



# MONTHLY CURRENT AFFAIRS

**MAY-2025**

**TIRUMAL  
CLASSES  
IAS  
INSTITUTE**

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## GS-I:

### 1. Westernization versus modernization

**Context:** According to the Union Minister, blind westernization must be resisted in order to protect India's cultural identity, even though modernization is necessary for the country's advancement. In order to achieve India's goal of becoming a "*Vishwaguru*," he emphasized the significance of striking a balance between science and tradition.

A complete process of institutional, technological, and value-based change, **modernization** aims to advance society. It encompasses structural changes in the economy, politics, and culture; a preference for reason and science over conventional wisdom; democratic institutions; widespread education; and urbanization. a focus on self-sustaining progress as seen by rising human development and productivity metrics.

Adoption of Western systems, beliefs, and lifestyles—often at the expense of customs—is known as "**Westernization**." Made popular in the Indian setting by N. Srinivas. It encompasses the legal, political, technological, and secular spheres; it also involves language, dress conventions, eating customs, and social structures including cohabitation; it frequently clashes with Indian cultural norms, especially in rural and traditional settings.

#### **Westernization's effects on Indian society**

1. The decline of traditional festivals, caste panchayats, and joint family systems.
2. Individualism and collectivism clash
3. Social tension results from the divide between the traditional rural people and the Westernized urban elite.
4. Western influence led to progressive legislation and human rights consciousness.

#### **India's progress can be fuelled by modernization:**

1. Biotech, digital governance, and space innovations can improve public services.
2. Modernization promotes transparent governance, effective bureaucracy, and judicial efficiency.
3. Encourages everyone to have access to high-quality education so that human capital can be formed.
4. It is possible to modernize Indian traditional values without making them more Westernized.

## 2. NSO Surveys on Household Consumption and Poverty

**Context:** According to a World Bank report and recent NSO Household Consumption Surveys, India's poverty rates have dropped significantly, primarily as a result of strong GDP growth and decreased inequality.

1. The poverty rate decreased from **29.5% in 2011–12 to 4.9% in 2023–24**.
2. Extreme poverty decreased to **2.3% from 16.2%**.
3. In 2023–2024, GDP growth accelerated to 9.2%. Inflation in the CPI dropped to 5.4%, increasing buying power.
4. Since more than half of the impoverished live slightly below the poverty line, targeted assistance is more successful.

### **Challenges:**

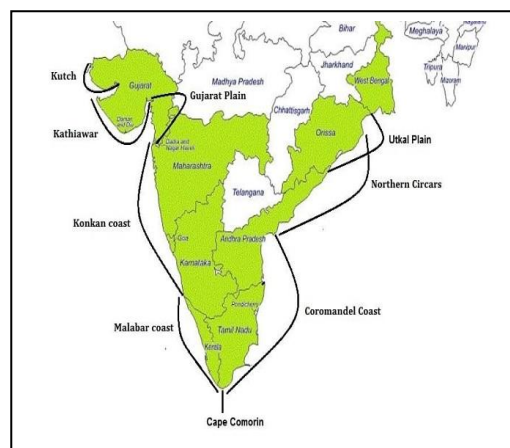
1. Due to health or climatic issues, large portions of the population may revert to living below the poverty line.
2. Welfare coverage is still uneven, particularly for migrants and the urban poor.
3. The poor are disproportionately affected by food inflation, which increased to 7.5% in 2023–2024.
4. Informal labourers and unregulated occupational sectors are underrepresented in recent surveys.
5. Despite improvements in national statistics, states like Bihar, Jharkhand, and Odisha continue to record greater rates of poverty.

## 3. The updated length of India's coastline

**Context:** In its 2023–24 report, the Ministry of Home Affairs revised the length of India's coastline from **7,516.6 km to 11,099 km**.

The shoreline paradox is shown by the change, which results from improved mapping accuracy rather than land growth.

Of all the Indian states, **Gujarat boasts the longest coastline**.



The organizations that measure are the *Survey of India and the National Hydrographic Office.*

***Repercussions:***

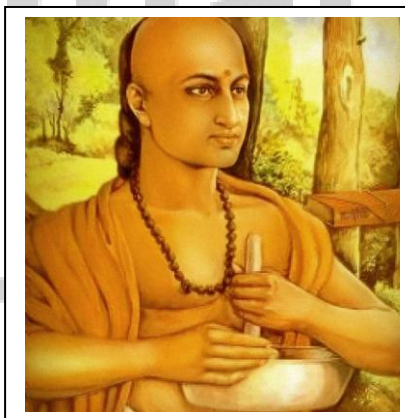
1. A longer coastline means more space for protection and monitoring.
2. It is necessary to reevaluate Navy deployment and coastal enforcement.
3. Essential for preparing for cyclones, tsunamis, and sea level rise
4. Improves the precision of charting coastal zone regulations
5. Affects the allocation of fishing rights and EEZ computation
6. Coastal states that potentially benefit from the blue economy include Tamil Nadu and Kerala.
7. Improved port, shipping channel, and coastal tourism statistics

**4. Sage Sushruta and Acharya Charaka**

**Context:** As part of an effort to promote India's ancient medical legacy, the Vice-President of India dedicated statues of Acharya Charaka and Sage Sushruta in Goa's Raj Bhavan.

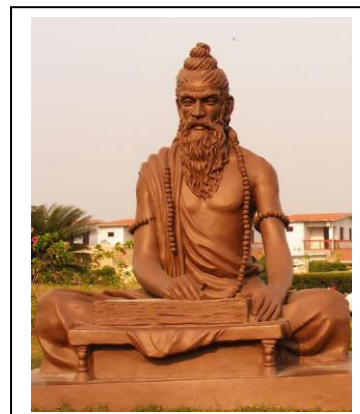
Considered the ***Father of Indian Medicine, Acharya Charaka*** was a renowned Ayurvedic physician. Under the patronage of ***Kanishka, the Kushan ruler,*** he thrived in the Taxila region.

One of the primary Ayurvedic textbooks that focuses on internal medicine is the ***Charaka Samhita.*** categorized Ayurveda as Ashtanga Ayurveda and described the science behind disease pathology, holistic wellness, and embryology. promoted healthy lifestyle choices and environmental balance as a means of preventing illness. highlighted the moral obligations of a doctor, including non-maleficence, secrecy, and a commitment to healing.



Known as the ***Father of Surgery and Plastic Surgery, Sage Sushruta*** was an ancient surgeon. Perhaps during ***King Divodasa's reign, he practiced in Kashi.***

The oldest surgical text, the ***Sushruta Samhita,*** describes more than 300 surgical operations and more than 100 surgical equipment. presented anatomy by dissection, anaesthesia techniques, and fracture/dislocation classification. invented rhinoplasty, a procedure



for which India was well-known even during the colonial era. Organized paediatric care, toxicology, embryology, and public health. included newborn care and rituals.

### 5. Santara

Background: The ancient Jain practice of voluntary fasting until death has returned to the public and judicial scene when a three-year-old girl in Indore reportedly passed away after receiving Santhara from a Jain monk.

A Jain religious vow of *voluntary fasting till death, known as santhara or sallekhana*, is made in order to achieve moksha and purify the soul. practiced in Jainism by laypeople and monks amid dire circumstances, such as starvation, old age, or terminal disease.



It entails a slow cessation of meals and liquids. taken only under religious direction and with spiritual maturity. involves spiritual contemplation, forgiveness, and detachment.

### **Fundamental Principles of Jainism:**

- 1. Ahimsa:** Ahimsa is a fundamental ethical precept that Jains hold to be absolute non-violence towards all living beings, including insects and germs.
- 2. Satya:** It is necessary to speak the truth, but it must not hurt other people; rather, it must be done with kindness and consideration.
- 3. Asteya:** One should emphasize moral acquisition and honesty by not accepting anything that is not voluntarily supplied.
- 4. Brahmacharya:** sexual abstinence for domestic workers and celibacy for monks, encouraging self-control and spiritual discipline
- 5. Aparigraha:** To lessen greed and advance liberation, disengagement from material and emotional belongings is emphasized.

### **Triratna:**

- 1. Samyak Darshan (Right Faith):** The first stage to spiritual freedom is having an accurate, certain view of the truth.
- 2. Samyak Jnana (Right Knowledge):** Knowledge that is based on an awareness of reality and karma must be devoid of uncertainty and mistake.

**3. *Samyak Charitra (Right Conduct):*** Achieving moksha requires moral and orderly conduct that is in line with Jain ideals.

**Importance:**

1. Seen as a tranquil, respectable departure from existence with the goal of obtaining emancipation and shedding karma.
2. Subsequent to Jain stages at Shravanabelagola, such as Bhadrabahu and Chandragupta Maurya
3. Found in Tamil writings like Neelakesi and Silappadikaram, as well as Jain classics like Ratnakaranda Shrivakachara.

**6. Self-worth is defined by social media**

Context: There is now serious concern about the impact of social media on mental health, especially among adolescents, following the tragic death of young businesswoman Misha Agarwal, which was allegedly brought on by a decline in her social media following.

Social media is becoming a potent but risky mirror of self-worth since identity is now performed and validated online.

Web-based platforms and mobile applications that let users produce, share, and engage with material and other users are referred to as social media. Instagram, Facebook, YouTube, Snapchat, and other platforms are examples of them.

Social media is a platform for communication and expression, but it also changes identity, influences how people see the world, and has an effect on mental health, particularly in kids and teenagers.

**India's legal framework for social media:**

1. The IT Act of 2000
2. Guidelines for Intermediaries, 2021
3. The POCSO Act of 2012
4. The 2019 Consumer Protection Act
5. The 2017 Mental Health Act



1. Promotes carefully manicured, idealized personas for public acceptance
2. Makes one's value reliant on likes, shares, and followers.

3. Encourages performance pressure, comparison, and behaviour that seeks validation.
4. Strengthens tendencies that prioritize online visibility and appearance over genuineness.

#### **Effect on Teenagers:**

1. Because online and offline lives are intertwined, peer monitoring is constant.
2. Distorted body image, low self-esteem, and anxiety might result from exposure to filtered realities.
3. When unrealistic norms and trends are not followed, they cause tension and embarrassment.

#### **Implications for Mental Health:**

1. A rise in eating disorders, bodily dysmorphia, and social disengagement
2. Content that promotes risk-taking, revolt, or excellence might cause emotional pain.
3. Suicidal thoughts or depression may result from frequent exposure to unfavourable comparisons.
4. Because of stigma and a lack of knowledge, mental health therapies are underutilized.

#### **Parental Monitoring Difficulties:**

1. In order to hide from parents, adolescents frequently create many or fictitious accounts.
2. Overzealous monitoring can breed mistrust and concealment.
3. A large number of parents are not digitally literate and are unable to understand online terminology or trends.
4. When monitoring takes the role of conversation, communication gaps increase.

#### **7. Western Disturbance:**

In Delhi, North and South India, a powerful western disturbance caused storms and severe rainfall, which disrupted airport operations and caused hail and flooding.

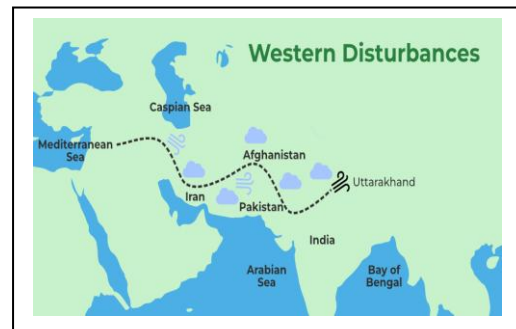
According to recent research, climate change is changing the frequency, severity, and seasonality of Western disturbances, which has an unpredictable effect on India's weather.

***Western Disturbances are extratropical cyclones*** that move eastward and deliver snow and rain to northern India, especially during the winter. Before arriving at the Indian subcontinent, they gather moisture over the ***Mediterranean, Caspian, and Black Seas***.

They follow the subtropical westerly jet stream over the Himalayas and are created by the interplay of polar and tropical air masses. Low-pressure zones frequently accompany these systems, which are imbedded in high-altitude winds.

#### **Western disturbances' effects on India:**

1. North India's main source of winter precipitation, which is essential for Rabi crops in western Uttar Pradesh, Punjab, and Haryana
2. Regular WDs lessen the intensity of summer heat in central and northwest India.
3. Especially in Himalayan states like J&K and Himachal, it causes landslides, hailstorms, and flash floods.
4. Causes traffic jams, travel delays, and urban flooding, particularly in large cities like Delhi
5. WDs that overlap in the pre-monsoon and monsoon months intensify precipitation and alter rainfall patterns.



## **GS-II**

### **1. India's Caste Census**

Context: In reversing its position from 2021, the Cabinet Committee on Political Affairs has approved the caste enumeration census as part of the next Population Census.

The methodical gathering of information on people's caste identities during a national census is known as a caste census. It offers sociodemographic information that is crucial for social justice and affirmative action strategy.

Caste censuses are not required by any explicit constitutional clause; however, they are allowed under Article 340 to identify disadvantaged castes. The Indian Constitution's Article 246 states that the census is a union subject.

British India's first census was carried out between 1881 and 1931. With the exception of SCs and STs, caste enumeration was not practiced throughout independent India.

### **India Needs a Caste Census:**

1. The Mandal Commission estimated 52% of OBCs, however there is no empirical support for this number.
2. Aids in reorganizing quotas and potential OBC subcategorization for fair benefit distribution
3. Facilitates focused health, education, and livelihood initiatives for underserved caste groups.
4. In order to operationalize women's reservations in legislatures, delimitation requires census data.
5. Permits the state to provide special arrangements for underprivileged groups that require distinct identity.

### **The caste census's difficulties**

1. Classification is challenging due to overlapping categories and multiple castes/subcastes.
2. Because the OBC lists of the Center and the States differ, the aggregation is not consistent.
3. Social polarization can result from vote-bank politics fuelled by caste data.
4. Self-declaration could lead to inaccurate reporting or embellishment, which could provide faulty findings.

### **2. India's Bonded Labor**

Context: The ongoing incidence of forced labour in India is brought to light on International Labor Day by sharing the testimonies of bonded labour survivors from different states.

Bonded labour, which frequently has no set time restrictions, is defined as compelled labour that is extracted under duress because of debt, advance payments, or social obligations.

*Article 21* guarantees the right to life with dignity, which is infringed in bonded labour situations;

*Article 23* forbids forced labour and beggary.

All kinds of bonded labour were made illegal by the Bonded Labour System (Abolition) Act of 1976, which also terminated debt commitments.

India is one of the top nations where modern slavery is practiced.

### **Bonded labour's continued existence in India:**

1. In order to survive, poor families make little progress, which results in long-term bondage.

2. Because of their institutional exclusion, SC/ST communities are more susceptible to exploitation
3. Rescue operations are hampered by inadequate supervision and a weak application of the Bonded Labor Act.

With little social or legal protection, 4.90 percent of India's workforce works in the unorganized sector.

#### **Problems in getting rid of bonded labour:**

1. Bonded labour disproportionately affects marginalized populations
2. Less than 1% of the 1.84 crore bonded labourers recognized by Parliament have received rehabilitation
3. As observed in Punjabi and Karnataka brick kilns, exploiters systematically hire labourers using social media and advancements.
4. Because of social rejection or a lack of financial options, rescued labourers frequently return to bondage.

#### **3. Three-Year Judicial Practice Mandate**

Context: The Supreme Court upheld the requirement that candidates for Civil Judge (Junior Division) positions have at least three years of legal experience.

A candidate must now have at least three years of courtroom experience prior to taking the judicial service tests, under the most recent decision in All Indian Judges Association v. Union of India. The requirements, which were eliminated in 2002 to increase access to judicial positions, are applicable to entry-level judges.

#### **The practice requirement is necessary:**

1. Early exposure to actual courtroom situations fosters legal maturity and decision-making abilities.
2. 23 out of 25 High Courts expressed dissatisfaction with the results of hiring recent graduates for the court.
3. Judicial academies frequently lack the ability to mentor individuals one-on-one and are unable to replicate the complexity of litigation.
4. Through active litigation, advocates improve their legal intuition and emotional intelligence.

### **Challenges:**

1. Due to financial or family limitations, women and first-generation attorneys may find it difficult to continue practicing law for three years.
2. In court corridors, early-stage advocates—women in particular—frequently experience hostile work environments, harassment, and a lack of mentorship.
3. The mandate can stop being a meaningful experience and instead become a formality in the absence of verification rules.
4. Young, competent women and other members of underprivileged populations would be discouraged from ever attempting judicial entry due to the additional obstacle.
5. State authorities, not the Supreme Court, should decide the mandate under Article 234 after consulting with High Courts.

### **Significance:**

1. Courtroom-experienced judges are better at handling procedural difficulties and guaranteeing fair trials.
2. The action aims to create a bench that is not only theoretically sound but also professionally competent.
3. Prior legal expertise is a prerequisite for judicial office in the majority of modern judicial systems.

### **4. Experience Learning**

Context: A newspaper article promotes experience learning as a means of developing higher-order thinking skills while highlighting India's exam-centric educational system.

Complies with NEP 2020 policies that encourage critical thinking and knowledge application in the actual world.

Through experience, introspection, and application, information is acquired through experiential learning, a learner-centric methodology.

The main characteristics of learning by doing through practical exercises include the development of abilities like creativity, problem-solving, and teamwork.

In India, 80% of students find application-based problems difficult; Access to comprehensive education is hampered by urban-rural and public-private differences; the current rote-learning approach limits abilities like analysis, assessment, and invention.

### **Challenges:**

1. Rural schools lack labs and digital resources and have a shortage of qualified teachers.
2. Some pupils might not be ready.
3. A one-size-fits-all approach disregards cultural and socioeconomic diversity.

### **5. Closing Land Ports for Bangladeshi Clothing Imports**

Context: India closed all land ports for Bangladeshi ready-made clothing imports, which had an impact on international trade.

India permitted the importation of ready-made garments from Bangladesh through the seaports of Nhava Sheva and Kolkata, but prohibited it through all land ports.

Bangladesh previously prohibited the transportation of Indian grains through its land ports and the importation of cotton yarn. India feels that the Northeast's strategic identity is being undermined by Dhaka's deeper connections with China.



Processed foods, plastic products, timber furniture, cotton waste, and other items are prohibited. Aiming to assert regional political power and address trade asymmetry

### **Repercussions:**

1. Bangladesh's \$700 million in clothing exports to India are being disrupted, particularly by exporters who rely on land.
2. Might have an effect on orders to Bhutan and Nepal, raising supply chain uncertainty in the subcontinent.
3. The diplomatic tension can deter foreign direct investment, particularly in Bangladesh's export processing and textile areas.
4. Under Atmanirbhar Bharat, it lessens Dhaka's hegemony and encourages regional enterprise in the Northeast.

5. For Indian importers, moving commerce from land ports to sea routes may result in longer transit times and higher freight costs.

#### **6. WHO Pandemic Agreement:**

The WHO Pandemic Agreement, a global legal agreement to increase readiness for future pandemics, was formally ratified by the World Health Assembly.

Only the second such treaty following the 2003 Framework Convention on Tobacco Control, it is a legally binding international agreement under Article 19 of the WHO Constitution.

In the event of a pandemic in the future, it seeks to establish a coordinated worldwide response system and provide fair access to vaccines, diagnostics, and treatments. Once 60 countries have ratified, it becomes legally binding.

WHO cannot impose rules or regulations, and nations maintain control over domestic health decisions.

124 nations have adopted it, while 11 have abstained. After President Trump changed his policies, the US pulled out of the negotiations.



#### **Key Features:**

1. Countries must exchange pathogen samples and genomic data; pharmaceutical companies must give the WHO 10% of vaccine production for free and 10% to low-income nations at reasonable pricing in exchange.
2. Promotes information exchange and technology transfer to help poor countries produce vaccinations and treatments locally.
3. Gives public health risk precedence over geopolitics when allocating vaccines.
4. Prevents vaccine hoarding and encourages supply chains to be transparent
5. Requests for a Global Supply Chain and Logistics Network and a Coordinated Financial Mechanism for Emergency Response
6. Ensure that nations experiencing crises have prompt access to resources that can save lives.
7. To ensure access to pandemic-related technologies funded by public funds, countries must create frameworks.

8. Promotes early diagnosis and prevention of zoonotic illnesses by highlighting the interdependence of human, animal, and environmental health.

**Importance:**

1. Encourages support for coordinated action from global health systems
2. Establishes a legally binding worldwide structure for prompt discovery, fair distribution, and reaction
3. Closes the gap between the North and South by guaranteeing access to innovation and treatment.
4. WHO cannot guarantee international collaboration while upholding state sovereignty and superseding national laws.
5. By instituting readiness measures, it lessens disruptions to the economy and world health.

**7. The Situation of Small Farmers in India:**

The essential need to promote agripreneurship, equity, and sustainable market access in order to move small farmers from dependency to dignity is highlighted in a thorough analysis that was just released.

Farmers with fewer than two hectares of land are considered small and marginal farmers. Despite making up more than 85% of all farmers, they only cultivate 45% of the net sown area.

Even though the country is fed, the majority of people live in poverty and vulnerability because they lack sufficient resources, a voice, or access to markets.

**Obstacles Small Farmers Face:**

1. Reliance on unpredictable monsoons with little irrigation
2. Growing expenses for diesel, fertilizer, and seeds reduce net income
3. Only 7% receive MSP, and the majority experience distressed sales to intermediaries.
4. Price volatility is exacerbated by inadequate infrastructure for processing and storage.
5. Only 30% obtain official credit, with the remainder relying on high-interest unofficial loans.
6. While loan waivers and subsidies provide temporary respite, they discourage diversity and encourage long-term reliance.

7. Limited availability of training in digital platforms, value chain management, and business planning
8. The shift to market-oriented production is hampered by infrastructure deficiencies.

#### **Important Government Programs:**

1. Pradhan Mantri Kisan Samman Nidhi
2. Pradhan Mantri Fasal Bima Yojana
3. Pradhan Mantri Krishi Sinchai Yojana
4. e-National Market for Agriculture
5. Organizations of Farmers and Producers

#### **8. LibTech India Report on MNREGA:**

A LibTech India analysis on MGNREGA for FY 2024–2025 reveals a glaring discrepancy between an increase in registrations and a decrease in employment delivery, primarily as a result of budget shortages and late payments.

It is a livelihood assurance and social security initiative that ensures rural households will have 100 days of wage employment. started in accordance with the 2005 Mahatma Gandhi National Rural Employment Guarantee Act.



By creating jobs in unskilled manual labor and enhancing rural assets, it improves livelihood security.

From 13.80 crore to 14.98 crore, more people registered.

Decline in Tamil Nadu, Rajasthan, and Odisha. Growth in Bihar and Maharashtra

#### **Concerns about MGNREGA:**

1. Employees are not being paid on time, which is illegal. 71% of central government payments were delayed, according to research.
2. The government provided Rs. 86,000 crores, but more people are requesting jobs, thus this is insufficient.

3. Caste is being used to divide payments. While others must wait longer, SC/ST employees receive their pay first.
4. Payments totalling more than Rs. 4 crores were unsuccessful, mostly because of technical issues with Aadhaar.
5. Workers hardly ever receive compensation, even in cases where payments are late. Dues were only paid in 3.76% of cases.

### **9. Issues with Copyright in the Era of Generative AI**

Context: India's publishers are suing Open AI for improperly training on their content, sparking a court tempest over copyright violations by generative AI models.

This rekindles the international discussion over how copyright laws should change to accommodate AI.

The legal protection of original works of literature, art, music, and drama from unapproved duplication or commercial use is known as copyright.

1. The original expression of ideas, not the ideas or conceptions themselves, is protected by copyright.
2. In addition to moral rights like integrity and attribution, authors are granted the freedom to copy, distribute, and profit from their work.
3. In India, an author's copyright often lasts for 60 years beyond their passing, guaranteeing their heirs long-term financial gain.
4. While some applications, such as private study or research, are exempt, India's exceptions are more limited than the expansive "fair use" doctrine of the United States.

#### **Significance:**

1. Provides compensation to human authors whose work is utilized to educate AI.
2. Prevents AI from imitating expressions or styles without giving credit or money.
3. Defines the limits between creative authorship and mechanical aid.
4. Crucial for media outlets, publishers, and artists who must deal with the dangers of deepfakes and content replication.

### **10. Are judicial transfers beneficial or detrimental?**

Background: The Supreme Court collegium's transfer recommendations involving judges from the Delhi and Karnataka High courts were recently met with opposition from two bar groups.

The demonstrations rekindled discussions about the absence of a formal transfer policy, presidential meddling, and judicial independence.

Moving a judge from one High Court to another for administrative or public reasons is known as a judicial transfer. The Constitution's Article 222 (1) gives the President the authority to move a judge after consulting the Chief Justice of India.

#### **Judicial transfer requirements:**

1. Minimizes the likelihood of bias resulting from local networks or forces
2. Prevents extended stays in a single High Court, aiding in the preservation of independence
3. Permits judicial competence to be redistributed among High Courts
4. Applied to temporary shortages of judges
5. Intended to encourage regional representation and inclusivity

#### **Problems:**

1. According to the Supreme Court Observer (2021), 59% of transfer rulings lacked justification.
2. Judges encounter linguistic and local law obstacles, and part-heard cases are delayed.
3. Since seniority is determined inter se within a court, transfers may interfere with opportunities for promotion.
4. Judges only move the issue, and all HCs—aside from Sikkim and Meghalaya—are understaffed.
5. As of 2023, just 14% of HC judges are women, and only 4% of SC/ST judges; transfers don't address the underlying problems.

### **11. The entitlement to digital access**

Context: According to Article 21 of the Constitution, the Supreme Court ruled that the right to digital access is a component of the right to life and liberty, requiring inclusive changes to digital KYC standards.

The ability of all citizens, especially those who are marginalized and disabled, to access and profit from digital public and financial infrastructure is known as the "right to digital access."

Given the growing reliance on online identity verification, governance, and welfare delivery, the SC construed Article 21 to encompass digital accessibility.

**Problems:**

1. Individuals with vision impairments or facial deformities are excluded from visual and motor-based tasks such as blinking, selfie capture, and OTP validation.
2. Screen readers, audio prompts, and other identity verification options are absent from the majority of KYC apps.
3. People with disabilities are excluded from banking, telecom, pension, and social programs due to inaccessible KYC.
4. In addition to PwDs, barriers also impact linguistic minorities, senior folks, and people living in rural areas.

**Importance:**

1. Creates a basis for future tech laws by establishing that digital access is a fundamental right.
2. Reaffirms India's commitments under the 2016 RPwD Act and the UNCRPD.
3. Facilitates improved e-governance, health, education, and financial inclusion for marginalized and disabled individuals.
4. Enables structural reform in the conception and delivery of digital systems by upholding justice beyond statutory equality.

**12. The E-Waste Situation in India**

Context: In order to formalize recycling and reduce financial and environmental losses, experts have called for a steady EPR floor price after India's e-waste increased by more than 150% in just six years.

Discarded electronic devices that contain valuable and hazardous metals are referred to as "e-waste." In 2023–2024, India produced 17.78 lakh metric tons of e-waste, up 151% from 7.08 lakh metric tonnes in 2017–2018.

Along with China, the United States, Japan, and Germany, India ranks among the top five manufacturers of e-waste worldwide.

### **Initiatives to Manage E-Waste:**

1. E-Waste (Management) Rules, 2022: Requires manufacturers to take on greater producer responsibility for recycling and safe disposal.

2. EPR Certificate System: In order to satisfy EPR targets, producers must purchase certificates from approved recyclers.

3. Digital E-waste tracking: Establishing a centralized gateway to track the transportation and certification of e-waste

4. Public Awareness Campaigns: Focus on enlightening consumers and encouraging collection through kiosks, e-stores, and take-back guidelines



In order to guarantee that recyclers are fairly compensated for their labour, EPR Floor pricing is the minimum guaranteed price set for EPR certificates. It keeps the market from collapsing, encourages investment in environmentally friendly technologies, guarantees price predictability for recyclers, and supports formalization. It also conforms to international best practices.

### **Problems with collecting e-waste:**

1. 90% of e-waste is handled by unlicensed recyclers who don't follow safety regulations.

2. Ignorance of take-back guidelines and proper disposal techniques

3. Regulators find it difficult to keep an eye on cash-based and informal businesses.

4. Tier-2 and rural areas lack recycling infrastructure because it is concentrated in urban centres.

5. Because modern gadgets are difficult to disassemble, safe recycling is expensive and complicated.

### **13. Report on the State of Nursing Worldwide, 2025**

Context: According to the WHO's "State of the World's Nursing 2025" study, 70% of the nursing deficit is predicted to occur in Africa and the Eastern Mediterranean by 2030, indicating a growing global nursing shortage.

1. About 30 nurses per 10,000 persons, which is less than the WHO-recommended threshold
2. India has increased the number of nursing graduates, however there are still faculty shortages and inconsistent quality.
3. India continues to be a major supplier of internationally qualified nurses, particularly to the UK, the Gulf, and Australia.
4. Low pay, few leadership opportunities, and unfavourable working circumstances cause many nurses to leave the country.

#### **Important concerns in the nursing field in India:**

1. India falls short of WHO standards, which call for 44.5 health workers per 10,000 people, particularly in rural regions.
2. Access in rural PHCs and CHCs is restricted by the concentration of nurses in urban private hospitals.
3. Unsafe working conditions, long hours, delayed pay, and insufficient mental health care discourage retention.
4. Policy influence is limited by the lack of Chief Nursing Officers at the state and federal levels.
5. Training and job growth are hampered by limited funding and infrastructure obstacles.
6. A large outflow of nurses reduces local capacity; bilateral agreements do not provide fair returns.

#### **14. Press Freedom Report for South Asia, 2024–2025**

Background: According to the 23rd Annual South Asia Press Freedom Report 2024–25, "Frontline Democracy: Media and Political Churn," India is among the countries that are experiencing a decline in press freedom.

The Asia Press Freedom Group publishes it. India, Pakistan, Afghanistan, Sri Lanka, Bangladesh, Nepal, Bhutan, and the Maldives are the eight South Asian nations it covers.

69 journalists were detained or imprisoned, 20 were slain while performing their duties, and more than 250 media rights breaches were documented.

***India was placed 151st in the world for press freedom, while Bhutan dropped to 152nd, its lowest position ever.***

It was the most violent year for journalists in Pakistan in twenty years.

Disinformation, legal repression, surveillance, and threats related to artificial intelligence pose serious hazards.

### **Repercussions of Reductions in Press Freedom:**

1. Media outlets refrain from critical responses out of fear of violence and legal action.
2. Impairs accountability and openness by weakening the fourth pillar of democracy.
3. Growing perceptions of media bias undermine institutional trust.
4. Legitimate public inquiries are blocked by laws such as India's DPDP Act, 2023, and revised RTI rules.

### **15. India's Child Labor**

Context: India still struggles with the pervasive practice of child labour even though it has strong constitutional and legal frameworks that forbid it.

From brick kilns and matchstick factories to leather shops and construction sites, millions of children—especially those from low-income families—continue to be ensnared in dangerous jobs.



Child labour is defined as the employment of minors in jobs that interfere with their education, rob them of their youth, or are hazardous to their mental, physical, social, or moral development.

Article 24 forbids children under the age of 14 from working in mines, factories, or other dangerous jobs.

The 1986 Child and Adolescent Labour (Prohibition and Regulation) Act forbids children under the age of 14 from working in any profession and keeps teenagers out of dangerous jobs.

Child labour victims are treated as minors in need of care and protection under the Juvenile Justice (Care and Protection) Act of 2015.

By guaranteeing free, mandatory education for children aged 6 to 14, the Right to Education Act of 2009 indirectly lowers the labour incidence rate.

According to UNICEF research of PLFS, 18–33 lakh youngsters are working. It is more difficult to spot working youngsters because nearly half of them labour within their households. The industries

most negatively impacted are mining, construction, glassmaking, leather tanning, fireworks, and agriculture.

Children are subjected to harmful substances, violent situations, wounds, and verbal and physical abuse. Long-term physical and mental harm results from a lack of access to basic healthcare, education, and cleanliness.

Just 613 incidents were reported under the Child Labor Act in 2021.

**Root Causes:**

1. According to the ILO, child labour contributes to and results from poverty.
2. Children are forced to labour by their families in order to survive, particularly in times of heavy adult unemployment.
3. Nutritional deficiencies continue to exist; one in two undernourished children worldwide are from India, which exacerbates poverty.

**16. The Net-Zero Network Draft by IMO**

Background: With the goal of achieving net-zero emissions by about 2050, the International Maritime Organization has approved the draft Net-Zero Framework, which aims to reduce GHG emissions from shipping in order to battle climate change.

It is a globally enforceable plan to control greenhouse gas emissions from the shipping industry. This is the first attempt to integrate carbon pricing for a whole manufacturing sector with global emissions restrictions.

It requires ships to use less GHG fuel intensity per unit of energy. Low-GHG ships receive excess credits, whereas ships that exceed GFI restrictions are required to buy corrective units.

**Importance:**

1. Harmonizes carbon pricing and emissions caps for international waterways
2. Encourages the use of hybrid technology, onboard CCS, and green fuels.
3. Provides technological transfers and climate finance to vulnerable countries.
4. Encourages investment in fuels based on hydrogen, methanol, and ammonia for maritime logistics

**Restrictions:**

1. Despite the urgency, actual implementation starts in 2027.
2. It is difficult to measure "well-to-wake" emissions, and there may be reporting gaps.
3. Fuel is the main focus of current regulations; design advancements like wind propulsion are optional.
4. Limited supply of zero-emission fuels worldwide to satisfy future GFI requirements
5. Developing maritime countries may be disproportionately affected by higher compliance expenses.

**17. The Ethical and Legal Struggle Against Digital Disinformation in India**

Background: India, which the WEF Global Risks Report 2024 ranked as one of the most misinformation-vulnerable countries, is facing more difficulties as influencer-driven content continues to grow uncontrolled. Calls for more regulation and moral responsibility of social media influencers have been sparked by this.

False or inaccurate information shared online, frequently without malicious intent, but with detrimental effects, is referred to as digital disinformation.

An increasingly popular social media trend is "de-influencing," in which influencers advise against buying particular goods. Although it might encourage thoughtful consumption, it usually uses clickbait, false information, and inflated stories to attract attention.

These aspects make it difficult to distinguish between opinion, advertising, and deceit in a society that is digitizing quickly, which is why regulatory clarity is essential.

A new category of digital opinion makers and influencers has emerged as a result of the widespread use of Instagram, YouTube, and TikTok. Their frequently promotional content influence's public opinion, consumer trends, and health-related behaviours.

To control paid marketing, the Indian Ministry of Consumer Affairs, SEBI, and ASCI have released rules such as "Endorsement know-hows."

To control the influence economy, India has implemented a multi-layered regulatory structure that combines statutory duties, industry self-regulation, and constitutional protections.

The Constitution's Article 19 (1) (a) guarantees freedom of speech, but Article 19 (2) places reasonable constraints on it to prevent defamation and maintain public order.

The 2019 Consumer Protection Act expressly forbids deceptive advertising and makes influencers criminally liable for such content.

Standards for genuine influencers and endorsements, as well as fair disclosures, are established by the Advertising Standards Council of India and SEBI guidelines.

**Issues:**

1. Because influencer material frequently employs selected statistics, emotive appeals, and confusing language, it can be challenging for viewers to distinguish between manipulation and the truth.
2. Without expert training, health advice can be fatal.
3. Digital platforms lose credibility when they use sponsored disinformation or sensational negativity to profit from public trust.
4. Influencers, particularly those offering financial or health advice, are not required to register in a database.

**18. Global Conservation Laws vs. India's FRA**

Context: To protect rights in biodiversity protection, a permanent subsidiary body for indigenous peoples and local communities was established at CBD COP-16 (2025).

India's Forest Rights Act (FRA), 2006, stands apart in the midst of worldwide exclusionary trends because it connects conservation and community forest governance.

Thirteen categories of forest rights are recognized by law under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, giving gram Sabha's the authority to lead community-led biodiversity protection. It combines tenure security with environmental preservation and recognizes the historical injustice experienced by tribal populations.

Articles 244 and 244A of the Indian Constitution provide for tribal governance in Scheduled Areas. The FRA continues to be a unique worldwide example that connects local sovereignty with biodiversity conservation, as reinforced by PESA (1996) and BDA (2002).

**Implementing FRA has certain limitations:**

1. Forest departments continue to be given priority, marginalizing Gram Sabhas, notwithstanding FRA's decentralized vision, updated National Biodiversity Strategy, and Action Plans.

2. Of the more than 1.4 crore claims submitted under the FRA, only a small percentage have been accepted; forest officials frequently dilute or reject these claims.
3. By not utilizing the term "indigenous" in its legislation, India is less aligned with the UNDRIP (2007), which it supported internationally.
4. Unless combined with FRA protections, the BDA 2024 Draft regulations could monetize biodiversity through bioprospecting, putting traditional knowledge at danger of corporate appropriation.

### **19. Vaccine-Preventable Diseases**

Context: The World Health Organization, UNICEF, and Gavi have warned of the increase in vaccine-preventable diseases as a result of funding cuts, disinformation, and missed vaccination dates.

In 2023, 14.5 million kids did not receive any of their recommended vaccinations. Moderate to severe disruptions in vaccination services were recorded in more than half of the countries under WHO monitoring. Delays in immunization have led to a recurrence of polio in a number of African nations.

In order to boost the immune system, a weakened or dormant pathogen is introduced into the body during vaccination. Without actually producing illness, it teaches the immune system to identify and fight dangerous illnesses.

#### **The Value of Immunization:**

1. Vaccines prevent 11 major diseases and save 4.2 million lives each year.
2. Since 1974, vaccination has helped to increase child survival rates by 40%.
3. According to WHO estimates, every \$1 spent on immunizations yields a \$54 return.
4. The healthcare burden and mortality rates are lower in nations with high vaccination rates.
5. Protects susceptible groups that cannot receive vaccinations, such as young children and people with weakened immune systems.

#### **Challenges include:**

1. Routine vaccinations were delayed by COVID-19

2. Programs like Gavi and COVAX are at risk of discontinuing due to a reduced global health budget
3. Myths and anti-vaccine propaganda, particularly on social media, lower acceptability
4. Vaccine distribution is hampered by insecurity in areas like Africa, the Middle East, and South Asia.
5. Delivery of vaccines is delayed in rural and low-income areas due to inadequate cold-chain infrastructure.

#### **India's vaccination status:**

1. The main public health initiative, the Universal Immunization Program, yearly targets 34 million pregnant women and 26 million youngsters.
2. In 2014, India declared itself polio-free.
3. In 2015, tetanus in mothers and newborns was eradicated.
4. Introduced vaccinations such as PCV and Measles-Rubella
5. Mission Indradhanush focuses on pregnant women and children in underprivileged communities who are unvaccinated or just partially vaccinated.

#### **20. India's Parliamentary Oversight**

Background: Although India implemented a parliamentary structure to guarantee daily executive accountability, current patterns indicate that Parliament's oversight function is deteriorating. Parliament's function as the protector of the public interest has been undermined by disruptions, underutilized committees, and the lack of post-legislative scrutiny.

It refers to the legislature's ongoing oversight and assessment of executive activities, guaranteeing responsiveness, accountability, and transparency in governance.



The legislature is the ultimate authority over the executive branch of India's parliamentary system. Parliamentary Committees, Question Hour, and Zero Hour are examples of oversight mechanisms that guarantee regular and daily checks on the government.

Article 75: The Lok Sabha is the Council of Ministers' collective accountability body.

Motions, discussions, inquiries, and committee reports are examples of parliamentary tools.

### **Challenges:**

1. Regular protests and adjournments shield ministers from accountability
2. Although standing committees provide thorough reports, the entire House hardly ever discusses them. Domain expertise is decreased by annual membership rotation.
3. There is no formal procedure in place to assess the efficacy or conformity of laws once they are passed.

### **21. Private Member Bill:**

Context: Despite the importance of private member's bills to democracy, their consideration has drastically decreased. Procedural reforms are recommended by the NHRC, experts, and MPs in order to restore PMBs as instruments of independent expression and legislative creativity.

A bill introduced by a member of parliament who is not a minister is known as a private member's bill. It represents personal opinions rather than the official agenda of the government.

According to the Rules of Procedure, it is introduced in both Houses on Fridays.

Since independence, only 14 PMBs have cleared both Houses; none have done so since 1970.

1. PMBs are important because they allow MPs to propose laws based on their own beliefs or the needs of their constituencies.
2. On delicate subjects, government legislation frequently comes before
3. Permits ruling MPs to express their own opinions.
4. Encourages deliberative democracy independent of party whips

## **GS-III**

### **1. Natural Hydrogen**

Context: With recent finds in France's Moselle region and significant interest from India, governments and business companies worldwide are stepping up their efforts to investigate natural hydrogen as a cheap, emission-free fuel.

Free molecular hydrogen that spontaneously arises underground as a result of geological processes like radiolysis and serpentinization is known as natural hydrogen. If harvested responsibly, it is a clean-burning, non-polluting, and perhaps renewable energy source.

**Important characteristics:**

1. Burns without emitting CO<sub>2</sub> and just produces water vapor.
2. Production is expected to cost \$1/kg, which is far less than green hydrogen.
3. Compared to gasoline, hydrogen fuel cells are three times more efficient.
4. Regenerated naturally in geological formations.

**Adoption Challenges for Natural Hydrogen:**

1. The availability of hydrogen worldwide is questionable due to a lack of comprehensive surveys.
2. If reserves are excessively dispersed, they are not economically feasible.
3. Because of its low energy density, hydrogen necessitates high-pressure containment, which raises costs.
4. Extremely flammable and odourless, which makes it challenging to find leaks
5. Distribution, pipelines, and refuelling stations are yet in their infancy.

**2. Provisional Estimate of GDP**

Context: India's FY 25 GDP and GVA were estimated by the Ministry of Statistics and Program Implementation.

The term "provisional GDP" describes the output and national income figures that were made public at the conclusion of the fiscal year, taking into account all four quarters. The Ministry of Statistics and Program Implementation is responsible for its release.

1. FY 25 saw a 6.5% increase in real GDP. Nominal GDP increased by 9.8% to Rs. 330.68 lakh crore, while actual GDP reached Rs. 187.97 lakh crore.
2. The primary sector recovered, growing 4.4% compared to 2.7% the previous year and registering 5% increase in Q4 alone.
3. The manufacturing sector is still lagging behind agriculture, with a lower CAGR, which has an impact on employment dynamics.

**Advantages:**

1. India continues to be one of the key economies with the quickest rates of growth notwithstanding global worries.
2. Since FY 20, agriculture's GVA has increased more quickly than manufacturing's.
3. Q4 data is now included in the estimates, giving a more complete view of the economy.

**Drawbacks:**

1. FY 25 nominal GDP growth is the third smallest since 2014 at 9.8%.
2. The GVA growth of manufacturing trails that of agriculture, indicating industrial stagnation.
3. High urban youth unemployment and rising labour migration to rural areas can be explained by sluggish manufacturing.

**3. Landslides:**

In Rudraprayag, Uttarakhand, a terrible landslide on the Kedarnath National Highway killed one pilgrim and injured five more from Chhattisgarh. Because of the persistently severe weather, authorities have issued travel advisories.

A landslide is the abrupt, gravity-driven movement of rock, dirt, or debris; it is frequently caused by intense rain, seismic activity, or human activity.

Landslides are common in about 15% of India's geographical area, particularly in the Himalayas, North-East, Western Ghats, and Nilgiris.

**Landslide causes include:**

1. Fragile rock formations brought on by the Indian plate's tectonic movement, which occurs at a rate of about 5 cm per year
2. Slope failures are caused by heavy and protracted rainfall
3. In Himalayan regions, earthquakes erode hillsides and cause landslides.
4. Uncontrolled development and vegetation removal cause soil strata to become unstable.
5. Natural slopes are altered by blasting and excavation, increasing their likelihood of collapsing.

## **The effects of landslides**

1. Deaths and injuries
2. Crop and infrastructure damage that results in financial loss
3. Transportation barriers, particularly in isolated and steep areas
4. Sedimentation of rivers that causes floods downstream
5. Decreased reservoir life in hydropower plants as a result of siltation
6. Population displacement and the depletion of arable land
7. Geographic remoteness resulting in inadequate development

### **4. WMO's 2025–2029 Global Climate Forecast**

Context: According to a recent decadal climate projection published by the World Meteorological Organization, global temperatures are predicted to stay at or surpass record levels between 2025 and 2029, greatly escalating the hazards associated with climate change and development obstacles.

It is predicted that the average global surface temperature will rise by 1.2 to 1.9 degrees Celsius each year above pre-industrial levels.

There is a 2.80% possibility that one of the years between 2025 and 2029 will be hotter than 2024.

The likelihood of one year surpassing the 1.5-degree Celsius barrier is 3.86%.

Arctic winter temperatures are predicted to rise by 2.4 degrees Celsius over the average from 1991 to 2020, which is more than 3.5 times faster than the global average.

More declines are anticipated in the Sea of Okhotsk, Bering Sea, and Barents Sea, which will affect native livelihoods and biodiversity.

Drier weather over regions of South Asia and the Amazon, increasing the likelihood of drought.

### **Implications:**

1. Every degree of warming intensifies heat waves, floods, and droughts, which affects both urban systems and rural economies.
2. As a result of glacier melt brought on by prolonged warming, sea levels rise and coastal hazards increase.

3. Degradation of marine ecosystems brought on by rising temperatures puts food chains and fisheries in jeopardy.

4. In vulnerable areas, warming jeopardizes public health, water availability, and food security, among other SDGs.

### **5. Creating a Medium Enterprises Policy Report**

Context: In order to enable medium-sized businesses to grow into future industrial behemoths and propel India's goal for Viksit Bharat @2047, NITI Aayog published a historic paper titled "Designing a Policy for Medium Enterprises."

Businesses with up to Rs. 125 crores in investment and up to Rs. 500 crores in revenue are classified as medium enterprises. Despite making up 0.3% of MSMEs, they account for 40% of MSME exports, demonstrating their strategic importance.

MSMEs make up a crucial manufacturing backbone and account for 29% of the GDP.

Eighty-one percent of MSMEs' total R&D expenditures come from medium-sized businesses.

#### **Challenges:**

1. Only 10% make advantage of government programs and portals, and the majority are not aware of customized assistance.
2. An excessive dependence on personal savings and the absence of a specific working capital plan
3. 82% are unable to access industry 4.0 technologies such as IoT and AI
3. Sector-specific enterprise needs are not met by the training that is currently available.
4. Lack of a central mechanism for R&D adapted from medium units
5. A disjointed information ecology and red tape

### **6. Early Arrival of Monsoon**

Context: On May 24, 2025, eight days before the customary June 1 date, the IMD announced the start of the southwest monsoon across Kerala.

Last observed in 2009, this is one of the earliest monsoon arrivals in more than ten years.

More than 70% of India's yearly rainfall is brought on by the seasonal wind pattern known as the Southwest Monsoon, which occurs from June to September. It is essential to water availability, agriculture, and general economic activity.

1. Increased rainfall and convection across the Indian Ocean due to an intensified eastward-moving tropical disturbance
2. Moist winds were directed onto Indian beaches by a powerful high-pressure system over the southern Indian Ocean.
3. Early rains were brought on by an increase in vertical cloud build-up due to rising heat and moisture movements.
4. The arrival of monsoon currents over Kerala and Karnataka was accelerated by the strengthening of cross-equatorial winds.
5. Suction for moist monsoonal air was created by the ongoing low pressure over Pakistan and northwest India.
6. Rainfall was triggered over central and northeast India by a long low-pressure area that extended from the Arabian Sea to the Bay of Bengal.

**Repercussions:**

1. Kharif crops like pulses and paddy can be sown early, increasing crop calendar adherence.
2. Aids in the early replenishment of water levels in areas that are prone to drought, such as Tamil Nadu and Karnataka
3. Urban flooding may increase in cities that are unprepared for early rains.
4. Early monsoon may interfere with typical temperature patterns, as evidenced by south India's colder summer 2025 averages.
5. There are hazards for water management planning because early start may or may not guarantee a longer or greater monsoon season.

**7. Overfishing: The Danger to Ocean Wealth**

Context: Experts have brought attention to the dangers that overfishing poses to ocean biodiversity, the livelihoods of small fishermen, and future food security on the occasion of the International Day of Biological Diversity.

When fish are taken more quickly than they can naturally repopulate, overfishing takes place, pushing populations past their point of recovery.

According to the FAO, illicit fishing and bycatch are contributing factors to the overexploitation of one-third of the world's fish stocks

90% of India's fishermen only capture 10% of the country's 3–4 million tonnes of annual crop, and 75% of them live below the poverty line.

### **Reasons for excessive fishing:**

1. India's trawlers and mechanized fleets overuse resources; occasionally, they remove 10 kg of bycatch for every kilogram of shrimp.
2. Juvenile fish can enter small-mesh nets, which prevents stock regeneration.
3. Illegal fishing undermines sustainable and legal operations, netting up to \$36.4 billion annually worldwide.
4. The Marine Fisheries Regulation Acts of each coastal Indian state allow for regulatory evasion.
5. Even in unfavourable circumstances, overfishing is encouraged by subsidized fuel and trawler infrastructure.



### **The consequences of overfishing:**

1. Reef habitats and food chains are destroyed by trawling.
2. A third of sharks, rays, and turtles are in danger of going extinct due to overfishing
3. Small-scale fishermen have low returns and large fuel debts. This mismatch is exacerbated by the FMFO industry.
4. Fish protein is vital to millions of people living around the shore. Jobs and nutrition are at risk due to declining stockpiles.
5. Ecological breakdowns are caused by overexploitation and bycatch discards, which upset marine food webs.

### **Way to combat overfishing:**

1. To modify New Zealand's trawl fleet model for India. Connect catch limitations to evaluations of scientific stocks.
2. In a single season, Kerala's MLS for threadfin bream increased catches by 41%.

3. States should have uniform fishing regulations; MLS, closed seasons, and gear restrictions are essential.
4. Limit quotas, require aboard juvenile release, and reroute bycatch for domestic aquaculture.
5. Give local sanctuaries and Marine Protected Areas management authority to fisher cooperatives.
6. To reduce market demand, support sustainable seafood and reject fish that are improperly scaled.

### **8. Climate Physical Risk**

Context: In light of an increase in extreme weather occurrences, the Union Home Minister has underlined the necessity of proactive climate risk assessments. The paper urged for a single national framework and emphasized India's disjointed approach to climate physical risk.

Potential harm from both acute and long-term climatic events is referred to as CPR. It describes natural disasters that directly endanger the environment, such as floods, cyclones, droughts, or wildfires.

According to standards like the EU Taxonomy and ISSB S2, countries increasingly mandate that businesses report physical climate risks. Extreme events affect both the Global North and the South. More than 80% of Indians reside in areas vulnerable to heat waves, droughts, and floods. A standardized, national-level risk assessment system is lacking, and CPR data is scattered throughout IMD, IITs, and NIDM.

#### **Issues with CPR Management in India:**

1. CPR studies lack consistency and are isolated across ministries.
2. There is no central location for district or panchayat-level risk data.
3. Inadequate resources for companies to evaluate value chain risk

### **9. India's Spatial Infrastructure for National Security**

Context: There are significant national security worries for India as a result of reports that China's Beidou satellite navigation system may have been used by terrorists during the Pahalgam terror attacks in India.

Satellite-based positioning, navigation, and timing systems like China's Beidou, India's NavIC, and GPS are examples of spatial infrastructure. controlled by both international agreements and national telecom and space laws, such as India's Satcom policy

High-precision real-time monitoring and location services are among the features. integration with AI-powered surveillance technologies and communication networks. provides location information, encrypted communications, and short messaging services.

**Function in the context of national security:**

1. Facilitates safe communication and troop coordination in areas with high surveillance or no mobile network.
2. Essential for patrol control and precise drone strikes
3. Applied to early warning systems in conjunction with IoT sensors and telecom networks
4. Uses quantum-safe protocols to support secure data routing, network resilience, and encryption.

**Important concerns:**

1. An excessive dependence on other systems, such as Beidou or GPS, jeopardizes data integrity and sovereignty.
2. Terrorists in border areas may take use of Beidou's high-accuracy services.
3. China may lessen India's regional technological clout by promoting Beidou in Bangladesh, Nepal, and Sri Lanka.
4. NavIC's commercial adoption is still modest and its coverage is not worldwide.
5. Limited real-time capacity to combat threats of satellite jamming or spoofing

**10. Environmental Clearances in Retrospect**

Context: The Center's 2017 announcement and 2021 SOP permitting retroactive environmental approvals to industries were declared illegal and a violation of the right to a clean environment by the Supreme Court of India.

Industries can begin projects without first obtaining environmental certification and then seek approval later thanks to ex-post facto or retrospective green clearances.

According to the Environmental Impact Assessment Notification, 2006, which was issued in accordance with the Environment (Protection) Act, 1986, these clearances are in violation of the required pre-approval mechanism.

The 2017 EIA gave violators a one-time, six-month window to petition for post-facto environmental clearance.

1. Ignores crucial phases such as site assessment, expert evaluation, and public hearing
2. Regularizes unlawful behaviour to incentivize violators
3. Goes against the "precautionary" and "polluter pays" tenets of Indian environmental law.
4. Causes irreversible harm

#### **Importance of the Supreme Court's Decision:**

1. Strengthens Article 21 by reaffirming citizens' entitlement to a pollution-free environment
2. Reaffirms the requirement for prior environmental approvals within the EIA 2006 framework
3. Sends a strong message against post-facto regularization of illicit industrial operations
4. Prevents the erosion of environmental protections by asserting constitutional restraints on executive discretion.
5. Preserves the rights of impacted ecosystems and communities against unbridled industrial growth.

#### **11. The Agri-Export System in India**

Context: India just concluded the details of an India-US trade agreement and inked other free trade agreements with the UK, EFTA, and bloc.

Concerns over India's long-term agri-export plan are raised by the fact that agriculture is still left out of these agreements.

The set of institutional processes, infrastructure, and laws that govern the export of agricultural commodities is known as India's agro-export regime.

The value of agri-exports decreased from \$52 billion in 2022–2023 to \$48 billion in 2023–2024. Just basmati rice accounts for 21% of all agricultural exports. Promotion and branding are supported by organizations such as ODOP-GI tags and APEDA. Citing sensitivity concerns, India has mostly excluded agriculture from recent free trade agreements, such as those with the US, UK, and EFTA.

#### **Challenges:**

1. Because of political and livelihood considerations, agriculture is frequently included on the sensitive list or granted extended transition times in free trade agreements.

2. High rates of product rejection for items like peanuts and mangoes because of SPS non-compliance and pesticide residues
3. Agriculture is a state subject and trade is a Union matter, which frequently results in policy delays and conflicts.
4. The focus on exporting raw materials rather than branded and processed goods limits the possibility for profit.
5. In landlocked areas like UP and MP, there are insufficient cold chains, inland container depots, and export logistics.
6. Excessive electricity, water, and fertilizer subsidies lessen the motivation to switch to high-value, exportable crops.

### **12. India's Road Safety:**

In 2022, India had 1.68 lakh road fatalities, the most in five years, which prompted urgent calls for road safety governance reform.

An estimated 3% of India's GDP is lost each year as a result of traffic accidents. This impedes the advancement of the country and emphasizes how urgently comprehensive road safety measures are needed.

With more than 6.3 million kilometres of roads, India boasts the second-largest road network in the world. The death rate in India is startlingly high when compared to the UK and Japan.

#### **Problems:**

1. Driver errors such excessive speeding, drinking, and lane indiscipline account for about 78% of traffic accidents.
2. Poor road design, a lack of pedestrian zones, and more than 5,000 black spots that have not been fixed
3. Despite harsh punishment measures in the MV Act of 2019, inconsistent rule enforcement and minimal deterrent
4. Limited access to trauma care and delays in medical assistance, particularly on state and rural roadways
5. There is less accountability because the Center and States share responsibility for road construction and safety.

**Actions made:**

1. Road Safety Advocacy Scheme campaigns during National Road Safety Month
2. Creation of Research Institutes and Driving Training Facilities
3. Road safety audits are required at every step of NH projects.
4. Repairing accident-related dark patches
5. Using the e-DAR system to report accidents
6. Requirements for seat belt reminders, airbags, ABS, and reverse parking sensors
7. The introduction of the Bharat NCAP safety rating system
8. To phase out dangerous automobiles, a vehicle scrappage program was introduced.
9. CCTV-based enforcement and the E-Challan system in high-risk areas
10. The use of paramedics with training to deploy ambulances at toll plazas
11. A pilot program for cashless care in six states, in partnership with the National Health Authority.

**13. A Basic Reset to Promote Manufacturing Development**

Background: In view of global trends toward high-tech, innovation-driven industries, the current piece emphasizes the urgent need for a structural reset in India's manufacturing sector to increase productivity and competitiveness.

**Indian manufacturing's current state:**

1. Manufacturing employs more than 6 crore people and accounts for 16–17% of India's GDP.
2. In FY 23, manufacturing exports grew by 6.03% over FY 22 to an all-time high of \$447.46 billion.
3. India wants to contribute \$500 billion to the global economy by 2030 and raise its manufacturing sector's GDP share to 25% by 2025.
4. In March 2024, the HSBC manufacturing PMI reached a 16-year high of 59.1, indicating strong output and employment growth.
5. India's manufacturing garnered \$165.1 billion in foreign direct investment during the past ten years, a 69% increase, demonstrating the trust of investors.

**Indian manufacturing has the following challenges:**

1. India's manufacturing value added per capita is \$0.32K, while the global average is \$2K.
2. Compared to China or South Korea, R&D spending is far smaller at just 0.7% of GDP.
3. Of India's workforce, only 48.7% are deemed employable due to their limited exposure to industry. Tools 4.0
4. India's logistics expenses account for 14–18% of GDP, while in Western nations they account for 8–10%.
5. Investments are discouraged by land acquisition and regulatory approval delays; India is ranked 63rd in terms of ease of doing business.
6. Trade imbalances result from India's heavy reliance on imports for electronics, semiconductors, and EV batteries.
7. Of India's 64 million MSMEs, just 14% have access to loans, and their use of technology is still quite low.

**Important government projects:**

1. Make in India encourages domestic production in 25 industries with the goal of making India a major hub for global manufacturing.
2. The 14-sector Production Linked Incentive Scheme is anticipated to increase industrial output by \$500 billion.
3. To lessen supply chain bottlenecks, the Gati Shakti National Master Plan combined multimodal transportation and logistics.
4. FAME II Scheme: Provides financial incentives for the production of electric vehicles and batteries.
5. PM Kaushal Vikas Yojana provides advanced manufacturing skill development in line with international production norms.
6. Industry and Digital India 4.0 Push: Promotes MSMEs' digitization and the use of IoT, AI, and robotics in manufacturing.

#### **14. Atmanirbharta is necessary for India's air pollution strategy.**

Background: Following international interruptions in climate research and ongoing foreign-led investigations on India's pollution crisis, the lack of independence in the country's air pollution plan has come under scrutiny.

More than a dozen Indian cities are regularly ranked in the top 20 most polluted cities in the world. In India, air pollution is a contributing factor in 1.6 million deaths every year. Despite having over 4,000 cities and towns, the National Clean Air Program only covers 131 of them.

#### **Important projects:**

1. Monitoring Program for National Ambient Air Quality
2. Creation of India's first in-house real-time forecasting system, the System of Air Quality and Weather Forecasting and Research
3. By 2024, NCAP implementation aims to reduce PM 2.5 and PM 10 levels by 20–30%.
4. To reduce urban pollution, states like Delhi and Tamil Nadu are spearheading the switch to electric vehicles.
5. Encourages business and academics to work together on joint research and development for pollution solutions

#### **Challenges:**

1. Information from foreign satellites and organizations is a major source of data for India's climate models.
2. Foreign organizations, not Indian scholars, lead the majority of internationally sponsored studies on pollution in India.
3. The majority of financing goes to elite institutions, whereas regional R&D organizations continue to lack adequate resources.
4. Pollution Control Boards frequently return unused allocations notwithstanding air quality funds.
5. Current approaches disregard pollution at the airshed level as well as the movement of pollutants between districts and states.

### **15. India-United Kingdom Free Trade Agreement:**

With the goal of doubling bilateral trade and strengthening economic integration, India and the UK signed a historic multi-billion-dollar free trade agreement and a double contribution convention. A free trade agreement can be bilateral or multinational and aims to lower or remove non-tariff trade barriers and customs tariffs on most traded goods and services.

Duty-free access to partner markets, streamlined regulations, cross-border investments, professional mobility, and preferential treatment over competitors who are not FTAs are all made possible by free trade agreements.

Following Brexit, negotiations started in January 2022, signifying the United Kingdom's aspirations for autonomous trade. Elections in both nations and frequent political changes in the U.K. caused delays in talks. Following a conversation between Prime Minister Narendra Modi and Prime Minister Keir Starmer, the deal was completed in May 2025 after approximately 14 rounds of negotiations. The British Parliament must now ratify the deal after it has undergone legal review. 90% of British goods will have their tariffs reduced by India. 99% duty-free access to Indian exports will be provided by the UK.

1. Fears of being undercut by less expensive imports from the UK, like processed foods, lamb, and fish.
2. Complicated legal requirements for small exporters

In the event that Indian exports do not increase correspondingly, a growing trade deficit must be avoided.

### **16. Ethanol Production from Maize: Fuel vs. Feed Conflict**

Background: A Fuel vs. Deed problem has been brought on by India's quick diversion of maize for ethanol production, which has increased reliance on imports and sparked worries about the use of genetically modified maize for biofuel.

The demand for maize ethanol in India increased dramatically from 0.8 MT in 2022–2023 to 12.7 MT in 2024–2025, drastically lowering the supply of feed grains.

As an alternative to gasoline and diesel, biofuels are renewable fuels made from biological materials such as crops, waste, or leftovers. They lessen greenhouse gas emissions and reliance on fossil fuels.

In India, the main feedstocks for ethanol are maize and sugarcane. With a 10% blending objective that will increase to 20% by 2025 under the Ethanol Blended Petrol Program, India is the world's fifth-largest producer of ethanol.

Prior to 2021–2022, India produced 32–33 million tonnes of maize, but only 28 MT were consumed domestically, leaving excess for export. India is currently a net importer of maize since 7 MT of maize has been diverted to the manufacturing of ethanol (2024–25). Prices for each tonne increased from Rs. 15,000 to Rs. 25,000, impacting both consumers and maize-dependent companies.

Every year, livestock provide customers with more than 20 MT of corn. The feed industry is currently demanding the import of genetically modified maize for sole ethanol use in order to protect feed availability due to the supply issue caused by the grain shortfall.

### **17. 16th Finance Commission**

Context: The 16th Finance Commission is confronted with a difficult task as states seek more fiscal autonomy and a bigger portion of the divisible revenue pool.

Arvind Panagariya served as the chair of the 16th Finance Commission, which was established in December 2023 under Article 280 to suggest changes to fiscal federalism and tax devolution for 2026–2031.

Because of the increase in cesses and surcharges, states only receive roughly 32% of the gross tax revenues collected by the centre.

**The 16th Finance Commission's agenda items include:**

1. The divisible pool's size has decreased from 88.6% to 78.9% of the Centre's gross tax collection due to cess and surcharges.
2. Increasing overall transfers without causing financial strain could not be possible.
3. The centre is taking out loans to pay for grants, which calls into question the priorities of spending.
4. States are bound by centre-dictated spending when they rely too heavily on centrally supported programs.
5. The revenue balances of several states, including Punjab and Karnataka, are getting worse.



6.14 states, or 0.6% of GDP, have implemented income support programs.

7. States with low incomes, such as Bihar, spend a lot less on public services per person.

8. Compared to nations like China and South Africa, panchayats and municipalities receive a far lesser portion of overall public spending.

## **GS-IV**

### **1. Patriotism in Civilians:**

The topics of nationalism, sacrifice, and citizen patriotism have been rekindled in public discourse following Operation Sindoor and the recent arrests of YouTubers charged with espionage.

Patriotism is a strong moral and emotional bond with one's nation, frequently manifested as love, devotion, and selflessness for the good of the country.

Special love and care for one's country, personal connection with national ideals and ethos, a readiness to forgo personal benefit for the benefit of the nation, and a sense of belonging to a common past and future are all important characteristics.

#### **Patriotism-related ethical theories:**

1. The opinion of Stephen Nathanson: Patriotism entails a unique sense of concern and identity with one's nation; it is not devotion without moral boundaries.
2. Simon Keller's Critique: argues that patriotism is ethically brittle because it frequently entails emotional partiality and belief prejudice and lacks logical moral foundations.
3. Marcia Baron's Liberal Patriotism: Promotes a morally balanced perspective that allows one to respect universal human ideals while giving national interests top priority.
4. Alasdair MacIntyre's Robust Patriotism: Sees patriotism as a fundamental moral quality derived from a sense of community, yet it runs the risk of displacing moral judgment.
5. Ethical Patriotism: Promotes a morally responsible patriotism in which preserving justice, equality, and moral national leadership are the main concerns.

Nationalism is an aggressive, power-centric, and frequently exclusive commitment to a country that fosters militarism, xenophobia, and intolerance while weakening pluralism and international collaboration. It also tends to encourage us-versus-them thinking, stifle criticism, and rationalize tyranny.

**Importance:**

1. Voting, paying taxes, and maintaining social peace are ways that citizens demonstrate their patriotism.
2. The state's moral and developmental foundations are upheld by educators, physicians, public servants, and grassroots workers.
3. Non-militaristic patriotism is demonstrated by the contributions of ISRO scientists, medical heroes during COVID-19, and disaster responders.
4. In their daily lives, citizens uphold national integrity, foster unity in diversity, and reinforce the democratic ethos.

**2. Whistleblowing**

Context: In response to accusations of financial and ethical wrongdoing by whistleblowers, the World Economic Forum is looking into its founder, Klaus Schwab, internally.

The legal revelation to authorized parties of wrongdoing or unethical behaviour within a company is known as whistleblowing.

Aristotelian ethics emphasizes moral qualities over only laws or penalties.

Ross's Theory of Prima Facie Duty: The obligation to uphold justice and prevent harm surpasses the obligation to be loyal to one's employer when it comes to whistleblowing.

According to the Bhagavad Gita, "Karmanye Vadhikaraste" means that one must carry out one's duties regardless of the outcome, especially in the face of hardship.

**Important aspects of whistleblowing include:**

1. Involves bringing to light legal infractions, fraud, corruption, abuses of power, or dangers to public safety.
2. Performed via approved procedures, such as a court, regulator, or internal ombudsman
3. Covers both corporate and governmental misconduct.
4. Identity protection and retaliation protection are frequently guaranteed by efficient techniques.

**The Value of Ethics in Whistleblowing:**

1. In 2018, a whistleblower allegation at a large bank resulted in internal audits and the resignation of top executives.

2. Aids in preventing systemic breakdowns
3. According to ACFE studies, whistleblower accusations are a key instrument for identifying corporate misconduct.
4. Proactive methods improved early fraud detection by 70%, according to KPMG (2023).

#### **Indian Laws:**

1. The 2014 Whistleblower Protection Act
2. The 2013 Companies Act
3. SEBI 2021 Guidelines
4. The RTI Act of 2005

#### **Whistleblowing difficulties:**

1. 51% of Indian whistleblowers experience victimization
2. More than half say they are afraid of professional repercussions or mistrust complaint resolution.
3. Whistleblowers in the private sector are still at risk.
4. Peer loyalty and cultural reluctance hinder internal disclosures.

#### **3. Ethical Obligation to Refugee**

Context: Following the death of a 3-year-old refugee girl during forced displacement, discussions about moral duties and humanitarian commitments have returned to the forefront of the worldwide refugee crisis.

The moral duty of governments and individuals to defend innocent people escaping persecution, conflict, or violence is known as ethical obligation.

Globally, there will be 43.7 million refugees by 2025. 75% are still living in unstable conditions in the Global South.

#### **Refugee Types:**

1. Refugees from Conflict: Evacuate War Zones
2. Persecuted Minorities: Get away from injustice based on religion or ethnicity



3. Climate Refugee: Displaced by droughts and increasing sea levels.

**Importance:**

1. Assisting those escaping oppression demonstrates compassion and moral universality, which validates our common humanity.
2. Enables people to stand up to bystander indifference and act with moral bravery when human suffering is present.
3. Organizations that uphold the rights of refugees enhance social justice, the rule of law, and procedural fairness.
4. Encourages responsibility, human dignity, and fair policymaking grounded in Kantian regard for humans.
5. Promotes collective moral responsibility and cosmopolitan ethics within international human rights frameworks
6. Ethical refugee policies establish guidelines for compassionate governance and strengthen soft power and global norm entrepreneurship.

**FACTS FOR PRELIMS:**

**1. The 2025 Florence Nightingale National Awards**

Context: At Rashtrapati Bhavan, President Droupadi Murmu gave 15 outstanding nurses the National Florence Nightingale Awards 2025.

It is a distinguished national honour that honours the deserving work of Indian nurses and midwives. The Indian government's Ministry of Health and Family Welfare bestows it.

In honour of ***Florence Nightingale***, the pioneer of modern nursing, these were established in 1973.

It comes with a medal and certificate of merit in addition to a monetary prize of Rs. 1,00,000/-.

By inspiring frontline staff and emphasizing the role of nurses in public health, maternal care, vaccination, and rural outreach, it fosters excellence in the healthcare industry. It enhances the spirit of service, compassion, and commitment, particularly in environments with little resources.



## **2. International Conference on the Preservation of Glaciers, 2025**

Context: The United Nations-sponsored International Conference on Glacier's Preservation-2025 in Tajikistan is commemorating the International Year of Glacier Preservation in 2025.

Urgent action to stop glacier retreat and provide sustainable freshwater supplies from cryosphere sources is the main emphasis of this high-level international summit.



With assistance from UN organizations, the ***Republic of Tajikistan organizes it.***

***Promoting climate-resilient water resource management is its goal.*** Increase awareness of the dangers that glacier melts pose on a worldwide scale. Promote vigorous multilateral climate action in line with the SDGs and the Paris Agreement.

## **3. DHRUVA: Digital Reference Center with a Distinct Virtual Address**

Context: The DHRUVA policy framework was made public by the Department of Posts. It is a crucial step in creating a national digital infrastructure that uses geospatial technologies to address public infrastructure.

***As Address-as-a-Service for safe, effective data sharing, DHRUVA is a national policy framework for developing a standardized geo-coded and digital address infrastructure.***

Its goal is to make address information management a digital public benefit and make address data accessible through safe, interoperable, and user-consent-based means. It encourages public-private cooperation in areas like as emergency response, logistics, e-commerce, and e-governance.

In addition to streamlining KYC, banking, subsidy delivery, and rural service reach, it increases last-mile delivery efficiency and transparency and promotes improved planning, disaster response, and targeted public delivery. Through intelligent, location-based services, it supports Digital India and the objectives of easy living while fostering cooperative innovation in address-linked solutions.

## **4. The First Domestic Thrombectomy Instrument in India**

Context: India's first domestically produced mechanical thrombectomy device for stroke treatment was financed by the DST's Technology Development Board.

Acute ischemic stroke brought on by a massive artery blockage is treated with this mechanical thrombectomy kit. In comparison to conventional clot-busting medications, it provides a faster and more efficient recovery. With funding from the Department of Science and Technology's Technology Development Board, S3V Vascular Technologies Limited in Mysuru is developing it.

It is the first firm in India to design and produce stroke treatment equipment, including stent retrievers, guidewires, aspiration catheters, and microcatheters. Particularly in Tier-II cities, it provides young physicians with simulator-based training programs.

### **5. India AI Mission**

Context: The Cabinet approved more than Rs. 10,300 crores for the IndiaAI mission to support AI companies, and the Union Minister announced a significant increase of India's national AI infrastructure, adding 15,916 new GPUs.

The Government of India's India AI Mission is a nationwide initiative that uses a structured public-private partnership model to build up domestic AI businesses, infrastructure, datasets, and capabilities. The **Ministry of Electronics and Information Technology** is in charge of its launch.

Its goal is to **develop AI in India** and make it useful to the country. Build indigenous foundations and language models, democratize access to and usage of AI for citizens, businesses, and governance. It encourages moral, secure, and responsible AI and builds an independent environment for AI creation.

Startups like as Sarvam AI, Soket AI, Gnani AI, and Gan AI were chosen to develop multilingual LLMs and voice AI models tailored to India.

### **6. The Thermal Power Project in Ghatampur:**

Context: The Prime Minister of India dedicated Unit-I (660 MW) of the Ghatampur Thermal Power Project in Kanpur Nagar, Uttar Pradesh, signalling a major turning point in the country's infrastructural development and expansion of thermal energy.



***Three 660 MW power units make up the project. It has a 1,980 MW total capacity.***

### **7. Scheme for Honorary Rank Promotion**

Context: The Ministry of Home Affairs has implemented a policy that allows retiring members of the Assam Rifles and CAPFs to be promoted from Constable to Sub-Inspector with honorary status.

Under the direction of Union Home Minister Amit Shah, the Ministry of Home Affairs launched the ***Honorary Rank Promotion Scheme*** as a recognition program. Retired members of the Central Armed Police Forces and Assam Rifles are given a one-rank higher honorary title, rising from the rank of Constable to Sub-Inspector.

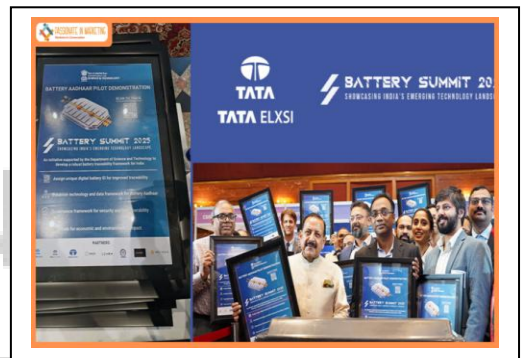
Its goals are to honour lengthy and admirable service without changing financial entitlements, boost the pride, self-respect, and morale of retiring security personnel, and honour commitment and integrity by symbolic promotion.

### **8. The Battery Aadhaar program**

Context: Tata Elxsi, in collaboration with Tata Motors, Tata AutoComp, and IIT Kharagpur, presented the Battery Aadhaar proposal to important government players at the Battery Summit 2025. The initiative is in line with ***India's circular economy and green transportation***.

It is a battery digital identity system that uses safe, blockchain-supported technologies to allow complete traceability throughout the battery's lifecycle.

Its goal is to provide each ***battery a unique Digital ID*** so that it can be used safely, reused under control, and disposed of effectively. It also aims to match battery usage to international and national compliance criteria, such as the EU Battery Regulation.



It enhances the visibility of India's battery supply chain and its commitment to sustainability by preventing the dangerous reuse of outdated or deteriorated batteries and guaranteeing safety in EV environments. It supports the National Electric Mobility Mission Plan and advances India's leadership in green technology.

### **9. Inter-Services Organizations (Command, Control and Discipline) Act of 2023:**

Context: The Inter-Services Organizations (Command, Control and Discipline) Act of 2023 became fully active when the Ministry of Defence notified subordinate rules under the act.

They give ISO heads the authority to fully manage and discipline service members from any branch. Rules avoid overlapping disciplinary actions and create command succession in the event that the designated officer is not present. Without changing individual service legislation, they guarantee operational synergy among tri-service commands.

Its goal is to increase functional efficiency and integrate command across inter-services entities including the Defence Space Agency, National Defence Academy, and Andaman & Nicobar Command.

In the event that commanding commanders are unavailable or on leave, it offers explicit succession processes.

#### **10. The Advance Authorization Program**

Context: In order to allow exporters to claim duty-free benefits even if products were transported prior to the granting of a license, the government agreed to relax the rules under the Advance Authorization Scheme. This is given that the Bill of Entry is filed after the license date.

Duty-free imports of inputs utilized in the production of export goods are permitted under this foreign trade policy initiative. ***The Ministry of Commerce and Industry's Directorate-General of Foreign Trade is in charge of overseeing it.***

It seeks to lower exporters' input costs, increasing Indian goods' competitiveness internationally. It permits the importation of catalysts, fuel, oil, packaging, and raw materials without the need to pay customs taxes. Exports have to follow the sector-specific guidelines set forth by DGFT. If SION is not applicable, exporters may also look for ad hoc standards.

#### **11. Grameen Swachh Survekshan 2025**

Context: India's largest rural sanitation survey, Swachh Survekshan Grameen 2025, was introduced by Union Jal Shakti Minister

This national assessment ranks rural sanitation in 34 states and territories, encompassing 21,000 communities in 761 districts. anchored under ***Swachh Bharat Mission Phase-II to evaluate ODF Plus results' durability.***

Its goal is to support a people-led movement towards a clean and healthy India by strengthening citizen engagement, rewarding high-performing states and villages, and measuring sanitation development in rural areas using organized and technologically driven approaches.

***It tracks the quality of sanitation services, guarantees authenticity and location-verified entries, provides real-time data monitoring, a mobile app for feedback, and transparency.***

## **12. Viksit Krishi Sankalp Abhiyan:**

Context: To empower more than 1.5 crore farmers nationwide, the Union Agriculture Minister launched the Viksit Krishi Sankalp Abhiyan at ICAR-CIFA in Bhubaneswar.

By connecting cutting-edge agri-tech and fisheries breakthroughs with grassroots acceptance, the initiative seeks to speed India's agricultural revolution.

Its goals are to integrate agricultural transformation with the larger vision of a Viksit Bharat, foster self-reliance, sustainability, and resilience in the farming and aquaculture sectors, and introduce innovative agricultural and fisheries technologies to rural communities.

It connects rural needs with research to localize scientific solutions. By encouraging the adoption of best practices and technology, it increases rural incomes and improves food and nutritional security through diverse agricultural methods. It supports Jan Bhagidari and grassroots innovation, both of which are essential for participatory agricultural changes. It backs the goal of climate-resilient agriculture and increasing farmers' income.

## **13. The Minimum Support Price**

Background: For the 2025–2026 marketing season, the Cabinet Committee on Economic Affairs adopted a new Minimum Support Price for 14 Kharif crops.

MSP, which was first implemented during the Green Revolution in **1966–1967**, mainly for wheat and paddy, is the minimum guaranteed price that the government offers farmers for their crops, even if market prices decline. It is recommended by the ***Commission for Agricultural Costs and Prices and approved by the Cabinet Committee on Economic Affairs***. The crops covered by MSP include ***paddy, jowar, bajra, ragi, maize, tur, moong, urad, groundnut, sunflower, soybean, sesamum, niger-seed, cotton, wheat, barley, gram, lentil, rapeseed & mustard, safflower, copra, jute and toria, and dehusked coconut***.

To help farmers make planting decisions, it is announced prior to the Kharif and Rabi sowing seasons. It provides higher MSPs for oilseeds and pulses to divert attention away from cereals that require a lot of water. To guarantee fair profits for farmers, the MSP is set at five times the cost of production.

#### **14. Modified Interest Subvention Scheme**

Context: To encourage farmers to have access to inexpensive credit, the Union Cabinet has authorized the continuation of the Modified Interest Subvention Scheme for FY 2025–2026, which maintains a 1.5% interest subvention on short-term Agri loans.

***MISS is a central sector program that encourages prompt repayment by providing farmers with discounted interest rates on short-term agricultural loans through the Kisan Credit Card.***

First implemented in 2006–07 with the goal of increasing loan availability and lowering rural debt. Through Public Sector Banks, RRBs, Cooperative Banks, and Private Sector Banks, the Reserve Bank of India and NABARD work together to implement it.

Enhancing the flow of credit to agriculture and related industries, providing short-term working capital for farming, dairy, animal husbandry, and fisheries, lowering the cost of borrowing for small and marginal farmers, encouraging timely repayment through interest incentives, and providing financial assistance during natural disasters are some of its goals.

#### **15. Indian Quality Council**

Context: The Quality Council of India's new, unified offices were opened at the World Trade Centre in New Delhi by the Minister of State for Commerce and Industry.

Through impartial, third-party evaluations, QCI, an independent national accrediting organization, is in charge of guaranteeing quality assurance in goods, services, and procedures across industries. Its objectives include promoting quality standards in both the public and private sectors, offering independent accreditation and third-party evaluation, improving public service delivery and quality of life through improved governance standards, and serving as a nodal body for the implementation of national quality campaigns that are in line with international standards.

#### **16. Emblems and Names (Prevention of Improper Use) act of 1950**

Context: A plea to safeguard V.D. Savarkar's name under the Emblems and Names (Prevention of Improper Use) act of 1950 was denied by the Supreme Court.

It is a regulatory law designed to stop the commercial or inappropriate use of national names, symbols, and emblems that are significant to the public or that stand for national institutions.

Its goal is to prevent misleading or deceptive affiliations and preserve decorum in business branding.

Prohibits using certain names or symbols for commercial, trade, patent, or advertising purposes without the consent of the central government.

### **17. The first-ever Interpol issue of Silver Notice**

Context: In response to India's request to seek down illegal assets connected to former French Embassy staffer Shubham Shokeen, who is suspected of committing a significant visa scam, Interpol has issued its first-ever silver notice.



In January 2025, Interpol issued a color-coded alert known as the "silver notice." ***It sought to locate, follow, and retrieve assets obtained illegally all around the world.*** To find assets connected to crimes, member nations can request a Silver notice.

The Central Bureau of Investigation serves as the point of contact for all Interpol issues in India. 195 Interpol member nations receive the alert in order to collaborate in real time.

### **18. The First Gene-Edited Sheep in India**

Context: The first gene-edited sheep in India was successfully generated by Sher-e-Kashmir University of Agricultural Sciences and Technology, Kashmir, increasing muscular mass by 30%.

The myostatin gene, which controls muscle growth in sheep, was edited to create a genetically altered lamb with increased muscle mass.

The precise genome editing method CRISPR-Cas9, which won the Nobel Prize, is employed.



It places India on the world map of cutting-edge genome editing research and provides a roadmap for enhancing the quantity and quality of meat produced by Indian sheep breeds. In contrast to GMO legislation, it supports India's developing regulatory framework for gene-edited organisms.

### **19. New Digital Platforms for the Department of Posts**

Background: In accordance with the National Geospatial Policy 2022, the Department of Posts introduced two new digital platforms, "Know Your DIGIPIN" and "Know Your PIN Code," to update India's addressing and geospatial infrastructure.

It improves last-mile service delivery throughout India and makes precise digital addresses possible with geo-coded grids.

***Each DIGIPIN provides high-resolution position identification by matching to an exact latitude-longitude grid.*** By incorporating GIS into address systems, it makes precise logistics, disaster response, and e-governance possible.

### **20. Honey Mission**

Context: The Prime Minister emphasized India's ascent to prominence as the world's top producer of honey, pointing to a 60% increase in output and the accomplishments of the Honey Mission, which was started in 2017 by KVIC under the Ministry of MSME.

***It seeks to assist pollination, encourage sustainable beekeeping, raise farmer incomes, and encourage rural entrepreneurship.***

Over the past 11 years, honey production has increased from 75,000 MT to 1.25 lakh MT. India is currently one of the world's leading producers of honey. Honey exports under KVIC reached Rs. 25 crores in FY 2024–2025.

### **21. Ports for eco-fishing**

Context: As part of India's Blue Economy framework, the Department of Fisheries and Agence Francaise de Development convened a technical discussion on eco-fishing ports in New Delhi to advance inclusive, intelligent, and sustainable fishing harbour infrastructure.

Uses co-management societies, sensor networks, IoT, and predictive modelling for real-time monitoring and harbour operations to promote local government, women's empowerment, and community involvement. integrates environmental regulations, climate-adaptive design, and the removal of marine debris to promote coastal sustainability.

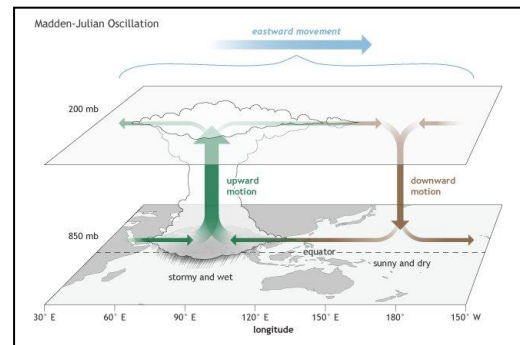
### **22. Madden-Julian Oscillation**

Context: The early onset of the southwest monsoon in Kerala and Mumbai was largely caused by the MJO.

***MJO is a tropical atmospheric disturbance that moves eastward and involves pressure patterns, winds, clouds, and rainfall.*** It was discovered by Roland Madden and Paul Julian in 1971, and it usually takes 30 to 60 days to complete a global circuit.

Increased rainfall and more cloud formation as a result of rising air and moisture convergence are characteristics of the enhanced phase. Because sinking dry air prevents cloud formation, the suppressed phase is characterized by less rainfall and brighter skies.

During its active phase over the Indian Ocean, MJO can improve intra-seasonal rainfall variability and monsoon breaks, enhance cyclogenesis and raise rainfall intensity during its passage, and cause early monsoon beginning, as observed in 2024 and 2025.



### **23. Fifth-Generation Fighter Jet Made in India**

Context: The Advanced Medium Combat Aircraft, an indigenous fifth-generation stealth fighter jet project, has been given official approval by the defence minister.

It is a next-generation fighter jet with stealth capabilities that was created and assembled in India to improve the deep-strike and air superiority capabilities of the Indian Air Force.

Reduced radar cross-section, integrated sensors, data fusion, super cruise capabilities, electronic warfare system, and multi-role capability for surveillance, air-to-air, and air-to-ground operations are among of its key features.



### **24. Bharat Forecasting System**

On May 26, 2025, the Union Ministry of Earth Sciences introduced the Bharat Forecasting System.

With a **6 km\*6 km grid and India's supercomputer Arka**, it is the most accurate weather prediction model in the world. It uses ultra-high-resolution grids to deliver short-term, highly localized weather forecasts down to the panchayat level. created by researchers from Pune's Indian Institute of Tropical Meteorology.

Improves irrigation management and reservoir operations, helps farmers receive timely rainfall, heatwave, and drought warnings, expedites evacuation and flood alerts, and stabilizes pricing by lowering crop losses.



## **25. Gond and Madhubani Art**

Context: As part of the Artists-in-Residence Program-Kala Utsav at Rashtrapati Bhavan, Madhubani and Gond artists met President Droupadi Murmu.

The *Mithila region in Bihar is the birthplace of Madhubani art, also known as Mithila paintings*. It is a folktale that is customarily written by women on hut walls and floors on fortunate days. Practiced now on handmade paper, canvas, and linen.



*Bamboo pens, paper coated with cow dung, and plant-based pigments are used. Charcoal and cow dung were used to create the black lines, which were full of vivid natural hues. Hindu gods, rural sceneries, weddings, festivals, birds, animals, trees, the sun, and the moon are among the themes.*

The *Pardhan Gond tribes of Madhya Pradesh* and the surrounding Central Indian states pursue Gond art. It is a tribal art form that originated from oral storytelling and ritualistic rituals. Originally, it was used to illustrate nature and folk tales on home walls.



The harmonious coexistence of humans, vegetation, and fauna is depicted, along with divine legends, local folklore, and animist beliefs. The themes are filled with fine dots and lines to generate visual rhythm. They employ imaginative compositions and vivid, striking colour combinations. become widely known by books like *Tara Books 26's "The Night Life of Trees."*

## **26. Tailored Gene-editing Therapy**

Background: The first known patient to undergo a customized gene-editing treatment utilizing a base editing approach was a nine-month-old boy with a rare CPS1 defect.

It is a customized gene treatment based on base editing, an advanced version of CRISPR-Cas9. Unlike conventional CRISPR, it enables single-base repair in DNA without rupturing both strands.

It was created by the Children's Hospital of Philadelphia and the University of Pennsylvania.

Without causing a double-strand cut, the tool detected the defective base and changed it to the proper one.

## **27. Rajya Sabha Elections Every Two Years**

Context: The biannual election timetable for the eight Rajya Sabha seats—six from Tamil Nadu and two from Assam—has been released by the Election Commission.

The Upper House of Parliament, which represents the States and Union Territories, is called the Rajya Sabha. Elections are held on a regular basis to replace retiring members in this permanent body.



***It currently has 245 members, but it can have up to 250. Twelve members are the president's nominees, and 233 members are elected.***

Each member is in office for six years. Every two years, one-third of the members retire.

Through the use of the single transferable vote and proportional representation, indirect elections are held. State representatives are chosen by state MLAs.

Qualifications: A person must be an Indian citizen, be at least thirty years old, take and sign an oath of office, and fulfil any further requirements set down by law in order to be eligible to join the Rajya Sabha.

## **28. Matryoshka AI**

Context: At the 2025 I/O Developers Conference, Google introduced AI Matryoshka, its AI-first restructuring strategy.

The way users, developers, and businesses engage with technology is being transformed by this multi-layered AI ecosystem, which is based on Gemini 2.5 models.

***Google's core artificial intelligence serves as the central brain powering all of the layers in this multi-layered AI ecosystem, which includes user apps and APIs.***

It seeks to create agentic, intelligent, and autonomous systems for real-time user, developer, and enterprise interactions as well as to deeply and consistently integrate AI across Google's platforms. Top USAMO scores are attained by the pro version, which excels in sophisticated thinking and coding. The Flash version offers multi-speaker TTS in 24 languages and is 20–30% more efficient.

### **29. India's economy is the fourth largest in the world.**

Context: According to NITI Aayog CEO B.V.R. Subrahmanyam, who cited IMF figures, India's economy has surpassed Japan to become the fourth largest in the world.

**India's nominal GDP is expected to reach \$4.19 trillion**, exceeding Japan's \$4.18 trillion GDP, according to the IMF World Economic Outlook. This signifies a significant change in the world economy and the growing power of India.

It strengthens India's position as a major economic force in the world, drawing more foreign collaboration and FDI. Despite global reshoring debates, including Apple's push for US manufacturing, India continues to be a cost-effective production base. According to NITI Aayog forecasts 30, it is expected to surpass Germany in the next two to three years and get to the third-largest economy in the world.

### **30. Model Temple for Turtle Conservation:**

Nagshankar Temple in Assam was formally designated as a model temple for turtle conservation on World Turtle Day.

It is located around 70 kilometres from Tezpur, Assam, in the Biswanath district, close to Sootea town. It is thought to have been constructed by King Nagashankar of the Nagakha dynasty in the fourth century AD. Honours turtles as Lord Vishnu's manifestations while simultaneously being devoted to Lord Shiva.



It has a sizable pond with 250–300 turtles, including black softshell turtles, which are severely endangered. It is a micro-wildlife refuge that is also home to deer, pythons, and peacocks. The temple has ecological as well as religious functions.

### **31. Antimalarial Agents:**

Antimalarial drugs that prevent *Plasmodium falciparum*, even insecticide-resistant forms, from developing in mosquitoes were found in a recent study that was published in *Nature*.

Without causing the mosquito to die, these chemicals target the malaria parasite that lives inside *Anopheles* mosquitoes. These substances target the parasite while the mosquito's oocyst is developing. They circumvent common resistance pathways and do not rely on insecticidal activity.

### **32. The New Cave-Dwelling Fish in Meghalaya:**

Background In Krem Mawjymbuin Cave in the East Khasi Hills of Meghalaya, a group of Indian zoologists found *Schistura densiclava*, a new species of fish that lives in caves.

It is a recently found troglophile loach that can survive in both aboveground and subsurface habitats. It is a member of the family Nemacheilidae.

Unlike most cave fish, it maintains its colour and vision while thriving in low-oxygen, 18°C subterranean waters. Its ability to survive in environments with limited nutrients is demonstrated by its consumption of copepods, insect parts, shrimp, and bat droppings.

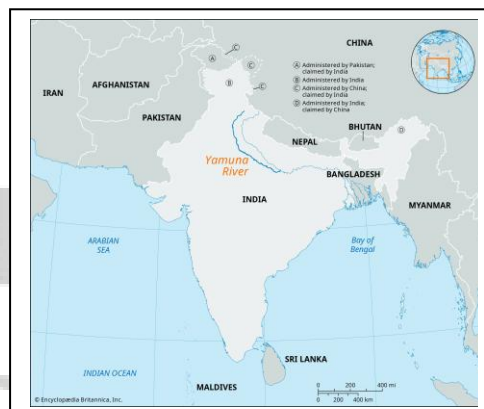


### **33. River Yamuna**

Context: According to a study by the irrigation department of Haryana, unlawful sand mining in Sonipat has altered the Yamuna's natural flow, in violation of environmental regulations and NGT orders.

*At an elevation of 4,421 meters in the Himalayas, it rises from the Yamunotri Glacier in the Uttarkashi district of Uttarakhand.*

Uttarakhand, Himachal Pradesh, Haryana, Delhi, Uttar Pradesh, and portions of Rajasthan are all included in the Yamuna basin. With a length of roughly 1,376 km, it is the longest river in India that does not empty into the ocean.



The main tributary, the Tons River, accounts for over 60% of the Yamuna's overall discharge.

At Prayagraj, it joins the Ganga to form the Sangam, one of the holiest places in Hinduism.

### **34. Kerala Oil Spill Incident:**

Concerns of a significant oil spill were raised after the MSC ELSA-3, a cargo ship flying the flag of Liberia and transporting hazardous material, capsized 38 nautical miles off Kochi.



An unintentional discharge of petroleum or similar materials into seas, oceans, or coastal waters is known as an oil spill. It creates a poisonous layer that damages aquatic life, interferes with marine oxygen levels, and blocks sunlight.

Fish fertility, growth, and survival are all impacted by toxic exposure. Coral reefs, mangroves, phytoplankton, and marine food systems are all destroyed. It affects the maritime, tourist, and fishing sectors. The costs of cleanup and compensation are very significant.

### **35. NITI Aayog's 10th Governing Council Meeting**

Context: To enhance Center-State Cooperation for national development, the Prime Minister of India will preside over the 10th Governing Council Meeting of NITI Aayog, with the theme "Viksit Rajya for Viksit Bharat @2047," at Bharat Mandapam in New Delhi.

***The highest policy-making body of NITI Aayog, the Governing Council, unites the States and the Center to promote cooperative federalism.***

The chairperson is India's prime minister. Permanent members are the chief ministers of all states and union territories with legislatures.

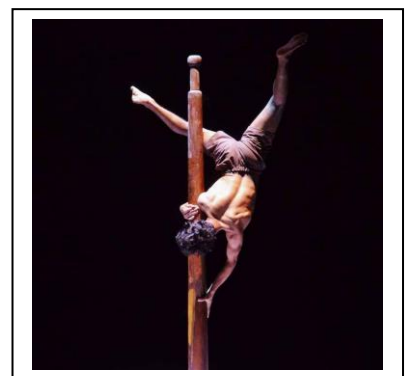
It talks about issues related to national development and synchronizes state versions with national objectives. It facilitates decentralized planning, collaborative policymaking, and cooperation on cross-sectoral and cross-departmental concerns.

### **36. The Mallakhamb**

Context: The first time the traditional sport was played on a beach was during the Khelo India Beach Games 2025 in Diu, where Mallakhamb was featured.

Aerial yoga and gymnastic poses are performed by athletes in the ancient Indian sport of mallakhamb on a rope or vertical wooden pole. was first created as a training tool to help wrestlers and warriors increase their strength, flexibility, agility, and martial readiness

Mallakhamb may be traced back to epics like the Ramayana and Chandraketurah ceramics. In the 18th century, Balambhatta Dada Deodhar, who trained Peshwa Bajirao II, brought it back to life. practiced by individuals such as ***Tantia Tope and Rani Lakshmibai.***



*It is shown at the 1936 Olympics in Berlin. In 1962, it became a stand-alone sport and was featured in the National Gymnastics Championships.*

In 1981, the Mallakhamb Federation of India was established. Began participating in the Khelo India Youth Games in 2022.

### **37. National Center for Ocean and Polar Research (NCPOR)**

Context: To commemorate the 25th anniversary of the National Centre for Polar and Ocean Research in Goa, a Union Minister opened Sagar Bhavan and Polar Bhavan.

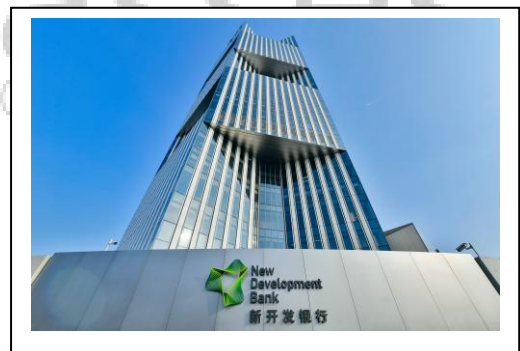
Leading the Indian Antarctic, Arctic, and Southern Ocean research programs, it is the country's top research and development centre for polar and ocean sciences. *It was established on May 25, 1998, and is run by the Indian government's Ministry of Earth Sciences.*

It organizes India's scientific expeditions to the Southern Ocean, the Arctic (Himadri), and Antarctica (Maitri, Bharati). It is in charge of gas hydrate and metal sulphide exploration, deep-sea drilling, and EEZ geoscientific surveys. oversees research vessels, polar infrastructure, and yearly Indian Polar Expeditions.

### **38. New Development Bank**

Context: On May 19, 2025, Algeria submitted its document of entrance to the New Development Bank, so becoming a full member.

The BRICS countries founded this global development bank to raise money for sustainable development and infrastructure. serves as a substitute for organizations controlled by the West, such as the World Bank and IMF.



The founding members are *South Africa, China, India, Russia, and Brazil*. The new members are *Algeria, Bangladesh, the United Arab Emirates, Egypt, and Uruguay*. All UN members are eligible to join, as long as BRICS maintain a minimum of 55% of the shares.

It raises funds for sustainable development and infrastructure initiatives in emerging and BRICS nations. It supports the work of current regional and international financial institutions. It backs initiatives in fields like social infrastructure, transportation, sustainable energy, and urban development.

### **39. Financial Action Task Force (FATF)**

Context: Because of Pakistan's failure to uphold its prior pledges regarding money laundering and terror financing, India is filing a dossier to the Financial Action Task Force calling for its relisting on the grey list.

It is an intergovernmental watchdog that was set up to establish and enforce international norms to stop the financing of weapons of mass destruction, money laundering, and terrorism.

***Created during the Paris G7 Summit in 1989. has Paris, France, as its headquarters. Members include the United States, the United Kingdom, France, China, Saudi Arabia, India, and the European Union.***

Peer reviews are carried out in order to evaluate operational, legal, and regulatory frameworks as well as to find new threats and financial crime typologies.

Categories of listings: Countries on the Grey List are those that have strategic shortcomings but are dedicated to making amends. results in more scrutiny, decreased foreign direct investment, and harm to one's reputation.

Countries on the Black List are those that have persistent and serious non-compliance, are subject to economic penalties, and are not allowed to access international financial systems.

### **40. Organization for Asian Productivity**

Context: At the 67th Governing Body Meeting, India formally took over as the Asian Productivity Organization's chairman for the 2025–2026 period.

APO is an intergovernmental organization headquartered in Tokyo that aims to increase productivity throughout the Asia-Pacific area. India was one of the founding members when it was established in 1961. headquarters in Japan's Tokyo.

India, Japan, Indonesia, the Philippines, Singapore, South Korea, Vietnam, Bangladesh, and other countries are among the 21 economies that are currently members.

By increasing productivity, it seeks to support long-term socioeconomic growth. Encourage development that is inclusive and driven by innovation in the public, private, agricultural, and service sectors.

#### **41. Konkan Railway Corporation Limited**

Context: The final step towards complete integration was taken when the Maharashtra government formally approved the merger of Indian Railways and Konkan Railway Corporation Limited.

Different from Indian Railways, KRCL was established in 1990 as a special purpose organization under the Ministry of Railways. The 741-kilometer route connects Roha and Mangaluru via Maharashtra, Goa, Karnataka, and coastal Kerala.

It was constructed across the Western Ghats, demonstrating Indian technological prowess and overcoming harsh terrain through innovative architecture. It serves as a lifeline for both freight and passengers, greatly cutting down on travel time and facilitating the Konkan region's economic connectivity.

#### **42. Keezhadi Excavation**

Context: Citing the need for improved period classification and scientific accuracy, the Archaeological Survey of India has requested that archaeologist Amarnath Ramakrishna submit the Keezhadi excavation report with changes.



***The ASI and then the Tamil Nadu State Archaeology Department investigated this archaeological site, which is located along the Vaigai river basin close to Madurai, Tamil Nadu.***

Charcoal carbon dating demonstrates the existence of urban settlement by 200 BCE. Brick buildings, ring wells, pottery, beads, urban features, and water storage facilities were discovered. Artifacts from the Sangam era point to connections with Western trade networks and North India.

#### **43. Amrit Bharat Railway Station**

Context: Using a video conference from Deshnoke, Rajasthan, the Prime Minister officially opened 103 Amrit Bharat railway stations spread over 86 districts in 18 States and Union Territories.

With a long-term, phased strategy, 1,275 railway stations throughout India will be renovated and modernized as part of this centrally financed project.

***It seeks to integrate stations into multimodal urban transportation centres, encourage cultural preservation, tourism, and regional economic growth, and improve the passenger experience through better infrastructure.***

Waiting areas, free Wi-Fi, business lounges, local art and culture, eco-friendly structures, sustainable materials, smooth connections to the metro and bus terminals, and the promotion of regional handicrafts are all examples of improved accessibility.

#### **44. Jarosite**

Context: A group of Indian researchers have found that the mineral jarosite, which is widespread on Mars, can function as a natural luminescent clock that can recode geological events that have occurred over the past 25,000 years.



***Jarosite samples from Kachchh, Gujarat, were used in the study, which tested the samples' luminescence response to radiation under conditions similar to those on Mars.***

Sulphate, potassium, and ferric iron combine to form the hydrous sulphate mineral known as jarosite. It is frequently linked to acidic sulphate soils, oxidized ore deposits, and acid mine drainage.

#### **45. Four Countries honored by WHO for Trans Fat Elimination**

Background: Austria, Norway, Oman, and Singapore were honored by the World Health Organization for removing industrially manufactured trans fats from their national diets.

***Trans fats are unsaturated fats that solidify from liquid oils through hydrogenation. Dairy products and red meat naturally contain them.***

They raise the amounts of low-density lipoproteins, which causes artery-clogging cholesterol accumulation. At the same time, they lower levels of high-density lipoprotein, which typically aids in the removal of extra cholesterol from the blood. According to WHO estimates, trans fat consumption causes 278,000 deaths annually, or over 7% of all cardiovascular-related fatalities globally.

By 2025, the World Health Organization wants to eradicate industrial trans-fat, with a 90% global and 70% regional population coverage goal.

#### **46. The 2025 International Booker Prize**

Background: The International Booker Prize 2025 went to Kannda novelist and activist Banu Mushtaq for her collection of short stories, Heart Lamp, which Deepa Bhashti translated into English.

The UK-based Booker Prize Foundation created the International Booker Prize in 2005. It is given out every year. It recognizes the best fiction from any language that has been translated into English. ***It honours the craft of translation, literary brilliance, and cultural diversity.***

The other Indian winner was Geetanjali Shree for *Tomb of Sand* (2022).



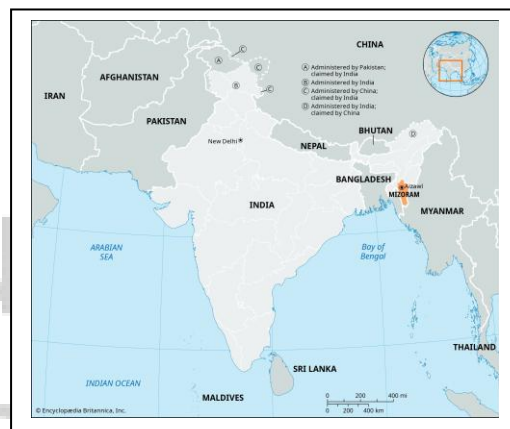
The twelve short stories in *Heart Lamp* were written between 1990 and 2023. It depicts the struggles with patriarchy, religion, family, and independence faced by typical Muslim women in South India.

#### **47. Mizoram, India's First Completely Literate State:**

The state was formally proclaimed entirely literate by the chief minister. As a result, Mizoram is now the first Indian state to attain full literacy.

***Ladakh was the first administrative entity to proclaim complete literacy*** before, on June 24, 2024.

When a state's literacy rate surpasses 95%, as determined by the ULLAS Scheme, it is deemed completely literate. Mizoram exceeded the benchmark with a literacy rate of 98.2% according to the PLFS 2023-24.



A centrally financed program called ULLAS (Understanding Lifelong Learning for All in Society) encourages inclusive adult education in line with NEP 2020. It improves digital skills, vocational learning, and functional literacy.

#### **48. 16th Asiatic Lion Census**

Context: The Gujarat Chief Minister declared that the 16th Asiatic Lion Population Census was finished, revealing that there were 891 lions in the region.

The Asiatic lion is classified as vulnerable in the IUCN Red List, Schedule I of the Wildlife Protection Act of 1972, and Appendix I of CITES.



Its prides are smaller and less complex than those of African lions.

#### **49. Blue Talks**

Context: To promote international marine conservation goals, India organized the Second Blue Talks in partnership with France and Costa Rica.

The purpose of the gathering was to improve communication in advance of the third United Nations Ocean Conference, which will take place in Nice, France.

In order to create agreement for sustainable ocean use, governments, scientists, and civil society come together on this global consultation platform. The Ministry of Earth Sciences is hosting it.

Its goals are to expedite SDG 14 development and encourage stakeholder discussions about the future of ocean sustainability. It encourages international collaboration in marine education, research, and innovation.

Under SDG 14, the United Nations Ocean Conference is an international gathering to promote marine conservation and the sustainable use of ocean resources. It backs initiatives to protect the oceans, lessen marine pollution, and create international alliances.

#### **50. Golden Dome**

Context: The final design choice for the "Golden Dome" missile defence shield was revealed by US President Donald Trump.

It is a suggested next-generation missile defence system that combines terrestrial and space-based technologies. designed as a tactical barrier to stop ballistic and hypersonic missiles before they are launched.



In addition to operationalizing space-based weapons for early missile interception—effectively achieving space warfare capability—it seeks to defend US territory against long-range missile threats, including as intercontinental ballistic missiles (ICBMs) from adversaries like China and Russia.

#### **51. INSV Kaundinya-Stitched Sail Ship**

Background: At Karwar Naval Base, the Indian Navy solemnly inducted INSV Kaundinya, a stitched sail ship modelled after the artwork of the Ajanta Caves from the fifth century.

Later this year, the ship will travel across the oceans from Gujarat to Oman, honouring India's long history of marine exploration.

Inducted as an Indian Naval Sailing Vessel, it is a fully operational stitched sailing ship constructed utilizing traditional Indian shipbuilding methods.



It seeks to honour India's long history of maritime trade and navigation, revive and showcase traditional Indian shipbuilding techniques, and advance cultural diplomacy and heritage awareness around the world.

### **52. BrahMos-NG Missile:**

With the range of the current BrahMos missile being developed to 800 km, the BrahMos-NG (Next Generation) missile is very close to flight testing.



***It is a more compact, lightweight, and adaptable supersonic cruise missile that may be used on a greater variety of platforms, including combat aircraft, submarines and ships.***

Under the BrahMos Aerospace collaboration, Russia's NPO Mashinostroyeniya and India's DRDO collaborate to develop it.

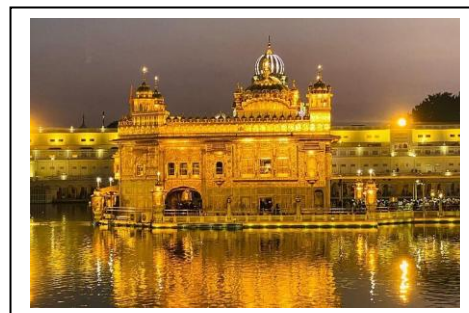
It seeks to provide a more compact, agile, and stealthy missile system that can engage targets on land and at sea with extreme precision. It is intended to outfit a variety of platforms, such as submarines, naval ships, Su-30 MKI, and LCA Tejas.

***It has a 400–450 km range and maintains a Mach 2.8 speed; tests are being conducted to increase the range to 800 km. It can be launched from ships, submarines, the air, or land.***

### **53. Golden Temple**

Context: The Indian Army has refuted media claims that, as part of Operation Sindoor, it stationed air defence cannons at the Golden Temple.

The most revered Sikh shrine, **Golden Temple or Sri Darbar Sahib**, is situated in Amritsar, Punjab. It stands for the fundamental principles of equality, service, and humility found



in Sikhism. The **fifth Guru, Guru Arjan Dev Ji**, built it, and it was finished in 1604. In the 1800s, Maharaja Ranjit Singh added golden plating to the temple to make it more beautiful.

#### **54. Shirui Lily Festival**

Context: The first significant Meitei travel through Kuki-Zo regions under strict security occurred when the Shirui Lily festival returned to Manipur following a two-year break caused by ethnic violence.

***It falls during the Shirui Lily's May blooming season. It raises awareness of the endangered lily species and encourages ecotourism.***



#### **55. Cancer of the Prostate**

Context: The diagnosis of Stage-4 metastatic prostate cancer in former US President Joe Biden has brought the disease, its symptoms, and available treatments to the attention of the world.

***It develops in the male prostate gland, a little organ that secretes seminal fluid. It is among the most prevalent malignancies in men, especially in those over 50.***

In 2022, prostate cancer accounted for about 400,000 fatalities and over 1.4 million new cases, making it the second most common cancer in men.

With 37,948 new cases and 18,386 fatalities in 2022, India has one of the top 10 male malignancies, with an increasing frequency in cities.

***African-American men are more at risk and more severe. Sedentary lifestyles, high consumption of red meat, and fats all play a part.***

Symptoms include erectile dysfunction, blood in the urine or semen, bone pain, poor urine flow from urethral blockage from prostate gland hypertrophy, and painful urination, which signals urinary tract irritation from prostate enlargement or tumour existence.

PSA blood tests, digital rectal exams, biopsies, and imaging are among the diagnostic techniques.

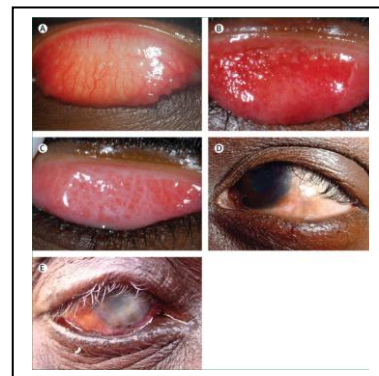
Low-risk tumours can be monitored regularly without treatment right away; localized cancer can be removed surgically by removing the prostate; radiation therapy uses concentrated radiation beams to target and kill cancer cells; hormone therapy reduces testosterone levels to slow or stop the growth of cancer cells.

## **56. Elimination of Trachoma**

Context: At the 78th World Health Assembly in Geneva, India formally obtained the WHO certificate of Elimination of Trachoma as a Public Health Problem.

***After Nepal and Myanmar, India is now the third nation in the WHO's South-East Asia region to eradicate trachoma.***

Chlamydia trachomatis is the causative agent of this infectious bacterial eye condition. Direct touch and vectors such as flies carrying discharge from infected eyes or noses are how it spreads. The primary means of transmission in endemic areas is children. The symptoms include red eyes, discharge, ocular ache, etc.



It affects 1.9 million people who are blind or visually impaired and is endemic in 38 countries. The WHO recently confirmed that Mauritania and Papua New Guinea have eradicated trachoma as a public health issue.

## **57. Overseas Citizen of India:**

Context: To improve digital accessibility, security, and service delivery, the union Home minister unveiled an updated Overseas Citizen of India webpage.

With a few exclusions, Persons of Indian Origin are eligible for this type of permanent residency, which permits them to live and work in India eternally. introduced in August 2005 in accordance with Citizenship Act, 1955, Section 7A.

By offering some rights similar to permanent residency, it improves India's relations with the Indian diaspora around the world.

***If an individual was a citizen of India on or after January 26, 1950, or qualified to become a citizen at that time, they are eligible for OCI. The cardholder is granted a multi-entry, lifetime visa to India. exemption from FRRO registration, regardless of length of stay, and equal access to domestic flights and national monument and park admission rates as Indian nationals.***

The cardholder is not eligible to vote or run for office. cannot purchase agricultural or plantation land, hold regular government jobs, or hold Indian constitutional posts.

### **58. Operation Olivia**

Background: During the mass nesting of Olive Ridley Turtles at the mouth of the Rushikulya river in Odisha, the Indian Coast Guard, acting under Operation Olivia, successfully safeguarded a record 6.98 lakh of these turtles.

In order to save *Olive Ridley turtles during their mass nesting season, the Indian Coast Guard launches this flagship marine conservation program every year from November to May.*



Its objectives are to stop illicit fishing during the turtle breeding season, guarantee safe nesting along important beaches in Odisha, and encourage fishing communities to utilize Turtle Excluder Devices.

It can be found in the Atlantic, Pacific, and Indian oceans' warm waters. The *Andaman and Nicobar Islands, Tamil Nadu, Andhra Pradesh, and Odisha are important nesting locations in India.*

According to the *IUCN, it is classified as vulnerable.*

### **59. Kandha Tribe**

Background: The centuries-old custom of facial tattooing, which was formerly used as a safeguard against exploitation, is being abandoned by Kandha women in the Kandhamal area of Odisha.

Mostly found in the districts of *Koraput, Kalahandi, Rayagada, and Kandhamal, the Kandha are the largest tribal group in Odisha.* Both *Kui and Kuvi are Dravidian languages that they speak.* Their origins as forest inhabitants are shown by the term "Kandha," which is derived from the Telugu word "Konda," which means hill.



In order to seem undesirable and prevent sexual exploitation by colonial armies and local landlords, women tattooed dark, geometric designs on their faces. Later, it developed into a symbol of cultural identity; getting a tattoo was necessary to be accepted by the community and be eligible for marriage.

Virtually eliminated among women under 40 as a result of educational initiatives and awareness efforts that began in the 1990s. Younger generations no longer view the practice as meaningful or necessary.

#### **60. Prototype High-Altitude Platform**

Context: Using a certified autopilot system, India's domestically produced High-Altitude Platform prototype, created by NAL, successfully finished pre-monsoon flying tests.

***It bridges the gap between satellites and terrestrial systems by operating at 17–22 km altitude as an unmanned, solar-powered stratospheric aircraft.***

Its goals include border patrols and surveillance over remote and sensitive areas, providing continuous aerial coverage for both military and civilian uses, and acting as a weather platform and telecommunications relay.

#### **61. Atomizer**

Context: The atomizer is an essential but often disregarded tool that has drawn attention due to its numerous industrial, medicinal, and environmental uses, particularly in areas like aerosol medicine, spray drying, and firefighting.

***This apparatus divides a liquid into tiny droplets for uniform dispersion across a surface or area. It enables the conversion of liquid storage into mist delivery, striking a balance between maximal surface coverage and simplicity of handling.***

It is used in fuel injection, machinery lubrication, and spray drying in food and pharma sectors; essential for efficient spraying of pesticides, fertilizers and precision irrigation in poor-soil areas; enables drug delivery via nasal and aerosol sprays; used in disinfectants and pain-relief sprays; supports fire suppression with foam sprays and public health safety during pandemics; found in deodorants and cleaners; also used in climate studies for aerosol modelling.

#### **62. Super-Fast Charging Sodium-Ion Battery**

Context: Indian scientists at JNCASR, Bengaluru, have developed a super-fast charging sodium-ion battery that can reach 80% charge in just 6 minutes and last over 3,000 cycles, potentially revolutionising India's energy storage sector.

***Using domestic materials and a design based on nanotechnology, this next-generation sodium-ion battery is intended to charge extremely quickly and provide prolonged longevity.***

Unlike heat-sensitive lithium-ion batteries, it reduces the risk of thermal runaway and fire; it offers high durability, reducing the need for frequent replacements and lifecycle costs; it allows ultra-fast energy refill, making it perfect for high-demand applications like electric vehicles; and it has been proven using cutting-edge techniques like electrochemical cycling and quantum simulations for real-world readiness.

### **63. Mission Gyan Bharatam**

Context: On June 9, 2025, Prime Minister Narendra Modi will officially launch the redesigned Gyan Bharatam Mission.

***It is a redesigned national program to discover, preserve, digitize, and distribute India's enormous trove of manuscripts.***

More than one crore manuscripts from academic institutions, museums, libraries, and private collectors are to be surveyed, catalogued, preserved, and made accessible.

The goal of the ***National Manuscripts Mission is to digitize, preserve, and document India's legacy of ancient manuscripts.***

### **64. Advanced Institute for Wildlife Conservation (AIWC)**

Context: The Advanced Institute for Wildlife Conservation has taken over management of Tamil Nadu's Rs. 50 crore Endangered Species Conservation Fund from the now-defunct SFDA.

This seeks to expedite essential conservation initiatives for species such as Salim Ali's fruit bat and the Malabar Civet.

It is a conservation and research centre run by the Tamil Nadu Forest Department that offers scientifically supported wildlife protection solutions. It seeks to advance research, capacity building, and evidence-based conservation for the protection of wildlife in Tamil Nadu.

### **65. Sikkim's 50th Anniversary**

Context: On the 50th anniversary of Sikkim's statehood, the Indian prime minister welcomed the people of Sikkim. This significant event honours the Himalayan kingdom's peaceful admission to the Union of India in 1975.

It is located in northeastern India and borders China, Bhutan, Nepal, and the Indian state of West Bengal.



***The capital, Gangtok, is renowned for fusing modernism with Tibetan Buddhist culture. became India's 22nd state in 1975 after the 36th Amendment to the Constitution.***

From 1642 to 1975, the Namgyal dynasty was in power. became a protectorate of Great Britain in 1861 as a result of the Treaty of Tumlong. After a 1975 referendum in which more than 97% of voters supported ending monarchy and joining India, the country merged with India.

It is India's first state to use sustainable agriculture and be entirely organic. Home to species like the Himalayan blue poppy and the red panda, this area is a biodiversity hotspot in the Eastern Himalayas. ***Home to Nepalis, Bhutias, and Lepchas, it maintains rich Buddhist customs.*** serves as a buffer state between China and India; it is a historically and strategically significant area, particularly the area around Doklam. Put an emphasis on cultural preservation, clean energy, and ecotourism.

### **66. ISRO PSLV-C61**

Context: A chamber pressure loss during the third stage caused ISRO's 101st launch with the PSLV-C61 to fail mid-flight. EOS-09 was to be placed in Sun Synchronous Polar Orbit as part of the mission.

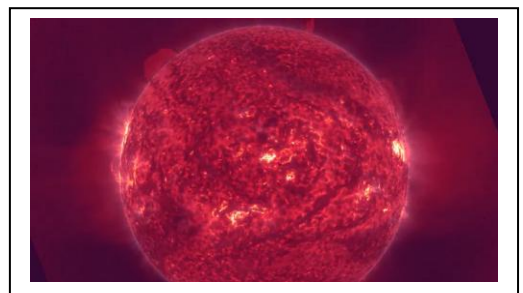


***It uses Synthetic Aperture Radar to give high-resolution, weather-independent Earth photography. It helps with urban planning, forestry, agriculture, and disaster monitoring.***

### **67. Bird-Wing Eruption**

Context: Earth is predicted to be affected by a major solar flare outburst known as the "bird wing" eruption, which was seen in the Sun's northern hemisphere.

***NASA satellites are witnessing a visually stunning solar explosion with wings-shaped plasma. Two times the Earth-Moon distance, or more than a million kilometres, was covered by the expelled plasma stream.***



Strong explosions of electromagnetic radiation caused by the reconnection of magnetic field lines are known as solar flares.

### **68. The Official Secrets Act 1923**

Context: In accordance with Section 152 of the BNSS and the Official Secrets Act of 1923, YouTuber Jyoti Rani, who is based in Haryana, was detained for allegedly disclosing private information to a Pakistani High Commission officer during Operation Sindoor.

***Its objectives are to safeguard India's defence, intelligence, and sovereignty against illegal disclosures and espionage.***

It is applicable to anybody in possession of classified material, including citizens, foreign nationals, and government personnel. includes any sensitive government data as well as official codes, passwords, maps, documents, military installations, sketches, and blueprints.

### **69. The Jnanpith Award**

Context: In New Delhi, the President of India gave Jagadguru Rambhadracharya the 58th Jnanpith Award.

The award was also given to renowned poet Gulzar, who was unable to attend because of his health.

Every year, the highest literary honour in India is given to someone who has made a significant contribution to

Indian literature. ***Sahu Shanti Prasad Jain, an***

***industrialist, formed the Bharatiya Jnanpith Trust, which was established in 1961.***

Its goals are to promote India's intellectual and cultural legacy and to honour literary excellence in Indian languages. English and all Indian languages included in the Constitution's Eighth Schedule are eligible to receive the award. ***Once granted, a language loses its eligibility for three years.***

***The award consists of a plaque, citation, and a monetary prize of Rs. 11 lakhs.***



### **70. Transfer of RBI Surplus**

Context: For FY 2024–2025, the RBI may provide the government a record-breaking Rs. 2.5–3 lakh crore in surplus.

Prior to determining the transfer amount, the Central Board examined the Economic Capital Framework on May 15, 2025.

After making the required adjustments, the RBI gives the Central Government its net profit, which is equal to total income less expenses. Since the RBI is not a business, I refer to this process as a surplus transfer rather than a dividend payment.

Interest from foreign assets, such as bonds, treasury bills, and deposits with other central banks; interest on domestic securities, primarily government bonds; short-term lending to banks; commissions for overseeing Central and State government borrowings; and service fees for overseeing the currency and payment systems are the main sources of revenue for the RBI. Currency note printing, employee pay and retirement benefits, and commissions to banks and main dealers engaged in public debt transactions are among the expenses incurred by the RBI.

### **71. World Food Prize**

Background: For developing biological nitrogen fixation and lowering dependency on chemical fertilizers, Brazilian microbiologist Mariangela Hungria was awarded the 2025 World Food Prize. Her inventions greatly increased crop yields and reduced input costs, sparking Brazil's "Micro Green Revolution."

***Mariangela Hungria, a microbiologist, is the leader of the Micro Green Revolution movement, which emphasizes biological approaches to increasing agricultural output, especially microbial seeds and soil inoculants.***



Using microorganisms such as *Azospirillum brasilense* and rhizobia to organically transform atmospheric nitrogen into a form that soil can absorb.

The **World Food Prize** is the most prominent international honour given for efforts to improve the amount, quality, and accessibility of food. **Nobel Laureate Norman Borlaug founded it in 1986. M.S. Swaminathan, a pioneer of India's green revolution, was the first laureate.**

### **72. Narayanapatna Goat**

Background: Native to the Eastern Ghats of Odisha, the Narayanapatna Goat has gained reputation for its ability to withstand disease and the effects of climate change. However, it is in danger because to improper crossbreeding and a lack of breed recognition.

***Tribal tribes in Southern Odisha's Koraput area raise this nondescript native goat breed. It is renowned for its resilience to difficult agroclimatic conditions, reproductive efficiency, and hardiness.***



### **73. Bird Flu**

Context: Concerns about global poultry supply chains were raised when Brazil, the biggest exporter of chicken in the world, announced the first instance of bird flu on a commercial poultry farm.

***Influenza Type A viruses are the primary source of this viral infection, which mainly affects birds but can also infect humans and other mammals. Spreads by coming into close touch with contaminated surfaces, droppings, or infected birds.***



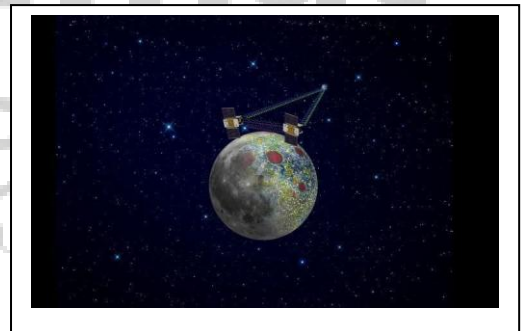
It can transcend species boundaries, usually between humans and birds. There have been reports of limited human-to-human transmission worldwide, but not in the US as of yet.

***Found in dairy products, sheep, cows, dogs, cats, and certain wild animals.***

### **74. GRAIL Mission**

Context: A decades-old lunar mystery has been resolved by a recent NASA study that used data from the GRAIL mission to explain why the Moon's nearside and far side appear so different.

***A NASA lunar research mission called Gravity Recovery and Interior Laboratory (GRAIL) sought to create a high-resolution picture of the Moon's gravitational field. In 2011, it was introduced.***



It was made up of two spacecraft that circled the Moon together, called ***Ebb and Flow***. Determined the internal makeup of the Moon by measuring minute changes in gravitational attraction. Because of Earth's gravitational influence, the Moon's near side flexes more than its far side, revealing an imbalance in its fundamental structure.

The nearside featured dark basaltic plains and was more volcanically active. The nearside mantle warmed up to 200 degrees Celsius more than the far side due to higher quantities of heat-producing elements like titanium and thorium.

Because the nearside crust is thinner, magma can erupt more readily, creating flat plains. Because the crust is thicker and there is less volcanic activity, the far side is nevertheless cratered and rocky.

### **75. Teesta Prahar Exercise**

Context: To demonstrate their capacity to fight together and integrate technology, the Indian Army held Exercise Teesta Prahar in the riverine region of North Bengal.

***The Teesta field firing range in West Bengal is the site of this extensive military field exercise. Its goal was to model and verify military actions in difficult all-terrain and riverine settings.***



Infantry, Mechanized Infantry, Artillery, Armoured Corps, Para Special Forces, Army Aviation, and Engineers and Signals all participated in a coordinated manner.

Its objectives are to evaluate quick-response manoeuvres and rapid mobilization in real-time scenarios and to facilitate smooth coordination between combat arms and support services.

### **76. Indian Yak**

Background: By putting together, the first-ever chromosome-level genome of the Indian Yak, Indian researchers have made significant progress in yak genomic research.

***This high-altitude livestock species' conservation will be enhanced and breeding programs strengthened by the ICAR-NRC-led project on Yak, Dirang.***

***A long-haired, high-altitude bovine animal, the Himalayan yak is a member of the Bovini tribe. It is native to the high-altitude regions around the Tibetan Plateau.***



***Arunachal Pradesh, Sikkim, Uttarakhand, Himachal Pradesh, Jammu & Kashmir, and Ladakh are among the Indian states that raise yaks.***

It can withstand temperatures as low as -40°C. It can effectively digest low-quality feed thanks to its larger rumen. In Himalayan economies, it is typically managed under archaic nomadic practices and utilized for transportation, dung fuel, milk, meat, wool, and hide.

### **77. Supreme Court's Advisory Jurisdiction**

Context: In order to ascertain whether the President and Governors can be given a deadline to act on state assembly bills, the President of India has invoked the Supreme Court's advisory jurisdiction under Article 143 (1).

***The President of India may consult the SC on matters of public interest or law under advisory jurisdiction. It makes it possible to interpret the constitution without a formal court case. Unlike court decisions, the opinion expressed is not legally binding.***

***Article 143 (1):*** Any legal issue or matter of public interest may be referred to the SC by the President.

Regarding pre-constitutional treaties, agreements, or covenants, particularly with regard to former princely states, ***Article 143(2) applies.***

SC has the option to accept or reject the reference. The returned opinion is not legally binding; it is merely advisory. In addition to Cabinet guidance, it provides the President with independent legal insight

### **78. International Agency for Atomic Energy (IAEA)**

Background: In response to media reports indicating a possible mishap at Kirana Hills amid India's Operation Sindoor bombing, the International Atomic Energy Agency stated that no radioactive leak had occurred from any nuclear plant in Pakistan.

The ***IAEA is the world's nuclear watchdog, advocating for the safe, secure, and non-militarized application of nuclear technology.*** Within the UN system, it is also referred to as the ***"Atoms for Peace and Development"*** organization. ***It was founded following World War II to promote peaceful nuclear cooperation and stop the spread of nuclear weapons.*** Operates alone but submits reports to the Security Council and UN General Assembly.

### **79. Carbon Capture and Utilization**

Context: Using a public-private partnership model, the Indian government has authorized the creation of five Carbon Capture and Utilization testbeds to promote net zero industrial pathways in challenging industries like cement.

This term describes technologies that absorb carbon dioxide from industrial emissions and use it directly or after transforming it into products with added value.

### **80. South Australia Algal Bloom**

Context: Over 200 marine species have perished due to a large bloom of toxic algae *Karenia mikimotoi* off the southern Australian coast, which has an impact on coastal tourism and biodiversity.

This kind of poisonous dinoflagellate algae is responsible for the dangerous algal blooms known as red tides.



***In 1935, it was initially discovered in Japan. spotted since then in Australia, China, the United States, Norway, and the English Channel.***

The greatest bloom in South Australia to date, covering 4,400 square kilometres, occurs in March 2025.

***Appears in warmer months as frothy, discoloured water.*** Produces poisons that are known to be low in toxicity yet that kill a lot of people. prevents fish gills from growing and produces oxygen-depleted zones. linked to eye pain, respiratory problems, and skin irritation in people living close to impacted beaches.

### **81. Nanoporous Multi-Layered Polymeric Membrane**

Context: In under eight months, DRDO was able to create a high-pressure nanoporous multi-layered polymeric membrane for purifying saltwater.

***Using nanoporous polymer layers, this high-performance filtration membrane removes impurities and salts from saltwater.***

It makes it possible to separate salts and tiny particles efficiently, making it appropriate for severe marine settings.

The process of desalination creates freshwater for drinking or farming by eliminating dissolved salts and minerals from salty or seawater.

### **82. Black Forest Operation**

Context: In the Kurraguttalu Hills on the border between Chhattisgarh and Telangana, 31 Maoists were slain in Operation Black Forest, one of India's biggest anti-Naxal campaigns.

***The goal of the 21-day, high-intensity counterinsurgency operation is to target Maoist strongholds in steep, forested areas.***

Regaining control of insurgent areas, neutralizing top Maoist leadership, and demolishing Naxal headquarters and operational infrastructure are its goals.

### **83. Ayurveda Day**

Context: In a Gazette announcement, the Indian government formally proclaimed September 23 to be Ayurveda Day.

***Honouring India's historic medical system and promoting it as a scientific and holistic health practice is the goal of this national holiday.***

The 23rd of September, which falls on the autumnal equinox and represents balance at the heart of Ayurvedic philosophy, will be celebrated yearly as Ayurveda Day starting in 2025.

Through a set calendar date, it seeks to improve planning and participation, raise knowledge of Ayurveda as a preventive and sustainable healthcare system, and integrate Ayurveda as a science-based wellness strategy in international health discussions.

Ayurveda is a 5,000-year-old Indian medical practice that has its roots in the Vedas, especially the Atharva Veda. The phrase, which means "Science of Life," is taken from Ayu and Veda.

### **84. The Union Public Service Commission (UPSC)**

Background: The President of India has named Dr. Ajay Kumar, a retired IAS official and former Defence Secretary, Chairman of the Union Public Service Commission.

According to ***Article 315 of the Indian Constitution, it is a constitutional body. It administers recruiting tests for Central Services, All India Services, and other Group A and B jobs.***

A chairman and other members make up this group. The Commission's composition and strength are decided by the President. often has nine to eleven members. ***Members must have at least 50% of ten years of government service experience.***

***According to Article 316 (1), the Chairman and members are chosen by the President. The President also determines tenure and terms of service. The term is six years or until the age of sixty-five, whichever comes first.***

### **85. Bhargavastra Counter-Drone System**

Background: Solar Defence and Aerospace Ltd.'s novel, inexpensive counter-drone micro-missile system, "Bhargavastra," was successfully tested in India.



***It is a counter-drone system based on micro missiles that uses guided bombs to identify and destroy enemy drones, including drone swarms.***

***It seeks to offer an affordable, quick-reaction method of eliminating drone threats, particularly in areas of conflict and sensitive borders.***

### **86. Wholesale Price Index**

Context: As a result of declining prices for primary articles and gasoline, India's WPI inflation dropped to a 13-month low of 0.85% in April 2025, from 2.05% in March.

***The WPI calculates the average change in pricing of goods that wholesalers sell to other companies in bulk. Prior to the products reaching the final customer, it represents inflation at the production level.***

The Ministry of Commerce and Industry's Office of Economic Adviser, which is part of the Department for Promotion of Industry and Internal Trade, publishes it once a month.

It helps to understand supply-demand dynamics in the primary, energy, and industrial sectors by monitoring price movements in wholesale markets and evaluating cost constraints experienced by producers and manufacturers.

It covers only goods not services, reflects price trends before retail level, useful for industry cost analysis.

It serves as an early indicator of inflation trends, helps in analysing input cost pressures on producers, essential for fiscal planning, business forecasting and policymaking.

### **87. Chief Justice of India**

Context: Justice BR Gavai was sworn in as the 52<sup>nd</sup> Chief Justice of India on May 14, 2025, by President Droupadi Murmu at Rashtrapati Bhavan. He is the first Buddhist and the second Dalit to hold the post, after Justice K G Balakrishnan.

***Chief Justice of India is the head of the Supreme Court and the judicial system of India. They are known as the 'Master of the Roster' responsible for case allocation and judicial leadership.***

The Constitution's Article 124(2) regulates the selection of the Supreme Court's Chief Justice and judges. Following the seniority convention, the President of India selects the CJI based on the advice of the departing CJI.

### **88. 2D Metal**

Background: Using a brand-new high-pressure method, Chinese scientists have created atomically thin 2D metal sheets of bismuth, gallium, tin, and lead.

***Electrons are restricted to moving solely in two dimensions in 2D metals, which are extremely thin layers of metal atoms that are typically only 1-2 atoms thick. Because of quantum confinement effects, they have distinct quantum features in contrast to bulk metals.***

They make it possible to build quicker, lower-power computing systems; they are perfect for next-generation sensors, transistors, and wearable technology; they can power ultra-sensitive biosensors and imaging instruments; and they are compatible with high-efficiency LEDs, lasers, and photo detectors.

### **89. Extended Fund Facility:**

Under the Extended Fund Facility, the IMF Executive Board authorized an instant \$1 billion payment to Pakistan.

***It is an IMF credit program intended to assist nations with protracted balance of payments issues brought on by severe fundamental economic flaws.***

It makes medium-term structural changes easier.

### **90. Territorial Army:**

In the face of increased tensions with Pakistan, the Ministry of Defence has given the Army Chief the authority to completely mobilize the Territorial Army in accordance with Rule 33 of the Territorial Army Act, 1948.

Part-time "citizen soldiers" from civilian backgrounds make up this volunteer reserve army, which is designed to supplement the regular Army's manpower during times of crisis or conflict by relieving it of non-combat tasks.

### **91. Operation Keller:**

Context: During Operation Keller in Shopian, Jammu & Kashmir, the Indian Army killed Shahid Kuttay, the leader of the Resistance Front and the mastermind of the Pahalgam terror incident.

Based on information from the Rashtriya Rifles, the search and destroy effort was started in Shoekal Keller, Shopian, on May 13, 2025.

It seeks to protect unstable areas, stop retaliatory threats, and eliminate TRF terrorists who carried out the Pahalgam incident.

### **92. Jenu Kuruba Tribe:**

52 evicted Jenu Kuruba tribal households sought to reclaim ancestral forest land under the Forest Rights Act of 2006, which caused tension to flare up in Nagarhole Reserve, Karnataka.

*They are PVTG that mostly reside in the Karnataka districts of Kodagu and Mysuru, which are forests. They reside in tiny forest villages called Hadi and are also referred to as Then Kurumba or Kattu Naikar.*

*Found in Tamil Nadu, Kerala, and Karnataka's forest belts. approved by the Ministry of Tribal Affairs as a PVTG.*



*Honey collection, tuber gathering, and the harvesting of small forest products* are examples of traditional livelihoods. Many people who have been evicted work as plantation labourers, frequently on coffee estates, where they endure extreme poverty and little access to services.

With a decentralized community organization headed by a headman and ceremonial chief, they are semi-nomadic. They make local decisions without consulting outside political or religious leaders.

### **93. Jute Corporation of India:**

Background: In an effort to reduce distressed sales by farmers, the Jute Corporation of India increased the Minimum Support Price for raw jute from Rs. 5,335 to Rs. 5,650 per quintal for the 2025–2026 crop year.

To guarantee fair prices and avoid exploitation, JCI, a government-owned price support organization, is entrusted with acquiring raw jute from farmers at MSP. To maintain the ideal price

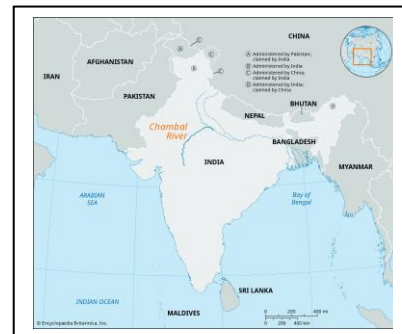
range throughout the year, it engages in market intervention through commercial and MSP operations.

#### **94. Chambal River**

Context: In the Chambal River basin across states, illegal sand mining is widespread, endangering journalists and authorities as well as nature.

***It puts conservation efforts at risk in the National Chambal Sanctuary, which is home to endangered and unique species including the Ganges dolphin and the Gharial.***

***It starts in the Bhadakla Falls in Indore, Madhya Pradesh, close to the Janapav Hills. Confluences in Uttar Pradesh with the Yamuna River.***



The tributaries of the right bank are the Banas, Kali Sindh, Parbati, and Shipra.

Covering 5,400 square kilometres and extending 425 kilometres along the Chambal River, the National Chambal Sanctuary is a tri-state protected riverine area. created to protect riverine and highly endangered species.

#### **95. My Bharat Portal**

Context: A Union Minister urged young people in Patna to actively participate in nation-building projects by signing up for the "MY Bharat" portal.

***Under the Ministry of Youth Affairs and Sports, Mera Yuva Bharat operates independently. It offers an institutional platform for youth development and youth-led change that is powered by technology.***

In addition to preparing young people to be change agents for Amrit Kaal and Viksit Bharat @2047, it promotes inclusive youth participation in national development and offers equal chances for education, volunteer work, and mentoring.

#### **96. Geotubing**

Context: Geotubing offshore breakwaters at Poonthura successfully reduced coastal erosion and encouraged sustainable beach formation, according to a joint study conducted by NIOT and KSCADC.

To lessen wave energy and stop erosion, geotubing uses big, tubular geotextile containers that are submerged and filled with sand or slurry.

High-performance woven geotextiles, usually polyester or polypropylene, are used to make it. Permeability, durability, and resistance to UV radiation, chemicals, and microbial deterioration are all features of these textiles.

Before the wave energy reaches the coast, it is absorbed and dispersed. Encourages sand deposition, which aids in the natural nourishment of beaches.



It is very resistant to microbial deterioration, chemicals, UV rays, and stress. It is less expensive than concrete or steel structures, easier to install, adaptable for a variety of terrain, non-polluting, aids in wetlands and coastal restoration, and is efficient in flood control, riverbank fortification, sludge dewatering, and landfill containment.

### **97. The Western Hoolock Gibbon and Phayre's Langur**

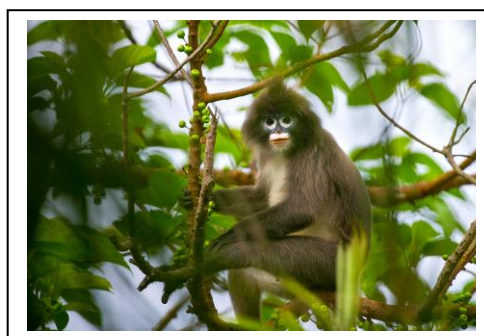
Context: The Cross River Gorilla and Tapanuli Orangutan are two of the 25 most endangered primates in the world, according to the "Primates in Peril 2023-2025" assessment.

The inclusion of two Indian species on the final list—***the Western Hoolock Gibbon and the Phayre's Langur***—highlights the mounting conservation concerns surrounding these species.



The 25 most endangered primates in the world are listed in this biennial global survey, which is based on scientific evaluations.

***Phayre's Langur is found in Northeast India, East Bangladesh, and Western Myanmar and is listed as endangered by the IUCN. Its habitat consists of deciduous, bamboo-dominated, and tropical evergreen forests. It mostly eats leaves, although it also eats fruits and seeds.***



***The Western Hoolock Gibbon, which is found in Northeast India, Eastern Bangladesh, and Western Myanmar, is likewise listed as endangered by the IUCN. The habitat consists of tropical evergreen and semi-evergreen forests.***

### **98. Niveshak Shivir project**

Context: To assist investors in recovering unclaimed dividends and shares, IEPFA and SEBI together called a strategy meeting to introduce the "Niveshak Shivir" project.

It is a national outreach and investor aid initiative designed to make it easier for investors to recover unclaimed dividends and shares. ***It facilitates quicker settlement of investor complaints, increases financial knowledge and trust in the financial ecosystem, lessens reliance on middlemen, and improves transparency in the investor recovery process.***

### **99. Safe Harbour**

Context: In order to combat the rise in false material on the internet, the Ministry of material and Broadcasting is reevaluating safe harbour safeguards under the IT Act of 2000.

Online platforms are protected by law from being held accountable for user-posted content. Similar to Section 230 of the Communications Act in the US, Section 79 of the Information Technology Act of 2000 offers safe harbour for intermediaries.

By preventing platforms from taking on too much liability, it promotes innovation and shields middlemen from lawsuits involving third-party material.

### **100. BrahMos Supersonic Cruise Missile**

Context: India is said to have used the BrahMos supersonic cruise missile against Pakistani military sites for the first time in combat during Operation Sindoor.

India and Russia collaborated to create the supersonic cruise missile known as the BrahMos. It is a precision strike weapon that may be fired from platforms on land, in the air, at sea, or underwater.



***The Brahmaputra River in India and the Moskva River in Russia are the sources of the name. It is a two-stage missile with a liquid-fuelled ramjet engine and a solid-propellant booster. It can achieve Mach 3.***

It can be launched from fighter planes, ships, submarines, and mobile land launchers. renowned for its deep dive, terrain-hugging, mountain-warfare versatility, and great accuracy.

### **101. Dongria Kondh Tribe**

Background: During a festival close to the Niyamgiri Hills, the Dongria Kondh tribe of Odisha was recently highlighted for exhibiting their strong identity and cultural endurance.

***An indigenous tribal group known as the Dongria Kondh is categorized as a PVTG. They are well known for their successful opposition to bauxite extraction in the Niyamgiri Hills and their environmental stewardship.***



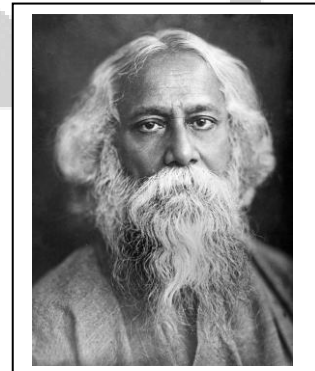
Kui, an oral Dravidian language closely linked to Gondi, is what they speak. Although it is occasionally transcribed in the Odia script, Kui does not have a written script.

They practice ancestor worship, animism, and spirituality centred on nature. Preserve customs through community rituals, song, dance, and oral storytelling.

### **102. Gurudev Rabindranath Tagore**

Context: The Indian prime minister honoured Gurudev Rabindranath Tagore on the anniversary of his birth (Tagore Jayanti), praising his contributions to the country's educational, literary, and cultural landscapes.

He is the ***son of well-known Brahmo Samaj reformer Debendranath Tagore***. After establishing ***Santiniketan*** to support integrated learning, he promoted holistic education.



He wrote and sang songs in support of the Swadeshi Movement. After the ***Jallianwala Bagh Massacre in 1919***, he renounced his ***knighthood*** and opposed the oppressive British policies. maintained a profound regard for Mahatma Gandhi despite their differing ideologies.

***Gitanjali (Nobel Prize, 1913), Gora, and The Post Office are some of his most important works. Wrote more than 2,000 songs, including Jana Gana Mana, India's national hymn.***

***He received the Nobel Prize in Literature in 1913, making him the first non-European to do so.***

By fusing Western liberalism with Eastern spiritual principles, he advanced Universal Humanism and championed individual dignity, educational freedom, and peace between humans and the natural world. held that the Upanishads were the foundation of an anti-dogmatic spirituality.

### **103. The Startup Credit Guarantee Scheme (CGSS)**

Context: The Credit Guarantee Scheme for businesses has been expanded by the government, which has lowered guarantee rates for businesses in Champion Sectors and doubled the guarantee amount from Rs. 10 crores to Rs. 20 crores.

It is a flagship credit guarantee program designed to give businesses recognized by DPIIT cash help without the need for collateral. created to make working capital, venture debt, term loans, and other fund-based and non-fund-based instruments possible.

***It facilitates debt-based early-stage funding without collateral, reduces perceived risk for lenders supporting startups, supports local manufacturing and R&D innovation in priority industries, and is consistent with the Startup India movement and the Viksit Bharat goal.***

Eligible lenders include SEBI-registered Alternative Investment Funds, Scheduled Commercial Banks, and Non-Banking Financial Companies.

### **104. The International Monetary Fund (IMF)**

Context: India voiced worries about Pakistan's poor reform record and frequent misuse of IMF money, which are connected to cross-border terrorism risks, and abstained from an IMF vote that would have approved further financial aid to Pakistan.

The IMF is a global financial organization that supports trade growth, economic stability, and international monetary cooperation. It was created in order to preserve the post-World War II global economic order as part of the Bretton Woods Agreement.

***Founded in 1945, with its main office in Washington, D.C., in the United States.***

Through publications like the Global Financial Stability Report and World Economic Outlook, it keeps tabs on both domestic and international economic trends. It offers both short-term and long-term financial support to assist nations in managing balance-of-payment difficulties, as well as technical training and policy recommendations on public finance, monetary policy, data analytics, and governance.

***Member country quotas, which are based on each nation's relative size in the global economy, provide the IMF with its main source of funding. Special Drawing Rights improve liquidity and add to reserves.***

### **105. Thalassemia**

Context: Due to a lack of knowledge and insufficient genetic screening, specialists said on World Thalassemia Day that West Bengal's carrier rate (6–10%) is significantly higher than the national norm (3–4%).

***It is a hereditary blood condition in which the body generates either too little or too much haemoglobin, which hinders the transport of oxygen. One of the most widespread single-gene illnesses in the world, it is particularly prominent in South Asia.***

It can be inherited from both parents as a carrier or full expression, or it can be caused by mutations or deletions in the genes that make haemoglobin chains.

Up to four genes can be deleted in alpha thalassemia; the severity varies according to the number of missing genes. Most prevalent among those with Middle Eastern, African, and Southeast Asian heritage

***The beta-globin gene is mutated in beta thalassemia. common among individuals with Chinese, South Asian, and Mediterranean ancestry.***

It has an impact on life quality and lifespan; if left untreated, severe cases can cause mortality before the age of thirty. It causes financial, emotional, and social hardship, particularly in areas with high frequency.

***Thalassemia can be lessened by bone marrow transplantation, iron chelation therapy to avoid iron excess, and routine blood transfusions to maintain haemoglobin levels.***

### **106. United Nations Forum on Forests**

Context: India presented its accomplishments in sustainable forest management during the United Nations Forum on Forests, which was held at UN Headquarters in New York.

Under ECOSOC, UNFF is a functional body tasked with coordinating and facilitating discussions on forest policy. It offers a forum for international discussion and promotion of sustainable forest management.

It seeks to advance sustainable development, protection, and management of all kinds of forests. ***It supports the execution of Agenda 21, the Rio Forest Principles, and the global forest goals while fortifying long-term political commitment to forests.***

### **107. Saola**

Background: The genome of the Saola, the rarest big land mammal in the world, has been successfully mapped by an international team of scientists, raising hopes for its conservation through captive breeding and genetic rescue.



Because of its great rarity, this critically endangered bovine species is frequently referred to as the "Asian Unicorn." ***Found in evergreen forests with high humidity and few dry seasons, it is native to the Annamite Mountains on the border between Laos and Vietnam.***

### **108. The carbon border tax suggested in the UK**

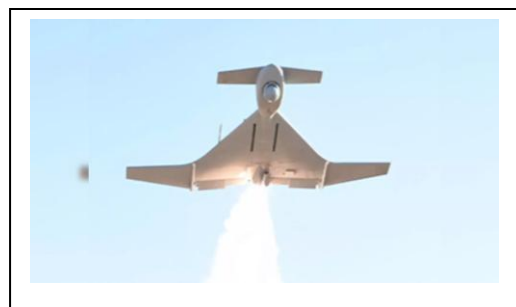
Context: Saying that the UK's imposition of a carbon tax on Indian exports beginning in January 2027 violates the Common But Differentiated Responsibilities principle under international climate agreements, India has threatened to react.

Based on the carbon intensity of production in the exporting nation, industrialized nations levy this type of import carbon tax. By balancing the carbon pricing of imported and domestic commodities, it seeks to stop carbon leakage. The ***industries most likely to be impacted initially are steel, aluminium, cement, and energy-intensive products.***

Indian industries may be less competitive if they must pay both local environmental charges and a carbon price at the UK border.

### **109. HAROP Drones**

Context: As part of its retaliatory strike under Operation Sindoor, India allegedly destroyed a Pakistani air defence system near Lahore on May 8, 2025, using Israeli HAROP drones, a type of loitering munition.



***It combines the capabilities of a UAV and a missile by hovering over a region, choosing a target, and then crashing into it with an explosive payload. High-value targets including radars, command stations, tanks, SAMs, and even moving assets are intended to be destroyed.***

It can be launched from permanent ground platforms, naval boats, or canisters placed on trucks. It features a fire-and-forget profile and can attack both manually and autonomously.

### **110. SHAKTI Policy 2025 Revised**

Context: To improve transparency and flexibility, the Cabinet Committee on Economic Affairs has approved the Revised SHAKTI Policy 2025, which streamlines coal allocation for thermal power plants through two streamlined windows.

***Its goals include facilitating market-driven electricity pricing and deeper power markets; encouraging the substitution of coal imports and optimizing logistics; ensuring transparent, flexible, and demand-based coal allocation; and promoting long-term thermal power capacity planning.***

Gives plants the freedom to sell electricity through contracts or power exchanges. encourages private investment in the thermal sector and independent power producers.

### **111. Ayurvedic Manuscripts:**

Background Two rare Ayurvedic manuscripts, Dravyaratnakara Nighantu and Dravyanamakara Nighantu, have been brought back to life by the Central Council for Research in Ayurvedic Sciences, which is part of the Ministry of AYUSH.

***Textual archives of medicinal knowledge, such as plant names, therapeutic applications, formulations, and pharmacological effects, can be found in ancient Ayurvedic writings.***

***Nighantus are classic Ayurvedic lexicons that enumerate and describe the characteristics of therapeutic compounds derived from plants, minerals, and animals.***

It has eighteen chapters that provide in-depth explanations of drug synonyms, effects, and compositions. References Raja Nighantus and Dhanvantari.

### **112. The Indo-Pacific Logistics Network (IPLN)**

Context: To mimic the start of the Indo-Pacific Logistics Network, the QUAD nations—Japan, Australia, India, and the US—conducted a tabletop exercise in Hawaii.

***It is a multilateral effort to create a common logistics framework that will allow the Indo-Pacific region to coordinate civilian catastrophe response.*** Through interoperability and a shared logistics infrastructure, it facilitates the quicker and more effective distribution of humanitarian aid.

Builds mutual logistics support systems and strengthens operational coordination among Quad partners; focuses on digital logistics mapping, joint resource planning, and real-time tracking systems; targets natural disaster preparedness, including response to cyclones, tsunamis, and health emergencies; and improves supply chain responsiveness for humanitarian assistance and disaster relief missions. It is ***applicable across Indo-Pacific islands, coastal states, and remote zones that require quick crisis response.***

### **113. Central Bureau of Investigation (CBI)**

Context: CBI Director Praveen Sood, an IPS officer of Karnataka cadre, has been granted a one-year extension beyond his planned retirement by the Cabinet's Appointments Committee.

As India's top investigative organization, the CBI is entrusted with looking into high-profile instances of major crimes, economic offenses, and corruption. Although it is neither a statutory or constitutional organization, the ***Delhi Special Police Establishment Act of 1946*** gives it authority. It was created on April 1, 1963, by a resolution of the Home Ministry in response to the suggestions made by the ***Santhanam Committee on Prevention of Corruption.***

Under the direction of a director, with assistance from superintendents of police, special directors, joint directors, and deputy inspectors general.

Under the DSPE Act, a three-person selection committee appointed: Members include the Prime Minister, the Leader of the Opposition in the Lok Sabha, and the Chief Justice of India or a designee.

The ***tenure is set for two years and can be extended every year for a maximum of five years.***

When referred by states or courts, it handles high-profile cases like murder, terrorism, and kidnapping; it investigates bank frauds, money laundering, and financial scams; it serves as India's liaison with Interpol for international crime coordination; it looks into corruption and misconduct by Central Government employees, PSU staff, and Union Territory officials; and it looks into cases on the Supreme Court's or high courts' orders.

### **114. The Battle of Stalingrad and Biju Patnaik**

Context: In recognition of Biju Patnaik's pivotal participation during the Battle of Stalingrad (1942–43), Russia placed a memorial plaque at its embassy in New Delhi.

During the Battle of Stalingrad, he assisted the trapped Soviet Red Army by flying supply sorties, delivered vital supplies and weapons in the face of severe fighting circumstances, risking German air defences.

He flew covert flights for nationalist leaders in support of the Quit India Movement. He supported Indonesia's struggle for independence and assisted in the rescue of freedom fighters from Burma, for which he was also honoured by Indonesia.



Nazi Germany and the Soviet Union engaged in combat in Stalingrad from July 17, 1942, to February 2, 1943, in the Battle of Stalingrad, a significant conflict of World War II.

***Hitler aimed to seize Stalingrad in order to secure the oil-rich Caucasus, cut off Soviet supplies by way of the Volga River, and achieve a symbolic triumph by taking the city that bears Josef Stalin's name.***

When the Soviet Union won World War II, German forces started to withdraw. The battle signalled the start of the Nazi collapse on the Eastern Front and raised Soviet morale.

#### **115. Operation Sindoor**

Background: India initiated "Operation Sindoor," a targeted military campaign against nine terrorist camps in Pakistan and Pakistan-occupied Kashmir, in retaliation for the Pahalgam terrorist attack, which claimed the lives of 25 Indians and one Nepali national on April 22, 2025.

It seeks to reaffirm India's right to self-defence under international law, neutralize cross-border terror infrastructure, provide justice to the Pahalgam attack victims, and stop impending future attacks as indicated by actionable intelligence.

#### **116. Inland Waterway Transport**

Context: Beginning in late 2025, the Inland canals Authority of India will operate 100 cargo barges and pusher tugs across many national canals under a strategic Memorandum of Understanding with Rhenus Logistics India, a global logistics company.

This seeks to increase private involvement in India's inland water transport industry as well as multimodal cargo transit.

***IWT is the transportation of people and products by boat, barge, or ferry via navigable rivers, canals, backwaters, and creeks. It is an economical, environmentally responsible, and fuel-efficient form of transportation.***

The World Bank-funded Jal Marg Vikas Project aims to increase NW-1's capacity. comprises nautical aids, terminal development, and dredging.

***111 waterways were designated as National Waterways for development by the National Waterways Act of 2016.***

### **117. Regulation of Satellite Communication in India**

Context: India has created new regulations for satellite communication companies that need improved national security collaboration, local manufacture, data localization, and NavIC compliance.

***Using satellites in orbit around the planet, satellite communication allows signals to be transmitted wirelessly. GPS navigation, TV broadcasting, broadband, and distant region connectivity are all supported.***

Approvals and operational instructions are issued by the Department of Telecommunications. The Telecom Regulatory Authority of India completes the policy framework, which includes pricing and spectrum distribution.

A five-year phased production plan must be submitted by Satcom companies. By Year 5, at least 20% of the ground section should be generated domestically.

India must be the location of all user data, DNS services, and control systems.

### **118. Human Development Index**

Background: According to the United Nations Development Programme's 2025 Human Development Report, India has risen three spots to 130th place out of 193 nations in the 2023 Human Development Index.

A composite statistical metric known as the Human Development Index evaluates a nation's average performance in three important areas:

***Life expectancy at birth as a gauge of health***

***The mean and predicted years of education are used to measure education.***

***Gross national income per capita is used to calculate the standard of living.***

### 119. Piprahwa Relics

Background: India has served Sotheby's auction house and the Peppe family with a court order to immediately stop a sale of ancient relics from Piprahwa Stupa that are thought to be connected to the cremated remains of Lord Buddha.

***Relics from Piprahwa include bone fragments thought to belong to Lord Buddha, as well as caskets made of soapstone and crystal, a coffer made of sandstone, and decorations like pearls, sapphires, rubies, topaz, and gold.***



William Claxton Peppe conducted an excavation in 1898 in Piprahwa, Siddharthnagar district, Uttar Pradesh, close to the Nepali border. The location was determined to be a section of the ***Shakya republic's capital, Kapilavastu, which belonged to Prince Siddhartha's clan.***

The Indian Museum in Kolkata received the majority of the antiquities under the Indian Treasure Trove Act of 1878. Nevertheless, Peppe's family kept one-fifth of the discovery, which are currently up for auction because they were deemed duplicates.

### 120. India's Civil Defense

Context: To evaluate emergency preparation against military and disaster threats, the Union Ministry of Home Affairs has authorized a statewide Civil Defence Mock Drill across 244 districts on May 7, 2025, in anticipation of escalating geopolitical tensions.

The term "civil defence" describes coordinated measures to safeguard people, property, and vital services in times of emergency, particularly during times of conflict or during man-made or natural disasters. Prevention, mitigation, preparedness, response, evacuation, and recovery are its six pillars of operation on a global scale.

In order to institutionalize civic protection, the civic Defence Act of 1968 was passed following the Indo-Pak and Indo-China hostilities.

Mostly staffed by volunteers with emergency response training from a variety of vocations. activated prior to the arrival of official responders after terror attacks, fires, floods, explosions, earthquakes, or other disasters. Pay close attention to the crucial first few minutes of emergency.

### **121. Badami Chalukyas' Vikramaditya I**

Context: At Madapura Lake in Davangere, Karnataka, a rare Old Kannada inscription from the 7th century, under the reign of Vikramaditya I of the Badami Chalukyas, has been discovered.

It provides information about regional administration, land donations, and taxes during his reign.

***Originally a local Kannada power, the Badami Chalukyas sought legitimacy by claiming ancestry from Ayodhya.***

***Vatapi serves as its capital.***

***Pulakesin I strengthened Badami and established the dynasty. The greatest emperor, Pulakesin II, vanquished Harshavardhana at the Narmada. As seen in the Ajanta Caves, they sent envoys to Persia and returned with a mission.***

***Vikramaditya I extended my authority over the Cholas, Pandyas, and Keralas while regaining Badami from the Pallavas.***

A centralized monarchy with little rural autonomy over administration was in place. kept up a fleet of ships.

***Advocated for Jainism, Vaishnavism, Shaktism, and Shaivism. introduced the Vesara style, which combined aspects of Dravida and Nagara. constructed temples at Aihole, Badami, and Pattadakal with rock cuts and structural elements.***

The most famous Chalukya king, Pulakesin II, was the father of Vikramaditya I. Following his father's death, he took the throne following a political upheaval and Pallava invasion. renowned for rebuilding the Chalukya kingdom and taking Vatapi back from the Pallavas.

***Defeated the Pallavas' Narasimhavarman I, who had previously taken Badami. His military efforts regained lost status and brought the broken Chalukya empire back together. strengthened control of the southern Deccan by subduing southern powers including the Cholas, Pandyas, and Keralas.***

Reestablished administrative control over Karnataka and its surrounding regions and revived centralized power.



### **122. Unique Identification Authority of India**

Context: To improve test security and stop impersonation, the UIDAI successfully completed a Proof of Concept of Aadhaar-based face authentication during NEET-UG 2025 in cooperation with NIC and NTA.

***During NEET-UG 2025, PoC is a pilot test that uses Aadhaar-linked facial authentication to instantly verify applicants.***

At specific NEET centres in Delhi, candidates can authenticate themselves biometrically in real time and without touch. High face matching accuracy was guaranteed using the Aadhaar biometric database. simplified entry procedures and decreased likelihood of impersonation.

### **123. INS Tamal**

Context: As part of the Krivak-III class agreement, Russia is to build India its second advanced stealth frigate, the INS Tamal.

As part of ***India's 2016 Krivak-III class agreement, Russia built the 3,900-ton advanced stealth frigate INS Tamal. It was put into service in December 2024 and is the sister ship of INS Tushil***



It is a cooperative initiative within the defence cooperation between Russia and India. It improves India's blue water capabilities for operations in the electromagnetic, surface, air, and submarine domains. vital in light of escalating maritime conflicts, particularly in the Arabian Sea.

### **124. Nabakalebara Ritual:**

Due to its categorization as "Jagannath Dham" and accusations of using leftover sacred wood from Puri's Nabakalebara rite for idol-making, the Digha Jagannath Temple in West Bengal has recently been inaugurated, sparking controversy.



***In Puri, Odisha, it is a revered custom connected to the idols of Lord Jagannath. Lord Jagannath, Balabhadra, Subhadra, and Sudarshana's wooden idols are swapped out for new ones. conducted according to the lunar calendar every 12 or 19 years.***

On the basis of heavenly signs, four particular neem trees are chosen. For logs to be considered appropriate, they must bear specific markers.

### **125. Tendu Leaves**

Context: Because tendu leaves have the highest procurement price of Rs. 5,500 per standard bag, which has encouraged illegal trading during the busiest collection season, Chhattisgarh has expressed worry over their smuggling from neighbouring states.



***Tendu, often known as "Green Gold," is a non-timber forest product that is mostly used to wrap beedis.***

***Extensively distributed over Central India, primarily in Madhya Pradesh, Chhattisgarh, Odisha, and Maharashtra.***

Its broad leaves make it easy to identify it as a small tree or shrub. There are 1,000 bundles with 50 leaves apiece in a typical bag. It has been said that Southern Chhattisgarh produces the best tendu leaves.

### **126. India's Initial Rice Varieties with Genome Editing**

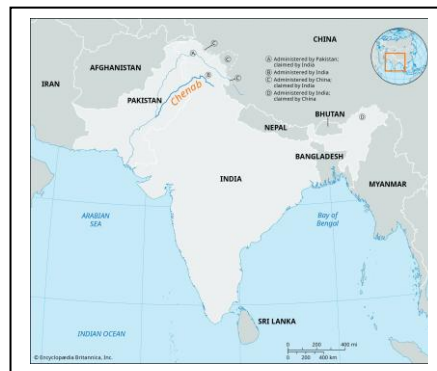
Context: Using CRISPR-Cas9 technology, ICAR created the first genome-edited rice cultivars in India, DRR Dhan 100 and Pusa DST Rice 1.

The ***new variety matures in 130 days, roughly 20 days faster, and yields 19% more.*** It uses a lot less irrigation water and has a sturdy stem that keeps the plant from toppling over. By altering the CKX2 gene through genome editing, it increases the number of grains produced by a single plant. It also emits less methane into the atmosphere since it grows more quickly.

### **127. Chenab River**

Background: In response to the Pahalgam terror acts, India suspended the Indus Water Treaty and stopped the flow of water from the Chenab River through the Baglihar Dam in Jammu and Kashmir.

The ***Chandra and Bhaga rivers meet near Tandi in Lahaul & Spiti, Himachal Pradesh, to form the Chenab River.*** Chandra comes from Surya Taal Lake, close to Bara-lacha la Pass, Bhaga.



In the upper sections, it is called Chandra-Bhaga; downstream, it is called Chenab. passes through Jammu & Kashmir and Himachal Pradesh before entering Pakistan's Punjab state, where it merges with the Sutlej River to form the Panjnad River.

Tributaries on the right bank include Marusudar, Miyar Nalla, Bhut Nalla, Bichleri, Ans, and Kalnai. Left bank tributaries include Niru, Tawi, Neeru, and Liddrari.

***The principal hydroelectric projects on the Chenab River include the Baglihar Dam, Salal Dam, Dul Hasti, Ratle Project, Pakal Dul Dam, Kiru Project, and Kishtwar Project.***

### **128. Biodiversity Benefit Sharing Regulations 2025**

Context: The Biodiversity Benefit Sharing Regulations 2025, which regulate fair benefit sharing from the utilization of India's biological resources, including digital sequence information, were notified by the National Biodiversity Authority.

The purpose of these revised regulations under the Biological Diversity Act is to guarantee that users—particularly industries—share a portion of their financial gains with biodiversity preservers and local communities. India is now in line with worldwide Access and Benefit Sharing as a result.

Businesses with annual revenue exceeding Rs. 1 crore are required to report their use of biodiversity. Growers of medicinal plants are free from benefit sharing, in accordance with the Biological Diversity (Amendment) Act of 2023. ***Benefit sharing is at least 5% for species like red sanders, sandalwood, and agarwood, and it can go up to 20% or more.***

### **129. Khelo India Youth Games:**

Bihar's first-ever multi-discipline national athletic event was the 7th edition of the Khelo India Youth Games, which Prime Minister Narendra Modi virtually opened in Patna.

The ***goal of the Khelo India program is to find, develop, and promote grassroots athletic talent*** among India's young through the annual national-level multisport Khelo India young Games. The Youth Games have previously taken place in Delhi, Pune, Guwahati, Panchkula, Bhopal, and Chennai.

### **130. ECINET Initiative**

Background: In order to simplify and expedite election-related services, the Election Commission of India has announced the creation of ECINET, a single digital platform.

The *ECI is developing ECINET, a comprehensive digital interface, to consolidate over 40 current online and mobile applications into a single, intuitive platform. It is intended to give voters, election officials, political parties, and civil society organizations simple access to election-related services.*

Its goals are to make it easier to access electoral services through a single window, remove the need for multiple applications with different logins, guarantee that all stakeholders have real-time access to verified election data, fortify electoral infrastructure through digital innovation and integration, and improve electoral platform cybersecurity through rigorous trials and protocols.

### **131. Wearable Non-Contact Technology**

Context: Researchers from the United States and South Korea have created a new non-contact wearable that measures skin flow without making physical contact in order to check health. Without coming into contact with the skin, this tiny wearable gadget measures inward chemical input and outgoing vapour to trace molecular transit via the skin.

It has a *sealed compartment that creates a microclimate next to the skin. outfitted with tiny sensors and wireless electronics to analyze volatile organic chemicals, carbon dioxide, and water vapor.* Comparative flux measurements between closed and open states are made possible via a remote-controlled valve that controls the chamber's openness.

### **132. Lord Buddha's Sacred Relics**

Context: In advance of UN Vesak Day 2025, the Sacred Relics of Lord Buddha landed in Ho Chi Minh City, Vietnam.

The respected bodily remains or personal belongings of Gautama Buddha that are kept and honoured by devotees worldwide are known as sacred relics of Lord Buddha. They act as centres of devotion and pilgrimage and represent the teachings of the Buddha and spiritual enlightenment. The *National Museum of India* is responsible for their preservation and curation. backed by the International Buddhist Confederation and the Ministry of Culture.

### **133. The National Human Rights Commission (NHRC)**

Background: A report exposing inadequate facilities and a shortage of staff in Keralan prisons that prevent prisoners from receiving an education was taken up by the National Human Rights Commission on its own initiative.

In India, it is a separate statutory organization tasked with upholding and advancing human rights, such as the rights to equality, dignity, liberty, and life.

***Its members include one active or former Supreme Court judge, one active or retired Chief Justice of a High Court, and the chairperson, a retired Chief Justice of India. Chairpersons of national commissions on women, minorities, SC, and ST are examples of ex-officio members who possess human rights expertise.***

It looks into claims of carelessness or human rights abuses by public employees; it may take action on its own initiative or in response to a petition. visits prisons or other correctional facilities to observe conditions and suggest changes. suggests actions to ensure that the protections provided by the Constitution and international human rights treaties are implemented effectively. Through training, seminars, and publications, it raises awareness of human rights.

#### **134. World Summit on Audiovisual Entertainment 2025**

Context: In just 1.5 days, WAVES 2025, which is taking place in Mumbai, has facilitated media and entertainment deals totalling over Rs. 250 crore and announced a number of historic international partnerships.

The **Ministry of Information & Broadcasting** is behind the effort. In an effort to establish India as a key location for content commerce, it links content producers with global investors, purchasers, and partners.

It promotes India as a global media market for film, OTT, VFX, animation, and music; it eases cross-border collaboration in the media and entertainment industry; it gives up-and-coming

#### **135. Depot Darpan Portal**

Context: To enable real-time food storage depot monitoring, the Ministry of Consumer Affairs, Food & Public Distribution will introduce the Depot Darpan portal.

It is a **mobile app and digital monitoring site that uses AI, IoT, and geo-tagged data to provide real-time supervision of food grain stockpiles.**

Its goal is to use scientific warehousing to improve efficiency, transparency, and food safety while digitizing and modernizing India's food storage infrastructure.

Using IoT sensors and CCTV surveillance, it monitors financial KPIs, operational effectiveness, and infrastructure. Depot managers submit geotagged infrastructure data that has been verified by third-party audits and supervisory officers.

Producers a platform to interact directly with international companies; and it makes structured business-to-business transactions and content agreements possible.

### **136. National Capital Region Transport Corporation**

Context: The Namo Bharat train, a regional rapid rail system intended for quick interstate travel between NCR cities within a 100–250 km radius, has begun trial runs on the last section of the Delhi–Ghaziabad–Meerut corridor by the National Capital Region Transport Corporation.

***In the NCR, it improves commuter mobility. It encourages green transit, urban integration, and decongestion.***

### **137. SeaVision Software**

Background: A defence deal worth \$131 million has been approved by the US for India, which includes training, support, and SeaVision maritime domain awareness software.

In order to serve security, safety, and environmental missions, ***Sea Vision is a web-based maritime domain awareness program that compiles and displays vessel tracking data.***

Originally created by the S. Department of Transportation, it is currently run in partnership with the defence analytics firm Hawkeye 360, located in Virginia.

***It seeks to improve partner and ally navies' maritime surveillance, coordination, and decision-making in vital strategic waterways.***

Permits participating countries to share data and conduct cooperative marine activities. detects unauthorized entrances, illicit fishing, smuggling, and suspicious trends. Zones can be created by users to keep an eye on activity and get notifications about breaches.

It improves India's capacity to keep an eye on activity in the South China Sea, Indian Ocean, and other vital shipping lanes. improves early warning and maritime intelligence, strengthening the deterrence posture. makes it easier to coordinate information exchange and cooperative marine exercises with partner navies in the US, QUAD, and IOR. supports national programs for environmental and economic safety, such as the Sagarmala Project and deep-sea monitoring.

### **138. Satavahana Dynasty:**

Eleven Satavahana-era inscriptions were found by the Archaeological Survey of India in the Gundaram Forest in the Peddapalli district of Telangana.

Two of these inscriptions highlight early Brahmi script and religious political symbolism, revealing connections to the Chutu dynasty and Satavahana prince Kumara Haksiri.

*Simuka established the Satavahana dynasty during the post-Mauryan era. Andhra Pradesh, Telangana, and Maharashtra are examples of core regions. Pratishthana and Amaravati served as the capitals.*



*The greatest king, Gautamiputra Satakarni, vanquished Nahapana and Shakas. referred to as the "destroyer of Kshatriya pride" and "Ekabrahmana."*

Ship coins are a characteristic of Yajna Sri Satakarni, which promoted trade and marine transportation.

In order to administer semi-Brahmanized tribal areas, military commanders were chosen to serve as governors, combining civil and military governance. To ensure localized government, the empire used a three-tier system: Senapati, Mahabhoja, and Raja.

*The Satavahanas promoted religion and education by giving Brahmins and Buddhist monks tax-exempt lands.*

The area prospered due to inland and maritime trade routes and was abundant in minerals like iron and gold. They were the first indigenous kings to produce portrait coins including regional motifs and Prakrit stories.

### **139. Palamu Tiger Reserve**

Context: In order to lessen human strain on wildlife, Jaigir village in Jharkhand became the first village to be completely moved outside of the Palamu Tiger Reserve's central area.

*Notified in 1974, it is the only Project Tiger reserve in Jharkhand and one of the original nine in India. It is renowned for its great biodiversity and conservation heritage and contains portions of the Betla National Park.*

Sal and other Northern Tropical Dry Deciduous Forests predominate there. *Tigers, Asiatic elephants, leopards, sloth bears, grey wolves, four-horned antelopes, Indian pangolins, and otters are important stone species.*

#### **140. National Security Advisory Board**

Context: In light of growing national security concerns, the Indian government reorganized the National Security Advisory Board, appointed former R&AW Chief Alok Joshi as its Chairman, and inducted seven new members.

*It is a **National Security Council advisory committee that offers long-term strategic suggestions on matters of national security. It is made up of professionals from outside the government in a variety of professions.***

Formed in December 1998 under National Security Advisor Brajesh Mishra's leadership.

It offers unbiased, independent study of security-related issues. Provide the National Security Council with long-term strategic viewpoints and policy options. help with the creation of important papers such as the National Security Review and the Nuclear Doctrine.

#### **141. National Medical Register**

Background: Eight months after the National Medical Register's inception, fewer than 1% of Indian physicians have submitted an application to be listed.

All of India's licensed allopathic physicians are listed in this centralized digital database. Its goal is to make the medical field more accountable, transparent, and genuine.

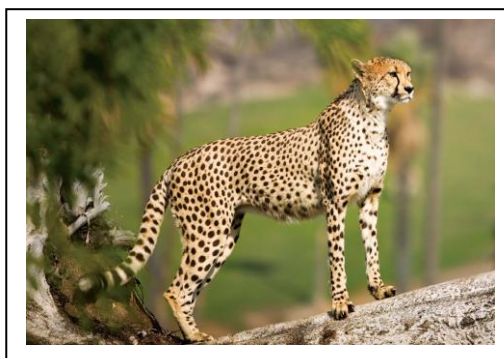
***It establishes an extensive online database of allopathic physicians in India. It improves the healthcare system's governance and public trust. It makes policy planning and credential verification easier.***

#### **142. The First Inter-State Cheetah Conservation Corridor**

Context: Madhya Pradesh and Rajasthan have decided to include Rajasthan in India's first inter-state cheetah conservation corridor.

In order to allow reintroduced cheetahs to travel freely and naturally throughout a vast environment, a wildlife corridor project was created to link protected habitats in Madhya Pradesh and Rajasthan.

It allows cheetahs to move between reserves in a natural way. It seeks to preserve and repair the grassland environment. Experts acknowledge it as a distinctive conservation model in Asia.



### **143. Fair and Remunerative Price:**

Context: For the 2025–2026 sugar season, the Cabinet Committee on Economic Affairs has agreed a Fair and Remunerative Price of Rs. 355 per quintal for sugarcane.

***The lowest amount that sugar mills are required by law to pay sugarcane growers is known as FRP. It is a statutory instrument under central government policy that guarantees equitable recompense.***

2009 saw its introduction, taking the place of the previous Statutory Minimum Price. overseen by the Essential Commodities Act of 1955, which guarantees farmer protection and price parity. The Cabinet Committee on Economic Affairs has the last say on recommendations made by the Commission for Agricultural Costs and Prices.

It gives sugarcane farmers a guaranteed income. Protect farmers from fluctuations in market prices.

It safeguards farm livelihoods and guarantees sustainable production. Encourage a fair and steady supply chain in the sugar industry.

### **144. Operation Hawk**

Background: As part of Operation Hawk, which targeted global cybercrime networks involved in online child sex abuse, the CBI detained two people from Delhi and Mumbai.

***The CBI started its unique anti-cybercrime program in 2025. It seeks to locate and bring charges against those with global digital footprints engaged in child sex exploitation online.***

It improves global collaboration in the fight against child abuse and cyber-paedophilia. Make sure that concerns from overseas affecting Indian nationals are promptly addressed. improves the gathering of cross-border evidence and digital forensics.