comprehensive framework for combating terrorism through a "zero tolerance" approach.

Major highlights of the policy:

Core Philosophy and 'PRAHAAR'

- **Zero Tolerance:** India maintains a principled stance against all forms of terrorism, regardless of religion, ethnicity, or nationality.
- **Strategic Ideals:** The 'PRAHAAR' strategy is built on protecting citizens, swift responses, aggregating internal capacities, and upholding the Rule of Law.

Current Threat Profile

- **Cross-Border & Global Groups:** India faces sponsored terrorism from across the border, as well as threats from global groups like Al-Qaeda and ISIS.
- **Technological Evolution:** Terrorists are increasingly using drones, robotics, encrypted messaging, the dark web, and crypto wallets to operate.
- **Criminal Nexus:** There is a growing link between terrorist groups and organized criminal networks for logistics and recruitment.

Prevention and Intelligence

- **Intelligence-Guided Approach:** Primacy is given to intelligence gathering through the Multi Agency Centre (MAC) and the Joint Task Force on Intelligence (JTFI).

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- **Cyber Disruption:** Law enforcement actively disrupts online recruitment, propaganda, and terror funding networks.
- **Border & Critical Infrastructure:** State-of-the-art tools are used to secure land, water, and air borders, as well as critical sectors like atomic energy and space.

Response and Capacity Building

- **Tiered Response:** Local police act as first responders, supported by specialized State CT Forces and the National Security Guard (NSG) at the nodal level.
- **Modernization:** Continuous acquisition of advanced weaponry and the standardization of training (conducted by BPR&D and NSG) ensure synergistic responses.

Legal Framework and Human Rights

- **Rule of Law:** Counter-terrorism efforts adhere to the Protection of Human Rights Act and international covenants.
- **Principal Laws:** The Unlawful Activities (Prevention) Act, 1967, is the primary legal regime, supported by modern codes like the Bharatiya Nyaya Sanhita.

Social and International Dimensions

- **De-radicalization:** India employs "graded police responses" and engages community leaders and NGOs to counter radicalization.
- **Socio-Economic Initiatives:** Government schemes addressing poverty and education aim to prevent the exploitation of vulnerable communities.
- **Global Collaboration:** India utilizes Mutual Legal Assistance Treaties (MLATS) and Extradition Treaties to share evidence and designate terrorists at the UN.

The Way Forward

- **Uniformity:** There is a push for uniform anti-terrorism structures and methodologies across all Indian States and Union Territories.
- **Legal Expertise:** Integrating legal experts at every stage of investigation from the FIR to prosecution is highlighted as a priority.

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- **Futuristic Threats:** Continued investment in technology and private sector partnerships is essential to mitigate evolving threats like the misuse of ICT.

2. Rethinking tribal women's inheritance rights: (GS paper 1)

Context: The Hindu Editorial Analysis.

- **Background: Exclusion of Tribal Women from Inheritance Rights -** Customary laws in most tribal communities deny women absolute property rights. The Hindu Succession Act, 1956 grants daughters equal inheritance rights but excludes Scheduled Tribes under Section 2(2), leaving tribal women outside its ambit.
- **Inconsistent Judicial Approach Before 2025 -** Earlier, courts sometimes granted inheritance rights to tribal women who had 'Hinduised' adopted Hindu customs after abandoning tribal practices. This led to uncertainty, as some women were excluded under customary law while others were included through religious conversion.
- **Supreme Court Verdict in Nawang v. Bahadur (2025) -** In Nawang v. Bahadur, a Bench of Justices Sanjay Karol and Prashant Kumar Mishra ruled that the Hindu Succession Act cannot apply to Scheduled Tribes under any circumstances. The Court overturned the High Court of Himachal Pradesh order that had allowed 'Hinduised' tribal daughters inheritance rights. It held that only Parliament can extend the Act to Scheduled Tribes.
- **Reaffirmation of Constitutional Protection -** The judgment reaffirmed the constitutional principle of protecting indigenous communities and upheld the validity of Section 2(2), which excludes Scheduled Tribes from the Act's application.
- **Contract with Ram Charan v. Sukhram -** In Ram Charan v. Sukhram, the Court had recognised that excluding daughters from ancestral property violates the right to equality. However, this equality principle was not extended to Scheduled Tribes due to statutory exclusion.

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- **Definition of 'Hindu' and Conversion -** In Sastri Yagnapurushadji v. Muldas Brudardas Vaishya, the Supreme Court described Hinduism as a "way of life." Conversion requires bona fide intention and conduct. However, conversion does not automatically erase tribal identity unless tribal customs are permanently abandoned.
- **Problem of 'Hinduisation' -** The earlier judicial practice of granting rights through 'Hinduisation' pressured tribal women to choose between tribal identity and property rights, undermining constitutional protection of tribal culture.
- **Judicial Overreach and Legislative Domain -** The Supreme Court clarified that courts cannot direct legislative changes. Extending inheritance rights to Scheduled Tribes falls within Parliament's authority, not judicial interpretation.
- **Need for a Special Legislative Framework -** The ruling highlights the necessity for a separate enactment governing tribal succession. Codifying customary laws on the lines followed in Mizoram could ensure gender parity while preserving tribal identity.
- **Conclusion -** The 2025 verdict ends judicial inconsistency but leaves the substantive issue unresolved. Ensuring equal inheritance rights for tribal women now depends on legislative intervention rather than judicial expansion of the Hindu Succession Act.

3. India a big contributor to global toxicity by pesticides: (GS paper 3)

Context: India is among four countries- along with China, Brazil and United States - contributing nearly 70% of the world's Total Applied Toxicity (TAT) from agricultural pesticides, causing severe collateral damage to non-target species.

What is Total Applied Toxicity (TAT)?

- Total Applied Toxicity (TAT) is a measure used to estimate the overall toxic impact of pesticides applied in a country or region by combining the quantity of pesticide used with its toxicity to non-target organisms.

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- It reflects not just how much pesticide is sprayed, but how harmful those chemicals are to species such as pollinators, fish, soil organisms, terrestrial arthropods, aquatic plants, and vertebrates.
- In simple terms, TAT = Amount of pesticide applied Toxicity of the active ingredient to specific non-target species.

More about the study:

- **Global Commitment at UN Biodiversity Conference (2022) -** At the United Nations Biodiversity Conference, countries pledged to reduce pesticide risk by 50% by 2030, but current trends indicate that progress is off track.
- **Findings of the Science Study (2013-2019) -** A study published in Science analysed over 600 pesticides across 65 countries and found that global TAT increased between 2013 and 2019, with rising toxicity levels in India, the U.S., Brazil and several African nations.
- **Crops and Scale of Usage -** Pesticides were heavily used on fruits, vegetables, maize, soybean, rice and other cereals, contributing significantly to ecological toxicity.
- **Impact on Non Target Species -** Terrestrial arthropods were the most affected, followed by soil organisms and fish. Toxic effects extended to pollinators, aquatic plants, invertebrates, terrestrial vertebrates and even humans.
- **Pervasiveness in Daily Life -** Public policy expert Narasimha Reddy Donthi highlighted that pesticides now permeate everyday cnvironments - including wall paints, incense sticks, furniture, aircraft cabins, stored grains and temple prasad.
- **Limitations of the Insecticides Act, 1968 -** The Insecticides Act, 1968 primarily regulates agricultural use and inadequately covers domestic and commercial applications. It is considered outdated given increased toxicity, persistence in soil and water, and evolving patterns of use. India reportedly continues to use at least 66 pesticides banned elsewhere.

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- **Proposed Pesticides Management Bill, 2025 -** The Pesticides Management Bill, 2025 seeks to reduce environmental risk and promote biological and traditional alternatives. However, concerns remain about insufficient expert consultation and weak liability provisions.
- **Need for Agricultural Transformation -** Experts argue for a long-term shift away from Green Revolution-style chemical-intensive agriculture towards sustainable practices, considering farmer distress, climate change and chemical residue concerns.
- **Call for Global Monitoring and Transparency -** Jakob Wolfram of the University Kaiserslautern-Landau stressed the need for countries to regularly report pesticide usage data by active ingredient to enable effective monitoring.
- **Warning from Silent Spring -** Environmental activist Rachel Carson in her book Silent Spring cautioned about the pervasive and dangerous effects of pesticides, urging greater awareness of their long-term impact on life and ecosystems.

4. On the independence of the EC: (GS paper 2)

Context: The Hindu Explained:

- **Free and Fair Elections as Basic Structure:** Free and fair elections are part of the Basic Structure doctrine as held in Indira Nehru Gandhi v. Raj Narain, forming the foundation of India's democratic framework.
- **Allegations of Electoral Irregularities and SIR Controversy:** The Election Commission has faced allegations of 'vote theft and manipulation of electoral rolls during the Special Intensive Revision (SIR), particularly in Bihar, where around 65 lakh names were reportedly deleted. The matter has been challenged before the Supreme Court.
- **Right to Vote and Article 326:** Adult suffrage under Article 326 of the Constitution guarantees universal franchise. Any procedural irregularity in voter list revision undermines the sanctity of the democratic process.

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- **Controversy over the 2023 Appointment Law:** The Chief Election Commissioner and other Election Commissioners (Appointment, Conditions of Office and Terms of Office) Act, 2023 replaced the 1991 Act and provides that the CEC and Election Commissioners are appointed by the President based on recommendations of a committee comprising the Prime Minister, a Union Minister and the Leader of Opposition.
- **Deviation from Anoop Baranwal Judgment:** In Anoop Baranwal v. Union of India, the Supreme Court had directed inclusion of the Chief Justice of India in the selection committee. The 2023 Act excluded the CJI, leading to concerns about the independence of the Election Commission. The Act is under challenge in Jaya Thakur v. Union of India.
- **Constitutional Mandate under Article 324:** Article 324 establishes a permanent Election Commission with powers of superintendence, direction and control over elections to the offices of President, Vice-President, Parliament and State legislatures, ensuring constitutional status and independence.
- **Security of Tenure and Removal of CEC:** Under Article 324(5), the CEC can only be removed in the manner prescribed for a Supreme Court judge under Article 124(4), i.e., on grounds of proved misbehaviour or incapacity. Conditions of service cannot be altered to the CEC's disadvantage during tenure.
- **Removal of Other Election Commissioners:** Other Election Commissioners may be removed by the President on the advice of the CEC. In Vineet Narain v. Union of India, the Supreme Court held that such advice cannot be given suo motu, maintaining institutional balance.
- **Evolution into a Multi-Member Commission:** The Commission became permanently multi-member in 1993, a decision upheld in T. N. Seshan v. Union of India. The CEC functions as Chairman of the Commission, ensuring collective and consensus-based decision-making.
- **Procedure for Removal of CEC:** The removal process is quasi-judicial and rigorous, read with Article 124(4) and Section 3 of the Judges (Inquiry) Act, 1968. A motion requires signatures of at least 100 Lok Sabha members or 50 Rajya Sabha members. A three-member inquiry committee is

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constituted comprising the CJI or a Supreme Court Judge, a High Court Chief Justice and a distinguished jurist. Principles of natural justice, including fair hearing, must be followed.

- **Political Realities and Majority Factor:** Though the Opposition seeks to move a motion against the CEC, the ruling alliance's parliamentary majority makes its passage unlikely. The government denica allegations of bina.
- **Need to Preserve Institutional Credibility:** While dissent against constitutional bodies is legitimate, excessive politicisation may undermine democratic institutions. Safeguards under the Constitution must be preserved to maintain fairness in elections and the balance between executive authority and institutional independence.

Quick Bites:

- The President of India, Smt. Droupadi Murmu unveiled the bust of Shri Chakravarti Rajagopalachari, the first and only Indian Governor General of independent India at Rashtrapati Bhavan.
- The Ministry of Ayush, Government of India, in collaboration with All India Ayurvedic Congress is organising a four-day "National Arogya Fair 2026" at the holy town of Shegaon in Buldhana district, Maharashtra, from 25 to 28 February 2026. The fair aims to promote Ayush systems of medicine among the general public, provide comprehensive health services and create new livelihood opportunities for farmers through medicinal plant cultivation and agroforestry.
- The Palamu Tiger Reserve (PTR) in Jharkhand has launched the 'Vanjeevi Didi' initiative, a community-driven conservation programme aimed at empowering women to protect forests and wildlife.
- Paul Thomas Anderson's politically charged thriller One Battle After Another won six prizes, including best picture, at the British Academy Film Awards.

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25-02-2026

Prelims articles:

1. **India-GCC Free Trade Agreement (FTA):**

Context: India and Gulf Cooperation Council Sign Joint Statement on the India-GCC Free Trade Agreement.

More about the agreement:

- **GCC as India's Largest Trading Partner Bloc:** The Gulf Cooperation Council (GCC) is India's largest trading partner bloc, with bilateral trade reaching USD 178.56 billion in FY 2024-25, accounting for 15.42% of India's total global trade.
- **Trade Composition (FY 2024-25):** India's exports to GCC stood at USD 56.87 billion, while imports were USD 121.68 billion, reflecting a significant trade volume driven largely by energy imports.
- **Growth Trend:** Over the past five years, India-GCC trade has recorded an average annual growth rate of 15.3%, indicating steady expansion of economic ties.
- **Key Indian Exports to GCC:** Major exports include engineering goods, rice, textiles, machinery, and gems & jewellery.
- **Key Imports from GCC:** Primary imports consist of crude oil, LNG, petrochemicals, and precious metals such as gold.
- **Economic Significance of GCC Bloc:** The GCC countries collectively represent a market of about 61.5 million people (2024) with a combined GDP of approximately USD 2.3 trillion at current prices, ranking 9th globally.
- **Investment Linkages:** The GCC is a major source of Foreign Direct Investment (FDI) for India, with cumulative investments exceeding USD 31.14 billion as of September 2025.

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- **Indian Diaspora as a Strategic Bridge:** Nearly 10 million Indians reside in GCC countries, serving as a strong people-to-people bridge and strengthening bilateral economic and cultural relations.
- **Corporate Presence:** A substantial presence of Indian companies across the GCC further reinforces economic cooperation and long-term strategic partnership.

About Gulf Cooperation Council:

- The Gulf Cooperation Council (GCC) is a regional political and economic alliance established in 1981.
- It comprises six member countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.
- The GCC was formed in response to regional instability following the Iranian Revolution and the Iran-Iraq War.
- Its primary objective is to promote economic, security, cultural and social cooperation among member states.
- The headquarters of the GCC is located in Riyadh.

2. Exercise VAJRA PRAHAR:

Context: The US Army contingent has arrived in India to participate in the 16th edition of the India-US Joint Special Forces Exercise VAJRA PRAHAR, scheduled to be conducted at the Special Forces Training School, Bakloh, Himachal Pradesh, from 24 February to 16 March 2026.

About Exercise Vajra Prahar

- Exercise Vajra Prahar is a joint Special Forces exercise conducted between the Indian Army and the US Army.

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- The exercise aims to deepen defence cooperation and enhance interoperability and joint operational readiness between the two forces.
- The year 2026 marks the 16th edition of the exercise.
- It will be conducted at the Special Forces Training School, Bakloh, in Himachal Pradesh.
- The exercise focuses on the exchange of advanced special operations tactics, techniques and procedures (TTPs).
- It emphasises counter-terrorism operations, precision strikes, intelligence-based missions and joint planning under simulated battlefield conditions.
- **Other exercises:** India and the United States conduct several key defence exercises across all three services to enhance interoperability and strategic cooperation. Exercise Yudh Abhyas is an annual Army drill focusing on counter-insurgency, counter-terrorism and UN peacekeeping operations, while Exercise Vajra Prahar strengthens Special Forces coordination in counter-terror and special operations. Exercise Malabar, originally bilateral, is now a multilateral naval exercise involving Quad partners and focuses on high-end maritime warfare, and Tiger Triumph is a tri-service Humanitarian Assistance and Disaster Relief (HADR) exercise. In the air domain, Exercise Cope India enhances acrial combat capabilities, while India also participates in major U.S.-led exercises such as RIMPAC and Red Flag to gain exposure to advanced joint operational environments.

3. Exercise 'DHARMA GUARDIAN":

Context: The 7th edition of the annual Joint Military Exercise 'DHARMA GUARDIAN' between the Indian Army and the Japan Ground Self-Defense Force (JGSDF) commenced today at the Foreign Training Node, Chaubattia in Uttarakhand. The exercise will be conducted from 24 February to 9 March 2026.

About Exercise 'DHARMA GUARDIAN':

- Exercise Dharma Guardian is a joint military exercise conducted between India and Japan. It is an annual exercise held alternately in India and Japan.

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- The exercise aims to enhance interoperability between the Indian Army and the Japan Ground Self-Defense Force.
- It focuses on joint urban warfare and counter-terrorism operations under a UN mandate.
- The objective is to strengthen military collaboration and improve combined operational capabilities in semi-urban environments.
- Participating troops emphasise high physical fitness, joint planning and synchronised tactical drills during the exercise.
- India-Japan Multilateral Exercises: Veer Guardian (air force), SHINYUU Maitri (air force). JIMEX (naval), and Malabar (naval) (along with Australia and the US).

4. Him-CONNECT':

Context: The Union Ministry of Environment, Forest and Climate Change (MOEFCC) is organising 'Him-CONNECT", as part of the The Energy and Resources Institute's (TERI) World Sustainable Development Summit (WSDS), from 25th - 27th February 2026 in New Delhi.

What is Him-CONNECT"?

- 'Him-CONNECT' is a platform aimed at connecting researchers working in the Indian Himalayan Region (IHR) with start-ups, investors and policymakers to enable the scaling and on-ground application of their research outcomes.
- More than 24 technologies, prototypes, patents and pilot projects developed for the fragile ecosystem of the Indian Himalayan Region under the Ministry's National Mission on Himalayan Studies (NMHS) will be showcased during Him-CONNECT.
- The event will be attended by over 100 start-ups, incubators, investors and policymakers.

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5. SUJVIKA platform:

Context: To mark the 40th Foundation Day of Department of Biotechnology, Union Minister Dr Jitendra Singh launches "SUJVIKA" AI driven Biotech Product Data Portal, developed in collaboration with Industry partners ABLE

About SUJVIKA platform:

- SUJVIKA is a Trade Statistics Digital Intelligence Platform for authenticated biotechnology product import data.
- It presents structured and accessible data on biotech imports across sectors.
- The portal provides sector-wise insights into biochemical products, industrial enzymes and other biotechnology imports.
- It helps researchers, startups and industry identify high-value and high-volume import items.
- It enables assessment of import dependency and supports prioritisation of indigenisation and R&D efforts.
- It promotes evidence-based policy planning in the biotechnology sector.
- It encourages public-private partnerships to strengthen domestic biomanufacturing capacity.

6. HPV Vaccination:

Context: The Union Health Ministry is set to launch a nation-wide Human Papillomavirus (HPV) vaccination programme targeting girls aged 14.

More about:

- **Voluntary and Free Vaccination Programme** - The HPV vaccination programme in India will be voluntary and provided free of cost to ensure equitable access across socio-economic groups.
- **Vaccine Used Gardasil (Quadrivalent HPV Vaccine)** - India will use Gardasil, which protects against HPV types 16 and 18 (major causes of cervical cancer) and types 6 and 11.

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- **Single-Dose Effectiveness** - Scientific evidence, both global and Indian, supports that a single dose administered in the recommended age group provides strong and durable protection.
- **Target Age Group** - The programme will primarily target 14-year-old girls, as vaccination at this age ensures maximum preventive benefit before potential exposure to HPV.
- **Procurement and Global Partnership** - Vaccines have been secured through a transparent procurement process under partnership with Gavi, the Vaccine Alliance, ensuring quality, affordability and uninterrupted supply.
- **Regulatory and Quality Standards** - The vaccine is approved by India's drug regulator and procurement adheres to strict quality assurance and cold chain management standards.
- **Implementation at Government Facilities** - Vaccination will be conducted at designated government health institutions including Ayushman Arogya Mandirs (PHCs), Community Health Centres, Sub-District Hospitals, District Hospitals and Government Medical Colleges.
- **Safety and Monitoring Measures** - Each session will be supervised by trained medical officers and healthcare teams, with arrangements for post-vaccination observation and management of rare adverse events.
- **Burden of Cervical Cancer in India** - Cervical cancer is the second most common cancer among women in India, with nearly 80,000 new cases annually, despite being largely preventable.
- **Vaccine Safety and Global Evidence** - HPV vaccines are non-live, cannot cause infection, and have demonstrated 93-100% effectiveness against vaccine-covered HPV types, with over 500 million doses administered globally since 2006.
- **Global Adoption of Single - Dose Strategy -** More than 90 countries worldwide have adopted single-dose HPV vaccination schedules to enhance coverage and affordability.

About cervical cancer:

- Cervical cancer develops in a woman's cervix.
- It is the 4th most common type of cancer among women globally.

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- Almost all cervical cancer cases (99%) are linked to infection with high-risk Human Papillomavirus (HPV), an extremely common virus transmitted through sexual contact.
- HPV vaccination and secondary prevention approaches (screening for and treating precancerous lesions) will prevent most cervical cancer cases.
- When diagnosed, cervical cancer is one of the most successfully treatable forms of cancer.

About HPV vaccination:

- **Definition** - Human Papillomavirus (HPV) is a group of more than 200 related viruses, over 40 of which spread through direct sexual contact.
- **Cancer-Causing Types** - About a dozen high-risk HPV types can cause cancers, and over 95% of cervical cancer cases are linked to HPV infection.
- **Other Effects** - Two low-risk HPV types are responsible for causing genital warts.
- **Transmission** - HPV is the most common sexually transmitted infection (STI) globally and can also spread through skin-to-skin contact.
- **Asymptomatic Nature** - Most infected individuals do not show symptoms and may be unaware of carrying the virus.
- **Natural Clearance** - In most cases, the body clears HPV naturally, but persistent infection can lead to cancer.
- **Prevention Through Vaccination** - HPV vaccination helps prevent infections that may progress to cancer or genital warts in both men and women.
- **Vaccine Schedule** - The HPV vaccine is administered as a series of shots to provide protection against infection.
- **Ideal Age Group** - Vaccination is most effective when given between 9-26 years of age, preferably before exposure to the virus.
- **Limited Effect After Infection** - The vaccine is less effective if a person is already infected

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with HPV.

- **Pregnancy Precaution** - The HPV vaccine is not recommended during pregnancy.

7. K. Vijay Raghavan committee:

Context: high-level committee including K. Vijay Raghavan and S. Somanath has been formed to examine systemic and organisational issues behind repeated failures of Indian Space Research Organisation's PSLV missions..

More about:

- **Recent PSLV Failures -** PSLV-C62 (January 12) failed after the third stage did not ignite, leading to loss of 16 satellites; similarly, PSLV-C61 (May 18, 2025) failed due to third-stage malfunction, destroying the EOS-09 satellite.
- **Shift from Technical to Systemic Review** - Unlike routine Failure Analysis Committees that focus on technical faults, this panel will assess broader organisational, manufacturing, procurement and assembly processes.
- **External and Independent Oversight** - The committee comprises experts external to ISRO and is expected to submit its findings to ISRO Chairman V. Narayanan before April.
- **National Security Attention** - Ajit Doval, also a member of the Space Commission, visited the Vikram Sarabhai Space Centre following the PSLV-C62 failure.
- **Parallel Technical Inquiry** - ISRO's internal technical committee is set to submit a report on PSLV-C62, while details of the earlier Failure Analysis Committee report on PSLV-C61 remain undisclosed despite being sent to the Prime Minister's Office.
- **Accountability in Expanding Space Ecosystem** - With growing private sector participation in India's space ecosystem, the probe will also examine accountability mechanisms and process improvements.

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- **Third-Party Appraisal** - Union Minister of State Jitendra Singh confirmed that a third-party appraisal of the PSLV failures is underway.

About PSLV:

- **PSLV** - The Polar Satellite Launch Vehicle (PSLV) is India's third-generation launch vehicle developed by the Indian Space Research Organisation and has been operational since its first successful launch in October 1994.
- **Technological Milestone** - PSLV was the first Indian rocket to use liquid propulsion stages, marking a major advancement in India's space technology.
- **ISRO's Workhorse** - Known for reliability and cost-effectiveness, PSLV is widely used for launching satellites into Low Earth Orbit (LEO) and Sun-Synchronous Polar Orbit (SSPO).
- **Four-Stage Configuration** - PSLV is a four-stage launch vehicle using a combination of solid and liquid propulsion systems for optimal performance.
- **PSI (First Stage)** - A solid rocket motor using HTPB propellant provides initial lift-off thrust, with six additional strap-on boosters in the PSLV-XL variant for enhanced payload capacity.
- **PS2 (Second Stage)** - Powered by the Vikas liquid engine using UDMH fuel and N:O. oxidiser, ensuring controlled ascent and trajectory precision.
- **PS3 (Third Stage)** - A solid motor using HTPB that operates in near-vacuum conditions to accelerate the rocket to orbital velocity.
- **PS4 (Fourth Stage)** - A liquid stage using MMH and MON propellants, enabling precise orbital insertion and multi-satellite deployment.
- **Payload Capacity** - PSLV can carry up to 1,750 kg to a 600 km SSPO and about 1,425 kg to Sub-Geostationary Transfer Orbit (GTO).
- **Major Achievements** - PSLV successfully launched landmark missions such as Chandrayaan-1 and Mars Orbiter Mission, enhancing India's global space credentials.

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Mains specific articles:

1. **An Israel visit — its strategic, economic, regional impact: (GS paper 2)**

Context: the Hindu Editorial Analysis:

- **West Asian Security Crisis** - The region faces the risk of a major military conflict amid a large U.S. military buildup in the Persian Gulf, Iran's defiance against the U.S., fragile Gaza ceasefire (since October 2025), and emerging rival blocs involving the UAE and Saudi Arabia.
- **Prime Minister Modi's Israel Visit (Feb 25-26, 2026)** - Narendra Modi to undertake his second visit to Israel after the historic 2017 visit; standalone visit without Palestinian Authority engagement reflects India's "de-hyphenated" approach.
- **Strategic Rationale of the Visit** - Visit aims to deepen strategic partnership amid regional instability and explore India's constructive role in security, peace efforts, and regional balancing.
- **Defence Partnership and Convergence -** India is Israel's largest defence customer (34% of exports 2020-24 as per Stockholm International Peace Research Institute); cooperation evolved from imports to joint development and technology collaboration.
- **Key Defence Projects** - Co-development of Barak-8 missile defence system; 2022 India-Israel Vision on Defence Cooperation; November 2025 agreement on advanced systems; focus on strengthening India's air and missile defence after Operation Sindoor (May 2025) including potential procurement/co-production of Iron Beam laser defence system.
- **Technology and Innovation Cooperation** - Over 35 Centres of Excellence in India for agriculture and horticulture; collaboration in water management through MASHAV agreements with Haryana and Rajasthan; Al emerging as future focus area.
- **Bilateral Trade and Economic Engagement** - Bilateral trade reached $3.75 billion in FY2024-25; India is Israel's second-largest Asian trading partner; trade expanding beyond diamonds and chemicals into electronics, high-tech, communications and medical equipment.

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- **FTA and Investment Momentum** - Bilateral Investment Agreement signed (September 2025); Terms of Reference for FTA signed during Piyush Goyal's November 2025 visit; possible push for infrastructure cooperation and skilled mobility arrangements.
- **IMEC Connectivity Initiative** - India-Middle East-Europe Economic Corridor announced at G20 New Delhi Summit 2023; aims to provide secure alternative to Suez Canal route; progress linked to regional stability and Gaza peace.
- **Gaza Peace Process Discussions -** Likely talks on Gaza stabilisation after February 19, 2026 summit led by Donald Trump; India participated as observer; potential Indian role under consideration.
- **Regional Balancing by India -** India maintains ties with Israel, Gulf nations, Iran and Arab countries; recent outreach includes India-Arab Foreign Ministers' Meeting (Jan 2026) and visits to Jordan and Oman, reflecting strategic balance.
- **Israel's 'Hexagon' Proposal -** Israeli PM Benjamin Netanyahu proposed a 'hexagon' alliance including India, Arab, African, Mediterranean and Asian nations against radical axes; India likely to approach cautiously given its diverse regional ties.
- **Strategic Significance of the Visit** - Modi's address to the Knesset and innovation centre visit underline deepening partnership; visit seen as pivotal with long-term implications for bilateral ties and regional geopolitics.

2. AI: India must contend with basic constraints: (GS paper 3)

Context: As the Al Impact Summit drew to a close on Friday, it was clear the government sought to make India the centre of all things for AI in the world.

- **Rising Al Adoption in India** - As per OpenAl report, Indian users extensively utilise advanced data analysis, writing and technical tools on ChatGPT, effectively narrowing the "capability overhang" between LLM potential and real-world usage.

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- **Digital Readiness and AI Enthusiasm** - India's rapid adoption of digital public infrastructure such as Aadhaar and Unified Payments Interface demonstrates strong societal acceptance of transformative technologies, reinforcing Al diffusion across sectors.
- **Impact on Knowledge Work** AI integration is expected to reshape Internet usage patterns, accelerate LLM adoption in firms, and transform knowledge work beyond the traditional IT industry.
- **Infrastructure and Energy Constraints** - Al systems rely on expensive GPUs and energy-intensive data centres; inference costs are substantial and power consumption poses long-term sustainability and cost challenges.
- **Dependence on Foreign Data Centres** - With hyperscalers investing hundreds of billions globally, India risks remaining a net inference importer if domestic data centre capacity and capital investment lag behind demand.
- **Semiconductor and Hardware Efforts** - The India Semiconductor Mission has progressed efficiently, but India's electronics manufacturing ecosystem lacks strong global strategic leverage and remains largely a diversification hub away from China.
- **Human Capital Advantage** India's primary structural strength lies in its skilled workforce, though challenges remain in attracting and retaining top Al talent due to salary competition and quality-of-life factors.
- **Disruption in IT Sector** - Advanced Al coding models such as Claude can perform complex programming tasks rapidly, unsettling investors and raising concerns about traditional IT services as a stable middle-class pathway.
- **Policy Response and Future Outlook** The government's AI strategy acknowledges infrastructure and talent constraints, focusing on calibrated expansion while leveraging India's digital adoption strengths.

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3. Does the Data Act dilute the Right to Information Act?: (GS paper 2)

Context: The petitions challenging the amendment to the Right to Information (RTI) Act that provides blanket exemption for personal information, through a section in the Digital Personal Data Protection (DPDP) Act, has been referred to a Constitution Bench of the Supreme Court.

More about:

- **Judicial Background** - Right to Privacy - In Justice K.S. Puttaswamy v. Union of India (2017), the Supreme Court declared the right to privacy a fundamental right under Articles 21 and 19, directing the government to establish a data protection regime.
- **Formation of DPDP Framework** - A committee headed by B. N. Srikrishna submitted a draft data protection Bill in July 2018; Parliament enacted the DPDP Act in August 2023 to regulate processing of personal data of 'data principals' by 'data fiduciaries".
- **Original RTI Safeguard** - Section 8(1)) of the RTI Act exempted disclosure of personal information unless larger public interest justified it, thereby maintaining a balance between transparency and privacy.
- **Controversial Amendment (Section 44(3))** - The DPDP Act amended Section 8(1)() to provide a blanket exemption for personal information without the earlier public interest override, significantly restricting access to such information.
- **Grounds of Challenge** - Petitioners argue that the amendment is ultra vires the Constitution as it disproportionately curtails the fundamental right to information under Articles 19 and 21 and undermines transparency.
- **Implications for Accountability** - The amendment may prevent disclosure of public officials' asset declarations, procurement records, audit reports and public expenditure details, even where larger public interest exists.

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- **Judicial Consideration and Way Forward** - The Court may define the scope of personal information'; however, critics argue the amendment should be repealed to restore the earlier proportional balance between privacy and transparency under the RTI framework.

4. The evolving nature of trade agreements: (GS paper 2)

Context: U.S. President Donald Trump has signed several trade agreements with countries such as Malaysia, Cambodia, Argentina, and Bangladesh. These agreements have been signed under the shadow of intimidating and illegal tariffs.

More about:

- **Trump's Agreements on Reciprocal Trade (ARTS)** - Donald Trump has signed Agreements on Reciprocal Trade (ARTS) with countries such as Malaysia, Cambodia, Argentina and Bangladesh, positioning them as distinct from traditional Free Trade Agreements (FTAs); a trade deal has also been announced with India.
- **Three Typologies of Trade Agreements** - International trade arrangements now broadly fall into three categories: multilateral agreements (WTO framework), preferential trade agreements (FTAs and Customs Unions under GATT Article XXIV), and the new U.S.-led ARTS.
- **Multilateral Trade Framework (GATT-WTO)** - The World Trade Organization, rooted in the General Agreement on Tariffs and Trade, promotes non-discriminatory trade through the Most-Favoured-Nation (MFN) principle; it expanded trade rules to services and intellectual property and created a dispute settlement system with a one-country-one-vote structure.
- **Purpose of Multilateralism** - The U.S. originally championed multilateralism to prevent interwar protectionism; WTO's institutional structure provides developing countries scope for coalition-building and bargaining power.

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- **Preferential Trade Agreements (FTAS & Customs Unions)** - Permitted under GATT Article XXIV as exceptions to MFN; must cover "substantially all trade," and Customs Unions must adopt a common external tariff; intended as building blocks for multilateralism.
- **Proliferation of FTAs** - Since the 1990s, FTAs have expanded significantly, including mega-regional agreements such as Regional Comprehensive Economic Partnership; many are WTO-plus, covering labour, environment and investment rules; they are notified to the WTO for scrutiny.
- **Legal Ambiguity of ARTS** - U.S. ARTS are not signed under GATT Article XXIV and lack institutional linkage with the WTO, making their legal status questionable under international trade law.
- **'America First' Orientation** - ARTS reflect a unilateral trade approach where the U.S. retains tariffs inconsistent with WTO obligations while compelling partners to reduce barriers on U.S. goods; agreements reportedly include one-sided provisions strengthening U.S. economic and security interests.
- **Concerns over Sovereignty and Data Rules -** Certain ART provisions allegedly restrict partners' policy autonomy, including data sovereignty and trade measures aligned with U.S. security actions, raising concerns about unequal obligations.
- **Implications for Trade Multilateralism** - Since ARTS are not notified to the WTO, they escape multilateral scrutiny; critics argue they weaken the global rules-based system and pose challenges for developing countries committed to trade multilateralism.

Quick Bites:

➢ The President of India Smt Droupadi Murmu inaugurated a nationwide campaign 'Saving Lives and Building a Healthier Bharat', being organised by PD Hinduja Hospital, at Lok Bhavan, Mumbai.

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- The Ministry of Ayush, Government of India, in collaboration with the All India Ayurvedic Congress, will organise the four-day National Arogya Fair 2026 at Shegaon, District Buldhana, Maharashtra, from 25 to 28 February 2026.
- National Institute of Food Technology Entrepreneurship and Management (NIFTEM-K), an Institute of National Importance under the Ministry of Food Processing Industries (MoFPI), will organise the "International Conference on Advanced Next Generation Vision for Emerging and Sustainable Healthy Foods (ANVESH-2026)" from 26-28 February 2026.
- Goa is hosting the fourth edition of the World Ocean Science Congress 2026, bringing together scientists, policymakers, maritime industries and coastal communities at the National Institute of Oceanography in Panaji.
- Hyderabad's Rajiv Gandhi International Airport was named one of the "Best Airports at Arrivals Globally" at the 2025 ACI World Airport Service Quality Awards. This recognition, based on passenger feedback, highlights the airport's excellence in arrival processes, cleanliness, and overall staff service.
- The Union Cabinet, led by Prime Minister Narendra Modi, on Tuesday held its first meeting at the newly inaugurated Seva Teerth complex and adopted a resolution to fulfil the government's goal of placing India among the world's top three economies in the near future. In the resolution, the Cabinet said that with the "new energy" of Seva Teerth the new Prime Minister's Office complex and the rapid pace of reform, it would work towards realising the vision of a "Developed India 2047".

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26-02-2026

Prelims articles:

1. **Prime Minister's Awards for Yoga-2026:**

   Context: The Ministry of Ayush has invited applications for the Prime Minister's Awards for Yoga - 2026, recognising exemplary contributions toward the development and promotion of Yoga at both National and International levels.

More about:

Each awardee will receive:

- A Trophy
- A Certificate
- A Cash Award of Rs. 25.00 lakh

The felicitation ceremony will coincide with the International Yoga Conference.

Award Categories

Category-I: Prime Minister's Awards for Yoga - Individuals (National/International)

- Two Awards

Category-II: Prime Minister's Awards for Yoga - Institutions (National/International)

- Two Awards

Eligibility Criteria

The awards aim to recognise individuals and institutions that have made significant and outstanding contributions to the promotion and development of Yoga.

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Applicants/nominees must:

- Possess rich experience and a deep understanding of Yoga
- Minimum eligible age under the Individual category (National and International): 30 years
- Minimum of 10 (ten) years of service with an impeccable track record and outstanding contribution to the promotion and development of Yoga

2. World Sustainable Development Summit (WSDS):

Context: Union Minister for Environment, Forest and Climate Change Shri Bhupender Yadav inaugurated the Silver Jubilee edition of TERI's World Sustainable Development Summit (WSDS).

World Sustainable Development Summit (WSDS):

- WSDS is the annual flagship summit of The Energy and Resources Institute (TERI).
- It was instituted in 2001 to promote sustainable development globally.
- It is the only independently convened international sustainability summit based in the Global South.
- The summit brings together global leaders, policymakers, and experts on environment and development.
- WSDS 2026 marks the 25th edition of the summit.
- The theme is "Transformations: Vision, Voices, and Values for Sustainable Development"

About The Energy and Resources Institute (TERI):

- The Energy and Resources Institute (TERI) is a leading sustainability think tank focused on India and the Global South.
- It is an independent, multi-dimensional organization working in research, policy, consultancy. and implementation.

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- TERI was established in 1974 as an information centre on energy issues.
- Its research since 1982 has focused on efficient energy use and sustainable natural resource management.
- TERI promotes resource efficiency, sustainable practices, and climate-friendly development. It is headquartered in New Delhi.

3. Fishing cat:

Context: The first scientific assessment of the fishing cat ("Prionailurus viverrinus") has identified Kaziranga National Park and Tiger Reserve as a major stronghold of the globally vulnerable species. The assessment was conducted by Kaziranga's Tiger Cell in collaboration with the Fishing Cat Project.

About Fishing Cat:

- Fishing Cat (Prionailurus viverrinus) is a medium-sized wild cat about twice the size of a domestic cat.
- It is nocturnal, an excellent swimmer, and mainly preys on fish along with frogs, birds, and reptiles.
- It inhabits wetlands, mangroves, estuaries, and freshwater ecosystems along the Eastern Ghats, Sundarbans, Chilika, Coringa, and Krishna mangroves.
- **Conservation status:** IUCN- Vulnerable, CITES - Appendix II, Wildlife Protection Act, 1972- Schedule L.
- Conservation efforts include initiatives by the Chilika Development Authority, Fishing Cat Conservation Alliance, and its recognition as the State Animal of West Bengal (2012).

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4. Corporate Average Fuel Efficiency (CAFE)-3 norms:

Context: The Prime Minister's Office (PMO) held a meeting to review the proposed carbon emission norms for passenger vehicles slated to take effect from 2027, though no final decision was reached.

More about:

- **Regulatory Background:** Bureau of Energy Efficiency circulated a revised draft of CAFE III norms after the earlier version caused divisions in the auto industry.
- **Industry Concerns:** Larger vehicle manufacturers opposed relaxations that had been extended to small-car makers.
- **Waiver Removal:** The 3 g CO_2/km waiver for ears up to 909 kg and engine capacity up to 1200 ce has been withdrawn.
- **Emission Slope Change:** The earlier uniform emission slope of 0.002 for five years has been replaced with a flatter structure.
- **Revised Slope Structure:** The slope starts at 0.00153 in the first year and gradually reduces to 0.00128 by the fifth year.
- **Impact on Heavier Vehicles:** Permissible emission limits for heavier vehicles are stricter than in the earlier draft.
- **Impact on Small Cars:** Small cars receive relative compliance relief under the revised emission calculation method.

What is the Corporate Average Fuel Economy (CAFE)?

- **Overview:** Corporate Average Fuel Economy (CAFE) regulations aim to improve fuel efficiency and reduce carbon emissions from vehicles.
- **Global Presence:** CAFE norms are implemented in many developed and developing countries, including India.

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- **Objective:** Reduce fuel consumption and CO2 emissions, thereby lowering oil dependence and controlling pollution.
- **Meaning of Corporate Average:** Refers to the sales-volume weighted average emissions of vehicles produced by each manufacturer.
- **Applicability:** Covers petrol, diesel, LPG and CNG passenger vehicles.
- **Implementation in India:** Came into force from April 1, 2017.
- **Emission Targets:** Average corporate CO2 emissions must be below 130 g/km till 2022 and below 113 g/km thereafter.
- **Comparison with BS6:** CAFE focuses mainly on COx emissions, while BS6 regulates overall emissions including NOx and SOX.
- **Environmental Impact:** Reduction in COx emissions lowers carbon footprint and improves fuel economy.

5. Carbon Capture and Utilisation (CCU):

Context: The Hindu text explainer.

More about it:

- **Concept of CCU:** Carbon Capture and Utilisation (CCU) captures CO: from industrial sources or air and converts it into useful products such as fuels, chemicals, building materials and polymers.
- **Difference from CCS**: Unlike Carbon Capture and Storage (CCS), CCU reuses captured CO, instead of permanently storing it underground.
- **Need for India:** India is the third-largest CO: emitter, with emissions from power, cement, steel and chemicals, making CCU vital for decarbonising hard-to-abate sectors.
- **Climate Commitment:** CCU supports India's Net Zero target by 2070 and promotes a circular low-carbon economy.

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- **Current Policy Support:** Department of Science and Technology has prepared an R&D roadmap, and the Ministry of Petroleum and Natural Gas has proposed a 2030 CCUS roadmap.
- **Industry Initiatives:** Ambuja Cements with IIT Bombay, JK Cement, and Organic Recycling Systems Limited are piloting CCU technologies in fuels, materials and bio-chemicals.
- **Global Developments:** EU supports CCU under its Biocconomy and Circular Economy strategies; U.S. offers tax credits and funding; UAE and European firms are scaling CO:-to-chemicals and steel applications.
- **The EU Bioeconomy Strategy and Circular Economy :** Action Plan explicitly supports CCU as a way to turn CO: into feedstocks for chemicals, fuels, and materials, linking it to circularity and sustainability targets.
- **Key Challenges:** High costs, energy intensity, inadequate infrastructure, and lack of standards and market incentives hinder large-scale adoption.
- **Way Forward:** Effective implementation of roadmaps, policy incentives and infrastructure development are crucial for scaling CCU in India.

6. SIM-binding:

Context: Communications Minister Jyotiraditya Scindia said that the SIM-binding directions from November 2025 would remain in force. This would require messaging apps such as WhatsApp to do two things: forcibly log out users on services such as WhatsApp Web every six hours and stop functioning if the user does not have the registered SIM provisioned on their device.

What is SIM-binding?

- **Concept:** SIM binding links a mobile device securely to its specific SIM card, creating a strong device-identity connection.
- **Security Enhancement:** Authentication is tied to the unique SIM identity, not just the device, reducing risks like cloning or unauthorised access.

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- **Risk Mitigation:** Prevents misuse in case of device theft or SIM swap by ensuring services work only with the registered SIM-device combination.

Mains specific articles:

1. **Temperature spikes lead to change in El Nino labelling: (GS Paper 1)**

Context: The natural El Nino cycle, which warps weather worldwide, is both adding to and shaped by a warming world, meteorologists said.

More about:

- **Temperature Spike:** Earth's average temperature sharply rose from early 2023 to 2025 beyond the long-term warming trend.
- **ENSO Cycle Shift:** The transition from a prolonged three-year La Nina (2020-2023) to El Nino contributed significantly to the recent heat spike.
- **Energy Imbalance:** A 2022 rise in Earth's energy imbalance (more heat trapped than released) drove higher global temperatures.
- **Contribution Factors:** Around three-fourths of the energy imbalance is due to human-caused climate change combined with the ENSO shift.
- **La Nina Effect:** The unusual "triple dip" La Nina reduced surface heat release, influencing the later surge in warming.
- **Human Emissions:** Slightly over half of the recent imbalance is linked to greenhouse gases from fossil fuel burning.
- **Revised Classification:** The U.S. NOAA has updated criteria for identifying El Nino and La Nina due to warming oceans altering patterns.

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About El Nino and La Nina:

Normal Conditions	El Nino (Warm Phase)	La Nina (Cold Phase)
Warm surface waters concentrated in western Pacific near Indonesia & Australia	Warm waters shift eastward toward central & eastern Pacific	Cooler-than-normal waters spread across central & eastern Pacific
Low pressure over Indonesia/Australia; high pressure near Peru	Weakening of trade winds	Stronger-than-normal trade winds
Strong east-to-west trade winds push warm water westward	Reduced or reversed trade winds	Enhanced east-to-west water movement
Heavy rainfall in Indonesia & Australia; dry conditions near Peru	Increased rainfall in Peru & South America; drought in Australia/Indonesia	Increased rainfall in Australia/Indonesia; drier conditions in western Americas
Part of stable climatic pattern in equatorial Pacific	Warm phase of ENSO cycle	Cold phase of ENSO cycle

2. Large Language Models (LLMs): (GS paper 3)

Context: At the Al Impact Summit, the Bengaluru-based startup Sarvam Al released two Large Language Models (LLMs), which are the foundation for Al systems that power services like Google's Gemini and OpenAI's ChatGPT. The two models were trained on 35 billion and 105 billion parameters respectively, and were less power- and compute-intensive than comparable models.

More about:

- **LLM Training Process:** Large Language Models are trained on massive datasets using clusters of GPUs, with costs running into millions of dollars due to hardware and electricity requirements.

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- **Data Challenge:** Training data is largely scraped from the Internet, where Indian languages are underrepresented compared to English and other major languages.
- **Indian Context Constraints:** Scarcity of quality local language data and limited capital make it difficult to train high-quality Indian LLMs.
- **Translation Dependence:** Many LLMs rely on translating Indian languages into English for better performance, increasing token usage and inference cost.
- **Adoption Issues:** Suboptimal performance in Indian languages can hinder adoption of local models like Sarvam's 35B parameter model.
- **Government Support:** Under the IndiaAI Mission, over 36,000 GPUs have been commissioned in Indian data centres to support AI training and inference.
- **Subsidy to Firms:** Sarvam received access to 4,096 GPUs with subsidies estimated at nearly 2100 crore from a ₹246 crore compute cluster.
- **Policy Rationale:** Government promotes domestic LLMs to improve Indian language capability and strengthen the Al ecosystem.
- **Open Source Claims:** Sarvam claims its model is trained from scratch and open source, but limited external access restricts independent scrutiny.
- **MoE Architecture:** Mixture of Experts (MOE) activates only a fraction of model parameters during inference, reducing cost and computational load.
- **Model Scale Strategy:** Sarvam focuses on efficiency and Indian context alignment before scaling to larger foundational models.
- **Other Indian Models:** BharatGen trained a 17B multilingual model for sectors like education and healthcare, while Gnani.ai launched a small text-to-speech model.

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Quick Bites:

- Union Minister for Agriculture and Farmers' Welfare, and Rural Development, Shri Shivraj Singh Chouhan inaugurated the three-day Pusa Krishi Vigyan Mela organised at the Indian Council of Agricultural Research campus in Pusa, Delhi.
- The Telecommunication Engineering Centre (TEC), the technical arm of the Department of Telecommunications (DoT), Government of India, has signed a Memorandum of Understanding (MoU) with the Indian Institute of Technology, Kharagpur (IIT Kharagpur) to collaborate on joint studies, research, and technical contributions in advanced telecom technologies and global standardisation activities.
- On the sidelines of the India AI Impact Summit 2026, the IndiaAI Mission and the Business Sweden signed a Statement of Intent (Sol) to strengthen bilateral cooperation in the field of Artificial Intelligence (AI) and digital technologies and to promote trade and investment engagement between India and Sweden. Both countries will jointly develop a dedicated programme titled the Sweden-India Technology and Artificial Intelligence Corridor (SITAC). SITAC will serve as the flagship platform to facilitate structured engagement among government agencies, industry stakeholders, startups and academic institutions from both countries.
- The National Board of Examinations in Medical Sciences (NBEMS), an autonomous body under the Union Health Ministry on Wednesday achieved a historic milestone by being officially recognized by Guinness World Records for "Most viewers of an Artificial Intelligence in Healthcare lesson live stream on YouTube".
- Mumbai's Chhatrapati Shivaji Maharaj International Airport (CSMIA) has been recognised as Asia-Pacific's Best Airport for Departures in the over 40-million passengers category at the 2025 Airport Service Quality (ASQ) Customer Experience Awards.
- Cricket legend Sachin Tendulkar has been designated a 'Global Champion for Road Safety" by the United Nations, joining a group of prominent international figures advocating safer roads.

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27-02-2026

Prelims articles:

1. Digital Food Currency:

Context: The Government of India has launched a Central Bank Digital Currency (CBDC)-based Digital Food Currency pilot for Direct Benefit Transfer (DBT) under Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) in Puducherry.

More about:

- Under the CBDC framework, digital coupons generated through the Reserve Bank of India (RBI) will be credited directly to beneficiaries as programmable digital currency (ex).
- Beneficiaries can redeem their entitled foodgrains at Fair Price Shops (FPS) or authorized merchant outlets using CBDC coupon or voucher codes.
- The system ensures secure, traceable, and real-time transactions while addressing biometric authentication and e-POS operational issues.
- The pilot project will initially expand to 3-4 States/UTs after outcome analysis.
- CBDC will function within the Direct Benefit Transfer (DBT) framework, crediting subsidy directly into beneficiaries' CBDC wallets.
- The CBDC tokens will be programmable and purpose-bound, redeemable exclusively for purchase of entitled foodgrains at authorized merchants and FPS.
- The initiative strengthens the Jan Dhan-Aadhaar-Mobile (JAM) Trinity and deepens digital empowerment.
- Special provisions have been made to ensure inclusion of feature phone users and allow beneficiaries to locate nearby authorized merchant establishments through the application.

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- The CBDC-based PDS model will expand across Puducherry and subsequently roll out in Chandigarh and Dadra and Nagar Haveli, with gradual nationwide expansion planned.
- The Digital Food Currency pilot integrates a programmable sovereign digital payment layer into the PDS architecture.
- The initiative represents the next stage of digital reform in India's food security ecosystem, enhancing transparency, efficiency, accountability, and last-mile service delivery.

About Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY):

- Launched in April 2020 as part of the Pradhan Mantri Garib Kalyan Package to provide relief during the COVID-19 pandemic.
- Provides 5 kg of free foodgrains per person per month in addition to subsidised ration under the National Food Security Act (NFSA).
- Implemented by the Ministry of Consumer Affairs, Food and Public Distribution.
- Aims to support economically weaker sections, especially poor and marginalised households affected by the pandemic.
- Covers families under Antyodaya Anna Yojana (AAY) and Priority Households (PHH) categories identified by States/UTs.
- Beneficiaries include widows, elderly (60+), disabled persons, terminally ill persons, primitive tribal households, landless labourers, marginal farmers, rural artisans, slum dwellers, informal sector workers and Below Poverty Line (BPL) families.

2. PM RAHAT scheme:

Context: Ministry of Road Transport and Highways (MORTH) Sensitizes Stakeholders on "PM RAHAT" -Cashless Treatment of Road Accident Victims.

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About PM RAHAT (Road Accident Victim Hospitalization and Assured Treatment) scheme:

- PM RAHAT Scheme is an initiative of the Ministry of Road Transport and Highways to provide immediate cashless treatment to road accident victims.
- It aims to ensure treatment within the Golden Hour, as nearly 50% of road accident deaths are preventable with timely care.
- Victims on any road are entitled to cashless treatment up to 1.5 lakh per person for the first 7 days.
- Stabilization care is assured for 24 hours in non-life-threatening cases and 48 hours in life-threatening cases, subject to police authentication.
- The scheme operates through a digital framework integrating the eDAR platform and the National Health Authority's TMS 2.0.
- Hospitals are reimbursed through the Motor Vehicle Accident Fund (MVAF).
- In insured cases, payments are made from General Insurance Companies' contributions, while uninsured and hit-and-run cases are covered by Government budget allocation.
- It is integrated with ERSS Dial 112 for ambulance access and identification of nearest designated hospitals.
- District-level grievance redressal is handled by a designated officer nominated by the District Road Safety Committee.

3. State Innovation Mission (SIM):

Context: First State Innovation Mission (SIM) was launched by Ministry of Science and Technology in Agartala.

About State Innovation Mission (SIM):

- India's first State Innovation Mission (SIM) was launched in Agartala on 26 February 2026.
- The first State Innovation Mission (SIM) was launched in Tripura by Atal Innovation Mission (AIM) under NITI Aayog.

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- SIM marks a major step towards embedding innovation and entrepreneurship into the State's long-term development framework.
- It is part of the approved AIM 2.0 programme.
- SIM operates under NITI Aayog's State Support Mission (SSM).
- It is designed as a long-term institutional mechanism for States and Union Territories.
- The mission aims to build robust, inclusive and context-specific innovation ecosystems.
- SIM aligns state innovation ecosystems with national priorities and local strengths.
- The SIM framework in Tripura includes institutionalization under the Tripura Institution for Transformation (TIFT).
- T-NEST (Tripura - Nurturing Entrepreneurship and Startups) has been launched as a dedicated incubation and innovation facility under SIM.
- T-NEST aims to incubate startups and promote "Make from Tripura" solutions.
- Innovation Centres will be established in all 8 districts of Tripura, linked to T-NEST.
- These Innovation Centres aim to promote innovation among women and tribal communities.
- One of India's first District Innovator Fellowships (DIF) has been launched under SIM to identify and nurture grassroots innovators with structured lifecycle support.
- Tripura will introduce a State Al Policy aligned with responsible and inclusive Al principles under the SIM framework.
- An AI City will be developed in Agartala with support from global technology enablers to position Tripura as a hub for Al-driven innovation and governance.
- Under SIM, AIM will work closely with the Government of Tripura to design and implement a long-term innovation and entrepreneurship strategy.

4. Global Residence Programme Index 2026:

Context: Global Residence Programme Index 2026 was published by Henley & Partners.

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Major highlights:

- In the 2026 edition, Greece retained the top position among global residence programmes.
- The UAE shared second place with Italy and Switzerland.
- The index evaluates 40 leading residence programmes worldwide.
- Parameters include reputation, quality of life, taxation, visa-free or visa-on-arrival access, compliance standards, and processing efficiency.
- Europe continues to dominate the global residence programme landscape.
- Emerging hubs such as the UAE and Singapore are gaining prominence.
- Policy stability and investor-friendly frameworks are driving the rise of new global hubs.

5. Remission of Duties and Taxes on Exported Products (RoDTEP) scheme:

Context: Textile exporters have expressed apprehension that exports will be hit with reduction of Remission of Duties and Taxes on Exported Products (RODTEP) scheme rates. The RoDTEP committee is reviewing the rates and the unexpected reduction of rates has led to uncertainties, the Manmade and Technical Textiles Export Promotion Council said.

About Remission of Duties and Taxes on Exported Products (RoDTEP) scheme:

- Remission of Duties and Taxes on Exported Products (RODTEP) Scheme was introduced through amendment to Foreign Trade Policy 2015-20 and effective from January 1, 2021.
- It aims to reimburse embedded taxes, duties and levies on exported goods that are not refunded under any other scheme.
- The scheme ensures WTO compliance and operates through a fully digital end-to-end platform for transparency and efficiency.
- It is administered by the Department of Revenue under the Ministry of Finance.
- RODTEP replaced the Merchandise Exports from India Scheme (MEIS) after the US challenged Indian export subsidies at the WTO.

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- It reimburses unrefunded central, state and local taxes incurred during manufacture and distribution of export products.
- The scheme covers both direct taxes paid by exporters and prior-stage cumulative indirect taxes on goods.
- All sectors are eligible under the scheme, with priority to labour-intensive sectors.
- Manufacturer exporters and merchant exporters are eligible without any turnover threshold.
- Products must have India as country of origin to qualify for benefits.
- Special Economic Zone units and Export Oriented Units are eligible for benefits.
- Goods exported via courier through e-commerce platforms are also covered.
- Re-exported products are not eligible under the scheme.
- Rebates are provided as a percentage of the Free on Board (FOB) value of exports.
- Remission is issued as transferable e-scrips maintained in an electronic credit ledger by the Central Board of Indirect Taxes and Customs (CBIC).
- e-scrips can be used to pay basic customs duty on imports and can also be transferred to other importers.
- The scheme enables faster clearance through digital monitoring, audit mechanisms and IT-based risk management systems for verification.

Mains specific articles:

1. The shift of critical minerals to India's strategic centre: (GS Paper 3)

Context: The Hindu editorial analysis.

Policy Shift Towards Critical Minerals

- Earlier, critical minerals had limited strategic focus; even lithium was classified as an atomic mineral restricting private participation.

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- Recent Union Budget marks a major shift, placing critical minerals at the core of India's industrial, energy and geopolitical strategy.
- Focus has moved from policy formulation to large-scale execution and expertise building.

Strengthened Policy Framework

- India has identified 30 critical minerals for strategic focus.
- Exploration norms eased for junior miners and royalty rates rationalised.
- Launch of the National Critical Mineral Mission (NCMM) in January 2025 with ₹16,300 crore outlay.
- India now among few nations with a comprehensive critical minerals framework.

Processing Bottlenecks and China's Dominance

- China controls nearly 90% of global processing capacity for several critical minerals.
- India already processes high-purity copper, graphite, rare earth oxides, tin and titanium (>99.9% purity).
- Current production is limited in scale and largely for conventional uses.
- Clean energy and defence sectors require technological upgrading and capacity expansion.
- Expertise from chemicals, pharmaceuticals and textiles sectors can be leveraged.

Priority 1: Create Domestic Demand

- Budget removed import duties on capital goods for mineral processing.
- High capital expenditure and uncertain domestic demand deter investors.
- Delays in backward integration create uncertainty for midstream processors.
- Expanding domestic deployment of EVs, batteries, solar modules and wind turbines can strengthen entire mineral value chain.
- Demand creation is the most powerful industrial policy lever.

Priority 2: AI-First Mineral Exploration

- NCMM targets 1,200 exploration projects by FY2031.

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- Exploration expenditure for nine critical minerals made tax-deductible.
- Four minerals (beryllium, tantalum, lithium, niobium) were earlier on restricted atomic list.
- Integration with IndiaAI Mission, National Geospatial Policy and Mission Anveshan recommended.
- Use of AI tools and National Geoscience Data Repository can improve mineral prospectivity and discovery.

Priority 3: Technological Sovereignty Amid Geopolitical Disruption

- 2025 rare earth magnet and battery supply chain disruptions exposed global vulnerabilities.
- Government announced rare earth corridors in coastal States and reduced import duties on monazite sands.
- States should utilise infrastructure and manpower to tap global demand and create jobs.

International Partnerships and Technology Transfer

- Partnerships needed with Australia, European nations, Japan, UK and US for advanced processing technologies.
- Encourage foreign firms to establish processing facilities in India for global supply.
- ₹7,280 crore scheme for sintered rare earth permanent magnets announced.
- Ensure regulatory certainty, legal safeguards, research collaboration and market access.
- Strengthen institutional linkages such as the UK-India Critical Minerals Supply Chain Observatory and leverage outcomes of the India-EU Free Trade Agreement.

Way Forward

- Leadership in critical minerals requires coordinated inter-ministerial action.
- Proactive State governments and strong global partnerships are essential.
- Speed, scale, and strategic execution will determine India's mineral security and industrial competitiveness.

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2. New GDP series: (GS Paper 3)

Context: The new series of national accounts data to be released on Friday will incorporate several methodological and statistical upgrades that will make India's Gross Domestic Product (GDP) and Gross Value Added (GVA) data more accurate and granular, an analysis of the various changes being implemented shows.

More about:

Overall Objective of Reforms

- Ministry of Statistics and Programme Implementation released sub-committee reports to upgrade national accounts data.
- Focus on improved methodologies and inclusion of new datasets such as GST data.
- Aim to make GDP and GVA estimates more accurate and reflective of the current economy.

Base Year Revision

- Base year updated from 2011-12 to 2022-23.
- Improves comparability across time periods.
- Provides more realistic representation of present economic structure.

Methodological Improvements in Corporate Sector

- Earlier method allocated entire company GVA to sector of dominant activity.
- New method allocates value added based on activity-wise revenue share.
- Ensures better sector-wise capture of economic activity.

General Government Sector Improvements

- Inclusion of housing services provided by government to employees.
- Enhanced coverage of autonomous institutes and local bodies.
- More accurate measurement of government output and services.

Household Sector Estimation

- Annual use of ASUSE and PLFS instead of extrapolation.

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- Direct yearly estimation of household sector contribution.
- Better representation of unincorporated and informal sector activities.

Private Final Consumption Expenditure

- More granular estimation using enhanced Household Consumer Expenditure Surveys.
- Direct estimation using production and other data sources.
- Improved measurement of consumption spending.

Use of GST Data

- Expanded use of GST data in annual GDP and GVA estimation.
- Better estimation of regional output of private corporations.
- Improved identification of active private companies.
- More accurate estimation of value added by non-reporting firms.

Enhanced State-Level Data

- Increased reporting from local bodies and state autonomous institutions.
- Higher share of directly estimated data instead of imputed values.

Banking and Financial Sector Improvements

- Use of Statistical Table Related to Banks in India from Reserve Bank of India to estimate banking sector activity.
- Replacement of proxy-based NBFC estimation with actual financial data from Ministry of Corporate Affairs.

Better Use of Enterprise Data

- Improved utilisation of ASUSE data.
- More accurate capture of previously underrepresented economic activities.

Overall Impact

- Greater accuracy, transparency and sectoral precision in national income accounting.
- Stronger reflection of ground-level economic activity in GDP and GVA estimates.

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Quick Bites:

- Raksha Rajya Mantri Shri Sanjay Seth inaugurated Chungthang - Lachen axis and a 400 ft Bailey Suspension Taram Chu Bridge in North Sikkim restored by the Border Roads Organisation (BRO).
- Laws intended to guarantee equal economic opportunities for women are only half-enforced globally, according to the latest Women, Business and the Law report released by the World Bank Group. The study highlights significant "opportunity gaps" that are limiting economic growth and job creation worldwide.
- A programme promoting the National Action for Mechanized Sanitation Ecosystem (NAMASTE) Scheme will be organised on 26 February 2026 at Gandhi Prekshagrih, Gandhi Stadium, Nakhasa, Pilibhit in Uttar Pradesh. The event aims to enhance awareness about the scheme and strengthen social security measures for sanitation workers.
- Prime Minister Narendra Modi was awarded the Speaker of the Knesset Medal, Israel's highest parliamentary honour, during his visit to Jerusalem.

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28-02-2026

Prelims articles:

1. INS Anjadip:

Context: INS Anjadip, the fourth ship of the Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) project, was formally commissioned into the Indian Navy in an official ceremony held at Chennai Port on 27 Feb 2026.

About INS Anjadip:

- INS Anjadip, named after the historical island off the coast of Karwar, is the latest addition in a series of warships designed specifically for Anti-Submarine Warfare in the shallow waters of the littoral zone.
- The vessel proudly boasts an indigenous content of over 80%, showcasing India's self-reliance in warship design and defence electronics. This includes the integration of key indigenous systems. As a 'Dolphin Hunter', the 77-meter-long, 1400-tons vessel is configured for rapid response and sustained operations in coastal environments.
- The ship is equipped with a modern ASW suite and an integrated advanced Combat Management System to effectively detect, track, and neutralise sub-surface threats.
- The commissioning of INS Anjadip, following its predecessors INS Arnala and Androth, marks a major milestone in the Indian Navy's planned trajectory of force level growth and capability enhancement, ensuring the security of India's maritime trade routes and coastal infrastructure.
- The ship has been placed under the operational and administrative control of Flag Officer Commanding. Tamil Nadu and Puducherry Naval Area to safeguard the nation's maritime interests.

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2. National Waterway-2:

Context: Union Minister of Ports, Shipping and Waterways (MOPSW), Sarbananda Sonowal, inaugurated three major inland waterways infrastructure projects in Dibrugarh on National Waterway-2 (River Brahmaputra). The projects include the Customs and Immigration Complex at Bogibeel, the Customs and Immigration Complex at Dhubri, and the renovated Heritage Building of the Inland Waterways Authority of India (IWAI) at Dibrugarh.

About National Waterway-2:

- National Waterway 2 runs along the Brahmaputra River in Assam from Dhubri to Sadiya covering 891 km.
- Declared as National Waterway No. 2 on 1 September 1988.
- Developed and maintained by the Inland Waterways Authority of India (IWAI).
- Major fixed terminal at Pandu and multiple floating terminals including Dhubri, Jogighopa and Dibrugarh.
- Connected to mainland India through the Indo-Bangladesh Protocol route, reducing reliance on the Siliguri Corridor.
- Maintained fairway depth ranges from 2.5 m to 1.5 m along different stretches.
- Handles around 6 lakh tonnes of cargo annually including foodgrains, fertilisers and construction materials.
- Integrated with National Waterway I for container cargo movement.
- IWAI undertakes regular dredging and channel maintenance to ensure navigability.
- Strategic for boosting logistics efficiency, trade, tourism and eco-friendly transport in Northeast India.

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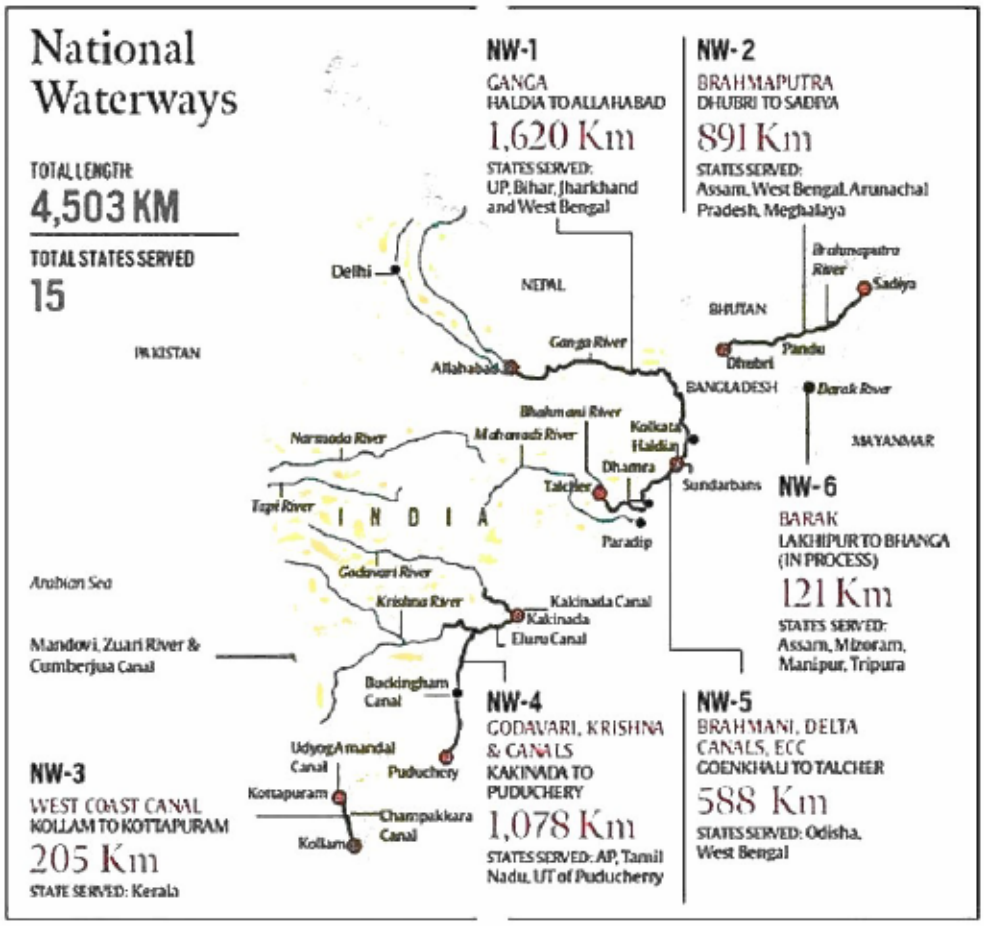
Other major National Waterways:



National Waterway	Details of Waterways	STATES	Status
National Waterway 1	Ganga-Bhagirathi-Hooghly River System (Haldia -Allahabad)	Uttar Pradesh, Bihar, Jharkhand & West Bengal	Development taken up with Assistance from World Bank Jal Marg Vikas Project
National Waterway 2	Brahmaputra River (Dhubri - Sadiya)	Assam	Development taken up as per approved SFC for FY 20-21 to 2024-25

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National Waterway 16	Barak River	Assam	
National Waterway 3	West Coast Canal (Kottapuram Kollam), Kerala Champakana and Udyogmandal Canals	Kerala	Mostly Operational Waterways And development and maintenance work taken up.
National Waterway 4	Krishna River (Vijaywada Muktyala)	Andhra Pradesh	
National Waterway 5	Dhama-Paradio via Mangalagadio Pankopal	Odisha	
National Waterway 8	Alappuzha Changanassery Canal	Kerala	
National Waterway 9	Alappuzha Kottayam-Athirampuzha Canal	Kerala Alternate route: 11.5km	

3. SWIFT, or Single Window Interface for Facilitating Trade:

Context: The Central Board of Indirect Taxes and Customs (CBIC) will launch the upgraded single-window platform SWIFT 2.0, release a Digital Travellers Guide, and unveil a revamped Atithi app during International Customs Day 2026 celebrations in New Delhi.

About Single Window Interface for Facilitating Trade (SWIFT):

- SWIFT (Single Window Interface for Facilitating Trade) launched on 1 April 2016 to improve Ease of Doing Business.
- Introduced by the Central Board of Excise and Customs (CBEC).
- Enables filing of a single electronic Integrated Declaration through the ICEGATE portal.

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- Replaces 9 separate forms required by Customs and 6 Participating Government Agencies (PGAs).
- Integrates agencies like FSSAI, Plant Quarantine, Animal Quarantine, Drug Controller, Wildlife Control Bureau and Textile Committee.
- Introduces Integrated Risk Management for PGAs to reduce routine physical inspections.
- Reduces documentation, transaction costs and cargo dwell time.
- Provides a single-point interface for import clearances.
- Eliminates the need for traders to approach multiple regulatory agencies separately.
- Enhances transparency through SOPs and defined timelines for clearances.
- Strengthens trade facilitation at ports, airports and border points.

4. Meningococcal bacterial infection:

Context: Days after two Agniveer trainees died of suspected meningococcal bacterial infection at a training centre in Shillong, the Meghalaya government issued an advisory urging people to avoid crowded places and follow health protocols.

About Meningococcal bacterial infection:

- Rare but serious bacterial infection causing inflammation of the membranes covering the brain and spinal cord (meningitis).
- Mainly presents as meningitis and septicemia, both life-threatening and potentially fatal within hours.
- Caused by Neisseria meningitidis bacteria; about 1 in 10 people carry it harmlessly in the nose and throat.
- Spreads through close or prolonged contact via respiratory and throat secretions (saliva/spit); less contagious than cold or flu.
- Common symptoms: fever, headache, stiff neck, photophobia (sensitivity to light), nausea, vomiting, diarrhea, and red-purple rash resembling pinpoints or bruises.

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- Treated primarily with antibiotics; supportive care may include oxygen therapy, drugs for low blood pressure, and surgery for severe skin damage.

5. Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act of 2025:

Context: Chief Justice of India (CJI) Surya Kant said a balance has to be struck between "actual, visible, tangible national interest" and "unfortunate, hypothetical loss" while hearing a petition highlighting that India's new law on nuclear accidents has placed "abysmally low" liability on private operators and even exempted any accountability on the part of the suppliers.

More about:

- Justice Surya Kant stated that expanding nuclear power is essential for meeting India's growing energy needs, given limits on coal, forests, and gas.
- The Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act, 2025 is challenged for allowing private and foreign companies to operate nuclear plants.
- The petition (filed by EA.S. Sunma) argues the Act caps operator liability at 13,000 crore and government residual liability at 300 million SDR, which is allegedly too low.
- Critics like Prashant Bhushan argue the liability cap is inadequate compared to damages from disasters like Chernobyl disaster and Fukushima Daiichi nuclear disaster.
- The Act exempts suppliers from liability, raising concems that it may compromise safety standards.
- Core issue: Balancing India's energy security needs with nuclear safety and adequate compensation safeguards.

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Major features of Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India (SHANTI) Act of 2025:

- **Introduction & Replacement:** The Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India Bill, 2025 was introduced in Lok Sabha on December 15, 2025; it replaces the Atomic Energy Act, 1962 and the Civil Liability for Nuclear Damage Act, 2010.
- **Private Sector Participation:** Unlike the 1962 Act (which limited licences to government entities), the Bill allows licences to Indian private companies, joint ventures, and approved persons for building, owning, operating nuclear plants and handling nuclear fuel; safety authorisation required from Atomic Energy Regulatory Board.
- **Liability Framework:** Retains no-fault liability of operators and mandatory insurance; introduces tiered liability from 100 crore to ₹3,000 crore based on plant capacity (earlier fixed at *1,500 crore); govemment bears excess liability.
- **Right of Recourse Changed:** Removes operator's right to claim compensation from suppliers for defective equipment (previously allowed under 2010 Act).
- **Expanded Territorial Jurisdiction:** Extends compensation coverage to nuclear damage occurring in foreign states due to incidents in India, subject to conditions.
- **Statutory Status to AERB:** Grants legal recognition to AERB, defines its composition, appointment process, tenure (3 years extendable by 3 years), and role in ensuring radiation and nuclear safety.
- **Atomic Energy Redressal Advisory Council:** Establishes a Council chaired by the Atomic Energy Commission Chairperson to hear appeals against central government/AERB decisions; further appeals lie with the Appellate Tribunal for Electricity.

Mains specific articles:

1. **How Pakistan and Afghan Taliban, former allies, drifted into 'open war': (GS paper 2)**

Context: The Hindu news analysis on the Pakistan and Afghanistan war.

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- **Recent Escalation:** Pakistan's Defence Minister Khawaja Asif declared "open war" after Pakistani air strikes on Kabul, Kandahar and Paktia in response to cross-border attacks, sharply escalating tensions with Taliban-ruled Afghanistan.
- **Breakdown of Former Alliance:** Pakistan earlier supported the Afghan Taliban during the U.S. war, expecting "strategic depth," but relations deteriorated after the Taliban returned to power in 2021 and asserted autonomy.
- **Durand Line Dispute:** The 2,640-km Durand Line remains unrecognised by successive Afghan regimes including the Taliban, turning a historical boundary issue into a major bilateral flashpoint.
- **TTP Challenge:** The Tehreek-e-Taliban Pakistan (TTP), ideologically aligned with the Afghan Taliban, has intensified attacks in Pakistan, with Islamabad accusing Kabul of harbouring militants.
- **Cycle of Retaliation:** Pakistan conducts strikes on alleged TTP camps inside Afghanistan, while Kabul calls them violations of sovereignty, deepening hostilities.
- **India Factor:** The Taliban government has improved engagement with India, hosting diplomatic exchanges, complicating Pakistan's regional strategy.
- **Strategic Miscalculation:** Pakistan's expectation of a compliant Taliban regime has instead resulted in border tensions, security threats and geopolitical challenges.

Quick Bites:

➢ Two major lakes in the Democratic Republic of Congo are emitting carbon that has been locked away for thousands of years in surrounding tropical peatlands, raising fresh concerns about climate stability. Scientists examined carbon emissions from Lake Mai-Ndombe and Lake Tumba in the Congo Basin, identifying an unexpected source of atmospheric carbon dioxide. The rare smew, a striking white diving duck, has been recorded for the first time in Kaziranga National Park during the 7th Waterbird Count. The sighting occurred at the Rowmari-Donduwa beels in the Laokhowa

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buffer of the Kaziranga Tiger Reserve, marking a significant omnithological milestone for the UNESCO World Heritage Site.

- Young adults in India have ranked 60th among 84 countries in key mental well-being indicators, according to the "Global Mind Health in 2025' report released by US-based Sapien Labs.
- A new flowering plant species, Impatiens nagorum, was discovered in Fakim Wildlife Sanctuary, Nagaland, and formally described in the journal Phytotaxa, highlighting Northeast India's rich yet underexplored biodiversity.

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