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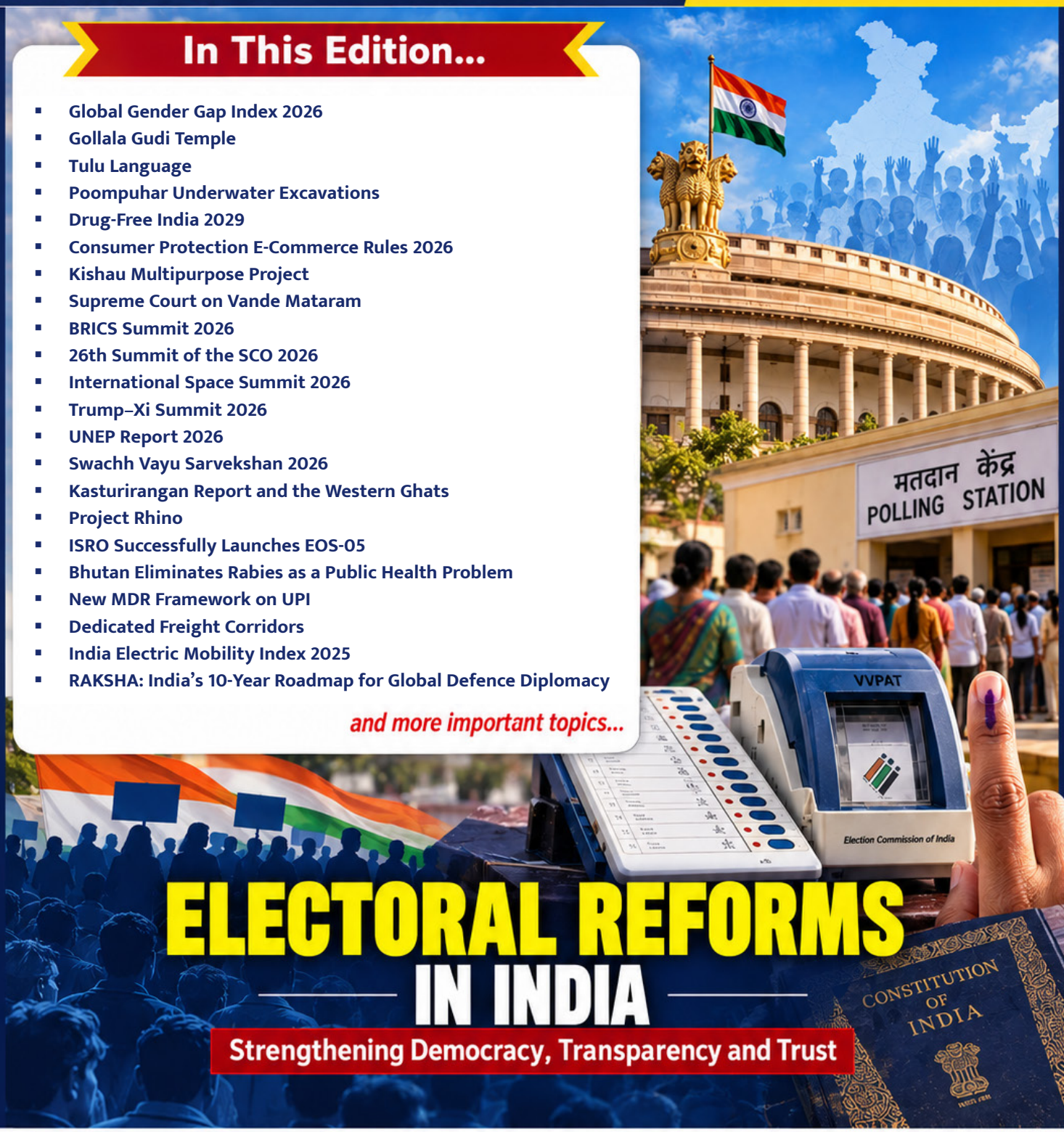
Monthly Current Affairs Magazine

OCTOBER 2026
Year: 08 No: 10

In This Edition...

- Global Gender Gap Index 2026
- Gollala Gudi Temple
- Tulu Language
- Poompuhar Underwater Excavations
- Drug-Free India 2029
- Consumer Protection E-Commerce Rules 2026
- Kishau Multipurpose Project
- Supreme Court on Vande Mataram
- BRICS Summit 2026
- 26th Summit of the SCO 2026
- International Space Summit 2026
- Trump–Xi Summit 2026
- UNEP Report 2026
- Swachh Vayu Sarvekshan 2026
- Kasturirangan Report and the Western Ghats
- Project Rhino
- ISRO Successfully Launches EOS-05
- Bhutan Eliminates Rabies as a Public Health Problem
- New MDR Framework on UPI
- Dedicated Freight Corridors
- India Electric Mobility Index 2025
- RAKSHA: India's 10-Year Roadmap for Global Defence Diplomacy

and more important topics...



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Attempted, correct, wrong, accuracy, +ve & -ve marks, net score

Subject-wise Charts
Pie + bar graph: kis subject mein kitna scored / lost

Evaluator's Comment
Strongest & weakest areas, topics to revise, marks-badhane ki strategy

Topic & Sub-topic Table
Har sub-topic par ✓ correct X wrong O skipped

Aapko fayda kya hoga?

- Weak areas turant pakdo — guesswork se nahi, data se
- Negative marking ka asli nuksaan dekho, aur use kam karo
- Revision targeted: exact topics + question numbers ke saath
- Attempt strategy smart banao — kab attempt, kab skip

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Message



A civil servant with the right aptitude is the kind of officer the nation expects. Right aptitude does not mean possessing vast knowledge, but having relevant knowledge, a balanced perspective and the ability to implement that knowledge effectively.

When it comes to UPSC or PCS examinations, mere accumulation of knowledge is not enough; its effective expression is equally important. These examinations assess an aspirant's analytical ability, expression skills and balanced understanding of contemporary issues. The process of preparation is not limited to the examination alone; it also inspires individuals to develop a meaningful perspective on important national and social issues. Undoubtedly, this journey is challenging, yet equally inspiring and purposeful.

Perfect 7 magazine has been an integral medium in developing selected civil servants' understanding of current affairs. In accordance with changing examination patterns, syllabus requirements and the nature of contemporary issues, the magazine has continuously refined itself.

I hope that Perfect 7 magazine will remain a perfect companion in your preparation journey and continue to guide you throughout your Civil Services Examination journey.

With Best wishes.

Vinay Singh
Founder
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1 Indian Society & Art and Culture

Global Gender Gap Index 2026 and India: The Challenge from Education to Economic Empowerment

Context:

Recently, the World Economic Forum (WEF) released the Global Gender Gap Report 2026. India ranked 131st among 145 economies, while Iceland, Finland and Norway occupied the top three positions. Globally, 69.2% of the gender gap has been closed, but the World Economic Forum estimates that at the current pace, it may still take around 120 years to achieve complete gender parity.

- Published since 2006, the index measures the gap between women and men in terms of opportunities and outcomes across four key dimensions: Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment.
- India ranked 131st with an overall gender parity score of 64.5%. Although India's score has improved by 4.3 percentage points since 2006, its position indicates that transforming progress in education into equal participation in economic opportunities, leadership and decision-making remains a major challenge.

India's Position in the Global Gender Gap Index 2026:

India's performance is not uniform across all four dimensions. This is one of the most important aspects of the index.

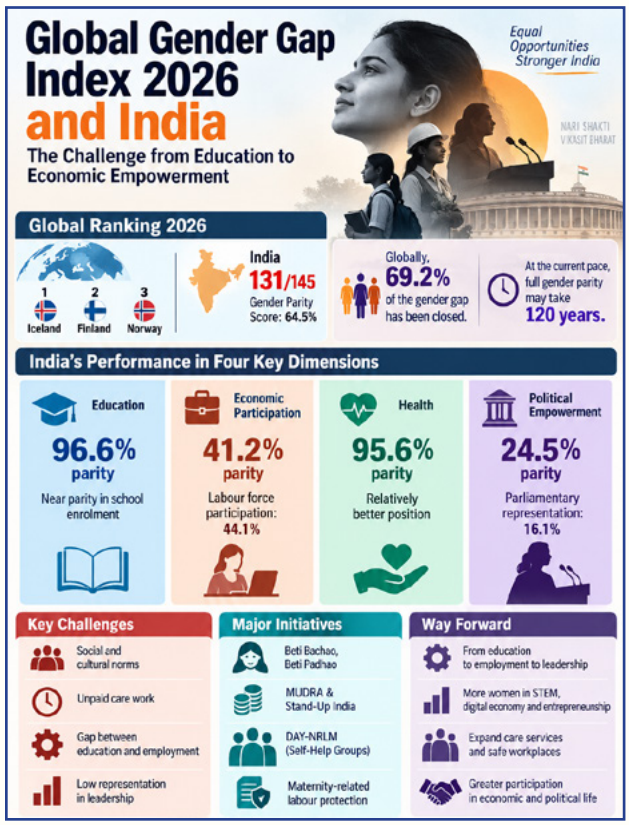
- **Education:**
  - India has achieved 96.6% gender parity in educational attainment. At the level of secondary and higher education enrolment, India has almost achieved parity. However, a gender gap still exists in adult literacy, where the level of parity stands at 82.5%.
  - This represents an important achievement in India's development. Over the past decades, initiatives related to girls' education, school enrolment, scholarships, mid-day meals, sanitation facilities and social awareness have improved girls' access to education.
  - However, the challenge is that educational equality does not automatically translate into economic equality. If an educated woman is unable to enter the workforce or reach leadership positions, the economy cannot fully benefit from education as human capital. Therefore, India's next challenge is not merely to ensure that girls reach school, but to build a complete pathway from "education to employment and employment to leadership."
- **Economic Participation:**
  - India's score in Economic Participation and Opportunity is only 41.2%. Gender parity in labour force participation stood at 44.1%. Meanwhile, parity in professional and technical occupations increased from 26.6% in 2006 to 49.9%

in 2026. In contrast, gender parity in the share of legislators, senior officials and managers stood at only 13.1%.

» These figures highlight a fundamental challenge for India: although women's educational attainment is improving, this progress is not being adequately translated into equal participation in employment and leadership.

» Therefore, women's employment should not be viewed merely as an issue of social justice. It is also closely linked with economic growth, productivity and the demographic dividend.

- **Health:**
  - » India recorded 95.6% gender parity in Health and Survival, indicating a relatively better position. However, the existing gap related to the sex ratio at birth shows that health equality cannot be understood merely in terms of the availability of healthcare services.
  - » Women's health in India is influenced by nutrition, maternal health, anaemia among adolescent girls, sanitation, reproductive health and prevailing social norms. Therefore, achieving gender equality requires moving beyond a maternity-centric approach towards a life-cycle-based approach to women's health.
- **Political Empowerment:**
  - » In the area of Political Empowerment, India scored 24.5% and ranked 67th globally in this sub-index. Gender parity in parliamentary representation stood at 16.1%, while parity at the ministerial level was only 5.9%. Here too, numerical representation alone is not sufficient. Genuine political empowerment requires representation, decision-making power, leadership opportunities and influence over policymaking.
  - » Reservation for women in local bodies has expanded women's political participation at the grassroots level. However, women's representation remains limited at higher levels of politics. In this context, the Nari Shakti Vandan Adhiniyam, 2023 is significant.
  - » It provides a constitutional framework for one-third reservation for women in the Lok Sabha and State Legislative Assemblies. However, its implementation is linked to delimitation and the associated constitutional process.
  - » Political empowerment therefore requires not only constitutional provisions but also greater opportunities within political parties, electoral financing, leadership training and social acceptance.



Major Reasons Behind India's Current Position:

- **Social and Cultural Norms:** In several sections of Indian society, women are expected to bear the primary responsibility for household work and caregiving. This affects the continuity of their education, employment and careers.

- **Unpaid Care Work:** Women spend more time than men on household work, childcare, eldercare and other forms of unpaid care work. This directly affects their employment choices and participation in the labour market.
- **Gap Between Education and Employment:** India has increased girls' access to school and higher education. However, ensuring that a sufficient number of women enter the labour market after education and remain in employment over the long term continues to be a challenge.
- **Nature of Employment:** A significant proportion of women in rural areas are engaged in agriculture and the informal sector. Such employment may involve challenges related to income, social security and workplace safety.
- **Lack of Leadership Opportunities:** Although women's participation in professional and technical fields is increasing, their representation in senior management and decision-making positions remains considerably low.

Major Initiatives for Gender Equality:

- **Beti Bachao, Beti Padhao:** Focuses on girls' education and safety and addresses the issue of the declining child sex ratio.
- **Pradhan Mantri MUDRA Yojana:** Provides loans to women for starting small and micro enterprises.
- **Stand-Up India:** Provides institutional credit to women entrepreneurs for establishing greenfield enterprises.
- **Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM):** Connects rural women with livelihoods, financial inclusion and self-employment through Self-Help Groups (SHGs).
- **Maternity-related Labour Protection:** Strengthens the rights of women workers through maternity leave and employment-related protections.

Way Forward:

- India needs to strengthen the entire chain from education to employment and employment to leadership for achieving gender equality. Along with increasing women's participation in skill development, STEM, AI and the digital economy, safe and flexible employment opportunities must be provided. Expanding crèches, daycare and care services can reduce the burden of household responsibilities on women. Women's entrepreneurship should be supported not only through credit but also through access to markets, technology and training. Increasing women's ownership of assets and financial inclusion, along with ensuring their effective participation in political institutions, is also essential.

Conclusion:

- The key message of the Global Gender Gap Index for India is that although the country has made significant progress in education, the pace of translating this progress into equal opportunities in economic independence, employment, leadership and decision-making remains inadequate. Instead of viewing women merely as beneficiaries, India needs to establish them as equal partners and decision-makers in economic activity, entrepreneurship, science, technology, administration and politics.
- Ultimately, gender equality is not merely a women's issue. It is a question of equal opportunity, social justice, human capital, productivity and inclusive development. If India wants to transform its demographic dividend into real economic strength, fully utilising women's talent and workforce must remain a central component of its development strategy.

Gollala Gudi Temple Declared Monument of National Importance by ASI

Context:

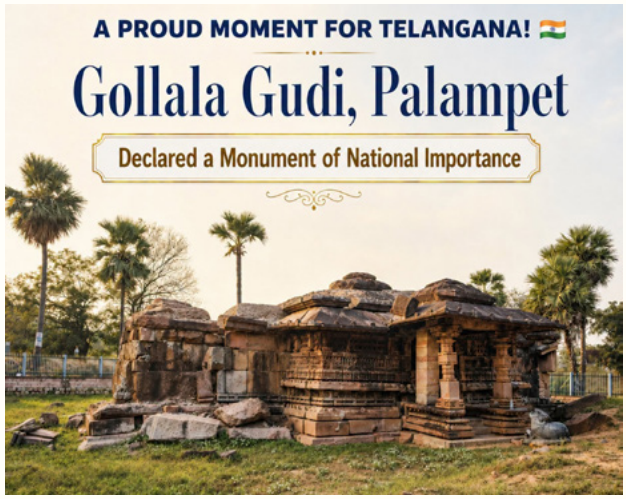
Recently, The Archaeological Survey of India (ASI) has declared Gollala Gudi, a historic Kakatiya-era temple at Palampet village in Mulugu district, Telangana, as a Monument of National Importance (MNI).

About Gollala Gudi:

- Gollala Gudi is an important example of Kakatiya-era temple architecture. It is a Trikutalaya, meaning a temple with three sanctums or garbhagrihas. The temple has an east-facing mandapa and three shrines with associated anti-chambers.
- The temple is situated to the south-west of the Kakatiya Rudreshwara (Ramappa) Temple, a UNESCO World Heritage Site.
- Its major architectural features include:
  - » Intricate hamsa carvings and jali work on the parapet, entablature and doorways.
  - » Sculptures of Vishnu, Lakshmi, Ganesha and Mahishasuramardini in wall niches.
  - » A high plinth decorated with animal figures and floral designs.
  - » Two detached shrines with finely carved dvarapalas.
  - » Elaborately decorated cornices and screens.
- These features demonstrate the artistic and architectural sophistication of the Kakatiya period.

Legal and Constitutional Framework:

- The protection of centrally protected monuments is primarily governed by the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958.
- Under the heritage protection framework:
  - » The ASI is the principal agency responsible for conservation and protection of centrally protected monuments.
  - » A 100-metre Prohibited Area surrounds a protected monument, where new construction is generally prohibited.
  - » The area between 100 and 300 metres is designated as a Regulated Area, where construction and related activities require regulatory approval.
  - » The National Monuments Authority (NMA) regulates activities in these protected zones.
- Constitutionally, heritage conservation is supported by Article 49, which directs the State to protect monuments of national importance, and Article 51A(f), which makes preservation of India's rich cultural heritage a Fundamental Duty.



Significance:

- Declaring Gollala Gudi a Monument of National Importance will provide it with stronger institutional and legal protection.
- This will help to:
  - » Prevent encroachment.
  - » Reduce the neglect of the monument.
  - » Strengthen control over unauthorised construction.
  - » Facilitate better scientific conservation and documentation of the monument.
- Given its proximity to the Ramappa Temple,

this step also provides an opportunity to develop a broader Kakatiya heritage and tourism circuit in Telangana.

Conclusion:

The recognition of Gollala Gudi as a Monument of National Importance strengthens protection of an important but lesser-known example of Kakatiya architectural heritage. It also reinforces the need to preserve India's wider cultural landscapes alongside globally recognised heritage sites.

UNICEF Report: One in Five Children Victim of Online Sexual Exploitation

Context:

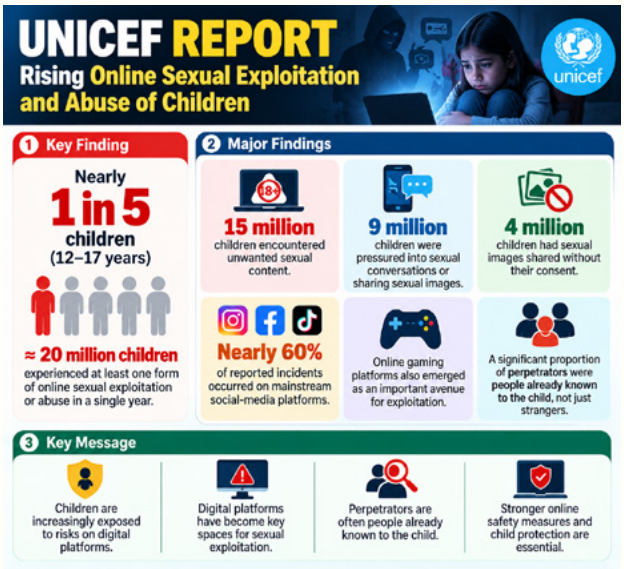
A recent UNICEF report has found that a disturbing rise in technology-facilitated sexual exploitation and abuse of children across 21 countries. According to the report, nearly one in five children aged 12–17, or around 20 million children experienced at least one form of online sexual exploitation or abuse in a single year.

Major Findings of the Report:

- The report reveals that digital platforms have become important spaces where children are exposed to sexual exploitation.
  - » Around 15 million children encountered unwanted sexual content.
  - » Nearly 9 million children were pressured into sexual conversations or sharing sexual images.
  - » About 4 million children had sexual images shared without their consent.
  - » Nearly 60% of reported incidents occurred on mainstream social-media platforms.
  - » Online gaming platforms also emerged as an important avenue for exploitation.
- A significant proportion of perpetrators were people already known to the child, challenging the assumption that online abuse is mainly committed by strangers.

Emerging Threat of Artificial Intelligence:

- The rapid development of Generative AI and deepfake technology has created new risks. AI can be misused to generate fake sexual images or videos involving children, even when no such original photograph exists.
- This creates challenges relating to privacy, consent, cybercrime and child protection, while also making detection and removal of harmful content more difficult.



Under-reporting of Abuse:

- A major concern is the low rate of reporting. Many children do not disclose abuse because of fear, shame, stigma, threats from perpetrators or lack of awareness about available support systems.
- UNICEF's findings underline the need for child-friendly, confidential and easily accessible reporting mechanisms.

Mental Health Implications:

- Online sexual exploitation can have severe psychological consequences. Victims may experience anxiety, trauma, self-harm and suicidal thoughts. Therefore, child protection policies must combine legal action with counselling, rehabilitation and psychosocial support.

Relevance for India:

- India's expanding digital population makes this issue particularly significant. Important legal and institutional mechanisms include:
  - **POCSO Act, 2012:** Protection of children from sexual offences.
  - **Information Technology Act, 2000:** Provisions dealing with sexually explicit and child sexual material.
  - **IT Rules, 2021:** Due-diligence obligations for digital intermediaries.
  - **National Cyber Crime Reporting Portal:** Facilitates reporting of cybercrime.

About UNICEF:

- The United Nations Children's Fund (UNICEF) is a UN agency working to protect the rights and well-being of children and mothers worldwide.
  - **Founded:** 11 December 1946 by the UN General Assembly.
  - **Original name:** United Nations International Children's Emergency Fund, established to assist children affected by World War II.
  - **Permanent status:** Became a permanent UN organisation in 1953 and adopted the name United Nations Children's Fund while retaining the acronym UNICEF.
  - **Headquarters:** New York, USA.
  - **Global presence:** Works in more than 190 countries and territories.
  - **Nobel Peace Prize:** Awarded in 1965 for its contribution to promoting peace and international cooperation.

Way Forward:

India needs a multi-stakeholder approach involving government, technology companies, schools, parents and civil society. Measures should include safety-by-design, stronger platform accountability, AI safeguards, digital literacy, specialised cybercrime investigation and child-friendly reporting systems.

Conclusion:

The UNICEF findings demonstrate that technological progress without adequate safeguards can create new forms of vulnerability. Protecting children in the digital age requires strong laws, responsible technology, effective enforcement and greater awareness, while ensuring that every child can access the digital world safely and securely.

Thirukkural: Ancient Tamil Wisdom & Cultural Diplomacy

Context:

Recently, Prime Minister Narendra Modi gifted Russian President Vladimir Putin a Russian translation of the Thirukkural during their bilateral meeting in New Delhi on September 11, 2026, ahead of the BRICS Summit 2026.

What is Thirukkural?

- Thirukkural is a celebrated work of ancient Tamil literature and philosophy, authored by the poet-philosopher Thiruvalluvar (Valluvar). It contains 1,330 couplets, arranged into 133 chapters, with each chapter containing 10 couplets.
- Each kural consists of seven words and conveys ideas related to ethics, governance, social life and human relationships.



Three Major Sections:

- **Aram – Book of Virtue:** It contains 38 chapters dealing with morality, individual conduct, spirituality, compassion, charity and righteous living.
- **Porul – Book of Polity:** It contains 70 chapters and deals with governance, leadership, economics, social responsibilities, justice and political ethics.
- **Inbam – Book of Love:** It contains 25 chapters and explores love, relationships and emotional life. It is further associated with Kalaviyal and Karpiyal.

Key Themes and Teachings:

- **Universal Humanism:** Thiruvalluvar emphasised morality, kindness, wisdom and compassion rather than distinctions based on caste, religion, race or creed.
- **Ethical Governance:** The Porul section provides insights into good governance, leadership, justice and the responsibilities of rulers, making it relevant to modern public administration.
- **Education and Wisdom:** The text connects education with virtue and wisdom, suggesting that knowledge should contribute to individual character and social welfare.
- **Morality and Social Well-being:** Thiruvalluvar warned against greed, jealousy, anger and harshness, while promoting charity, love and righteous conduct.

Global Recognition:

- Thirukkural was first published in English in 1840 and has subsequently been translated into more than 60 languages. The Russian translation gifted to Putin was translated by Naira Mkrtchyan and published in 2026 by the Central Institute of Classical Tamil.

Significance for India:

- Strengthens cultural diplomacy and soft power.
- Showcases India's civilisational and literary heritage.
- Promotes the global relevance of Tamil culture.
- Reflects India's tradition of pluralism and universal values.
- Provides ethical perspectives relevant to governance and public life.

Conclusion:

Thirukkural transcends linguistic and cultural boundaries through its timeless emphasis on virtue, justice, wisdom, governance and humanism. Its presentation to President Putin demonstrates how India's ancient knowledge traditions can contribute to modern cultural diplomacy and global understanding.

Tulu Language Granted Additional Official Status in Karnataka

Context:

Recently, on 18 September 2026, during the Karnataka Cabinet meeting held in Mangaluru, a decision was taken to grant Tulu the status of an additional official (administrative) language in the Dakshina Kannada and Udupi districts. The decision is significant in the context of the long-standing demand of the Tulu-speaking community in coastal Karnataka.

Tulu Language:

- Tulu is a major Dravidian language of South India. It is primarily spoken in Karnataka's Dakshina Kannada and Udupi districts, as well as in the neighbouring Kasaragod region of Kerala.
- Tulu has a rich folk, literary, and cultural tradition. Therefore, its use at the administrative level is not merely a matter of linguistic convenience but is also closely linked to cultural preservation and local identity.

Constitutional Basis: Article 345

- Article 345 of the Indian Constitution provides states with the constitutional authority to determine their official language

or languages.

- It states that, subject to the provisions of Articles 346 and 347, the Legislature of a State may, by law, adopt any one or more of the languages in use in the State or Hindi as the language or languages to be used for all or any of the official purposes of that State.
- Thus, the Constitution provides states with considerable flexibility to develop an official language framework according to their linguistic and social circumstances.
- At the same time, Article 347 empowers the President, when a substantial proportion of the population of a state demands recognition of a language, to direct that the language be officially recognised throughout the state or in any part of it.

Legal Position in Karnataka:

- Section 2 of the Karnataka Official Language Act, 1963 declares Kannada as the official language of the state. Subsequently, the Kannada Language Comprehensive Development Act, 2022 further strengthened the use of Kannada in government and administrative functions.
- According to some legal experts and law graduates, a Cabinet decision alone may not be sufficient to implement Tulu as an additional administrative language in the specified districts. An appropriate legislative amendment to the relevant language law may be required.
- Thereafter, the amendment would need to be passed by the State Legislature, followed by the Governor's assent and the issuance of the necessary notification. The final legal procedure will become clear through the relevant government notifications and legislative action.

Example of Other States:

- In Andhra Pradesh and Telangana, amendments were made to the respective official language laws to grant Urdu the status of an additional/second official language.
- In Telangana, an amendment in 2017 declared Urdu as the state's second official language alongside Telugu. Similarly, in Andhra Pradesh, the law was amended in 2022 to provide for Urdu as the second official language in all districts.



Significance of the Decision:

- Granting Tulu additional administrative status could improve linguistic accessibility between local citizens and the administration, enhance the effectiveness of public services, and promote cultural preservation.
- However, effective implementation would also require translation mechanisms, trained human resources, standardised administrative terminology, and digital content in Tulu.

Conclusion:

The decision to grant Tulu additional official administrative status is linked to the broader themes of India's linguistic pluralism, federalism, and participatory governance. It demonstrates that the Constitution provides states with sufficient constitutional space to enhance the administrative role of local languages. At the same time, for any Cabinet decision to be effectively implemented, legal harmony between constitutional provisions and existing state laws is essential.

Transparency in Food Labelling: FSSAI's New Proposal on Paneer

Context:

Recently, The Food Safety and Standards Authority of India (FSSAI) has proposed a draft amendment to the Food Safety and Standards (Prohibition and Restrictions on Sales) Regulations, 2011, seeking to restrict products made from non-milk constituents from being represented or marketed as "Paneer." The draft was notified on September 24, 2026, and FSSAI has invited objections and suggestions from stakeholders and the public.

What Does the Draft Amendment Propose?

- The proposed Food Safety and Standards (Prohibition and Restrictions on Sales) Amendment Regulations, 2026 seek to insert a new provision under Regulation 2.1.1 dealing specifically with paneer made from constituents not derived from milk.
- Products currently licensed or registered under the "Analogue in Dairy Context" category would not be permitted to use the term "Paneer" in their nomenclature, labelling or marketing if they are not derived from milk.
- The proposal aims to ensure that the name and presentation of a food product accurately reflect its nature and composition, thereby enabling consumers to make informed choices.

What is Analogue Paneer?

- Analogue paneer is a factory-made substitute designed to resemble conventional dairy paneer in appearance, texture and cooking properties.
- It may use ingredients such as vegetable fats, starches, emulsifiers and stabilisers instead of relying entirely on milk-derived constituents.
- This distinction is important because consumers may otherwise assume that a product labelled "paneer" has the composition and nutritional characteristics of conventional dairy paneer.



Why is Regulation Important?

- The existing FSSAI framework already restricts the sale of certain food products containing substances that are inconsistent with their prescribed standards.
- Regulation 2.1.1 of the 2011 regulations, for instance, restricts the sale of specified milk and milk products containing substances not found in milk, subject to regulatory exceptions.
- The proposed amendment seeks to provide greater clarity specifically regarding the use of the term "paneer" and prevent misleading representation of non-milk products.

Consumer Protection Perspective:

- The proposal is closely linked to the principle of informed consumer choice. Accurate labelling enables consumers to understand what they are purchasing and compare products based on their composition.
- It can also strengthen regulatory oversight of food businesses and reduce ambiguity between genuine dairy products and dairy analogues.

About FSSAI:

- The Food Safety and Standards Authority of India (FSSAI) is a statutory authority established under the Food Safety and Standards Act, 2006. It is responsible for regulating and supervising food safety and standards in India.
- **Key Functions:**
  - » Establishing science-based food standards.

» Regulating food manufacturing, storage, distribution and sale.
» Licensing and registration of food businesses.
» Monitoring food quality and safety.
» Accrediting food-testing laboratories.
» Promoting consumer awareness regarding food safety.

Conclusion:

The proposed amendment seeks to ensure truthful food labelling and informed consumer choice by reserving the term "paneer" for products derived from milk. Effective implementation, scientific testing and consumer awareness will be important for achieving these objectives.

Poompuhar Underwater Excavations and the Chola Maritime Heritage

Context:

Recent Fresh underwater archaeological excavations off Poompuhar (Kaveripoompattinam) in Tamil Nadu have provided new evidence of its extensive maritime connections. Tamil Nadu State Department of Archaeology (TNSDA) in collaboration with the Indian Maritime University recovered a fragment of a West Asian torpedo jar, four terracotta ring wells and over 250 ceramic fragments.

About Poompuhar:

- Poompuhar is located in Mayiladuthurai district, at the mouth of the Cauvery River on the Bay of Bengal. It was an important port associated with the early Cholas and features prominently in Sangam and post-Sangam literature.
- The city was traditionally divided into Maruvurppakkam, Pattinappakkam and Nalangadi, reflecting its maritime, residential and commercial character.

Major Archaeological Findings:

- The discovery of a West Asian torpedo jar fragment is particularly significant. Such vessels were used to transport liquid commodities such as wine and oil through maritime trade routes.
- Its presence indicates Poompuhar's connections with West Asia and the wider Indian Ocean–Mediterranean trading network.
- The four ring wells, found on the seabed, may indicate the existence of a palaeochannel, or an ancient river channel, which was subsequently submerged due to coastal changes. More than 250 ceramic fragments, including glazed ware, further strengthen evidence of commercial activity.



About Chola Empire:

- The Imperial Cholas (9th–13th centuries CE) emerged under Vijayalaya Chola, who captured Thanjavur around 850 CE. Rajaraja I expanded Chola power and constructed the Brihadeeswarar Temple at Thanjavur.

- Rajendra I further expanded the empire through campaigns in Sri Lanka and a celebrated naval expedition towards Srivijaya in Southeast Asia.
- The Cholas developed a powerful maritime capability, facilitating trade and cultural interactions across the Bay of Bengal and Southeast Asia.

Administration and Economy:

- Chola administration is noted for its sophisticated local institutions. The empire was organised into Mandalam, Valanadu, Nadu, villages.
- The Uttiramerur inscriptions provide important evidence of village assemblies and the Kudavolai system of selecting representatives.
- Agriculture was supported by an extensive irrigation network in the Cauvery delta, while land revenue formed a major source of state income.

Art and Architecture:

- The Cholas made outstanding contributions to Dravidian temple architecture, bronze sculpture and religious art. The Brihadeeswarar Temple, along with other Great Living Chola Temples, represents the architectural and cultural achievements of the period.

Significance for India:

- The excavation helps reconstruct:
  - » Ancient Indian Ocean trade networks
  - » Early Tamil maritime history
  - » Chola commercial and naval activities
  - » Ancient urbanisation
  - » Coastal and sea-level changes
  - » India's cultural links with Southeast Asia and West Asia

Conclusion:

The underwater discoveries at Poompuhar demonstrate the importance of marine archaeology in reconstructing India's maritime past. From the early Chola port of Kaveripoompattinam to the later Imperial Cholas' naval expansion, the Tamil region played an important role in India's commercial and cultural engagement with the wider Indian Ocean. Continued scientific exploration and conservation of submerged heritage can deepen our understanding of India's maritime civilisation, trade networks and coastal history.

Five New Sites Added to India's UNESCO Tentative List

Context:

Recently, five new heritage proposals have been added to India's UNESCO Tentative List of World Heritage Sites, taking the country's total to 78 sites. The additions include four sites in Madhya Pradesh and a serial transnational proposal involving India and South Africa.

What is UNESCO?

- UNESCO (United Nations Educational, Scientific and Cultural Organization) is a specialised agency of the United Nations established in 1945 to promote international cooperation in education, science, culture and communication.
- The 1972 World Heritage Convention provides the framework for identifying and conserving cultural and natural heritage of Outstanding Universal Value (OUV).
- A Tentative List is an inventory of properties that a country considers suitable for future nomination to the World Heritage List. Inclusion in the Tentative List is an important preliminary step, but does not itself confer World Heritage status.

About Five New Additions in Tentative List:

- **Bagh Cave Paintings**
  - » The Bagh Caves consist of nine rock-cut Buddhist caves located on the southern slopes of the Vindhyan range along the Baghni River in western Madhya Pradesh.
  - » They are particularly renowned for their Buddhist mural paintings. The caves

are also significant from a geological perspective because they are situated in a sandstone outcrop within a predominantly basaltic region.



- **Group of Temples of the Chambal Valley**
  - » This proposal includes the temple complexes of Bateshwar, Padavali and Kakarmath in Madhya Pradesh.
  - » The group represents the region's medieval temple architecture, religious traditions and sculptural heritage, highlighting the cultural importance of the Chambal Valley.
- **Udaigiri Caves**
  - » Located in Madhya Pradesh, the Udaigiri Caves represent an important Gupta-period sacred landscape developed mainly between the late 4th and early 5th centuries CE.
  - » The site contains 20 excavated caves, sculptural panels, inscriptions, rock markings and associated topographical and hydrological features.
- **Ginnorgarh Fort**
  - » Located in Madhya Pradesh, Ginnorgarh Fort represents the political and military heritage of the Gond rulers.
  - » The hill fort retains fortification walls, gateways, bastions, stepwells, palace structures and reservoirs. Its forested setting and association with Gond cultural traditions make it significant for understanding tribal state formation and indigenous architectural traditions.
- **Sites of Satyagraha**
  - » The Sites of Satyagraha is a proposed serial transnational property involving India and South Africa. It traces the evolution of Satyagraha from its conceptualisation in South Africa to its experimentation, consolidation and institutionalisation in India.
  - » The proposal consists of nine components-two in South Africa and seven in India. These include Pietermaritzburg Station and Phoenix Settlement in South Africa, and sites such as Sabarmati Ashram, Mani Bhavan, Sevagram Ashram, Aga Khan Palace and Gandhi Smriti in India.

Significance for India:

- The additions demonstrate the diversity of India's cultural heritage, covering Buddhist art, Gupta-era architecture, medieval temple traditions, tribal heritage and the history of non-violent resistance.
- They can also encourage heritage conservation, cultural tourism, local employment and community participation. Greater international recognition can strengthen efforts to preserve historically and culturally significant sites.

Conclusion:

The expansion of the Tentative List strengthens India's heritage conservation efforts. The next priority should be scientific conservation, proper documentation, community participation and sustainable tourism so that these sites can progress towards World Heritage recognition while remaining protected for future generations.



2 Polity & Governance

Electoral Reforms in India: Independence and Institutional Autonomy of the Election Commission

Context:

The role of the Election Commission of India (ECI) is extremely important in ensuring the integrity, fairness and credibility of Indian democracy. In recent months, reports of differences between the Chief Election Commissioner (CEC) and other Election Commissioners have emerged over issues related to SIR, Form 6, ECINet and internal decision-making processes. This development is linked to broader constitutional questions concerning free and fair elections in India, the accuracy of electoral rolls, institutional transparency and the autonomy of the Election Commission.

Constitutional Framework:

- Part XV of the Constitution (Articles 324–329) provides for the constitutional framework relating to elections. Under Article 324, the Election Commission has been entrusted with the "superintendence, direction and control" of the preparation of electoral rolls and the conduct of elections to Parliament, State Legislatures, and the offices of the President and Vice-President.

Meaning of 'Superintendence, Direction and Control':

- The Supreme Court, in Mohinder Singh Gill v. Chief Election Commissioner (1978), clarified the broad nature of the powers of the Election Commission under Article 324. The Commission may have the constitutional power to take necessary steps in circumstances where there is no law; however, these powers are not unlimited. Where Parliament or a State Legislature has enacted a valid law, the Commission is required to follow it.
- Thus, Article 324 gives the Commission plenary/residual powers to maintain electoral integrity, but these powers are not above the law.

Composition of the Commission:

- According to Article 324(2), the Election Commission shall consist of a Chief Election Commissioner and such number of other Election Commissioners as the President may from time to time determine. Thus, the Constitution does not prescribe a fixed number of Election Commissioners.
- From 1950 to 1989, the Election Commission of India was essentially a single-member body, headed by the Chief Election Commissioner.
  - » **1989:** For the first time, two other Election Commissioners were appointed.
  - » **1990:** The Commission again became a single-member body.
  - » **1993:** The Election Commission was permanently made a three-member body.
- The CEC is the ex-officio Chairperson of the Commission, but does not have veto power. The votes of the CEC and other Election Commissioners have equal institutional significance in decision-making. The basic

objective of the multi-member arrangement was to prevent excessive concentration of power in a single individual and maintain checks and balances.

Recent Internal Differences:

According to recent reports, differences between the CEC and other Election Commissioners have mainly emerged over procedures related to SIR, Form 6 and ECINet.

- **SIR:** The objective of the Special Intensive Revision is to remove dead, duplicate and ineligible entries from electoral rolls while retaining eligible voters. However, concerns have been raised regarding the possibility of exclusion of eligible voters due to documentary verification requirements.
- **Physical Hearings:** During SIR, several voters were required to receive notices and undergo document verification. Under the reforms, emphasis has been placed on BLOs collecting documents at voters' homes and on personal hearings only in exceptional cases. The key challenge is to balance the accuracy of electoral rolls with voter convenience.
- **Form 6:** Questions have been raised regarding the additional Declaration introduced in Form 6 related to the registration of new voters. Therefore, the change needs to be examined from the perspective of legal validity, administrative procedure and voter convenience.
- **ECINet:** Concerns have emerged regarding the role of field officials following its centralisation. According to the ECI, role-based access and expert review are being used to ensure accountability. The issue is about balancing digital efficiency, legal accountability and data transparency.

Judicial Intervention: Anoop Baranwal Case, 2023

- The most significant judicial intervention concerning the independence of the Election Commission came in Anoop Baranwal v. Union of India (2023).
- The main question before the Court was why, despite Article 324(2) of the Constitution, Parliament had not established a comprehensive statutory mechanism for the appointment of Election Commissioners for a long period.
- On 2 March 2023, a five-judge Constitution Bench held that free and fair elections are part of the basic structure of the Constitution and that the Election Commission should be free from exclusive executive control in matters relating to appointments.
- Until Parliament enacted a law, the Court prescribed an interim arrangement for appointments:
  - » Prime Minister
  - » Leader of the Opposition in the Lok Sabha
  - » Chief Justice of India
- This arrangement was interim, meaning that it was to remain in force until Parliament enacted a law.
- Parliament enacted the Chief Election Commissioner and Other Election Commissioners Act, 2023, replacing the Chief Justice of India with a Union Cabinet Minister in the Selection Committee.
- Thus, the Committee has two members from the executive. This arrangement is now again at the centre of judicial scrutiny.

Current Developments in 2026:

- On 23 September 2026, differences emerged between two judges of a Supreme Court Bench over whether the petitions challenging the 2023 law should be referred to a Constitution Bench. The two judges expressed separate views, and ultimately the matter was referred to the Chief Justice of India for consideration regarding the constitution of an appropriate Constitution Bench. Importantly, the Supreme Court did not declare the 2023 law unconstitutional on 23 September 2026. The final decision on the constitutional validity of the law is still pending.

Electoral Reform Committees and Their Major Recommendations:

- **Dinesh Goswami Committee, 1990:** The

Committee recommended several measures to make the Election Commission more independent and effective, including a multi-member Election Commission, wider consultation in the appointment of the CEC, a role for the CEC in the appointment of other ECs, expansion of EPIC, phased use of EVMs, and stronger measures against booth capturing. However, it would not be appropriate to equate these recommendations with the interim PM–LoP–CJI committee prescribed in the Anoop Baranwal case, as the institutional designs of the two were different.

- **Tarkunde Committee:** The Committee emphasised making the appointment process of the Election Commission more independent, transparent and consultative. Its main objective was to reduce excessive executive influence in appointments.
- **Law Commission's 255th Report, 2015:** The Law Commission recommended wider consultation in the appointment of the CEC and other Election Commissioners, greater institutional protection for all Election Commissioners, consideration of extending the same removal protection available to the CEC to other Election Commissioners, and a more independent administrative structure for the Election Commission. The broader objective of all these recommendations is to strengthen the independence, impartiality and institutional autonomy of the Election Commission.

Way Forward:

- Strengthening the institutional independence and credibility of the Election Commission requires reforms in the appointment process, constitutional safeguards, administrative autonomy and digital systems. First, considering the 2:1 executive influence in the 2023 Selection Committee, a balanced arrangement should be considered in which the roles of the government, opposition and independent institutions are better balanced. However, the potential institutional concerns associated with involving the judiciary in the appointment process must also be considered.
- The difference in removal protection between the CEC and other Election Commissioners should be reduced so that Commissioners can independently express dissent and take decisions. At the same time, an independent Election Commission Secretariat can strengthen administrative, financial and operational autonomy.
- Independent technical and cybersecurity audits of digital systems such as ECINet, along with data protection, algorithmic accountability and audit trails, should be ensured. Technical efficiency should not become a substitute for legal accountability.
- Finally, under SIR, a balance between the accuracy of electoral rolls and voter inclusion is essential. Along with removing ineligible names, it must be ensured that no eligible citizen is deprived of the right to vote because of procedural difficulties. This represents the fundamental spirit of democratic elections.

Conclusion:

Elections in India are not merely a process of voting; they are the foundation of democratic legitimacy. Therefore, both the accuracy of electoral rolls and the rights of voters must be given equal importance. Processes such as SIR can play an important role in enhancing the credibility of electoral rolls, but they must be conducted in accordance with the principles of legal clarity, due process, transparency and citizen convenience. Similarly, digital systems such as ECINet can make election management more effective, but they must be accompanied by independent technical audits, data security and accountability. Ultimately, the institutional independence of the Election Commission will be strengthened not merely by its constitutional powers, but through a fair appointment process, secure tenure, equal constitutional protection, internal collegiality, administrative autonomy, technological transparency and protection of voter rights.

Pregnancy, Maternity Leave Cannot Be Grounds for Demotion

Context:

Recently, The Delhi High Court has ruled that pregnancy and maternity leave cannot be grounds for demotion, loss of professional status or denial of career progression. The Court directed software company HashiCorp to pay Rs.10 lakh compensation to Rakhi Bisht, who was allegedly assigned a significantly lower-level role after returning from maternity leave.

Key Observations of the Court:

- The Court held that pregnancy and maternity cannot be treated as grounds for:
  - Demotion or loss of status
  - Reduction in professional responsibilities
  - Denial of career advancement
  - Other forms of professional disadvantage
- The Court emphasised that maternity cannot become a source of humiliation at the workplace.
- Constitutional Provisions Involved:
  - **Article 14:** Guarantees equality before law and equal protection of laws, supporting equal treatment of women at the workplace.
  - **Article 15:** Prohibits discrimination on grounds including sex, reinforcing protection against pregnancy-related discrimination.
  - **Article 21:** Protects the right to life and dignity, which includes dignity and fair treatment at the workplace.
  - **Article 42:** Directs the State to ensure just and humane conditions of work and maternity relief.
- Together, these provisions establish a constitutional basis for protecting women from demotion, discrimination and loss of career opportunities due to pregnancy or maternity.

Legal Framework:

- **Maternity Benefit Act, 1961:** The Maternity Benefit Act, 1961 provides various protections to women employees relating to maternity. However, the Delhi High Court noted that the Act does not expressly provide a comprehensive framework for the reintegration of women into the workplace after maternity leave.
- **Code on Social Security, 2020:** The Court also noted that the Code on Social Security, 2020 does not expressly prescribe a comprehensive post-maternity reintegration framework. According to the Court, the absence of a detailed framework should not be interpreted in a way that allows employers to circumvent the substantive protections available to women.

Post-Maternity Reintegration:

- A woman returning from maternity leave should ordinarily be restored to the position she held before maternity leave.
- If that position genuinely becomes unavailable for organisational reasons, she should receive an equivalent position in terms of:
  - Pay and grade
  - Status and responsibilities
  - Managerial authority
  - Career advancement opportunities
- Employers should also explain the reasons for the change and provide details of the alternative role.

Significance for India:

- The judgment strengthens women's workplace rights and promotes gender equality.
- It shifts the focus from merely providing maternity leave to ensuring meaningful career protection after maternity.
- It is particularly important for the private sector, where clear post-maternity reintegration policies remain necessary.

Challenges:

- Key challenges include the absence of a

comprehensive reintegration framework, indirect workplace discrimination, inadequate childcare facilities, fear of retaliation and difficulty in distinguishing genuine organisational restructuring from discriminatory practices.

Conclusion:

The judgment reinforces the constitutional values of equality, dignity and social justice. Protecting women from career disadvantages arising from pregnancy or maternity is essential for gender equality, higher female workforce participation and inclusive economic development.

Drug-Free India 2029

Context:

Union Home Minister Amit Shah recently announced that the Union Government has prepared a three-year roadmap to make India drug-free by 2029. The initiative aims to dismantle narcotics networks, disrupt their financial sources, control synthetic drugs and strengthen prevention, treatment and rehabilitation.

Background:

- Drug abuse is not merely a public-health concern but also an issue of internal security, organised crime and social stability.
- India's location between the Golden Crescent and Golden Triangle, major narcotics-producing regions, makes it vulnerable to international drug-trafficking networks. The country's large youth population further increases the importance of tackling substance abuse.

Legal and Institutional Framework:

- The principal legislation governing narcotic drugs in India is the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985. It regulates and prohibits the production, possession, sale, transportation and trafficking of specified narcotic drugs and psychotropic substances, while prescribing stringent penalties for serious offences.
- The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988 enables preventive detention of persons involved in illicit narcotics trafficking.
- At the institutional level, the Narcotics Control Bureau (NCB) coordinates enforcement efforts, while State police, Customs, BSF and other agencies contribute to supply reduction.

Four-Pillar Approach:

- **Intelligence and Operation-Based Enforcement:** The focus is shifting from arresting small-time offenders to dismantling entire national and international drug networks through intelligence-led operations and coordinated enforcement.
- **Control of Synthetic Drugs:** Synthetic drugs and clandestine laboratories pose an emerging challenge. The government aims to improve surveillance, destroy illegal laboratories and strengthen monitoring of drug-production networks and precursor chemicals.
- **Demand and Harm Reduction:** The strategy combines enforcement with awareness, counselling, treatment and rehabilitation. The MANAS helpline (1933) has also been introduced to provide assistance to persons affected by drug addiction.
- **Capacity Building and Coordination:** The NCORD mechanism, established in 2019, promotes coordination among agencies at national, state and district levels. Anti-Narcotics Task Forces have also been established across States and Union Territories, while the NCB has been strengthened.

Key Targets:

- By March 2029, the government aims to:
  - » Dismantle 100 national and international drug networks.
  - » Bring back 100 fugitives involved in narcotics-related activities.

» Achieve end-to-end visibility of the narcotics supply chain by March 2027.
» Destroy at least 75 clandestine laboratories in 2026.

Challenges:

- Despite these measures, India faces challenges such as porous borders, synthetic drugs, digital trafficking, organised crime, inadequate rehabilitation infrastructure and social stigma surrounding addiction.

Conclusion:

The Drug-Free India 2029 roadmap represents a shift from fragmented enforcement to an integrated strategy targeting supply, demand, financing and rehabilitation. Combating narcotics effectively will be crucial for protecting India's youth, strengthening internal security and realising the vision of Viksit Bharat @2047.

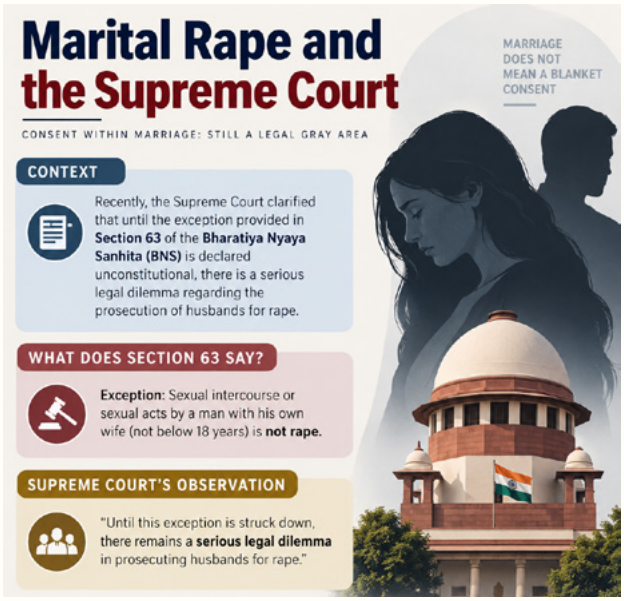
Supreme Court on Marital Rape

Context:

Recently, the Supreme Court clarified that until the exception provided in Section 63 of the Bharatiya Nyaya Sanhita (BNS) is declared unconstitutional, there is a serious legal dilemma regarding the prosecution of husbands for rape. The Court has scheduled the final hearing on this sensitive issue for three weeks later.

What is Marital Rape?

- Marital rape refers to non-consensual sexual intercourse by a husband with his wife. The central legal controversy is whether marriage can constitute an exception to the requirement of consent in sexual relations.
- The issue involves a conflict between individual bodily autonomy and dignity on one hand and the existing statutory framework protecting the marital relationship on the other.



Legal Position in India:

- Under the erstwhile Section 375 of the Indian Penal Code (IPC), Exception 2 provided that sexual intercourse or sexual acts by a man with his own wife, where the wife was not below 15 years of age, did not constitute rape.
- The Bharatiya Nyaya Sanhita (BNS), which replaced the IPC, has retained the marital rape exception under Section 63, while raising the relevant age threshold from 15 to 18 years.
- Thus, under the present law, non-consensual sexual intercourse by an adult husband with his adult wife is generally not classified as the offence of rape.

Arguments in the Case:

- **Arguments favouring criminalisation:**
  » Senior advocate Indira Jaising argued that existing law could be interpreted sufficiently broadly to justify prosecution where sexual violence occurs within marriage. She stressed that marriage should not deprive women of bodily autonomy and consent.
- **Government's position:**
  » Solicitor General Tushar Mehta argued that the marital rape exception should

continue until the Supreme Court determines its constitutional validity.

» The Centre had earlier argued that criminalising marital rape could affect the institution of marriage and lead to serious disturbances in conjugal relationships.

Judicial Background:

- The Karnataka High Court in 2022 allowed a husband to face rape charges for allegedly forcing sexual intercourse upon his wife, observing that marriage cannot provide an absolute licence to commit sexual violence.
- The Delhi High Court had earlier delivered a split verdict on the constitutional validity of the marital rape exception.
- The Supreme Court has decided to first hear the Karnataka case, followed by petitions directly challenging the constitutionality of the exception.

Conclusion:

The marital rape debate represents a difficult intersection of women's rights, individual autonomy, criminal law and constitutional governance. The Supreme Court's latest observations highlight that recognising an act as harmful is different from creating or expanding a criminal offence. The final resolution will require a careful balance between constitutional rights, legislative competence, individual dignity and protection of the institution of marriage.

Digital India Land Records Modernisation Programme-DILRMP 3.0

Context:

Recently, The Union Minister for Rural Development, Shri Shivraj Singh Chouhan, launched the Operational Guidelines for the Digital India Land Records Modernisation Programme (DILRMP) 3.0 (2026–2031) at Krishi Bhawan. The programme has an estimated financial outlay of Rs.565.50 crore and aims to create a unified, GIS-enabled "Land Stack" as a Digital Public Infrastructure (DPI) for land administration.

What is DILRMP?

- DILRMP is a Central Sector Scheme implemented by the Department of Land Resources (DoLR), Ministry of Rural Development. It evolved from the National Land Records Modernization Programme (NLRMP), launched in 2008.
- Its objective is to modernise land records, integrate textual and spatial information, reduce land disputes and make property-related services transparent and citizen-friendly.

What is New in DILRMP 3.0?

The key shift is from mere digitisation to integrated land governance.

- **GIS-enabled Land Stack:** It will integrate land records, cadastral maps, property registration and court-related information through GIS and APIs. State-level Land Stacks will contribute to a federated National Land Stack, while data ownership remains with the concerned authorities.
- **Universal Bhu-Aadhaar (ULPIN):** A 14-digit Unique Land Parcel Identification Number will provide an unambiguous identity to each land parcel, helping prevent fraud and improving land transactions.
- **Paperless Property Registration:** End-to-end digital registration and a Registration Repository will enable easier ownership verification and property due diligence. 75 Sub-Registrar Offices will be upgraded into citizen-friendly Registration Seva Kendras.
- **Paperless Revenue Courts:** Integration of the Revenue Court Case Management System (RCCMS) with land records can reduce delays in mutation and land-dispute resolution.
- **Urban Land Mapping:** The NAKSHA pilot will promote GIS-based urban land records and improve mapping and property documentation.

Significance for India:

- DILRMP 3.0 can improve Ease of Living and Ease of Doing Business by reducing repeated visits to government offices. Reliable land records can also help farmers and property owners access institutional credit, as accurate land information enables better verification and valuation of property.
- It can reduce land-related litigation, fraud, benami transactions and inheritance disputes, while improving transparency in revenue administration.

Link with Rural Development:

- Land is a crucial productive asset for rural households. Digitised and reliable land records can support farmers' access to credit, government schemes, compensation and agricultural services.
- DILRMP also complements initiatives such as SVAMITVA, which uses drone-based mapping to provide rural property cards. Together, these initiatives can strengthen formal property rights and rural economic empowerment.

Challenges:

Major challenges include:

- Inaccuracies and outdated legacy records
- Differences between textual and cadastral records
- Inter-state variations in land laws
- Data privacy and cybersecurity
- Lack of technical capacity at the local level
- Ensuring accuracy of georeferenced maps
- Digital divide among rural citizens

Conclusion:

DILRMP 3.0 marks a shift from digitising land records to building integrated digital land governance. By combining GIS, ULPIN, digital registration and court integration, India can create more transparent, secure and citizen-centric land administration, strengthening rural livelihoods and supporting the vision of Viksit Bharat.

Consumer Protection E-Commerce Rules 2026

Context:

Recently, The Government has brought the Consumer Protection (E-Commerce) Rules, 2026, under the Consumer Protection Act, 2019. The Consumer Protection (E-Commerce) (Amendment) Rules, 2026 will come into force from January 1, 2027.

Key provisions:

- **Transparent Discount Pricing:** Platforms must display both the reduced price and prior price. The prior price will be the lowest price charged during the preceding 30 days, helping prevent misleading discount claims.
- **Fair Search Results:** E-commerce platforms cannot manipulate search results in a manner that misleads consumers or reduces the relevance of results to their queries.
- **Disclosure of Sponsored Listings:** Paid or sponsored search results must carry clear and prominent disclosures, enabling consumers to distinguish advertisements from organic results.
- **Regulation of Dark Patterns:** Platforms must comply with the 2023 Guidelines on Prevention and Regulation of Dark Patterns. They will also undertake an annual self-audit and prominently display a compliance certificate.
- **Strengthening Consumer Grievance Redressal:** Consumers must receive a copy of their complaint as recorded by the platform's grievance officer, improving transparency in complaint handling.
- **Integration with National Consumer Helpline:** Every e-commerce entity must become a partner in the convergence process of the National Consumer Helpline (NCH). In 2025, NCH received 17,71,622 grievances, with about 29% related to e-commerce.
- **Better Product & Seller Information:** Platforms must disclose important details such as best-before/use-before dates,

return and refund policies, warranty, delivery and payment information.

- **Imported Goods & Consumer Data:** For imported products, platforms must disclose the country of origin and importer details. Consumer information cannot be used for specified purposes without express and affirmative consent.
- **Restrictions on Bundled Fees:** Platforms cannot impose bundled charges for services unrelated to an e-commerce transaction, except where permitted for loyalty or membership programmes.



Background:

- The Consumer Protection Act, 2019 replaced the Consumer Protection Act, 1986 and strengthened consumer rights through mechanisms such as the Central Consumer Protection Authority (CCPA) and provisions dealing with misleading advertisements and unfair trade practices.

Significance:

- Promotes consumer transparency and informed choice.
- Prevents misleading discounts and deceptive practices.
- Strengthens data privacy and consent-based data use.
- Improves grievance redressal.
- Enhances accountability of large digital marketplaces.
- Supports a more fair and competitive digital economy.

Conclusion:

The 2026 amendments mark a significant step towards creating a transparent, accountable and consumer-friendly digital marketplace. Effective enforcement, technological monitoring and consumer awareness will be crucial for ensuring that digital convenience does not come at the cost of consumer rights.

Kishau Multipurpose Project: Yamuna Basin Water Security

Context:

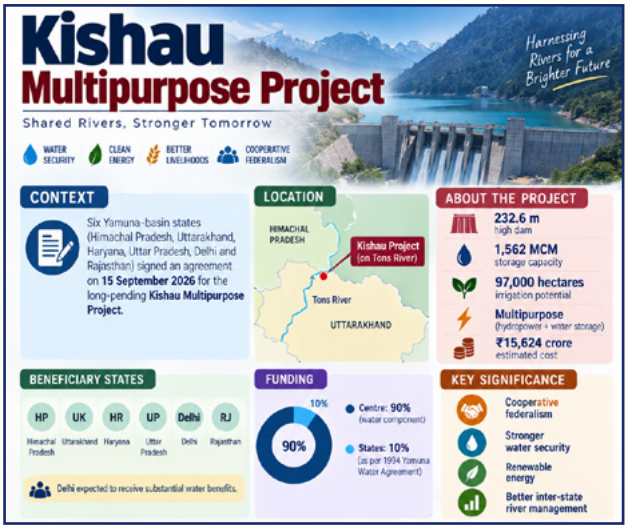
Recently, six Yamuna-basin states, Himachal Pradesh, Uttarakhand, Haryana, Uttar Pradesh, Delhi and Rajasthan signed an agreement for the long-pending Kishau Multipurpose Project. The agreement was signed on 15 September 2026, bringing the project closer to implementation after an eight-year deadlock.

About the Project:

- The Kishau project is proposed on the Tons River, a major tributary of the Yamuna, along the Himachal Pradesh–Uttarakhand border.
- Key features include:
  - **Dam:** About 232.6-metre-high concrete gravity dam
  - **Storage capacity:** 1,562 million cubic metres (MCM)
  - **Irrigation potential:** Around 97,000 hectares
  - **Estimated cost:** Rs.15,624 crore
  - **Hydropower:** The project is designed as a multipurpose water-storage and hydropower project.
  - **Beneficiaries:** Six Yamuna-basin states, with Delhi expected to receive

substantial water benefits.

» **Location:** Border of Sirmaur district (Himachal Pradesh) and Dehradun district (Uttarakhand).



Funding and Power Sharing:

- The Centre will bear around 90% of the water-component cost, while the remaining 10% will be shared by the participating states according to the 1994 Yamuna Water Agreement.
- A major issue concerned Himachal Pradesh's financial liability. The state argued that it should not bear the entire cost of the power component because it would also bear environmental and social costs associated with the project.
- The arrangement reportedly provides for beneficiary states to bear the relevant power-component burden.

Environmental Significance:

- The project has implications beyond irrigation and power generation.
- The Yamuna has faced severe challenges relating to pollution and inadequate environmental flows, particularly downstream.
- Regulation of water flows through storage can potentially improve lean-season flows, although ecological benefits will depend on actual reservoir-operation practices.
- The project therefore highlights the need to balance water utilisation with ecological flow requirements.

Significance for India:

- **Cooperative Federalism:** The agreement demonstrates the importance of Centre-State and inter-State cooperation in managing shared river basins.
- **Water Security:** It can strengthen water availability for drinking, irrigation and other uses across the Yamuna basin.
- **Renewable Energy:** Hydropower can contribute to India's renewable-energy and grid-balancing requirements.
- **Inter-State River Management:** The project illustrates the complexities of managing rivers whose basins cross multiple political boundaries.

Key Challenges:

- Displacement and rehabilitation of affected communities
- Environmental impacts in Himalayan ecosystems
- Financing and equitable distribution of costs and benefits
- Inter-State disagreements over water and power
- Ensuring adequate environmental flows in the Yamuna
- Geological and disaster risks associated with large Himalayan infrastructure

Constitutional provisions:

- Water is primarily a State List subject under the Constitution, while Parliament can legislate on inter-State river disputes under Article 262. The Inter-State River Water Disputes Act, 1956 provides a mechanism for adjudicating such disputes.
- The Kishau agreement represents a negotiated/cooperative approach, rather than relying solely on judicial adjudication.

Conclusion:

The Kishau Multipurpose Project reflects the

complex intersection of water security, federalism, hydropower, agriculture and environmental sustainability. Its implementation can provide significant benefits to the Yamuna basin, but long-term success will depend on balancing developmental objectives with ecological and social concerns.

EC Freezes Trinamool Congress Name and Symbol

Context:

Recently, the Election Commission of India (ECI) imposed an interim freeze on the use of the party name "All India Trinamool Congress" (AITC/TMC) and its reserved election symbol "Flowers and Grass" (two flowers and grass) due to an ongoing organizational dispute between two rival factions within the party.

The Supreme Court has directed the Election Commission to take a final decision within the next few months regarding the rightful claimant to the original party identity. This decision has been taken in view of the assembly by-elections in West Bengal's Nandigram and Rejinagar on October 6.

Legal Basis of party Name and Symbol:

- The dispute is governed by Paragraph 15 of the Election Symbols (Reservation and Allotment) Order, 1968. It empowers the ECI to determine disputes where rival groups of a recognised political party claim the party's name, organisational identity and reserved election symbol.
- The present freeze is interim, not a final determination of which faction is entitled to the original party identity.

Why was the Name and Symbol Frozen?

- The Commission found competing claims from two rival groups within the party. Since a final determination could not be completed before the bypolls, the ECI ordered both sides to choose alternative names and symbols.
- Each faction was asked to submit three preferred names and three free-symbol choices by 18 September 2026. The Commission will make separate allotments from the permissible alternatives.

How Does the ECI Decide Party-Split Disputes?

- For a final determination under Paragraph 15, the Commission examines relevant organisational and legislative support, including:
  - » **Organisational majority:** Support among office-bearers and organisational committees.
  - » **Legislative majority:** Support among elected MPs and MLAs.
- The Commission considers documentary evidence submitted by the rival groups before arriving at its determination.

Constitutional Framework of ECI:

- The ECI is an independent constitutional body established under Article 324 of the Constitution.
- Part XV (Articles 324–329) deals with elections and electoral machinery.

Major Functions:

- Conducts elections to Lok Sabha, Rajya Sabha and State Legislatures.
- Conducts elections for the offices of the President and Vice-President.
- Prepares electoral rolls and supervises the electoral process.
- Allots election symbols to recognised political parties.
- Performs certain quasi-judicial functions, including deciding party-symbol disputes.
- The ECI does not conduct elections to Panchayats and Municipalities; these are conducted by State Election Commissions.

Significance:

- The dispute highlights the ECI's role in ensuring a level electoral playing field during an unresolved party dispute.
- It also raises broader questions concerning

the balance between the Commission's wide powers under Article 324, procedural fairness, internal party democracy and the need for timely resolution of symbol disputes.

Conclusion:

The TMC symbol dispute demonstrates the importance of the ECI's constitutional and quasi-judicial role in preserving clarity and fairness in the electoral process. The interim freeze allows the upcoming bypolls to proceed while leaving the substantive question of party identity for a subsequent final determination.

New CBFC Film Certification Guidelines 2026

Context:

Recently, The Ministry of Information and Broadcasting (I&B) notified revised Guidelines for Certification of Films for Public Exhibition. The revised guidelines largely retain the detailed framework of the 1991 Film Certification Guidelines, while introducing two important additions relating to narcotic drugs and age-based UA certification markers.

What is Film Certification?

- Film certification is the statutory process through which films are examined before their public exhibition in India.
- The Central Board of Film Certification (CBFC) is a statutory body under the Ministry of Information and Broadcasting and functions under the Cinematograph Act, 1952. A film intended for public exhibition requires CBFC certification.

Legal Framework:

- The certification framework is primarily based on:
  - » Cinematograph Act, 1952
  - » Cinematograph (Certification) Rules, 2024
  - » Guidelines issued by the Central Government under Section 5B of the Cinematograph Act.
- Relevant laws dealing with issues such as national symbols, protection of children, obscenity, tobacco and animal cruelty.

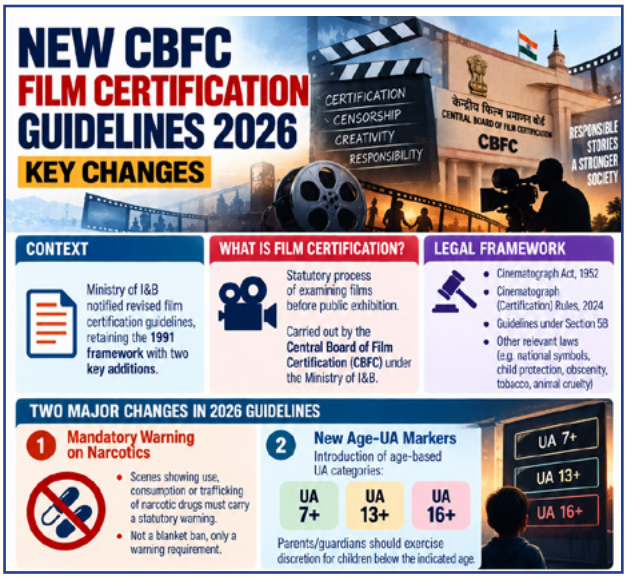
Two Major Changes in the 2026 Guidelines:

- **Mandatory Warning on Narcotics:**
  - » Scenes depicting or involving the use, consumption or trafficking of narcotic drugs or psychotropic substances are required to carry a disclaimer/statutory warning:
  - » The guideline does not amount to a blanket prohibition on depicting narcotics; rather, it introduces a specific warning requirement for relevant scenes.
- **New-Age UA Markers:** The revised guidelines incorporate the age-based UA categories introduced under the Cinematograph (Certification) Rules, 2024:
  - » UA 7+
  - » UA 13+
  - » UA 16+
- These markers indicate that the film may be publicly exhibited but parents or guardians should exercise discretion regarding children below the indicated age.

Key Principles of Film Certification:

The revised guidelines retain several principles of the 1991 framework.

- **No glorification of violence/crime:** Anti-social activities, violence, criminal methods and drinking should not be glorified or encouraged.
- **Child protection:** Avoid unnecessary depiction of children facing or witnessing violence and child abuse.
- **Human dignity:** Prevent obscenity, degrading portrayal of women, ridicule of persons with disabilities, animal cruelty and contemptuous portrayal of communities.
- **Sexual violence:** Avoid such scenes; where essential, keep them minimal and non-graphic.



About Section 5B of the Cinematograph Act, 1952:

- Section 5B provides that a film shall not be certified where, among other things, it is considered contrary to:
  - » Sovereignty and integrity of India
  - » Security of the State
  - » Friendly relations with foreign States
  - » Public order
  - » Decency or morality
- It also covers defamation, contempt of court and likelihood of inciting an offence.
- Thus, Section 5B provides the principal statutory foundation for the certification guidelines.

Certification Categories:

Under the current age-based framework introduced through the 2024 Rules, the major categories include:

Category	Meaning
U	Unrestricted public exhibition
UA 7+	Unrestricted exhibition with caution for children below 7
UA 13+	Unrestricted exhibition with caution for children below 13
UA 16+	Unrestricted exhibition with caution for children below 16
A	Restricted to adults

- The earlier broad UA category was subdivided into UA 7+, UA 13+ and UA 16+. The age markers are intended to guide parents/guardians rather than create an absolute prohibition on younger children viewing UA-certified films.

Significance:

The revised framework:

- Retains the core 1991 certification principles.
- Provides clearer age-based guidance for parents.
- Adds a specific anti-narcotics warning.
- Seeks to balance artistic freedom with public order, decency and child protection.
- Continues the shift towards digital certification through e-Cinepramaan.

Conclusion:

The 2026 guidelines largely preserve the existing certification framework while updating it through narcotics warnings and age-based UA classifications. The central regulatory challenge remains balancing freedom of expression with child protection, public order and other constitutionally recognised interests.

Supreme Court on Vande Mataram

Context:

On 22 September 2026, the Supreme Court examined a petition challenging the Prevention of Insults to National Honour (Amendment) Act, 2026, along with government directions concerning the rendition of Vande Mataram.

Key observations by Court:

- The Court observed that while a democratically elected government may determine the scope and length of the National Song, it cannot violate religious freedom or impose penal consequences on genuine conscientious objectors who

decline to sing one or more stanzas.
- A three-judge Bench headed by Chief Justice of India Surya Kant sought the Union government's response on this matter.
- The Court referred to the landmark Bijoe Emmanuel v. State of Kerala judgment. Three schoolchildren belonging to the Jehovah's Witnesses faith did not sing the National Anthem due to their religious beliefs but stood respectfully while it was played.
- The Supreme Court protected their rights, recognising freedom of conscience and religious belief. The present case examines the relevance of this principle to Vande Mataram.

Background:

- The petition was filed by Carnatic vocalist and author T. M. Krishna, challenging the 2026 amendment and administrative directions issued by the Ministry of Home Affairs.
- The petitioner argued that the amended law and executive directions effectively require the playing and mass singing of all six stanzas of Vande Mataram at public functions. Non-compliance, according to the petition, could attract imprisonment of up to three years, fine, or both.

Constitutional Issues:

- **Article 19(1)(a):** Freedom of Expression: Freedom of speech and expression can include the freedom not to express a particular sentiment. Compulsory singing therefore raises questions concerning individual autonomy and compelled expression.
- **Articles 25 and 26:** Religious Freedom: Article 25 guarantees freedom of conscience and freedom of religion, while Article 26 protects certain rights of religious denominations. The Court indicated that national protocols cannot override these constitutional protections.
- **Secularism:** The petitioner argued that compulsory rendition of devotional portions of the song could affect the constitutional principle of secularism. The Court, however, noted that religious references in a national symbol do not automatically determine whether a constitutional system is secular.

National Song vs National Anthem:

- Vande Mataram, composed by Bankim Chandra Chattopadhyay, is India's National Song, while Jana Gana Mana is the National Anthem.
- Article 51A(a) expressly requires citizens to respect the Constitution, National Flag and National Anthem; it does not specifically mention the National Song.

Key Issue:

- The central distinction is between:
  - » Deliberately insulting or disrupting a national symbol; and
  - » Peacefully refusing to participate due to genuine conscientious or religious objections.
  - » The Court indicated that the latter cannot automatically attract criminal prosecution.

Significance:

- Protects freedom of conscience.
- Highlights limits on criminalisation.
- Reinforces constitutional secularism.
- Tests executive action against Fundamental Rights.
- Clarifies the relationship between national identity and individual liberty.

Conclusion:

The case highlights that national honour and constitutional liberty are not necessarily contradictory. Respect for national symbols must operate within the framework of Fundamental Rights, particularly freedom of conscience and religious freedom.

Supreme Court Order Reserved Verdict on OBC Creamy Layer

Context:

Recently, The Supreme Court has reserved its order on the Centre's request for a two-year window to implement its March 2026 judgment concerning the determination of the OBC creamy layer. The Centre has sought time to operationalise the judgment without disrupting existing and ongoing recruitment, appointments, cadre allocation and seniority.

Background:

- The issue relates to the determination of the creamy layer among Other Backward Classes (OBCs). The Supreme Court, in Union of India v. Rohith Nathan, examined whether the salary or income of parents working in PSUs and the private sector could by itself determine whether their children should be excluded from OBC reservation benefits.
- The Court held that parental salary income alone cannot be the sole determining factor. The status and category of the parent's post, along with the applicable income/wealth criteria, must be considered under the existing framework.

1993 Office Memorandum and 2004 Clarification:

- Under the 1993 Office Memorandum (OM), salary income and agricultural income of parents were excluded while applying the income/wealth test for determining creamy-layer status.
- However, a 2004 DoPT clarification included the salaries of parents working in PSUs, banks and private companies, while government employees in equivalent posts were treated differently. This resulted in similarly placed candidates being treated differently depending upon their parents' employment sector.
- The Supreme Court found that such differential treatment, without establishing proper equivalence of posts, could amount to hostile discrimination.

What is the Centre's Demand?

- The Centre has sought a two-year transition period before the judgment is fully implemented. It argues that immediate implementation could affect candidates who have already been selected or appointed and could create uncertainty regarding recruitment, cadre allocation and seniority.
- The government also requires time to undertake an equivalence exercise to identify comparable posts across government services, Public Sector Undertakings (PSUs) and the private sector.
- The government has therefore sought prospective operation of the judgment and two years to consult stakeholders and formulate an appropriate and uniform policy for determining equivalence of posts.

Constitutional Significance:

- The issue is closely connected with Articles 14, 15 and 16 of the Constitution, which deal with equality and affirmative action.
- The concept of the creamy layer originated from the Supreme Court's landmark Indra Sawhney judgment (1992). It seeks to ensure that relatively advanced sections within backward classes do not corner reservation benefits meant for socially and educationally backward sections.
- The present case raises an important question of substantive equality: whether persons similarly situated should be treated differently merely because their parents work in different sectors.

Way Forward:

The government should establish clear, objective and transparent criteria for determining post equivalence. Periodic review based on reliable socio-economic data can improve the creamy-layer framework. At the same time, transitional arrangements should minimise disruption to candidates already covered by recruitment processes.

3 International Relations

BRICS Summit 2026: India's Role in a Changing Global Order

Context:

Recently, the 18th BRICS Summit was held in New Delhi on 12–13 September 2026. In 2026, India held the BRICS Chairship. The main theme of India's Chairship was "Building for Resilience, Innovation, Cooperation and Sustainability." The most important outcome of the summit was the New Delhi Declaration, which contains around 140 points. The declaration outlined the direction of cooperation among member countries on various issues such as global governance, terrorism, trade, climate change, health, artificial intelligence, trade in local currencies, and development.

Key Achievements of the 2026 Summit:

- **New Delhi Declaration**
  - » The major outcome of the summit was the New Delhi Declaration. The nearly 140-point declaration highlighted the shared concerns and cooperation priorities of member countries on various global issues. Its major areas include Reform of global governance, Multilateralism, Combating terrorism, International trade, Payments in local currencies, Climate change, Artificial intelligence, Health, Agriculture, Space cooperation and Sustainable development.
  - » The declaration is particularly significant because the political and strategic priorities of BRICS member countries differ on several issues. Despite this, reaching an agreement on a common declaration reflects the diplomatic capacity of the group.
- **Common Stand Against Terrorism**
  - » One of the important achievements of the summit for India was the explicit mention and condemnation of the Pahalgam terrorist attack. India has long maintained that terrorism is a serious threat to international peace and security.
- **Balanced Approach to the West Asia Issue**
  - » Following the expansion of BRICS, several important West Asian countries have become members. Countries such as Iran, the United Arab Emirates and Saudi Arabia have different regional priorities. Therefore, reaching consensus on disputes in West Asia is challenging.
  - » At the 2026 summit, emphasis was placed on language that would maintain an environment of cooperation despite differences among member countries.
- **Unilateral Tariffs and Trade Protectionism**
  - » The declaration expressed concern over unilateral trade restrictions and excessive tariffs. BRICS countries emphasized the need for an international trading system that is open, transparent, fair, non-discriminatory, and rules-based.
  - » This issue is particularly important for India because India is seeking to

increase its participation in global value chains. A stable and predictable global trading system is important for Indian industries, exporters, Micro, Small and Medium Enterprises, and the services sector.

- **Trade and Payments in Local Currencies**
  - » Discussions were also held on strengthening trade in local currencies and cross-border payment systems among BRICS countries. The objective is not to immediately create a common currency, but to make the payment system more diversified and efficient. Its potential benefits include reducing the cost of cross-border payments, speeding up payments, reducing financial risks, promoting the use of local currencies, and diversifying the international payment system.
  - » However, it would not be appropriate to view this as a process aimed at completely replacing the dollar. There are significant differences among the economies, exchange rates, and monetary policies of different countries. Therefore, current efforts are mainly focused on local-currency-based payments and diversification of the payment system.
- **Reform of the United Nations Security Council**
  - » BRICS countries reiterated the need for reforms in the United Nations and other global institutions. Particular emphasis was placed on providing greater representation to developing countries in global decision-making institutions. India has long been demanding reforms in the United Nations Security Council and permanent membership.
- **Climate Change and Carbon Border Measures**
  - » Climate change was also among the major issues discussed at the summit. India and many other developing countries face the challenge of addressing climate change while maintaining economic growth. In this context, measures such as the Carbon Border Adjustment Mechanism are important.
  - » Such measures can impose additional costs on imported goods based on their carbon emissions. Developing countries are concerned that this could affect the competitiveness of their industries. This issue is important for India because Indian exporters may have to face such arrangements in European markets in the future. Therefore, India emphasizes climate justice and equal opportunities along with climate action.
- **Agriculture and Food Security**
  - » Under India's Chairship, cooperation in the agricultural sector was also given importance. BRICS countries initiated efforts to enhance cooperation in areas such as digital agriculture, climate-resilient agriculture, agrobiodiversity, agricultural inputs, genetic resources, agricultural research, and the use of new technologies in agriculture.
  - » Initiatives such as the BRICS agricultural network can increase the possibility of sharing agricultural knowledge and technology among member countries. This is important in the context of both food security and climate change.
- **Artificial Intelligence and Digital Cooperation**
  - » Artificial intelligence has become a major subject of global policymaking in 2026. India has extensive experience in the field of digital public infrastructure. India's experience in Aadhaar, UPI, and digital public services can be useful for other developing countries. Therefore, BRICS provides India with an opportunity to share its digital capabilities with countries of the Global South.
- **Cooperation in the Health Sector**
  - » BRICS countries also emphasized strengthening cooperation in the health sector. Initiatives in the field of mental

health cooperation are particularly significant. NIMHANS, Bengaluru, has been associated with a coordinating role in BRICS mental health cooperation initiatives. This creates opportunities for India to expand its health diplomacy.

- **Space Cooperation**
  - » Space cooperation among BRICS countries was also taken forward. The BRICS Remote Sensing Satellite Constellation aims to enhance cooperation among Earth-observation satellites of member countries.
  - » This can assist in areas such as disaster management, agricultural monitoring, climate change studies, natural resource monitoring, and environmental protection. It also provides important opportunities for India's space diplomacy.

Importance of BRICS for India:

- **Role in the Global South:** BRICS provides India with an opportunity to raise the concerns of developing countries on the international platform.
- **Strategic Autonomy:** India is active in BRICS as well as in other multilateral and regional forums. This helps India maintain an independent foreign policy.
- **Dialogue with China:** India and China have differences over border and strategic issues. Despite this, BRICS provides both countries with a platform for regular multilateral dialogue. During the 2026 summit, there was also bilateral engagement between the leadership of India and China, highlighting the potential of BRICS as a platform for broader diplomatic dialogue.
- **Economic Opportunities:** The large BRICS markets can provide new opportunities for Indian sectors such as pharmaceuticals, information technology, agriculture, manufacturing, start-ups, and services.
- **Reform of Global Institutions:** BRICS provides India with a platform to advance its demand for reforms in the United Nations, the World Trade Organization, and international financial institutions.

Major Challenges before BRICS:

- The political and strategic interests of member countries are not identical.
- The border dispute and strategic competition between India and China may affect BRICS cooperation.
- The ongoing tensions between Russia and Western countries affect global trade and the international financial system.
- Countries such as Iran, Saudi Arabia, and the United Arab Emirates have different regional interests.
- The increase in the number of member countries has enhanced the economic and political influence of BRICS, but reaching consensus has also become more difficult.
- A major challenge for BRICS is how to convert declarations into actual projects and institutional cooperation.

Conclusion:

The BRICS Summit 2026 is an important example of the ongoing changes in the global balance of power and the growing role of the Global South. The New Delhi Declaration presented a broad framework for cooperation in areas such as terrorism, trade, climate change, artificial intelligence, health, agriculture, space, and global governance. For India, the significance of BRICS is not limited to economic issues. It provides India with an opportunity to strengthen the voice of the Global South, advance the demand for reforms in multilateral institutions, maintain strategic autonomy, and sustain dialogue with different centres of power. However, the real effectiveness of BRICS will depend on how quickly member countries can convert common declarations into concrete institutional arrangements and actual projects despite their political differences. Thus, rather than viewing BRICS as an alliance against any particular power, it is more appropriate to understand it as a platform for cooperation in building a multipolar and more representative global order.

26th Summit of the Shanghai Cooperation Organisation (SCO) 2026

Context:

The 26th Heads of State Summit of the Shanghai Cooperation Organisation (SCO) was held from 31 August to 1 September 2026 in Bishkek, the capital of the Kyrgyz Republic. Prime Minister Narendra Modi represented India at the summit. SCO is celebrating its 25th anniversary in 2026.

Key points by India on 26th Summit:

- **Cooperation Against Terrorism:** India described terrorism as a serious challenge to regional peace and development and stressed the need for collective and decisive action against terrorist networks and their support systems. India also highlighted the need to end double standards on the issue of terrorism.
- **Peace and Diplomacy:** India emphasised giving priority to dialogue and diplomacy for resolving conflicts. This is in line with India's policy of strategic autonomy and multilateral diplomacy.
- **Connectivity and Economic Cooperation:** India highlighted the need to promote better connectivity, trade, digital cooperation and economic opportunities in the SCO region. At the same time, India emphasised connectivity that respects sovereignty and territorial integrity.
- **Central Asia and Afghanistan:** The SCO is an important platform for India to strengthen its relations with the Central Asian countries. Peace and stability in Afghanistan are also important components of the SCO's regional security concerns. India reiterated its commitment to continue developmental and humanitarian assistance to the Afghan people.

New Institutional Cooperation:

- The Summit approved the establishment of the Universal Centre for Countering Challenges and Threats to the Security of SCO Member States to address terrorism, extremism, organized crime, and other transnational security challenges.
- Apart from this, measures were taken to strengthen cooperation against drug trafficking and narco-terrorism.
- Decisions were also taken to enhance cooperation in areas such as climate change, energy efficiency, disaster management, and artificial intelligence.



What is the SCO?

- The Shanghai Cooperation Organisation (SCO) is a major political, economic and security organisation in Eurasia.
- It originated in 1996 as the "Shanghai Five", comprising China, Russia, Kazakhstan, Kyrgyzstan and Tajikistan. After Uzbekistan joined in 2001, it evolved into the SCO.
- India and Pakistan became full members in

2017. Iran became a full member in 2023, followed by Belarus in 2024.

- The organisation promotes the "Shanghai Spirit," which is based on principles such as mutual trust, equality, consultation, mutual benefit and respect for different civilisations.

Counter-Terrorism Cooperation and RATS:

- Combating terrorism, separatism and extremism, referred to as the SCO's "three evil forces", is one of the key areas of cooperation within the organisation.
- The Regional Anti-Terrorist Structure (RATS) is headquartered in Tashkent. It facilitates the exchange of intelligence and coordination among member countries.
- India seeks to use this platform to promote a non-selective and comprehensive approach towards terrorism.
- The objective is not only to target terrorists but also to ensure action against their financiers, recruiters, propagandists and safe havens.

Importance of the SCO for India:

- Strengthening strategic relations with Central Asia.
- Cooperation against terrorism and extremism.
- Opportunities for energy security and economic cooperation.
- Enhancing connectivity across the Eurasian region.
- Regional cooperation on the stability of Afghanistan.
- Maintaining dialogue with major powers, including Russia and China.
- Strengthening India's Strategic Autonomy.

Challenges:

- The SCO faces several important limitations. India-Pakistan tensions, differing approaches towards terrorism, and India-China strategic competition may create obstacles to building consensus within the organisation.
- In addition, China's growing influence and the organisation's consensus-based decision-making process may limit its effectiveness and decision-making capacity.

Conclusion:

The SCO can become an effective pillar of Eurasian security only when its members adopt a united, non-discriminatory and comprehensive approach towards combating terrorism. For India, active engagement with the SCO is extremely important for advancing national security, connectivity with Central Asia, and strategic autonomy.

India–Belgium Relations

Context:

Recently, Prime Minister Narendra Modi met Belgian Prime Minister Bart De Wever in September 2026. The two countries agreed to strengthen cooperation in defence, intelligence-sharing, trade, investment, semiconductors and renewable energy. The visit is significant as it was the first visit by a Belgian Prime Minister to India in two decades.

Background:

- India and Belgium share long-standing diplomatic and economic relations, with diplomatic ties established soon after India's independence in 1947–48.
- Traditionally, bilateral relations were anchored in diamond trade, with Antwerp being a major global diamond hub and India a leading centre for diamond cutting and polishing.
- The economic relationship has expanded significantly. Bilateral trade reached about US$13.01 billion in 2025–26, while Belgian Foreign Direct Investment (FDI) inflows into India were approximately US$4.2 billion between April 2000 and December 2025.
- More than 200 Belgian companies have a presence in India, while Indian companies, particularly in the IT sector, operate in Belgium and use it as a gateway to European

markets.



Key Outcomes of the meeting:

- **Defence and Security Cooperation:** Defence and security have emerged as important pillars of bilateral relations. Both countries agreed to enhance military exchanges, training and intelligence-sharing. They also seek greater defence co-development and co-production, particularly in drones, anti-mine systems, rockets, tanks and munitions. Such cooperation can support India's objectives of defence indigenisation and Make in India.
- **Trade and Investment:** Bilateral trade reached around $13.01 billion in 2025–26, with both sides targeting a doubling of trade within five years. India has established an Investment Fast-Track Mechanism to facilitate Belgian companies. The diamond trade remains important, with Antwerp serving as a major global diamond hub. However, diversification into technology, manufacturing and services is necessary.
- **Semiconductor and Technology Partnership:** Semiconductor cooperation is an emerging strategic area. Belgium's globally renowned imec semiconductor research ecosystem can support India's ambitions in advanced chip technology, nanoelectronics and research. This partnership is significant for building resilient and diversified semiconductor supply chains, which are increasingly linked with national and economic security.
- **Renewable Energy:** India and Belgium also agreed to deepen cooperation in renewable energy and green technologies. Areas such as green hydrogen and clean-energy technologies can contribute to India's energy transition while creating new avenues for investment and innovation.

Geopolitical Significance:

- Belgium is strategically important for India because Brussels hosts major European Union institutions. Stronger India–Belgium ties can therefore complement India's wider engagement with the EU. Both countries also support dialogue, diplomacy, rule of law and peaceful resolution of conflicts, including in Ukraine and West Asia.

Challenges:

- Major challenges include excessive dependence on traditional diamond trade, regulatory barriers, technology-transfer issues and geopolitical disruptions to global supply chains. Defence and technology agreements must also move from announcements to effective implementation.

Conclusion:

India–Belgium relations are evolving from traditional diamond-centred commerce to a multidimensional strategic partnership. Cooperation in defence, semiconductors, clean energy and investment can strengthen India's technological capabilities, economic resilience and engagement with Europe. The partnership reflects India's approach of strategic openness with diversified and trusted partners.

India–Sri Lanka Defence Cooperation

Context:

Recently, Indian Defence Minister Rajnath

Singh visited Sri Lanka from 8–10 September 2026, during which India and Sri Lanka signed three defence-related Memoranda of Understanding (MoUs) to strengthen bilateral defence cooperation.

What are the Three MoUs?

- **Upgradation of L70 Guns:**
  - » India and Sri Lanka signed an MoU for the upgradation of six L70 anti-aircraft guns of the Sri Lankan Air Force.
  - » The project will be supported through a Government of India grant.
  - » The guns were originally supplied by India.
  - » Their modernisation will strengthen Sri Lanka's air-defence capability, particularly for protecting critical assets.
- **National Defence Colleges:** An MoU between the National Defence College (NDC) of India and NDC of Sri Lanka will promote:
  - » Academic cooperation
  - » Knowledge sharing
  - » Professional exchanges
  - » Greater institutional linkages
  - » This moves defence cooperation beyond military hardware towards capacity building and human-resource development.
- **National Cadet Corps Cooperation**
  - » The MoU between the National Cadet Corps (NCC) of the two countries will formalise youth and cadet exchanges.
  - » It can promote people-to-people ties, leadership development and greater understanding among future generations of both countries.

About India–Sri Lanka Relations:

- India and Sri Lanka share over 2,500 years of historical, cultural and civilizational ties. Their geographical proximity and Sri Lanka's strategic location in the Indian Ocean make bilateral relations crucial for India's Neighbourhood First Policy and maritime-security interests.
- India has also been a key partner during crises. During Sri Lanka's 2022 economic crisis, India provided assistance worth nearly US$4 billion through credit lines, currency support and humanitarian assistance. In January 2023, India became the first bilateral creditor to formally support Sri Lanka's debt restructuring before the IMF.

Economic and Development Cooperation:

- The India–Sri Lanka Free Trade Agreement (ISFTA), signed in 2000, forms an important basis for economic relations.
- Bilateral merchandise trade reached around US$7.18 billion in FY 2025–26. India's development partnership exceeds US$3 billion, including major housing and infrastructure projects.
- The Indian Housing Project has provided more than 50,000 houses to war-affected and plantation communities.

Defence and Maritime Cooperation:

- India and Sri Lanka conduct Mitra Shakti (Army) and SLINEX (Navy) exercises.
- Sri Lanka is also a member of the Colombo Security Conclave (CSC) with India, Maldives and Mauritius, focusing on maritime security, counter-terrorism and humanitarian assistance.

Significance for India:

- **Maritime Security:** Sri Lanka's location near major Indian Ocean shipping routes makes it strategically important for India's maritime security.
- **Countering Strategic Competition:** Greater defence engagement helps India maintain strategic trust with Sri Lanka amid increasing external involvement in the island nation.
- **Capacity Building:** The focus on equipment modernisation, training, academic cooperation and youth exchanges reflects India's approach of being a security and capacity-building partner rather than merely an arms supplier.
- **Neighbourhood First and MAHASAGAR:** The

partnership supports India's Neighbourhood First Policy and MAHASAGAR, which emphasises security, growth and cooperation across the Indian Ocean region.

Challenges:

- Despite strong relations, some issues remain:
  - » Palk Strait fisheries dispute
  - » Katchatheevu-related concerns
  - » Chinese strategic and economic presence in Sri Lanka
  - » Drug trafficking and maritime security
  - » Balancing Sri Lanka's strategic autonomy with India's security concerns

Conclusion:

The latest MoUs demonstrate India's shift towards capacity building, institutional defence cooperation and maritime security. They reinforce Neighbourhood First and MAHASAGAR, strengthening India's role as a responsible security partner in the Indian Ocean Region.

International Space Summit 2026

Context:

Recently, the International Space Summit 2026 was held on 9–10 September 2026 at the Grand Palais in Paris, France. It was the first International Space Summit, with delegations from around 120 countries participating. The summit primarily focused on space sustainability, space traffic management, security, commercialisation, and international cooperation.

Key Themes of the summit:

- The summit highlighted the growing importance of maintaining safe, secure, sustainable and peaceful use of outer space.
- Increasing satellite constellations have created concerns regarding space debris, orbital congestion, radio-frequency interference and collisions.
- The summit also discussed the need for stronger international norms for responsible space activities.
- Another major theme was the growing space economy, with private companies increasingly participating in satellite communication, launch services, Earth observation and space exploration.



India's Position:

- India advocated international cooperation rather than confrontation and emphasised that outer space should remain a domain of peaceful exploration and sustainable development.
- Prime Minister Modi linked India's approach with “Vasudhaiva Kutumbakam”, highlighting the idea that the benefits of space technology should reach humanity as a whole.
- India also supported a rules-based international framework for managing emerging challenges such as space debris, space traffic and responsible behaviour in

orbit.

India's Space Achievements:

- India has emerged as an important global space power through its cost-effective and indigenous capabilities.
- Chandrayaan-3 demonstrated India's capability in lunar exploration through its successful soft landing.
- Aditya-L1 strengthened India's capability in solar and space-weather studies.
- India has emerged as a reliable commercial launch provider, launching foreign satellites through its space programme.
- NavIC provides an indigenous regional navigation capability.
- India's growing private space sector is expanding innovation, manufacturing and commercial launch services.

India-France Space Cooperation:

- The summit is significant for India-France strategic cooperation in space. France has been a long-standing partner of India in areas such as Earth observation, space science and advanced space technologies.
- India can leverage this partnership for deeper cooperation in lunar exploration, climate monitoring, satellite technology and space sustainability.

India's Future Roadmap:

- India aims to establish an indigenous space station by 2035 and send an Indian astronaut to the Moon by 2040.
- These ambitions indicate India's transition from satellite applications towards advanced human and deep-space exploration.

Conclusion:

The International Space Summit reflects the transformation of outer space from a domain of scientific exploration into a critical arena of economy, security, diplomacy and sustainable development. For India, the challenge is to balance strategic autonomy with international cooperation. By combining its indigenous capabilities, growing private space sector and diplomatic principle of Vasudhaiva Kutumbakam, India can play a leading role in shaping a peaceful, inclusive and sustainable global space order.

India–Russia Relations

Context:

Recently, Russian President Vladimir Putin, met Prime Minister Modi on September 11, 2026. The two leaders reviewed the entire spectrum of the India–Russia Special and Privileged Strategic Partnership, covering defence, trade, energy, nuclear cooperation, technology, infrastructure and people-to-people ties.

Key Outcomes of the Meeting:

- **Trade and Economic Cooperation:** India and Russia discussed measures to increase bilateral trade to $100 billion by 2030. Cooperation will focus on industrial projects, infrastructure, railways, tunnelling, steel value chains and greater business-to-business engagement. However, the growing trade imbalance in favour of Russia remains a major challenge for India.
- **Energy Security:** Energy cooperation remains a major pillar of bilateral relations. The two sides discussed ensuring the smooth flow of crude oil and fertilisers through strategic joint ventures. This is important for India's energy security and economic stability amid geopolitical disruptions.
- **Defence Cooperation:** Russia has traditionally been a major defence partner of India, supplying platforms such as Su-30MKI aircraft, T-90 tanks and S-400 air-defence systems. The relationship has increasingly shifted from buyer-seller ties towards joint development and production, including BrahMos and AK-203 rifles.
- **Civil Nuclear Cooperation:** The Kudankulam Nuclear Power Plant in Tamil Nadu remains a major example of India–Russia civil nuclear cooperation. Both countries discussed further cooperation in the nuclear

sector to support India's long-term energy requirements.

- **Russia–Ukraine Conflict:** Prime Minister Modi reiterated India's position that dialogue and diplomacy are the way forward. He stated that India remained ready to assist in peace efforts. The leaders also discussed the conflict's impact on the Black Sea region and Indian seafarers.
- **Connectivity & Technology:** The International North–South Transport Corridor (INSTC) and the proposed Chennai–Vladivostok Maritime Corridor can improve India's connectivity with Russia and Eurasia. Cooperation in space, critical minerals, technology and skilled manpower was also discussed.



About India–Russia relations:

- India–Russia relations have deep historical roots. The 1971 Treaty of Peace, Friendship and Cooperation with the Soviet Union provided an important foundation for strategic cooperation. The relationship was further institutionalised as a Strategic Partnership in 2000 and upgraded to a Special and Privileged Strategic Partnership in 2010.

Major Challenges:

- Russia's growing proximity to China
- Russia–Ukraine conflict and Western sanctions
- Bilateral trade imbalance
- Payment and settlement difficulties
- India's diversification of defence procurement
- Disruptions in global supply chains

Way Forward:

India should diversify exports to Russia, strengthen defence co-production, expand nuclear and energy cooperation, improve payment mechanisms, develop INSTC and enhance cooperation in critical minerals and advanced technologies.

Conclusion:

The India–Russia partnership is evolving beyond traditional defence cooperation towards trade, energy, technology, connectivity and industrial collaboration. India must preserve this strategic partnership while reducing excessive dependence and adapting to the emerging multipolar world order.

India–Iran Relations

Context:

Recently, PM Modi met Iranian President Masoud Pezeshkian on September 11, 2026, ahead of the BRICS Summit 2026. Both leaders discussed the West Asia conflict, energy security, freedom of navigation, Chabahar Port, connectivity and BRICS cooperation.

Key Outcomes of the Meeting:

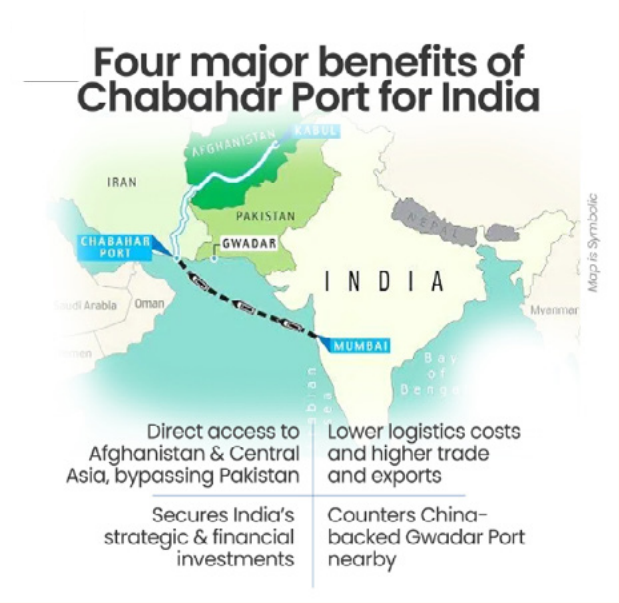
- **West Asia Conflict:** India reiterated that the ongoing U.S.–Iran and wider West Asia conflict should be resolved through dialogue and diplomacy. PM Modi emphasized India's

commitment to lasting peace and stability in the region.

- **Freedom of Navigation:** India stressed the importance of ensuring freedom of navigation and commerce, particularly through the Strait of Hormuz, which is crucial for global energy supplies and international trade.
- **Energy Security:** The leaders discussed the implications of regional tensions for global energy security. Iran's substantial oil and gas reserves make it strategically important for India, although U.S. sanctions have constrained energy trade.
- **Chabahar Port:** India reiterated the strategic importance of Chabahar Port for accessing Afghanistan and Central Asia while bypassing Pakistan. India signed a 10-year agreement in May 2024 to operate the Shahid Beheshti terminal.
- **Connectivity & INSTC:** Both countries remain important partners in the International North-South Transport Corridor (INSTC), which aims to connect India with Iran, Central Asia, Russia and Europe, reducing transportation time and costs.
- **BRICS Cooperation:** Iran's participation in BRICS provides a new platform for India–Iran economic and strategic engagement. President Pezeshkian supported greater use of national currencies and proposed a Joint BRICS Insurance Company with an initial capital of $10 billion for infrastructure and energy projects.
- **Economic & Trade Cooperation:** Both sides highlighted the potential for expanding non-oil trade, including Indian exports of basmati rice, tea and pharmaceuticals and imports of Iranian fruits and other commodities.
- **Regional & Multilateral Cooperation:** India welcomed Iran's participation in BRICS and SCO and emphasized greater cooperation through multilateral platforms to promote regional stability, connectivity and a multipolar world order.

Historical Background:

- India–Iran relations have around 2,500 years of civilizational links. Formal diplomatic relations were established through the 1950 Treaty of Friendship. The Tehran Declaration (2001) and New Delhi Declaration (2003) strengthened strategic cooperation.



Importance for India:

- **Energy security:** Access to Iranian energy resources.
- **Connectivity:** Chabahar and INSTC enhance access to Central Asia and Europe.
- **Geostrategic importance:** Iran lies at the crossroads of the Persian Gulf, Central Asia and South Asia.
- **Trade:** Potential for greater non-oil trade.
- **Regional stability:** Cooperation can support peace in West Asia.
- **Multilateralism:** Iran's membership of SCO (2023) and BRICS (2024) creates new platforms for engagement.

Major Challenges:

- U.S. sanctions, Israel–Iran tensions, instability around the Strait of Hormuz, China–Iran strategic cooperation, banking restrictions and slow connectivity projects complicate India's engagement.

Conclusion:

India–Iran relations are strategically important for energy, connectivity and regional stability. India must maintain a balanced approach while protecting its strategic interests amid competing geopolitical pressures.

India–Philippines Strategic Partnership

Context:

Recently, Prime Minister Narendra Modi and Philippine President Ferdinand R. Marcos Jr. held bilateral discussions on the sidelines of the BRICS Summit in New Delhi. The two leaders reviewed the progress of the India–Philippines Strategic Partnership and agreed to deepen cooperation in defence, security, trade, investment, space, railway infrastructure, fintech, education, tourism, science and technology, innovation and people-to-people ties. The Philippines also decided to join India-led Coalition for Disaster Resilient Infrastructure (CDRI).

Background:

- India – Philippines relations have strengthened considerably in recent years. A major milestone was the 2022 agreement for India to supply BrahMos supersonic cruise missiles to the Philippine Navy.
- It marked an important step in India's emergence as a defence exporter and expanded its strategic engagement with Southeast Asia. The two countries also adopted a 2025–29 roadmap to enhance military training, defence staff talks and maritime security cooperation.

Major Areas of Cooperation:

- **Defence and Maritime Security:** Defence cooperation has become a key pillar of bilateral ties. The two countries conduct regular Army, Navy and Air Force staff talks. The BrahMos deal has strengthened India's defence exports and the Philippines' maritime capabilities. Both countries also share concerns regarding security developments in the South China Sea.
- **Indo-Pacific and Rules-Based Order:** India and the Philippines support a free, open and rules-based Indo-Pacific. India advocates respect for international law, freedom of navigation and peaceful settlement of disputes. India's support for UNCLOS is important in the context of South China Sea disputes.



- **Trade and Investment:** Bilateral trade has crossed $3 billion, with cooperation in pharmaceuticals, IT services and agriculture. Greater economic engagement can expand markets for Indian companies and strengthen supply-chain resilience.
- **Space, Technology and Innovation:** Both sides are exploring cooperation in space, fintech, science and technology and innovation. India's expertise in satellite applications, digital technologies and disaster management offers opportunities for deeper technological partnership.
- **Disaster Resilience:** The Philippines' decision to join the CDRI is significant. As an archipelagic country vulnerable to typhoons, floods and other natural disasters, the Philippines can benefit from cooperation on

climate-resilient infrastructure.

Significance for India:

- The partnership strengthens India's Act East Policy, expands its strategic presence in the Indo-Pacific, supports defence exports, deepens engagement with ASEAN, and creates opportunities in trade, technology, space and disaster management.

Conclusion:

India-Philippines relations are evolving from traditional diplomatic ties into a multidimensional strategic partnership. Sustained cooperation in defence, maritime security, trade, technology, space and connectivity can make the Philippines an important pillar of India's Act East and Indo-Pacific strategy.

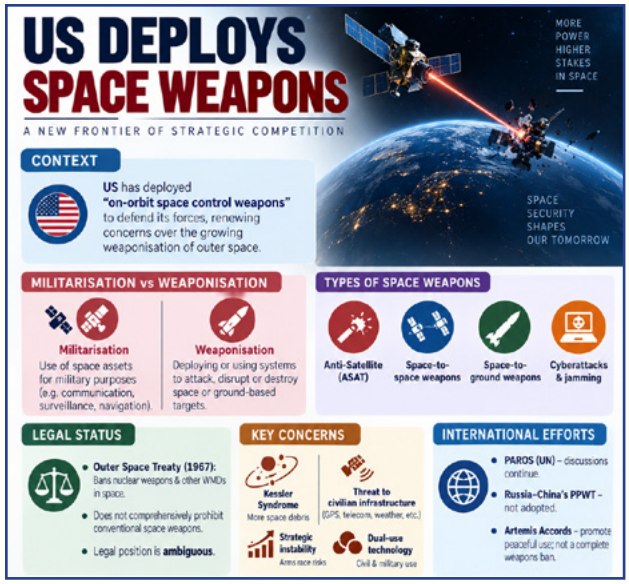
US Deploys Space Weapons

Context:

Recently, the United States publicly acknowledged that it has deployed "on-orbit space control weapons" capable of defending its forces against hostile actions. The announcement has renewed concerns about the growing weaponisation of outer space.

About Militarisation vs Weaponisation of space:

- Militarisation of space refers to the use of satellites and other space assets for military purposes such as communication, navigation, surveillance and reconnaissance.
- Weaponisation, in contrast, involves deploying or using systems designed to attack, disrupt or destroy space or ground-based targets.
- These may include:
  - » Anti-Satellite (ASAT) weapons
  - » Space-to-space weapons
  - » Space-to-ground weapons
  - » Cyberattacks and electronic jamming
  - » Directed-energy systems
- The US, Russia, China and India have demonstrated ASAT capabilities.



Is Weaponisation Legal?

- The legal position is ambiguous rather than an outright ban. The principal international instrument is the Outer Space Treaty (1967). It prohibits placing nuclear weapons and other weapons of mass destruction in orbit or stationing them in outer space. It also restricts military activities on celestial bodies.
- However, the treaty does not comprehensively prohibit conventional weapons, many counter-space capabilities, or all Earth-to-space weapons. Therefore, not every space weapon is automatically illegal under existing international law.

International Efforts:

- The Prevention of an Arms Race in Outer Space (PAROS) discussions at the UN Conference on Disarmament have sought stronger regulation but have not produced a comprehensive binding treaty.
- Russia and China also proposed the Prevention of the Placement of Weapons in Outer Space (PPWT). However, it did not become an international treaty and did not comprehensively address Earth-to-space weapons.

- The Artemis Accords, supported by NASA and the US, promote peaceful and responsible space exploration. India is also a signatory, but the Accords do not constitute a comprehensive weapons ban.

Major Concerns:

- **Kessler Syndrome:** ASAT attacks can create large amounts of orbital debris, potentially triggering cascading collisions and making space increasingly difficult to use.
- **Threat to Civilian Infrastructure:** Satellites support GPS, telecommunications, weather forecasting, internet services and disaster management. Attacks could therefore affect civilian life and the global economy.
- **Strategic Instability:** The development of counter-space capabilities can encourage rival states to develop similar systems, creating an arms race and escalation risks.
- **Dual-Use Technology:** The same satellites and technologies can serve both civilian and military purposes, making peaceful and military activities difficult to distinguish.

Way Forward:

The emerging space-security environment requires updated international rules, greater transparency, confidence-building measures, responsible behaviour, debris mitigation and stronger multilateral mechanisms.

Conclusion:

The existing legal framework restricts WMDs in space but does not comprehensively prohibit conventional space weapons. The challenge for the international community is therefore to bridge these legal gaps while ensuring that outer space remains secure, sustainable and accessible for peaceful purposes.

India Rejects Pakistan–China Boundary Joint Commission

Context:

Recently, India objected to the first meeting of the Pakistan–China Boundary Joint Commission held in Islamabad. India's Ministry of External Affairs clarified that no mechanism between Pakistan and China can be authorised, without India's consent, to determine arrangements concerning territories claimed by India. New Delhi reiterated that Jammu & Kashmir and Ladakh are integral parts of India.

Historical Background:

- The territorial disputes among India, Pakistan and China have their roots in the Partition of 1947, boundary arrangements during the British period, and territorial claims that developed after independence. After independence, Jammu & Kashmir became a major point of dispute between India and Pakistan.
- In 1963, Pakistan and China signed a boundary agreement that included provisions concerning the Trans-Karakoram Tract and the Shaksgam Valley. India did not accept this agreement and has maintained that Pakistan cannot enter into an agreement concerning territory over which India asserts sovereign claims.
- On the other hand, Pakistan maintains a different position based on its administration and territorial claims, while China has recognised the agreement with Pakistan in the context of its bilateral boundary relations. Therefore, the issue is not merely a question of boundary demarcation between two countries, but is connected with the territorial claims and security interests of all three countries.

India's Position:

According to India's official position:

- India does not accept the 1963 China–Pakistan Boundary Agreement.
- India claims sovereignty over the entire territory of Jammu & Kashmir and Ladakh.
- India maintains that any agreement by a third country concerning territories claimed by India cannot affect India's rights or territorial claims.

- India also objects to the China–Pakistan Economic Corridor (CPEC) because parts of the project pass through territories over which India asserts its claim.



Strategic Significance:

- **China–Pakistan Cooperation:** China and Pakistan have extensive cooperation in the areas of defence, trade, infrastructure and connectivity. The institutional expansion of border-related cooperation could further strengthen their strategic partnership. This is significant for India because it has separate border disputes with both China and Pakistan.
- **Two-Front Security Challenge:** India faces separate security challenges along the Line of Control (LoC) with Pakistan and the Line of Actual Control (LAC) with China. A situation of simultaneous tensions on both fronts could make the management of India's military and diplomatic resources more complex.
- **CPEC and Geopolitics:** The China–Pakistan Economic Corridor (CPEC) is an important component of China's Belt and Road Initiative (BRI). India objects to some of its projects because their routes pass through territories over which India asserts its claim.

Major Challenges for India:

- Long-standing and unresolved territorial disputes
- Development of military and infrastructure facilities in border areas
- Growing strategic cooperation between China and Pakistan
- Possibility of tensions and miscalculation along the borders
- Difficult Himalayan terrain and associated border-management challenges
- Balancing security interests with economic and regional connectivity objectives

Way Forward:

- For India, a balanced strategy should give importance to both diplomatic engagement and security preparedness. Border infrastructure, surveillance and logistical capabilities need to be strengthened to ensure effective border management.
- India should also advance its alternative connectivity initiatives. Such projects can be based on the principles of sovereignty, transparency, economic viability and consultation with concerned countries.

Conclusion:

The Pakistan–China Boundary Joint Commission highlights the complex territorial and strategic relations among India, Pakistan and China. India's objection is primarily based on the principle that any arrangement concerning territories claimed by India cannot affect its rights without its consent. The challenge for India is to protect its sovereignty and security interests while maintaining sufficient space for regional stability and diplomatic engagement. Such an approach can provide a more sustainable basis for managing boundary disputes and promoting broader regional peace.

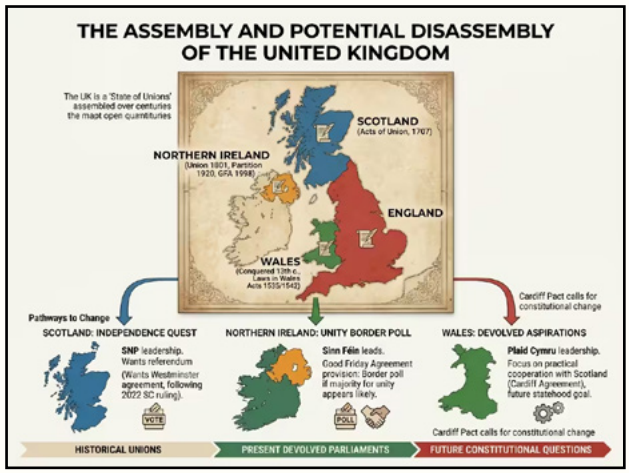
Growing Challenge to Federal Unity in the United Kingdom

Context:

Recently, on 14 September 2026, the leaders of Scotland, Wales, and Northern Ireland signed a joint Memorandum of Understanding (MoU)

in Cardiff, the capital of Wales. The agreement supported the right of the people of these nations to self-determination and their demand for referendums on future constitutional changes.

- The meeting was attended by John Swinney, First Minister of Scotland; Rhun ap Iorwerth, First Minister of Wales; and Michelle O'Neill, First Minister of Northern Ireland, along with Mary Lou McDonald, the opposition leader in the Republic of Ireland.
- However, the meeting was primarily conducted in their capacity as political party leaders, rather than as a formal inter-governmental agreement among the three governments.



Constitutional Structure of the United Kingdom:

- The United Kingdom consists of England, Scotland, Wales, and Northern Ireland. Its system of governance is different from the federal structure of India.
- In the UK, devolution has granted legislative and administrative powers to Scotland, Wales, and Northern Ireland at different levels, while several important subjects, including defence and foreign affairs, remain under the authority of the Westminster Parliament.
- A key feature of the British constitutional system is Parliamentary Sovereignty. This means that the Parliament of the United Kingdom is the supreme legislative authority. Therefore, despite devolution, ultimate constitutional authority has not been completely separated from Westminster.

Demand for Independence and Scotland:

- The demand for independence in Scotland has been part of the political discourse for a long time. On 18 September 2014, a referendum on Scottish independence was held, in which 55.3% of voters voted against independence and 44.7% voted in favour.
- After this, demands for a second referendum continued. In 2022, the UK Supreme Court clarified that the Scottish Parliament could not independently enact legislation to hold such a referendum because the matter concerns reserved powers relating to the United Kingdom and its Parliament.

The Question of Northern Ireland and Wales:

- The case of Northern Ireland is different from that of Scotland. The Good Friday Agreement (1998) established a special framework regarding Northern Ireland's constitutional status and linked the question of its integration with Ireland to a process of popular consent through a referendum.
- In Wales, too, demands for greater autonomy and the strengthening of national identity have gained importance. With Rhun ap Iorwerth becoming First Minister in 2026, constitutional issues have received renewed significance in Welsh politics.

Conclusion:

The Cardiff Agreement has further highlighted the debate between devolution and full self-determination in the UK. At the same time, issues such as relations with Europe, the impact of Brexit, regional economic inequalities, and national identity are also closely connected with this debate. UK Prime Minister Andy Burnham stated in July 2026 that his priority was economic and social issues and that an immediate independence referendum was not on his agenda. Thus, the Cardiff Agreement

shows that the question of the unity of the United Kingdom is not limited merely to independence versus union. It is also closely linked to balancing multi-level governance, regional autonomy, self-determination, and parliamentary sovereignty.

US Sanctions Law: Impact on India-Russia Energy Relations

Context:

On September 18, 2026, USA President Donald Trump signed the Lindsey O. Graham Sanctioning Russia and Iran Act of 2026 into law. This legislation strengthens sanctions and tariff provisions on Russia and authorizes the US President to impose additional tariffs of up to 100% on certain countries that continue to purchase Russian energy. India and China are among the key countries affected by this provision.

Key Features of the Law:

- The primary purpose of this legislation is to impact Russia's energy and defense revenues and increase economic pressure on Russia in the context of the Ukraine war. It provides for action against Russian officials, banks, energy interests, and networks that facilitate sanctions evasion. It also expands existing sanctions related to Russia and Iran.
- Importantly, the 100% tariff does not automatically apply to India. The legislation authorizes the US President to impose additional tariffs on goods from countries that purchase large quantities of Russian oil or natural gas under certain circumstances. The final targets and tariff rates will depend on the US administration's decision.

Economic Sanctions and Secondary Sanctions:

- Economic sanctions are a means of restricting trade, finance, investment, or asset-related activities to exert economic pressure on a country, entity, or individual.
  - » **Primary sanctions:** The imposing country prohibits its companies and citizens from conducting certain transactions with the targeted country.
  - » **Secondary sanctions:** Action may also be taken against companies or entities in a third country if they engage in certain economic activities with the sanctioned country.
- Thus, secondary sanctions can have economic impacts beyond a country's borders.



The Question of Energy Security for India:

- India imports a significant portion of its crude oil needs. In 2025-26, India's crude oil import dependence reached 88.7%.
- India increased its purchases of Russian crude oil amid sanctions and price-capping on Russian oil by Western countries following the Russia-Ukraine war. In August 2026, India imported approximately 2.08 million barrels per day of Russian oil, representing about 45% of its total crude oil

imports. However, in July, this share was approximately 55.9%.

- This is due not only to political relations, but also to price, availability, refining capacity, and supply reliability. Therefore, a complete switch to Russian oil could be challenging for India.

Uranium and US Dependence:

- This issue is also important in the context of uranium. Natural uranium contains approximately 0.7% U-235. For use as fuel in light-water reactors, it must be enriched to a higher U-235 concentration.
- The US has long been dependent on Russian enriched uranium. US laws have attempted to limit the import of Russian low-enriched uranium (LEU), but the transition has been a complex process due to energy security concerns and limitations on domestic enrichment capacity. The USITC has also noted the important role of Russian enriched uranium in the US market.
- This example shows that the weaponization of economic interdependence is not limited to oil and gas. Trade, finance, technology, critical minerals, and nuclear fuel can also become instruments of geopolitical pressure.

Impact on India-Russia Relations:

- The new US law poses three major challenges for India:
  - **Energy costs:** Decreased availability of Russian oil may force India to increase imports from more expensive sources.
  - **Trade pressures:** If high US tariffs are imposed on India, India-US trade may face additional pressure.
  - **Strategic balance:** India must maintain a balance between its growing strategic partnership with the US and its long-standing defense and energy ties with Russia.
- For India, the answer lies not in purchasing oil from a single source, but in diversifying import sources, strengthening domestic production, strategic petroleum reserves, renewable energy, and energy efficiency.

Conclusion:

The new phase of US sanctions on Russia reflects the increasing role of geoeconomics in the global economy. The challenge for India is not a simple choice between maintaining or severing energy ties with Russia, but rather a balancing of energy security, economic interests, strategic autonomy, and relations with major powers. The current situation underlines the need for India to develop a more diversified and resilient energy system in the long term.

Partners for Multilateralism (P4M) Initiative

Context:

Recently, The Partners for Multilateralism (P4M) initiative was officially launched at the P4M Summit on September 21, 2026, on the sidelines of the UN General Assembly (UNGA) meeting in New York. It is a coalition of prominent middle powers and non-superpower countries seeking to strengthen and reform the multilateral system.

What is P4M?

- P4M is envisaged as a flexible and non-bureaucratic diplomatic coalition that seeks to promote cooperation among countries outside rigid geopolitical blocs.
- Its central philosophy is to promote:
  - Cooperation over fragmentation
  - International law over power politics
  - Multilateralism over unilateralism

Core Objectives:

- **Strengthening International Law:** The initiative seeks to reinforce the role of international law and rules-based cooperation in global affairs amid growing geopolitical tensions, polarization and fragmentation.
- **Reforming Multilateral Institutions:** P4M

does not aim to replace the post-World War II international order. Instead, it seeks to reform institutions such as the United Nations to make them:
  - » More representative
  - » More legitimate
  - » More effective
  - » Better suited to contemporary global realities
- **Addressing Global Challenges:** The coalition seeks practical cooperation on emerging transnational challenges, particularly:
  - » Artificial Intelligence (AI)
  - » Climate change
  - » Health security
  - » Digital transformation
- **Founding and Participating Leaders:** The initiative has been promoted as a framework for strengthening the voice of middle powers. The core leadership includes:
  - » António Costa – President of the European Council
  - » Luiz Inácio Lula da Silva – President of Brazil
  - » William Ruto – President of Kenya
  - » Mark Carney – Prime Minister of Canada
- Other leaders associated with the initiative include Indian Prime Minister Narendra Modi, represented at the summit by External Affairs Minister S. Jaishankar, along with Australian Prime Minister Anthony Albanese and Barbados Prime Minister Mia Mottley.

Strategic Significance:

- **Voice of Middle Powers:** P4M reflects the growing desire of middle powers to have greater influence over global decision-making rather than being constrained by competition among major powers.
- **Reform of Global Governance:** The initiative highlights concerns that institutions created after World War II do not fully reflect today's economic, demographic and geopolitical realities.
- **Global South and Developing Countries:** Greater representation and institutional reform can strengthen the participation of developing countries in global governance.
- **Indo-Pacific Relevance:** For India, the initiative is consistent with its broader emphasis on strategic autonomy, multilateralism, international law and reform of global institutions.



Challenges:

- Divergent national interests among participating countries.
- Difficulty in converting shared principles into coordinated action.
- Existing geopolitical rivalries and great-power competition.
- Need to avoid duplication with existing multilateral forums.

Conclusion:

The P4M initiative represents an attempt by middle powers to strengthen a rules-based international order through institutional reform rather than institutional replacement. Its effectiveness will depend on whether diverse countries can translate common principles into sustained collective action.

US–Denmark–Greenland Defence Deal

Context:

Recently, the United States, Denmark and Greenland signed a new defence agreement during the UN General Assembly in New York. The agreement expands the US military presence in Greenland while reaffirming Denmark's sovereignty and Greenland's right to self-determination. It updates the existing 1951 US-Denmark defence agreement.

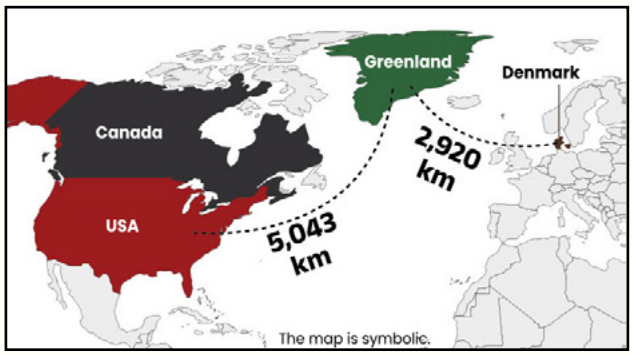


Key Provisions of deal:

- **Two New Defence Areas:** The agreement permits the US to establish two defence areas at:
  - » **Narsarsuaq:** Southern Greenland, a former World War II base and airport.
  - » **Mestersvig:** Sastern Greenland, a remote location currently associated with Danish military operations.
- The precise modalities and technical arrangements require agreement among the parties.
- **Expansion of Pituffik Space Base:** The US already operates the Pituffik Space Base in north-western Greenland. The new agreement allows Washington to modernise and expand its activities there.
- **No Transfer of Sovereignty:** Importantly, the agreement does not transfer Greenlandic territory to the United States. It reaffirms Denmark's sovereignty and territorial integrity while recognising Greenland's right to self-determination. The pact therefore represents a defence expansion rather than territorial acquisition.
- **Restriction on Non-NATO Military Presence:** The agreement bars states outside NATO from establishing manned or unmanned military installations or maintaining a persistent military presence in Greenland, strengthening the island's integration into the broader NATO security framework.

Greenland: Geography and Key Facts

- Greenland is the world's largest non-continental island, situated between the Arctic and Atlantic Oceans. It covers about 2.16 million sq km, with roughly 80% covered by the Greenland Ice Sheet, the world's second-largest ice sheet after Antarctica.
- Its ice-free coastal belt contains rugged mountains, deep fjords and rocky terrain. Gunnbjørn Fjeld (3,694 m) is its highest point. Greenland has a polar/subarctic climate, including midnight sun and polar night.
  - » **Capital:** Nuuk
  - » **Population:** About 56,000–57,000
  - » **Political status:** Self-governing territory within the Kingdom of Denmark; Denmark retains key responsibilities including defence and foreign affairs.



Why is Greenland Strategically Important?

- **Geostrategic Location:** Greenland lies between North America and Europe, making

it important for Arctic surveillance, missile warning, air defence and control of North Atlantic approaches.

- **Arctic Competition:** Melting sea ice is increasing the accessibility of Arctic routes and resources, intensifying strategic competition involving the U.S., Russia, China and NATO.
- **Natural Resources:** Greenland possesses significant potential for rare earth elements and other minerals, increasing its economic and geopolitical importance.
- **Climate Change:** Rapid Arctic warming is transforming shipping, resource access and security calculations while creating major environmental concerns.

Implications for India:

- The development is relevant to India's Arctic Policy, which focuses on climate change, scientific research, sustainable resource utilisation and greater participation in Arctic governance.
- Growing militarisation may complicate the balance between Arctic security and peaceful scientific cooperation.

Conclusion:

The U.S.–Denmark–Greenland agreement reflects the growing importance of the Arctic as a zone of security, resources, climate change and great-power competition. Greenland's geography makes it central to the evolving strategic architecture of the High North.

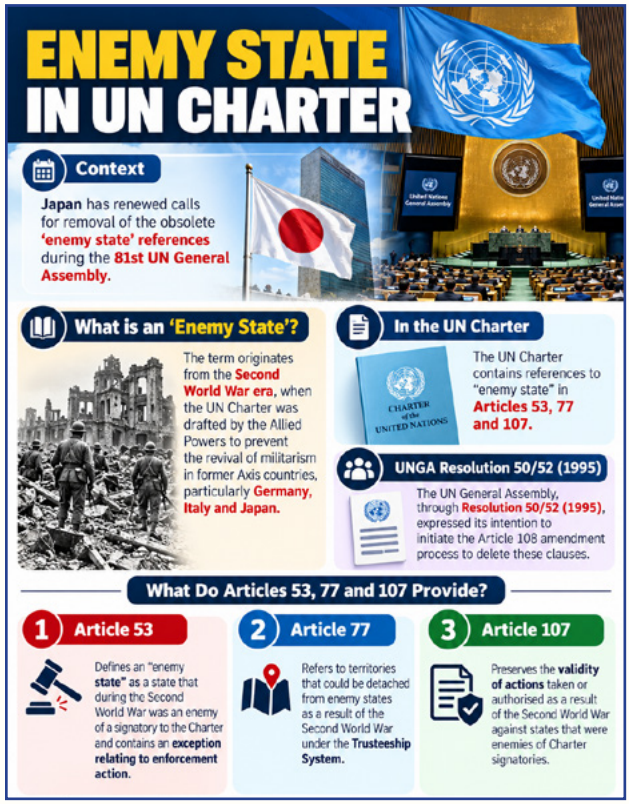
Enemy State Clauses in UN Charter

Context:

Recently, Japan has renewed its demand for the removal of references to "enemy states" from the United Nations Charter at 81st UN General Assembly.

What is an 'Enemy State'?

- The term originates from the Second World War era. The UN Charter was drafted in the aftermath of World War II, when the Allied Powers sought to prevent the revival of militarism in former Axis countries, particularly Germany, Italy and Japan.
- The Charter uses the term in Articles 53, 77 and 107. Under Article 53, an "enemy state" refers to a state that was an enemy of a signatory to the Charter during World War II.



What Do Articles 53, 77 and 107 Provide?

- **Article 53:** It contains an exception concerning enforcement action against an "enemy state" and defines the term with reference to World War II.
- **Article 77:** It refers to territories that could be detached from enemy states as a consequence of World War II under the UN Trusteeship System.
- **Article 107:** It preserves the validity of actions taken or authorised as a consequence of World War II against

states that were enemies of Charter signatories.

- Thus, these provisions were essentially designed for the immediate post-war security order.

Why Does Japan Want the Clauses Removed?

- Japan argues that these provisions are obsolete because the countries originally covered by them are now UN members and participate in the organisation's activities.
- The UN General Assembly itself recognised in 1995 that the enemy-state clauses had become obsolete and expressed an intention to delete them through the Charter amendment procedure.
- The 2005 World Summit Outcome again resolved to delete references to "enemy States" in Articles 53, 77 and 107. However, the proposed amendments have not been implemented.

Why Have They Not Been Deleted?

- Amending the UN Charter requires a demanding process under Article 108. Amendments require adoption by a two-thirds majority of the General Assembly and ratification by two-thirds of UN members, including all permanent members of the Security Council.
- The five permanent members 'United States, Russia, China', United Kingdom and France, therefore have a decisive role in the amendment process.
- China and Russia have continued to refer to the clauses in their diplomatic rhetoric concerning Japan, while Japan views their continued presence as inconsistent with the contemporary international order.

Link with UN Security Council Reform:

- Japan's demand is part of a broader call for UNSC reform. Japan has argued that the present Council structure reflects the geopolitical realities of 1945 rather than the contemporary international system.
- It has supported expanding both permanent and non-permanent membership to make the Council more representative and legitimate.

India's Relevance:

- The issue is significant for India because New Delhi has consistently supported reform of the UN Security Council and greater representation for developing countries.
- India's case for permanent membership is linked to factors such as:
  - » Large population and economy.
  - » Contribution to UN peacekeeping.
  - » Growing role in global affairs.
  - » Representation of the developing world.
  - » Need to make global institutions more representative.
- The debate over obsolete Charter provisions therefore connects with the larger question of reforming post-World War II global institutions.

Conclusion:

The persistence of the "enemy state" clauses reflects the gap between the UN's post-1945 institutional framework and contemporary geopolitics. Their removal, alongside broader UN Security Council reform, would raise questions about how effectively global institutions can adapt to changing international realities.

Trump–Xi Summit

Context:

US President Donald Trump and Chinese President Xi Jinping held a three-day summit in Washington from 23–25 September 2026. It was Xi's first visit to Washington in more than a decade and the second Trump–Xi meeting of 2026. The summit took place against the backdrop of tensions over trade, Taiwan, artificial intelligence, critical minerals and the Iran conflict.

Key Outcomes of the summit:

- **Trade truce extended**
  - » The two countries agreed to extend their existing economic/trade truce by two

months, until 10 January 2027.

» The broader arrangement involves tariff reductions and commitments concerning agricultural products, critical minerals and fentanyl-related precursor chemicals.



- **Critical minerals and rare earths**
  - » Rare-earth supply remains a major strategic issue because China occupies a dominant position in global processing.
  - » The summit did not completely resolve concerns regarding US access to rare earths and other critical minerals.
- **Artificial Intelligence**
  - » The US and China agreed to establish a bilateral dialogue on advanced AI/"super intelligence".
  - » They also agreed to create a communication channel for AI-related incidents, aimed at preventing technological competition from producing unintended escalation.
- **Taiwan**
  - » Taiwan remained one of the most sensitive unresolved issues.
  - » Beijing reiterated its opposition to Taiwanese independence and urged Washington to handle the Taiwan issue cautiously.
  - » The US continues to maintain its longstanding policy framework concerning Taiwan and has security commitments under US law.
- **Iran and global conflicts**
  - » The leaders discussed Iran, Russia and North Korea.
  - » China and the US differed significantly over the Iran conflict, illustrating that their strategic competition extends beyond bilateral trade.

Why is the Summit Important for India?

- **India's trade competitiveness:** A temporary easing of US–China trade tensions can alter global trade flows. If Chinese goods regain easier access to the US market, some opportunities created for Indian exporters during periods of US–China trade friction could narrow.
- **Russian oil issue:** The summit's timing is significant for India because Washington's approach toward Chinese and Indian purchases of Russian energy has different strategic implications. The extension of the US–China trade understanding leaves India exposed to potential pressure over Russian crude purchases.
- **Critical minerals:** India's energy transition and high-tech manufacturing depend on reliable access to critical minerals and their processing. US–China competition over rare earths therefore has implications for India's electronics, defence, EV and renewable-energy sectors.
- **Indo-Pacific security:** US–China rivalry directly affects the strategic environment of the Indo-Pacific. For India, developments concerning Taiwan, the South China Sea,

supply chains and military communication mechanisms have implications for its own Indo-Pacific strategy.



Broader significance:

- The Trump–Xi summit illustrates a shift from an outright trade-war framework towards managed strategic competition.
- The two powers have incentives to prevent economic rivalry from escalating into military confrontation, but fundamental disagreements remain over:
  - » Technology and semiconductor controls
  - » Taiwan
  - » Critical minerals
  - » Trade and tariffs
  - » AI governance
  - » Global conflicts and geopolitics
- The summit therefore represents conflict management rather than resolution of US–China rivalry.

Conclusion:

The Trump–Xi summit highlights the emergence of a multipolar but highly competitive international order. For India, the challenge is to convert geopolitical competition into opportunities for supply-chain diversification, semiconductor development, critical-mineral security and strategic partnerships, while avoiding excessive dependence on any single major power.

India Signs UN Convention against Cybercrime

Context:

Recently, External Affairs Minister S. Jaishankar signed the United Nations Convention against Cybercrime on 25 September 2026, on the sidelines of the 81st United Nations General Assembly (UNGA) in New York. The Convention aims to strengthen international cooperation in combating cybercrime and facilitate the sharing of electronic evidence.

What is Cybercrime?

- Cybercrime refers to criminal activities committed using computers, digital networks or information and communication technologies (ICTs), either as the target or as a tool.
- **Examples:**
  - » Hacking and unauthorised access
  - » Ransomware and malware attacks
  - » Online financial fraud
  - » Identity theft
  - » Cyberstalking and online harassment
  - » Data theft
  - » Child sexual exploitation online
  - » Non-consensual sharing of intimate images
- Cybercrime is often transnational, with criminals, victims, servers and financial transactions located in different countries.

About UN Cybercrime Convention:

- The UN Convention against Cybercrime is the first comprehensive global treaty dedicated to combating cybercrime. It was adopted by the UN General Assembly on 24 December 2024 and opened for signature in Hanoi, Vietnam, in October 2025.
- Its primary objective is to create a common international framework for preventing and investigating cybercrime and prosecuting

offenders.



Key Provisions:

- **International Cooperation:** Enables countries to cooperate in cybercrime investigations and prosecutions.
- **Electronic Evidence:** Facilitates the collection, preservation and sharing of electronic evidence across borders.
- **24/7 Network:** Establishes a round-the-clock cooperation mechanism for urgent assistance.
- **Cybercrime Prevention:** Strengthens national measures to prevent technology-enabled crimes.
- **Capacity Building:** Promotes technical assistance and training, particularly for developing countries.
- **Protection of Children:** Addresses online child sexual exploitation, abuse and grooming.
- **Online Offences:** Covers offences such as online fraud and non-consensual dissemination of intimate images.

Significance for India:

- **Tackling Cross-Border Cybercrime:** Cybercriminals frequently operate across jurisdictions. A criminal may be located abroad, target an Indian victim and use servers in another country. International cooperation is therefore essential.
- **Access to Electronic Evidence:** Digital evidence such as IP records, emails, cloud data and financial transactions may be stored outside India. The Convention can facilitate lawful access to such evidence.
- **Combating Financial Fraud:** Cross-border cyber fraud involves complex networks and rapid movement of illicit funds. Greater international cooperation can assist in tracing and recovering criminal proceeds.
- **Strengthening India's Cybersecurity:** The Convention complements India's domestic initiatives such as the Indian Cyber Crime Coordination Centre (I4C) and the National Cyber Crime Reporting Portal.

Challenges:

- **Privacy and human rights:** Cross-border data access must have adequate safeguards.
- **Sovereignty:** Different countries may have concerns regarding jurisdiction and access to data.
- **Divergent laws:** Definitions of cybercrime and evidentiary standards vary across countries.
- **Rapid technological change:** AI, deepfakes, ransomware and cryptocurrency-based crimes continuously evolve.

Conclusion:

India's signing of the UN Cybercrime Convention marks an important step towards strengthening multilateral cooperation against transnational cybercrime. Its successful implementation will require a balance between effective law enforcement, privacy, due process, cybersecurity and national sovereignty.

4 Environment & Ecology

The Changing Himalayas: From Glacier Retreat to Cascading Disasters

Context:

In recent years, the increasing occurrence of floods, landslides, glacial lake outbursts, avalanches and glacier collapses in the Himalayan region has made it important to consider whether the Himalayas are moving towards a broader 'tipping point'. In September 2026, the International Centre for Integrated Mountain Development (ICIMOD) released the report 'Prosperous and Resilient Himalayas', which indicated that glaciers in the Hindu Kush-Himalaya (HKH) region are rapidly losing mass, thereby increasing both water-security concerns and disaster risks.

The devastating flood and debris-flow event in Nepal in August 2026 further highlighted this crisis. The event involved interconnected processes such as the collapse of glacier and ice-rock debris, instability of mountain slopes, and sudden increases in river discharge. It serves as a serious warning of the emerging 'cascading cryospheric hazards' in the Himalayas.

Why is the Himalayas Important?

- The Himalayas are not merely a mountain range; they form the foundation of Asia's water and ecological security. Rivers originating in the Hindu Kush-Himalaya region affect hundreds of millions of people across countries including India, Nepal, Bhutan, Bangladesh, Pakistan and China.
- Glaciers act as natural reservoirs for these rivers. During winter, water is stored in the form of snow and ice, while during warmer months, melting contributes to maintaining river flows. Therefore, changes in glaciers are not limited to mountain regions; they also affect downstream agriculture, drinking water, hydropower and ecosystems.



Climate Change and Himalayan Glaciers:

- The Himalayan region is warming rapidly due to rising global temperatures. Increasing temperatures are causing a decline in the mass balance of glaciers, meaning that glaciers are losing more ice than they are gaining through new accumulation.

- As glaciers retreat, new glacial lakes may form in front of or around them. The ice, debris or moraine dams holding these lakes are not always stable. Earthquakes, heavy rainfall, avalanches or rockfalls can cause these natural barriers to suddenly fail, resulting in a Glacial Lake Outburst Flood (GLOF).

Meaning of the 'Tipping Point':

- In the Himalayan context, the term 'tipping point' does not mean that the entire Himalayan mountain system will suddenly collapse. Rather, it refers to a stage where environmental changes become so extensive that the functioning of traditional ecological and hydrological systems begins to change.
- Rapid glacier melting may initially increase river discharge. However, as glaciers continue to shrink and their ice reserves decline, a point may eventually be reached when the additional meltwater begins to decrease. Consequently, long-term river flows may also decline.
- Thus, the Himalayan region may face two contrasting problems:
  - » In the short term: More water and sudden floods.
  - » In the long term: Less ice, reduced meltwater and water scarcity.
- This represents one of the major challenges to Himalayan water security.

Lessons from the Nepal Tragedy:

- The 2026 Nepal tragedy highlights that mountain disasters can no longer be viewed as isolated events. Glacier retreat in the Himalayan region can affect the stability of mountain slopes, potentially increasing the risk of ice and rock avalanches. This can subsequently block river channels, lead to the accumulation of debris and create conditions for sudden water release. As a result, the risk of flash floods and widespread destruction in downstream areas increases.
- Thus, glacier retreat, slope instability, ice-rock avalanches, river blockage, debris accumulation, sudden water release and flash floods are interconnected processes. Such interconnected and sequential disasters can be described as "cascading disasters."
- Climate change can increase risks across this entire chain because rising temperatures can weaken glaciers, cause permafrost to thaw and affect the stability of mountain slopes. Therefore, future Himalayan disasters cannot be adequately understood merely as 'floods' or 'landslides'. There is a need to understand the entire mountain disaster-risk system as an interconnected system.



Permafrost:

- The importance of permafrost is rapidly increasing in the context of the Himalayan crisis. Permafrost refers to ground that remains frozen for at least two consecutive years. In high-altitude mountain regions, it plays an important role in maintaining the stability of rocks and soil.
- As temperatures rise, permafrost can thaw. This can reduce the stability of rocks and slopes and increase the risk of rockfalls, landslides and avalanches. Therefore, the impact of climate change in the Himalayas is not limited to 'ice melting'. It is affecting the entire ice-rock-soil-water system.

Challenges for India:

The rivers originating in the Himalayas are closely linked to India's water, agricultural and

energy security.

- **Water Security:** The Ganga, Yamuna, Sutlej, Alaknanda, Bhagirathi and other Himalayan river systems are important for India. Long-term changes in glaciers may alter the seasonal pattern of river flows.
- **Hydropower:** The Himalayas are a major region for India's hydropower potential. However, increasing flash floods, landslides and GLOFs pose greater risks to dams, tunnels and other infrastructure.
- **Agriculture:** The flow of river systems such as the Ganga-Brahmaputra is important for Indian agriculture. Long-term changes in water availability may affect irrigation and food security.
- **Border Regions:** The Himalayan region is also connected with India's strategic borders. Disasters can affect roads, bridges, communication networks and military infrastructure.
- **Urbanisation and Tourism:** Rapid tourism and infrastructure development in states such as Uttarakhand, Himachal Pradesh, Sikkim and Arunachal Pradesh is placing additional pressure on fragile mountain ecosystems.

Way Forward:

- **Better Monitoring:**
  - Satellite remote sensing, drones, automatic weather stations and ground-based sensors should be widely used.
  - Real-time monitoring systems should be developed in vulnerable areas.
  - Effective early warning systems should be developed for GLOFs, flash floods, landslides and avalanches.
- **Risk-Based Infrastructure Development:**
  - While planning roads, dams, tunnels and urban development in the Himalayas, decisions should not be based solely on engineering feasibility.
  - Cumulative environmental risk assessment should be made an essential part of project planning.
  - Climate-resilient infrastructure should be prioritised in vulnerable areas.
- **Scientific Land-Use Planning:**
  - Unregulated construction should be restricted in landslide- and flood-prone areas.
  - Tourism in mountain regions should be regulated on the basis of carrying capacity.
  - Clear area-specific criteria should be established for development activities in ecologically sensitive regions.
- **Regional Cooperation:**
  - Cooperation among Himalayan countries, including India, Nepal, Bhutan and China, should be strengthened in areas such as hydrological data sharing, glacier monitoring and disaster early warning.
  - A regional data-sharing mechanism should be developed for shared disaster risks.
- **Participation of Local Communities:**
  - Traditional knowledge and local experience of mountain communities should be integrated with modern scientific systems.
  - Communities should be trained in early warning, safe evacuation and disaster management.

Conclusion:

Rapid glacier melting in the Himalayas is not merely an environmental crisis; it is a broader challenge linked to water, food, energy and disaster security. The 2026 Nepal tragedy has demonstrated that glacier melting, slope instability, avalanches and sudden floods can interact with one another and develop into cascading disasters. Therefore, the Himalayan development model needs to be redefined by taking ecological sensitivity and climate risks into account. Scientific monitoring, early warning systems, risk-based planning and regional cooperation are essential for ensuring the long-term safety of the Himalayas and the millions of people whose lives and livelihoods depend upon them.

Short Issues

Coral Reefs Under Climate Stress

Context:

Recently, The Global Coral Reef Monitoring Network (GCRMN) released its seventh Status of Coral Reefs of the World.

What are Coral Reefs?

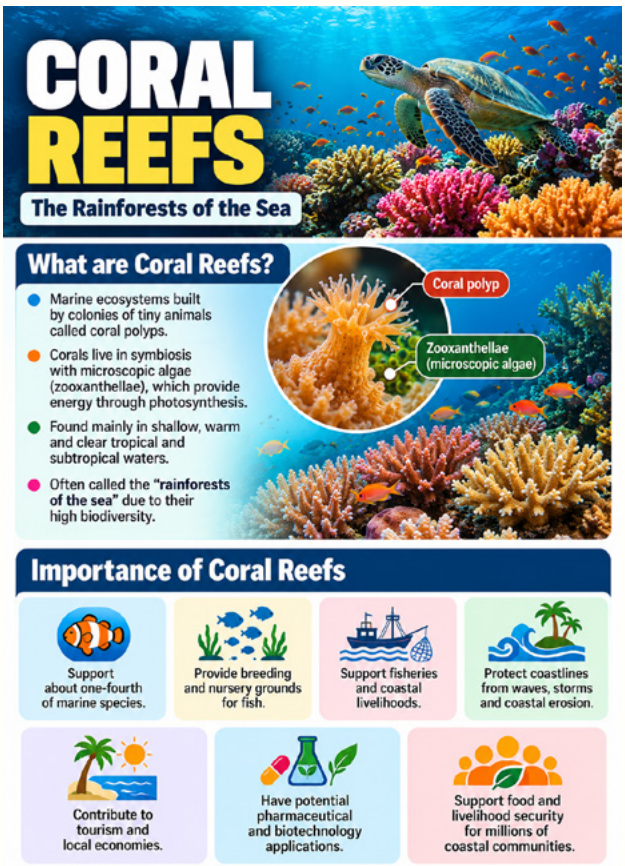
- Coral reefs are marine ecosystems built primarily by colonies of tiny animals called coral polyps. Reef-building corals live in symbiotic association with microscopic algae called zooxanthellae, which provide much of the energy required by corals through photosynthesis.
- Coral reefs are mainly found in shallow, warm and clear tropical and subtropical waters.
- They are often described as the "rainforests of the sea" because of their exceptionally high biodiversity.

Importance of Coral Reefs:

- Support around one-fourth of marine species despite occupying a very small fraction of the ocean floor.
- Provide breeding and nursery grounds for fish.
- Support fisheries and coastal livelihoods.
- Protect coastlines from waves, storms and coastal erosion.
- Contribute to tourism and local economies.
- Have potential pharmaceutical and biotechnology applications.
- Support food and livelihood security for millions of coastal communities.

Key Findings of the report:

- The report found that global hard coral cover has declined by about 9.5% compared with the 1980–2009 reference period. Major disturbances are now occurring every 4–6 years, instead of roughly once a decade, leaving less time for reef recovery and increasing the risk of sustained degradation.
- Marine heatwaves are the strongest driver of coral decline, with sea-surface temperatures over coral reefs rising by about 0.81°C between 1985 and 2025. Heat stress causes corals to expel their symbiotic algae (zooxanthellae), leading to bleaching.
- The fourth global mass bleaching event began in 2023, peaked in heat stress during 2024 and likely continued into 2025. Major global bleaching events have occurred in 1998–99, 2010–11, 2016–17 and 2023–24.



- In 2024, 87% of reefs experienced unprecedented heat stress, while over 40% faced heat stress linked to mortality risk. The Caribbean was particularly affected, with average hard coral cover falling to 7.1% in 2024, while the ROPME Sea Area witnessed about a 50% decline between 2020 and 2024, with coral cover around 15%. Australia and the Pacific also recorded

moderate declines.

Implications for India:

- India's major coral reef ecosystems are located in the Gulf of Mannar, Gulf of Kachchh, Lakshadweep and Andaman & Nicobar Islands. They support fisheries, tourism, biodiversity and coastal protection.
- Indian reefs face both climate-related threats and local pressures such as pollution, sedimentation, overfishing and coastal development.

Way Forward:

- Rapid reduction in greenhouse-gas emissions.
- Strengthening Marine Protected Areas.
- Controlling coastal pollution and destructive fishing.
- Promoting coral restoration and conservation.
- Strengthening long-term scientific monitoring.
- Protecting climate-resilient reefs.

Conclusion:

The coral reef crisis reflects the combined impact of global climate change and local ecological pressures. Ensuring reef survival requires simultaneous climate mitigation, sustainable coastal management and ecosystem restoration.

UNEP Report: 1.5°C Warming Overshoot and Climate Action

Context:

The United Nations Environment Programme (UNEP) has released its report Limiting Overshoot – Navigating Exceedance of 1.5°C and Pathways Towards Return, warning that temporary overshoot of the 1.5°C global warming threshold is now widely assessed as unavoidable. Even under an optimistic scenario involving full implementation of existing climate plans and net-zero pledges, global temperatures could peak at around 1.8°C.

What is the 1.5°C Global Warming Threshold?

- The 1.5°C global warming threshold is a key climate target under the 2015 Paris Agreement, aimed at limiting the long-term rise in global average temperature to 1.5°C above pre-industrial levels.
- For scientific assessment, the 1850–1900 average is generally used as the pre-industrial baseline. The threshold represents a long-term warming level.



Significance of the 1.5°C Target:

- The Paris Agreement (2015) seeks to hold global warming well below 2°C and pursue efforts to limit it to 1.5°C. The lower threshold is significant because climate risks increase with every additional fraction of warming.
- Compared with 2°C, 1.5°C reduces risks related to extreme heat, drought, water stress, sea-level rise and ecosystem damage. However, 1.5°C is not a completely "safe" limit; it represents a goal to minimise climate risks.

What is Climate Overshoot?

- Overshoot refers to temporarily exceeding a temperature threshold before potentially bringing temperatures down later. Importantly, crossing 1.5°C for a single year does not automatically mean that the Paris Agreement has failed, as its temperature goal concerns long-term warming trends.

Implications of Overshoot:

- A higher and prolonged overshoot can intensify:
  - » Extreme heat and wildfires

  - » Glacier and ice-sheet loss
  - » Sea-level rise
  - » Coral-reef degradation
  - » Amazon rainforest dieback
  - » Permafrost thaw
  - » Risks to major ocean systems such as AMOC
- Some impacts may be irreversible, even if global temperatures subsequently decline.

Required Climate Action:

- First, countries must accelerate mitigation through rapid emissions reductions and particularly methane reduction, which can provide near-term climate benefits.
- Second, adaptation must be strengthened through climate-resilient agriculture, infrastructure, water management and early-warning systems.
- Third, achieving temperature decline after overshoot would require net-negative CO□ emissions, making carbon dioxide removal technologies and ecosystem restoration increasingly important. However, carbon removal cannot replace immediate emissions reduction.

Climate Justice and India:

- Overshoot will disproportionately affect developing countries that have contributed relatively less to historical emissions but face greater vulnerability. Hence, climate finance, technology transfer and the principle of CBDR-RC remain crucial.
- For India, priorities include renewable energy expansion, energy efficiency, climate-resilient agriculture, heat-action plans, water security and coastal resilience.

Conclusion:

The focus should be on reducing the intensity and duration of the potential additional 1.5°C rise in temperature, which will require rapid mitigation, robust adaptation, climate finance, and ultimately, responsible carbon removal. Limiting the temperature rise by even a fraction can reduce future climate damage.

Pollution from Winter Waste Burning in Cities

Context:

A recent World Resources Institute (WRI) India working paper has found that open waste burning in Indian cities rises sharply during winter, with the incidence, quantity of waste burned and associated emissions being up to three times higher than in summer. The study is based on field surveys conducted between 2019 and 2026 across 11 polluted Indian cities.

Key Findings:

- Tier-2 cities recorded the highest quantities of waste burned. Their waste burning increased from around 21 tonnes/day in summer to 41 tonnes/day in winter.
- Tier-3 cities recorded the highest incidence of burning, at around 49.6 incidents per sq. km. per day during winter.
- Poorer neighbourhoods witnessed substantially more burning, with nearly 84 incidents per sq. km. per day recorded in poorer areas of Tier-2 cities.
- Paper and plastics were among the major materials burned.
- Open waste burning contributed less than 1% of total citywide PM2.5 and PM10 emissions in the cities assessed, but created significant localised exposure because burning often occurs near homes, roads and waste dumps.

Why Does Waste Burning Increase in winter?

- Winter is associated with weaker winds, stable atmospheric conditions and temperature inversions, which restrict the dispersion of pollutants and allow them to accumulate near the ground.
- Waste burning also increases because some vulnerable populations use waste as a source of warmth, while seasonal waste-disposal practices and inadequate municipal collection further encourage open burning.

Air Pollution and Health Impacts:

- Open burning releases PM2.5, PM10, carbon monoxide, nitrogen dioxide and other toxic pollutants. Burning plastics and mixed waste can be particularly hazardous.
- Air pollution can contribute to respiratory diseases, asthma exacerbation, cardiovascular disease, stroke and lung cancer.
- Although open burning may have a small share in total citywide emissions, its proximity to human settlements can result in intense short-term exposure.



Socio-Economic Dimension:

- The study highlights that pollution is also an issue of environmental inequality. Poorer communities often have inadequate waste-collection services and greater proximity to dumpsites and burning locations. Therefore, enforcement alone cannot solve the problem.

Government Measures:

- The Commission for Air Quality Management (CAQM) has initiated measures in the NCR, including identifying "waste-sensitive" sites, strengthening inspections, training waste-management workers and conducting awareness campaigns.
- The Union Environment Ministry has also stressed increasing waste-processing capacity and providing heating facilities for workers as an alternative to burning waste for warmth.

Way Forward:

- Strengthen door-to-door collection and source segregation.
- Expand scientific and decentralised waste processing.
- Map and monitor recurring waste-burning hotspots.
- Provide safe heating alternatives to vulnerable workers.
- Combine strict enforcement with improved municipal services.
- Use technology such as GIS and satellite monitoring for better surveillance.

Conclusion:

The WRI study shows that winter waste burning is a localised but significant public-health concern. Tackling it requires moving beyond seasonal enforcement towards year-round scientific waste management, stronger urban local bodies, social protection and sustainable urban planning.

Swachh Vayu Sarvekshan 2026: Lucknow Ranks 1st

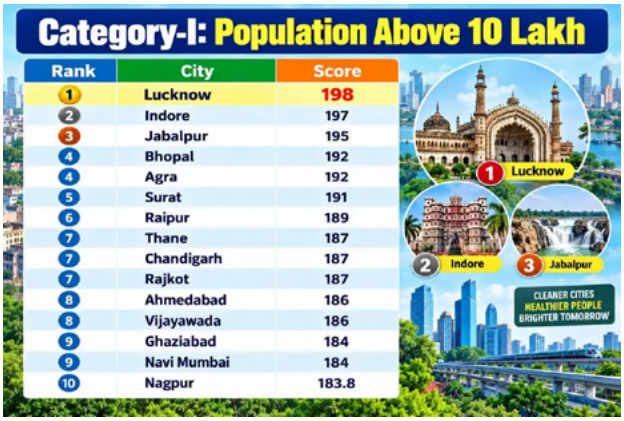
Context:

Recently, the 5th Swachh Vayu Sarvekshan Awards 2026 were presented on 7 September 2026 on Swachh Vayu Diwas. Lucknow secured 1st position among cities with a population

above 10 lakh, followed by Indore and Jabalpur.

What is Swachh Vayu Sarvekshan?

- It is an annual assessment of air-quality management efforts in cities, launched in 2022-23 by the Ministry of Environment, Forest and Climate Change (MoEFCC).
- It is implemented under the National Clean Air Programme (NCAP).
- Cities are assessed on the implementation of City-Specific Clean Air Action Plans (CAPs) and measures to reduce air pollution.
- In 2026, cities were evaluated in three population categories:
  - » Above 10 lakh
  - » 3–10 lakh
  - » Below 3 lakh
- Assessment involves city self-evaluation, State-level monitoring, CPCB evaluation and independent field verification.



Key Findings of 2026:

Category	1st	2nd	3rd
>10 lakh	Lucknow	Indore	Jabalpur
3–10 lakh	Rourkela	Firozabad & Guntur	Amravati
<3 lakh	Kalingan-agar	Angul	Talcher

- Lucknow improved its ranking through electric waste-collection vehicles, mechanised road sweeping, legacy-waste management and improved garbage collection, anti-burning measures and expansion of green spaces.
- However, Lucknow's annual PM10 concentration remains above the National Ambient Air Quality Standard (NAAQS) of 60 µg/m³, though it declined from 250 µg/m³ in 2017-18 to 137 µg/m³.

Key Evaluation Parameters:

- The survey considers:
  - » Road and soil dust management
  - » Vehicular and industrial emissions
  - » Construction and demolition waste
  - » Municipal solid-waste management
  - » Open waste burning
  - » Urban greening
  - » Implementation of Clean Air Action Plans
- Importantly, PM10 reduction has only 2.5% weightage, indicating that the survey primarily evaluates the quality and implementation of pollution-control measures rather than merely ranking cities by measured air pollution.

Link with National Clean Air Programme:

- The NCAP, launched in January 2019, covers 130 cities and aims to achieve up to 40% reduction in PM10 levels or attainment of the national standard by 2025-26.
- In FY 2025-26, 108 of 130 NCAP cities recorded reductions in annual PM10 levels compared with 2017-18, while 14 cities met the national standard.

Significance:

- Encourages competitive federalism among cities.
- Promotes scientific and measurable air-quality management.
- Strengthens implementation of city-specific clean-air plans.
- Links air pollution control with waste management, mobility and urban planning.
- Encourages citizen participation and ward-level action.

Challenges:

- Persistent PM10 exceedance in major cities.
- Vehicular emissions and road dust remain

significant sources.
- Uneven institutional and technical capacity among urban local bodies.
- Seasonal pollution spikes, especially during winter.
- Need for better monitoring of pollution sources and outcomes.

Conclusion:

Swachh Vayu Sarvekshan represents a shift from merely measuring pollution to evaluating governance and implementation capacity. Lucknow's performance demonstrates that sustained action across waste management, transport, dust control and urban planning can produce measurable improvements, but continued efforts are essential to achieve national air-quality standards.

Social Inheritance in Spotted Hyenas: Female Lineages

Context:

A recent study published in Science Advances has revealed important findings concerning the social behaviour and reproductive inequality of spotted hyenas. According to the study, social rank, access to resources, and reproductive opportunities can be passed down from one generation to the next in these animals. These findings call for a reconsideration of conventional assumptions about gender roles and reproductive competition in evolutionary biology.

Study Area and Methodology:

- The study was based on eight permanent groups, or clans, of spotted hyenas living in Tanzania's Ngorongoro Crater. Researchers examined 29 years of data covering eight generations and 2,743 wild hyenas.
- The study analysed social relationships, genealogy, and reproductive success. In addition, DNA was extracted from mucosal tissue found around faecal samples to identify paternity. This genetic information enabled researchers to assess the reproductive contributions of different lineages.

Key Findings:

- Female spotted hyenas occupy a higher position than males in the social hierarchy. Their dominance is not based solely on physical strength or body size but also depends on strong social alliances and cooperative networks.
- In contrast, male hyenas often attempt to establish social relationships by staying close to high-ranking females.
- The study found intense competition among females for food, social status, and reproductive opportunities. In some cases, females may even kill the cubs of other females. This challenges the assumption that reproductive competition is generally more intense among males.
- According to the research, the female offspring of a high-ranking alpha female, particularly the youngest female cub, may benefit from her mother's social status. She may gain better access to food, nutrition, social allies, and reproductive opportunities. As a result, her chances of survival and future reproduction may increase.



Social Inheritance and Reproductive Inequality:

- Researchers analysed approximately 30 years of genealogical data from a clan known as "Lemala." They found that nearly all currently living members were connected to a single founding female lineage. This

suggests that social rank and better access to resources may provide certain female lineages with sustained advantages.

- This process may be described as social inheritance. It differs from genetic inheritance because the benefits passed on to offspring are not genes themselves, but advantages associated with social status, family relationships, alliances, and access to resources. Over several generations, the accumulation of these advantages may result in some lineages achieving greater reproductive success than others.

Implications for Traditional Evolutionary Theories:

- According to the Darwin–Bateman principle, males in many species compete more intensely for reproduction, while females, because of their greater biological investment in pregnancy and lactation, play a more significant role in mate selection. However, female–female competition and social dominance among spotted hyenas represent an important exception to this generalised assumption.
- The study demonstrates that gender roles are not determined solely by biological structure. Social organisation, resource distribution, and family relationships can also influence them.

Significance of the Research:

- This study is important for understanding long-term wildlife research, social evolution, and biodiversity. Researchers are now investigating whether socially inherited reproductive inequality also occurs in other animal species. They are also examining whether females of high and low social rank invest differently in male and female offspring.

Conclusion:

The study of spotted hyenas clearly demonstrates that reproductive success in the natural world does not depend solely on genetic traits or physical strength. Social rank, alliances, and access to resources can also influence reproductive outcomes across generations. Thus, social inheritance is emerging as an important framework for understanding evolutionary processes, gender roles, and inequality within animal societies.

New Cat Species Leopardus tilcayo Discovered After 100 Years in Bolivia

Context:

Recently, Scientists have formally identified a new wild cat species, Leopardus tilcayo, in Bolivia's Yungas cloud forests. It is significant because this is the first living cat species to be formally described in more than a century. The findings were published in the journal Current Biology in September 2026.

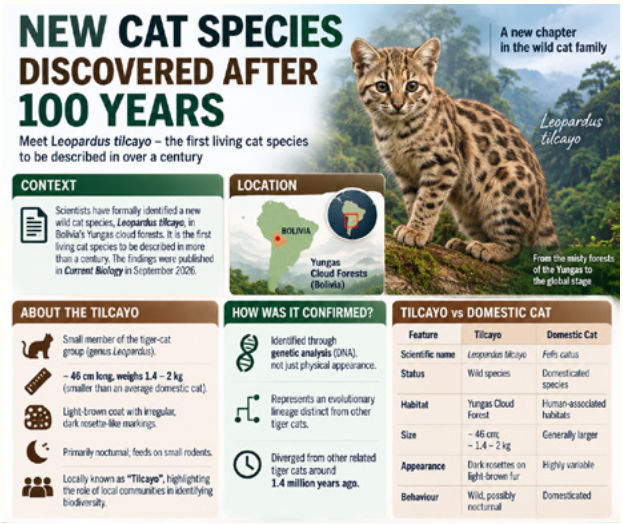
About the Tilcayo:

- The Tilcayo is a small member of the tiger-cat group belonging to the genus Leopardus. It is reported to be approximately 46 centimetres long and weigh around 1.4 to 2 kilograms, making it even smaller than an average domestic cat.
- It has a light-brown coat with irregular, dark rosette-like markings on its body, giving it the appearance of a miniature leopard.
- Preliminary observations suggest that it is primarily nocturnal and feeds on small rodents.
- The animal was locally known as "Tilcayo," highlighting the role of local communities in identifying and documenting biodiversity.

How Was the Species Confirmed?

- The species was identified not merely on the basis of its physical appearance but through genetic analysis. Researchers studied its DNA and confirmed that it represents an evolutionary lineage distinct from other tiger cats.
- According to researchers, its evolutionary

lineage diverged from other related tiger cats approximately 1.4 million years ago.



How Is It Different from a Domestic Cat?

Feature	Tilcayo	Domestic Cat
Scientific name	Leopardus tilcayo	Felis catus
Status	Wild species	Domesticated species
Habitat	Yungas Cloud Forest	Human-associated habitats
Size	~46 cm; ~1.4–2 kg	Generally larger
Appearance	Dark rosettes on light-brown fur	Highly variable
Behaviour	Wild, possibly nocturnal	Domesticated

Significance:

- **Biodiversity:** The discovery highlights the existence of cryptic species, species that may appear similar but are genetically distinct.
- **Role of Genetic Taxonomy:** Modern genomic techniques can reveal evolutionary relationships that conventional morphological classification may overlook.
- **Conservation:** The Yungas is under pressure from deforestation, agriculture and mining. Since the population and ecological requirements of the Tilcayo remain poorly understood, further surveys are necessary to assess its conservation status.
- **Indigenous and Local Knowledge:** The local name and community-level recognition of the animal demonstrate how traditional ecological knowledge can complement modern scientific research.

Conclusion:

The discovery of Leopardus tilcayo shows that the world's biodiversity remains incompletely documented. It underlines the need to combine modern genomic science, field research and local ecological knowledge with stronger habitat protection to conserve species before they become threatened or extinct.

Project Cheetah: Four Years of Cheetah Reintroduction in India

Context:

A day after Project Cheetah completed four years, an Indian-born female cheetah, KGP12, gave birth to four cubs in the wild at Kuno National Park, Madhya Pradesh. KGP12 is the daughter of Gamini, a South African cheetah. The birth marks an important milestone because it represents the next generation of cheetahs born in India, indicating natural breeding and adaptation to Indian conditions.

About Project Cheetah:

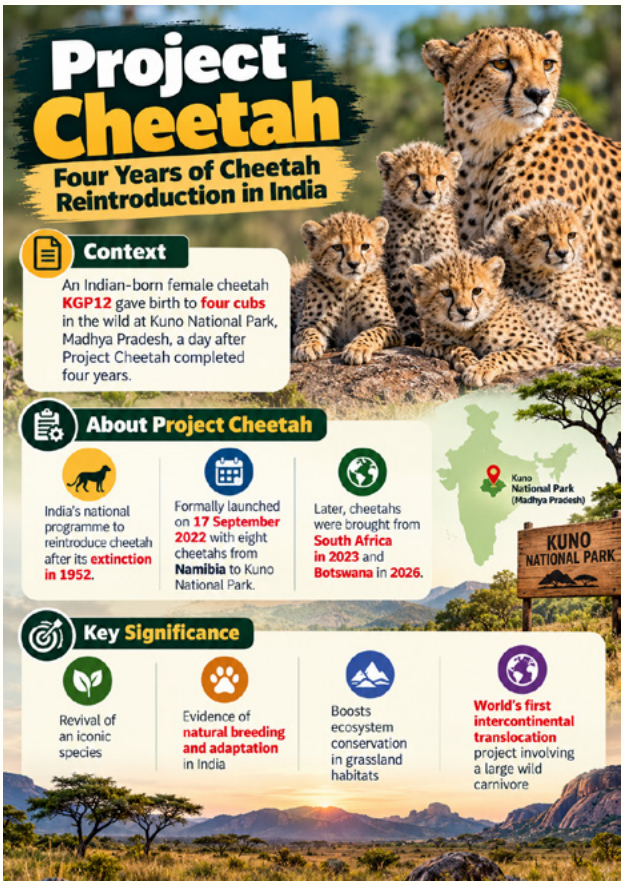
- Project Cheetah is India's national programme to reintroduce the cheetah after the species became extinct in India in 1952. It was formally launched on 17 September 2022 with the translocation of eight cheetahs from Namibia to Kuno National Park. Subsequently, cheetahs were brought from South Africa in 2023 and Botswana in 2026.
- The project is described by the government as the world's first intercontinental

translocation project involving a large wild carnivore.

Objectives of Project Cheetah:

The programme aims to:

- Establish a viable, self-sustaining cheetah population in India.
- Restore degraded grassland and open-forest ecosystems.
- Develop a population of around 60–70 cheetahs in the long term.
- Promote biodiversity conservation through the cheetah as a flagship and umbrella species.
- Create ecological connectivity between suitable habitats.



Why Kuno National Park?

- Kuno was selected because of its:
  - » Suitable grassland and open-forest habitat.
  - » Adequate prey base.
  - » Relatively low human disturbance.
  - » Potential for expansion into surrounding landscapes.
- The conservation landscape has now expanded through the integrated management of Kuno National Park and Gandhi Sagar Wildlife Sanctuary.
- The government has also identified Nauradehi Wildlife Sanctuary in Madhya Pradesh and Banni Grasslands in Gujarat as potential future release sites.

Challenges:

- Despite progress, long-term success depends on:
  - » Maintaining adequate prey populations.
  - » Managing disease and genetic diversity.
  - » Preventing human-wildlife conflict.
  - » Ensuring sufficient habitat and ecological corridors.
  - » Improving cub survival.
  - » Establishing multiple viable populations rather than dependence on a single site.
  - » Managing mortality risks associated with translocation and adaptation.

Institutional Framework:

- Project Cheetah is implemented under the Ministry of Environment, Forest and Climate Change (MoEFCC) and spearheaded by the National Tiger Conservation Authority (NTCA). The Wildlife Institute of India (WII) and state forest departments also contribute scientific and field-management expertise.

Conclusion:

The birth of four cubs to Indian-born KGP12 indicates that Project Cheetah is moving beyond the initial phase of translocation towards natural reproduction and population establishment in India. Its long-term success, however, will depend on habitat availability, prey base, genetic diversity, cub survival and coexistence with local communities.

Climate Change and Anthropogenic Noise Threaten the Himalayan Monal

Context:

Recently, the Himalayan Monal, the state bird of Uttarakhand, has drawn scientific attention. Two five-year studies conducted by researchers at Hemvati Nandan Bahuguna Garhwal University (HBGU) have highlighted the emerging impacts of anthropogenic noise and climate change on its behaviour and habitat suitability.

About the Himalayan Monal:

- The Himalayan Monal (Lophophorus impejanus) is a striking Himalayan pheasant and ground-dwelling bird found across the Himalayan region. Its distribution includes Jammu and Kashmir, Himachal Pradesh, Uttarakhand and Sikkim, among other Himalayan areas.
- It is generally found in sub-alpine and alpine areas, oak-mixed forests, coniferous forests, rhododendron scrub and mountain grasslands. According to research, it can occur at elevations of approximately 2,400–4,500 metres and changes its altitude seasonally.
  - **State Bird:** Uttarakhand
  - **IUCN Status:** Least Concern
  - **Habitat:** Himalayan forests, alpine grasslands and high-altitude ecosystems
  - **Distribution:** Himalayan region

Impact of Anthropogenic Noise:

- Researchers compared Himalayan Monal populations in two areas of the Kedarnath Musk Deer Sanctuary:
  - **Madmaheshwar Valley:** A relatively quiet area with limited human disturbance and no roads.
  - **Chopta Valley:** An area with greater tourism, pilgrimage, traffic and human activities.
- Using Passive Acoustic Monitoring, researchers recorded hundreds of Monal calls across different seasons.
- They found that Monals in the noisier Chopta Valley used calls with higher frequency and greater amplitude compared to birds living in relatively quieter habitats.
- This indicates that the Monal has the capacity to adjust or modify its vocalisations in response to noisy environments.

Why is this Important?

- Monal calls are important for communication, social behaviour and reproduction. The reproductive calls of male Monals play an important role in attracting females. Increasing anthropogenic noise can potentially cause acoustic masking, making communication between birds more difficult.
- However, researchers have not yet established that these changes in vocalisations are directly resulting in a decline in reproductive success.

Conclusion:

The Himalayan Monal case demonstrates that conservation should not be limited to preventing a decline in the population of a species. Noise pollution, climate-driven habitat changes and habitat fragmentation can affect animal behaviour and ecological interactions even before a species becomes endangered. Therefore, for the long-term conservation of Himalayan biodiversity, it will be important to properly manage tourism activities while maintaining natural habitats and connectivity between them (Habitat Connectivity).

Kasturirangan Report and the Western Ghats

Context:

Recently, Karnataka has raised concerns over the proposed implementation of the Kasturirangan Committee recommendations on the Western Ghats, arguing that the

proposed ecological restrictions could affect the livelihoods of farmers and residents across several districts.

Background:

- The High-Level Working Group (HLWG) headed by Dr. K. Kasturirangan was constituted by the Ministry of Environment, Forest and Climate Change (MoEFCC) to examine the recommendations of the Western Ghats Ecology Expert Panel (WGEEP) headed by Madhav Gadgil.
- The Western Ghats are spread across Gujarat, Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu and are recognised as a major biodiversity hotspot and an important source of several rivers.



Key Recommendations:

- **37% Area as ESA:** The Kasturirangan Committee recommended declaring around 37% of the Western Ghats, approximately 60,000 sq km, as Ecologically Sensitive Area (ESA).
- **Natural and Cultural Landscape:** The Committee divided the region into:
  - **Natural Landscape:** Forests and areas of high ecological value requiring stronger conservation.
  - **Cultural Landscape:** Areas containing settlements, agriculture and plantations, where livelihood considerations are important.
- **Regulation of Activities:** The report proposed restrictions on activities with high ecological impact, including:
  - Mining and quarrying
  - Sand mining
  - Highly polluting industries
  - New thermal power projects
- Certain development activities, including hydropower, were proposed to be subject to environmental safeguards and assessment.

Why is Karnataka Opposing It?

The State government and sections of local communities have expressed concerns regarding:

- Inclusion of agricultural and plantation lands within proposed ESA boundaries.
- Possible restrictions on economic activities.
- Impact on farmers and local livelihoods.
- Accuracy of satellite-based mapping and boundary demarcation.
- Fear and uncertainty among residents regarding future land use.
- The State has therefore sought greater consultation and reconsideration of the proposed boundaries.

Gadgil vs Kasturirangan:

Aspect	Gadgil Committee	Kasturirangan Committee
Approach	Broad ecological protection	Targeted conservation
ESA coverage	About 64%	About 37%
Method	Ecological assessment	Geospatial + ecological assessment
Human	Greater regulatory coverage	Greater differentiation of cultural landscape

Focus		Conservation-development balance

Significance:

- The controversy highlights the development–environment dilemma in ecologically fragile regions. The Western Ghats provide biodiversity, water security, climate regulation and ecosystem services, while local communities depend on agriculture, plantations and other economic activities.

Conclusion:

The Western Ghats require strong ecological protection, but conservation measures must also recognise legitimate livelihood concerns. The objective should be to achieve "conservation with sustainable development", rather than treating environment and development as mutually exclusive.

Project Rhino: Conservation of Greater One-Horned Rhino

Context:

On 22 September 2026, World Rhino Day, Prime Minister Narendra Modi announced the launch of Project Rhino. The initiative aims to provide dedicated financial and technical support for the conservation of the Greater One-Horned Rhinoceros (Rhinoceros unicornis). It seeks to strengthen species protection, habitat management, genetic improvement, scientific research and population monitoring across India's rhino-bearing states.

Key Objectives of the project:

Project Rhino will focus on:

- **Species protection:** Strengthening anti-poaching and wildlife-crime prevention.
- **Habitat management:** Improving grasslands, wetlands and other rhino habitats.
- **Genetic improvement:** Supporting genetic studies and maintaining healthy populations.
- **Population research:** Scientific monitoring, population estimation and ecological studies.
- **Reintroduction:** Supporting the movement of rhinos to suitable protected areas to expand their range.

Major States Covered:

- The project will support conservation and reintroduction efforts in:
  - Assam
  - West Bengal
  - Bihar
  - Uttar Pradesh
- This approach can help reduce excessive concentration of rhino populations in a few protected areas and create additional secure habitats.

Important Facts

- **Scientific name:** Rhinoceros unicornis
- **Common name:** Greater One-Horned Rhino / Indian Rhino
- **IUCN Status:** Vulnerable
- **Horn:** Made of keratin, the same protein found in human hair and nails.
- **Major Indian habitats:** Kaziranga, Manas, Orang and Pobitora in Assam; Jaldapara and Gorumara in West Bengal; Dudhwa in Uttar Pradesh.
- **Protection in India:** Schedule I under the Wildlife (Protection) Act, 1972.

India's Rhino Conservation Success:

- India is home to the majority of the world's Greater One-Horned Rhinos, making it a crucial country for the species' global conservation.
- Assam is the principal stronghold, with Kaziranga National Park supporting the largest population.
- Strong anti-poaching measures have contributed to improved rhino protection in Assam.
- Dudhwa National Park/Tiger Reserve in Uttar Pradesh has witnessed successful rhino reintroduction and population

recovery.
- Protected areas in West Bengal and Bihar also contribute to expanding the species' conservation landscape.



Challenges:

- Poaching and illegal wildlife trade, particularly demand for rhino horn.
- Habitat loss and fragmentation due to agriculture, infrastructure and human settlements.
- Floods and other ecological disturbances affecting grassland habitats.
- Limited suitable habitat for expanding rhino populations.
- Maintaining genetic diversity in isolated populations.
- Human–wildlife conflict during population expansion and reintroduction.

Significance of Project Rhino:

- Provides a dedicated conservation framework for India's Greater One-Horned Rhino.
- Promotes a shift from population protection alone towards landscape-level conservation.
- Strengthens scientific and technology-based wildlife management.
- Can facilitate reintroduction and range expansion into suitable historical habitats.
- Supports India's broader commitments to biodiversity conservation and wildlife protection.

Conclusion:

Project Rhino seeks to consolidate India's achievements in Greater One-Horned Rhino conservation through financial support, habitat restoration, scientific research, genetic management and anti-poaching measures. Expanding secure habitats beyond traditional strongholds will be crucial for ensuring the species' long-term survival.

Cyclone Arnab or Deep Depression? Bay of Bengal Weather System

Context:

Recently, North India and parts of Odisha and Andhra Pradesh witnessed heavy rainfall after a weather system over the Bay of Bengal made landfall over Andhra Pradesh. While some media reports and social-media posts referred to the system as “Cyclone Arnab,” the India Meteorological Department (IMD) classified it as a Deep Depression, not a Cyclonic Storm.

What is a Deep Depression?

- A depression is a low-pressure system associated with organised clouding, thunderstorms and cyclonic circulation.
- According to the IMD classification:
  - **Depression:** Maximum sustained surface wind speed of 31–50 km/h.
  - **Deep Depression:** Maximum sustained wind speed of 51–61 km/h.
  - **Cyclonic Storm:** Maximum sustained wind speed of 62–88 km/h.
- Thus, a system becomes a formally classified cyclonic storm only after crossing the prescribed wind-speed threshold.

Why Was It Called ‘Arnab’?

- Arnab is the next name in the regional list of names for North Indian Ocean cyclones. The name was contributed by Bangladesh and means "ocean" in Bengali.
- However, a weather system receives a cyclone name only after attaining cyclonic-storm intensity. Since this system remained a Deep Depression, calling it "Cyclone Arnab" was technically incorrect at that stage.
- Names for tropical cyclones in the North Indian Ocean are decided in advance under the WMO/ESCAP Panel on Tropical Cyclones. The panel includes 13 countries, including India, Bangladesh, Myanmar, Pakistan, Sri Lanka, Thailand, Oman and others.
- Each country contributes names to a predetermined list. Names are used sequentially when qualifying cyclonic storms develop.

Cyclone vs Deep Depression:

Parameter	Deep Depression	Cyclonic Storm
Wind speed	51–61 km/h	62–88 km/h
Classification	Depression stage	Named tropical cyclone
Naming	Generally not assigned a cyclone name	Officially named
Hazards	Heavy rain, flooding, strong winds	Stronger winds, heavy rain, storm surge

Why Does the Distinction Matter?

- Correct classification is important for disaster management, public communication and early-warning systems. Mislabeling a deep depression as a cyclone can create confusion regarding the actual intensity of the system.
- At the same time, a deep depression can still produce severe rainfall, flooding and crop damage, making preparedness essential even when cyclone criteria are not met.

Conclusion:

The episode highlights the importance of understanding scientific weather terminology. Whether a system is called a cyclone or a deep depression, its actual impacts depend on factors such as rainfall intensity, wind speed, landfall location and local vulnerability. Accurate forecasts and timely disaster preparedness therefore remain crucial for reducing losses.

Reservoir Storage in India: A Warning for Water Security

Context:

Recently, Central Water Commission (CWC) report stated that water storage in 178 major reservoirs across India stands at around 70% of their total live storage capacity. This is below the 10-year average of 76.62% and the 79% recorded during the same period in 2025. The situation assumes greater significance amid drought declarations in parts of Maharashtra and Karnataka.

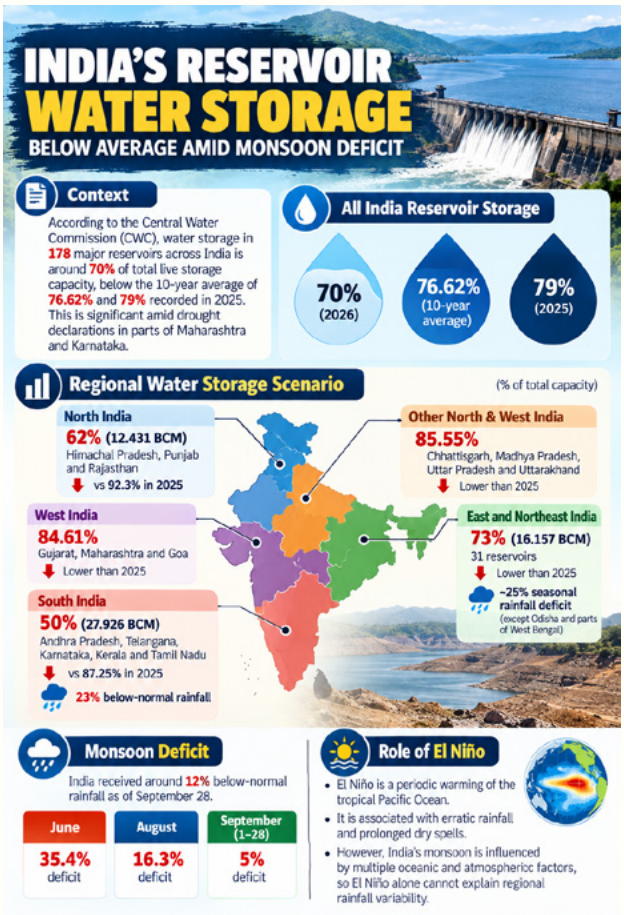
Regional Water Storage Scenario:

- South India faces the most serious water-storage stress. Reservoirs in Andhra Pradesh, Telangana, Karnataka, Kerala and Tamil Nadu contain only 50% (27.926 BCM) of their capacity, compared with 87.25% last year. The region has also recorded 23% below-normal rainfall as of September 28.
- In North India, reservoirs in Himachal Pradesh, Punjab and Rajasthan are at 62% (12.431 BCM), sharply lower than 92.3% last year.
- The East and Northeast have around 73% (16.157 BCM) storage across 31 reservoirs, while the region has experienced a seasonal rainfall deficit of around 25%, except for relatively better conditions in Odisha and parts of West Bengal.
- Reservoirs in Gujarat, Maharashtra and

Goa hold around 84.61%, while those in Chhattisgarh, Madhya Pradesh, Uttar Pradesh and Uttarakhand hold 85.55%, both lower than their corresponding 2025 levels.

Monsoon Deficit and El Niño:

- India received around 12% below-normal rainfall as of September 28. June recorded a major deficit of 35.4%, August had a 16.3% deficit, while September 1–28 recorded a 5% deficit.
- The strengthening of El Niño, a periodic warming of the tropical Pacific Ocean, has been associated with erratic rainfall and prolonged dry spells. However, India's monsoon is influenced by multiple oceanic and atmospheric factors, so El Niño alone cannot explain regional rainfall variability.



Why Reservoir Storage Matters?

- The Southwest Monsoon contributes over 70% of India's annual rainfall and replenishes reservoirs that support:
  - » Drinking-water supply
  - » Irrigation and agriculture
  - » Hydropower generation
  - » Industrial requirements
  - » Groundwater recharge
- Low reservoir levels at the end of the monsoon can therefore increase pressure on agriculture, drinking water and energy resources during the dry season.

Key Concerns:

- The situation highlights India's vulnerability to hydrological drought, uneven rainfall distribution, groundwater depletion, inefficient irrigation and water-intensive cropping patterns.
- Reduced surface-water availability may also increase groundwater extraction and aggravate inter-State water disputes.

Way Forward:

- India needs integrated water-resource management based on river-basin planning, rainwater harvesting, watershed development and groundwater recharge.
- Expansion of micro-irrigation, crop diversification, drought-resistant crops and climate-resilient agriculture can reduce water demand. Real-time reservoir monitoring and improved Centre-State coordination are also essential.

Conclusion:

The 2026 reservoir situation demonstrates that India's water challenge is not merely about the quantity of rainfall, but also its timing, distribution and efficient management. Building climate-resilient and integrated water systems is essential for long-term water, food and energy security.

5 Science & Technology

Data Centres in India: The Scientific and Technological Backbone of the Digital Age

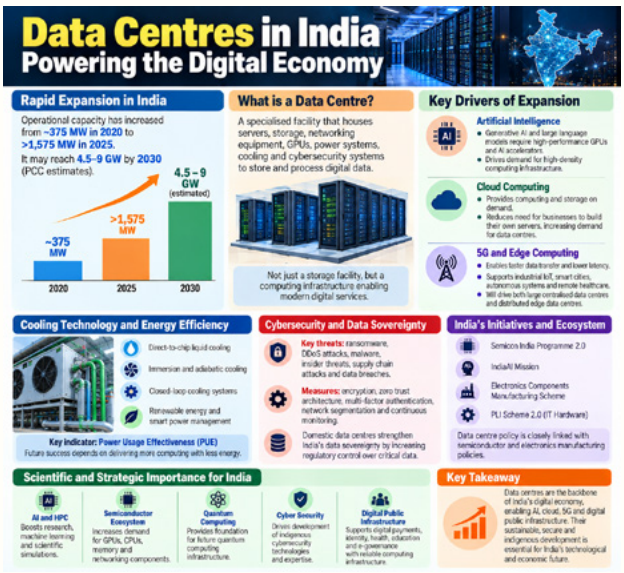
Context:

With the rapid expansion of digital technologies in India, Data Centres are emerging as an important scientific and technological infrastructure of the modern digital economy. Recently, the independent research organisation Policy Consensus Centre (PCC) stated that India's operational data centre capacity increased from around 375 megawatts in 2020 to more than 1,575 megawatts in 2025. According to PCC, this capacity could reach 4.5–9 gigawatts by 2030.

According to the Government of India, as of August 2026, the country's installed data centre capacity had reached approximately 1.57 gigawatts. This expansion is mainly being driven by the growing use of Artificial Intelligence (AI), cloud computing, 5G, Internet of Things (IoT), Digital Public Infrastructure and data localisation. Therefore, it would be more appropriate to understand data centres not merely as facilities for data storage and processing, but as the core of modern technological infrastructure that enables AI, cloud computing, semiconductors, cybersecurity and digital services.

Data Centres: The Physical Backbone of the Digital Economy

- A data centre is a specially designed facility where servers, storage, networking equipment, GPUs, power systems, cooling systems and cybersecurity systems store and process digital data.
- The computing resources present in data centres work behind every digital payment, e-governance service and AI-based query. Generally, processing a digital request, or advanced applications such as AI, requires large amounts of data and high-capacity computing. Therefore, data centres are not merely storage facilities for modern digital services, but computing infrastructure.



AI, Cloud and 5G: Major Drivers of Data Centre Expansion

- To understand the demand for data centres

in India, three technological changes are particularly important: AI, cloud computing and 5G.

- » **Artificial Intelligence:** The training and operation of Generative AI and Large Language Models require significantly more GPUs and AI accelerators compared to conventional computing. This is increasing the demand for high-density computing.
- » **Cloud Computing:** Cloud computing has enabled the use of computing and storage resources according to requirements. This has reduced the need for businesses to develop expensive server infrastructure of their own and has increased the demand for data centres.
- » **5G and Edge Computing:** 5G and edge computing enable faster data transfer and lower latency. This promotes applications such as Industrial IoT, smart cities, autonomous systems and remote healthcare.

- For many of these services, processing data closer to the user is more effective than sending it to a distant data centre. This is the concept of edge computing. Therefore, in the future, India may witness the expansion of distributed edge data centres along with large centralised data centres.

Rapid Expansion of Data Centres in India:

- The development of data centres in India has accelerated rapidly with digital transformation. The National Informatics Centre (NIC) operates National Data Centres in New Delhi, Pune, Hyderabad and Bhubaneswar. Alongside this, large hyperscale and cloud data centres are also being developed in the private sector. The most important technological factor driving demand for data centres in India is AI.
- AI-based data centres require high-capacity GPUs, CPUs, memory, networking equipment and power electronics. Therefore, data centre policy cannot be viewed separately from semiconductor and electronics manufacturing policies.
- In this direction, initiatives such as the Semicon India Programme 2.0, IndiaAI Mission, Electronics Components Manufacturing Scheme and PLI Scheme 2.0 for IT Hardware are important for strengthening India's digital-industrial ecosystem. From this perspective, these initiatives can help India become not only a consumer of digital services but also a producer of diverse and AI technologies.

Cooling Technology and Energy Efficiency in Data Centres:

- Due to AI and high-performance computing, the computing capacity and energy density of servers are increasing. Along with this, the heat generated by servers is also increasing. Therefore, heat management has become an important technological challenge for data centres.
- Along with traditional air cooling, new technologies are increasingly being used, such as Direct-to-Chip Liquid Cooling, Immersion Cooling, Adiabatic Cooling and Closed-Loop Cooling, which aim to achieve better heat management with lower energy and water consumption.
- Along with this, smart power management, renewable energy, energy storage and AI-based cooling optimisation need to be promoted in data centres.
- Here, Power Usage Effectiveness (PUE) is an important indicator that helps in understanding the energy efficiency of a data centre.
- Thus, the technological success of future data centres will not only depend on higher computing capacity, but also on providing more computing with lower energy consumption.

Cybersecurity and Data Sovereignty:

- Large amounts of financial, health, government and business data are stored in data centres. Therefore, they are critical infrastructure for national cybersecurity. Major threats include ransomware, DDoS attacks, malware, insider threats, supply

chain attacks and data breaches.
- To address these threats, technologies such as encryption, Zero Trust Architecture, multi-factor authentication, network segmentation and continuous monitoring are required.
- At the same time, domestic data centres can strengthen India's data sovereignty. This increases India's regulatory control over the storage and processing of critical data.
- However, data localisation alone is not sufficient. Along with it, data protection, cybersecurity and responsible data governance are also essential.

Scientific and Technological Significance for India:

The development of data centres can accelerate several emerging technologies in India.
- **AI and High-Performance Computing:** Adequate computing infrastructure in the country can promote AI research, machine learning and scientific simulations.
- **Semiconductor Ecosystem:** The growing demand for GPUs, CPUs, memory and networking components for data centres can encourage the domestic electronics and semiconductor industry.
- **Quantum Computing:** In the future, quantum computing will require specialised computing and cooling infrastructure. Therefore, the current data centre capacity can become the foundation of an advanced computing ecosystem of the future.
- **Cybersecurity:** Securing critical digital infrastructure will encourage the development of indigenous cybersecurity technologies and expertise in India.
- **Digital Public Infrastructure:** Data centres provide reliable computing support to India's Digital Public Infrastructure, including digital payments, identity, healthcare, education and e-governance.

Major Challenges:

India faces some important technological challenges in the data centre sector:
- Dependence on imports for high-capacity GPUs, advanced processors and other critical components.
- Increasing energy and cooling requirements due to AI-based high-density computing.
- Growing cyberattacks on sensitive digital infrastructure.
- E-waste generated due to rapidly changing technology.

Way Forward:

India should adopt an integrated and technology-driven approach for the development of data centres. This should include:
- Data centres should be linked with Artificial Intelligence, semiconductors and electronics manufacturing.
- Domestic manufacturing of GPUs, servers and networking equipment should be promoted.
- Technologies such as liquid cooling and AI-based energy efficiency should be adopted.
- Renewable energy and energy storage should be expanded.
- Strong standards for cybersecurity and disaster recovery should be developed.
- Edge computing and advanced digital infrastructure should be expanded.
- Skilled technical human resources should be developed for Artificial Intelligence, cloud computing and cybersecurity.

Conclusion:

Data centres are not merely facilities for storing digital data, but the scientific and technological backbone connecting AI, cloud computing, 5G, semiconductors, cybersecurity and Digital Public Infrastructure. Their expansion in India can accelerate the country's digital economy while also strengthening technological self-reliance and strategic capabilities. However, future success will depend not only on increasing the installed capacity of data centres, but on providing greater computing power with lower energy consumption, lower water use and higher security. For Viksit Bharat @2047, data centres can become not merely digital infrastructure but the foundation of India's next-generation scientific and technological capabilities.

Short Issues

ISRO Successfully Launches EOS-05

Context:

Recently, The Indian Space Research Organisation (ISRO) successfully launched EOS-05, an advanced Earth Observation satellite, onboard GSLV-F17 from the Satish Dhawan Space Centre, Sriharikota, on 4 September 2026.

About the Mission:

- EOS-05 (Earth Observation Satellite-05) is an advanced imaging satellite developed by ISRO for frequent and large-area observation of the Earth. EOS-05 is India's first imaging satellite designed to operate from a geosynchronous orbit.
- Its operation from the geosynchronous regime allows repeated observation of a large geographical region.
- The mission strengthens India's capabilities in remote sensing, satellite imaging and space-based Earth observation. It also demonstrates the growing role of space technology in development, disaster management and national security.

Uses of the Mission:

- EOS-05 has several important applications:
  - **Disaster Management:** Monitoring floods, cyclones, forest fires and other natural disasters.
  - **Agriculture:** Monitoring crops, vegetation and agricultural conditions.
  - **Environmental Monitoring:** Tracking changes in forests, land and natural resources.
  - **Infrastructure:** Supporting urban planning and monitoring large infrastructure projects.
  - **Strategic Applications:** Providing frequent imagery for surveillance and national security requirements.
- Thus, EOS-05 can provide frequent and large-area Earth imagery, complementing India's existing Earth-observation satellite network.



About GSLV:

- GSLV (Geosynchronous Satellite Launch Vehicle) is a three-stage launch vehicle developed by ISRO. It is used to place heavy satellites into Geostationary Transfer Orbit (GTO).
- Its key feature is the use of cryogenic propulsion. It provides higher efficiency and enables the launch of heavy communication, meteorological, and navigation satellites.
- GSLV has evolved through the Mk I and Mk II versions. Among these, Mk II is the current operational version, which uses an indigenously developed cryogenic stage.
- The launch capacity of GSLV is approximately:

  - » 2,250 kg to Geostationary Transfer Orbit (GTO)
  - » 6,000 kg to Low Earth Orbit (LEO)
- The more powerful LVM3 (formerly known as GSLV Mk III) can carry approximately:
  - » 4,000 kg to Geostationary Transfer Orbit (GTO)
  - » 8,000 kg to Low Earth Orbit (LEO)
- LVM3 has been used for important missions such as Chandrayaan-3 and has also been designated as the launch vehicle for the Gaganyaan mission.

Difference between GSLV and LVM3:

Feature	GSLV Mk II	LVM3
Role	Medium-heavy lift launch vehicle	Heavy-lift launch vehicle
Upper Stage	CE-7.5 Cryogenic Stage	C25 Cryogenic Stage
Core Stage	Liquid Vikas-based Stage	L110 Liquid Core Stage
GTO Capacity	Approximately 2.25 tonnes	Approximately 4 tonnes
Major Use	Communication, meteorological, and navigation satellites	Heavy satellites and human spaceflight missions
Gaganyaan	Not the primary launch vehicle	Primary launch vehicle

Difference between GSLV and PSLV:

Feature	PSLV	GSLV
Number of Stages	4	3
Propulsion	Alternating solid and liquid stages	Solid + liquid + cryogenic
Main Role	Polar and Sun-synchronous orbits and Earth-observation missions	Geosynchronous missions
Major Strength	Versatility and reliability	Ability to deliver heavier payloads to higher orbits
Typical	Remote-sensing satellites	Communication and meteorological satellites

Conclusion:

EOS-05's successful launch strengthens India's capabilities in agriculture, disaster management, environmental monitoring, and national security, while GSLV-F17 demonstrates India's growing expertise in indigenous cryogenic technology and advanced launch systems.

Bhutan Eliminates Rabies as a Public Health Problem

Context:

Recently, Bhutan has become the first country in the World Health Organization (WHO) South-East Asia Region to eliminate dog-transmitted human rabies as a public health problem. The WHO validated Bhutan's achievement in September 2026. Bhutan recorded its last rabies-related human death in June 2023.

What is Rabies?

- Rabies is a viral zoonotic disease caused by the rabies virus, a neurotropic RNA virus belonging to the Lyssavirus genus. It is primarily transmitted through the saliva of infected animals, especially through bites and scratches.
- Once clinical symptoms appear, rabies is almost invariably fatal. However, it is completely preventable through timely vaccination and post-exposure treatment.

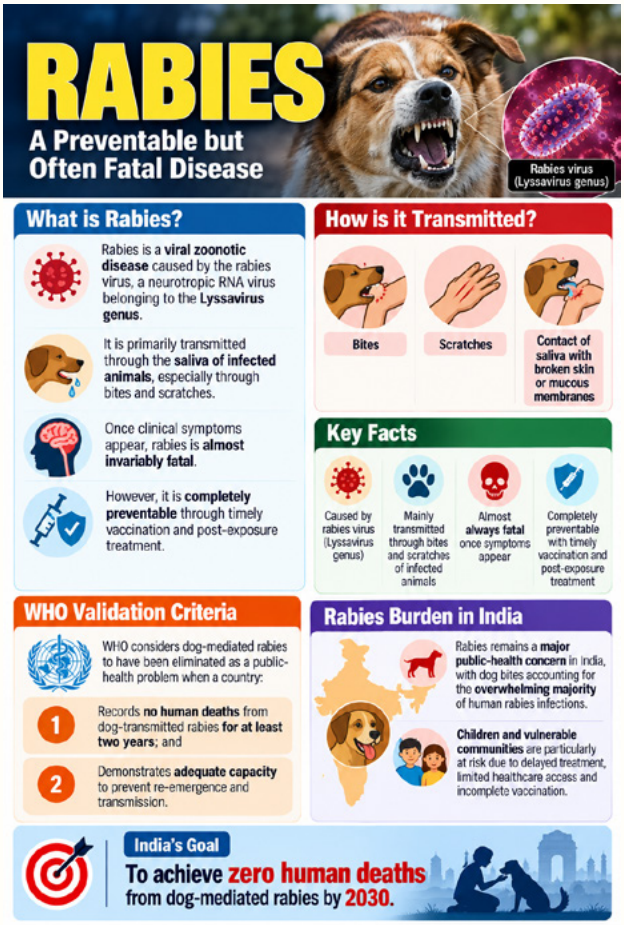
WHO Validation:

- WHO considers dog-mediated rabies to have been eliminated as a public-health problem

when a country:

- » Records no human deaths from dog-transmitted rabies for at least two years; and
- » Demonstrates adequate capacity to prevent re-emergence and transmission.

- Thus, elimination refers to eliminating human deaths from dog-mediated rabies rather than completely eradicating the virus from nature.



Bhutan's Strategy:

- Bhutan adopted a comprehensive One Health approach, recognising the interconnectedness of human, animal and environmental health.
- Its strategy included:
  - » Mass vaccination of dogs
  - » Scientific dog population management
  - » Continuous disease surveillance
  - » Rapid investigation of suspected cases
  - » Easy access to post-exposure prophylaxis (PEP)
  - » Community awareness and participation
  - » Coordination between health and veterinary authorities
  - » Participation of local governments and volunteers
- The approach helped integrate human healthcare with veterinary services and community-level interventions.

Rabies Burden in India:

- Rabies remains a major public-health concern in India, with dog bites accounting for the overwhelming majority of human rabies infections. Children and vulnerable communities are particularly at risk because of delayed treatment, limited healthcare access and incomplete vaccination.
- India aims to achieve zero human deaths from dog-mediated rabies by 2030.

Significance for India:

- Bhutan's success provides several lessons for India. First, rabies control must focus on prevention at the source through mass dog vaccination.
- Second, Animal Birth Control programmes need better implementation by local bodies. Third, timely availability of rabies vaccines and immunoglobulin must be ensured, particularly in rural and underserved areas.
- India also needs stronger integrated surveillance linking health departments, veterinary authorities, municipalities and laboratories.

One Health Approach:

Rabies demonstrates why human health cannot be separated from animal and ecosystem health. Effective elimination requires inter-sectoral coordination rather than isolated departmental action.

Way Forward:

India should adopt a sustained strategy based on mass dog vaccination, scientific

population management, universal access to PEP, integrated surveillance and community participation. Cross-border cooperation with neighbouring countries is also important.

Conclusion:

Bhutan's achievement demonstrates that rabies elimination is both feasible and sustainable when governments, health professionals, veterinarians and communities work together. For India, adopting Bhutan's One Health model can significantly strengthen efforts towards the goal of zero dog-mediated human rabies deaths by 2030.

India Joins US-Led Global Initiative to Shape Next-Generation 6G Networks

Context:

Recently, India has joined the United States and 24 other countries in a global initiative to guide the development and deployment of next-generation 6G telecommunications networks. The announcement followed a bilateral meeting between US Commerce Secretary Howard Lutnick and India's Minister of State for Commerce and Industry Jitin Prasada on the sidelines of the G20 Innovation Ministerial in the United States.

What is 6G?

- 6G (Sixth Generation) is the proposed successor to 5G and is currently in the research and standardisation phase. Commercial deployment is broadly expected around 2030 onwards.
- Unlike previous generations, 6G aims not merely to provide faster connectivity but to create intelligent, AI-enabled communication networks.

Comparing of 4G vs 5G vs 6G:

Feature	4G	5G	6G
Generation	Fourth	Fifth	Sixth
Main focus	Mobile broadband	Connected devices & industries	Intelligent connectivity
Speed	Up to ~1 Gbps	Up to ~10–20 Gbps	Potentially up to Tbps
Latency	~30–50 ms	Around 1 ms	Sub-millisecond/ microsecond target
AI integration	Limited	Increasing	Expected to be AI-native
Spectrum	Lower/ mid bands	Includes mmWave	Higher frequencies, including sub-THz
Major applications	Smartphones, streaming	IoT, smart cities, automation	AR/VR, autonomous systems, digital twins, advanced robotics

Key Features of 6G:

- **Extreme Speeds:** Potential data rates could reach the terabit-per-second (Tbps) range.
- **Ultra-Low Latency:** Networks are expected to achieve sub-millisecond response times, potentially extending towards microsecond levels.
- **Advanced Spectrum:** Research is exploring higher-frequency bands, including millimetre-wave and sub-terahertz frequencies.
- **AI-Native Networks:** AI and machine learning could be integrated directly into network architecture.
- **Non-Terrestrial Connectivity:** 6G may integrate terrestrial networks with satellites and other non-terrestrial networks.

Potential Applications:

- 6G could enable immersive augmented and virtual reality, autonomous vehicles and drones, smart factories, digital twins,

advanced robotics and remote healthcare. It could also support massive Internet of Things (IoT) deployments and smart infrastructure.

Significance for India:

- India's participation provides an opportunity to influence global 6G standards, promote indigenous technologies and develop intellectual property and patents.
- It can strengthen cooperation with the US in strategic sectors such as semiconductors, AI and data centres.
- It also supports India's transition from being primarily a technology consumer to a technology developer, innovator and standard-setter.

Challenges:

- India faces challenges including high R&D costs, shortage of specialised talent, dependence on critical technologies, cybersecurity risks, spectrum-related issues and intense global competition. Developing semiconductor capabilities and standard-essential patents will also be crucial.

Way Forward:

India should strengthen the Bharat 6G Mission, increase public-private R&D, promote university-industry collaboration, support telecom startups, develop indigenous semiconductor and telecom technologies, and actively participate in international standard-setting.

Conclusion:

India's participation in the global 6G initiative is strategically significant. It can help India shape the technological, economic and security architecture of next-generation connectivity while advancing technological self-reliance, innovation and global competitiveness.

RRI Scientists Develop New Approach to Control Quantum Decoherence

Context:

Recently, Scientists at the Quantum Information and Computing (QuIC) laboratory of Raman Research Institute (RRI), Bengaluru, have demonstrated a novel technique to improve the stability of quantum states used in quantum computing. The research, published in Physical Review A of the American Physical Society, focuses on controlling decoherence and preventing entanglement sudden death through Single-Shot Operation.

What is Quantum Computing?

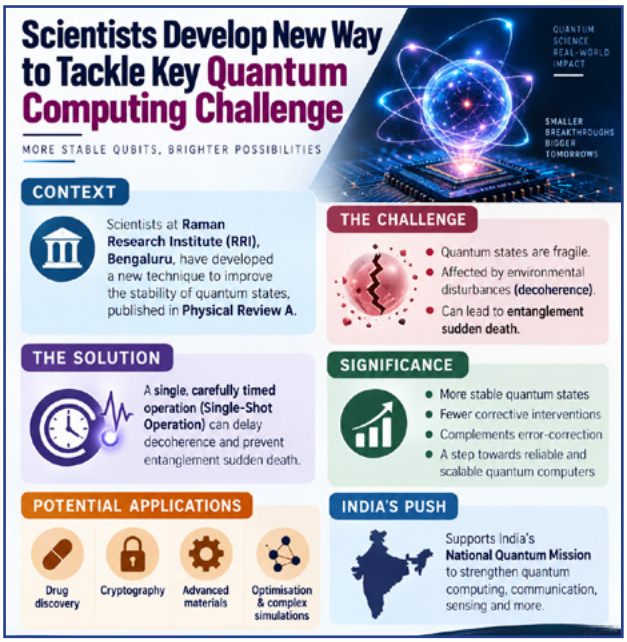
- Traditional computers use bits, represented as 0 or 1. Quantum computers use quantum bits or qubits, which exploit principles of quantum mechanics to process information in fundamentally different ways.
  - » **Superposition:** Superposition allows a qubit to exist in a combination of 0 and 1 simultaneously. This enables quantum systems to process information in ways that are not possible for conventional computers.
  - » **Quantum Entanglement:** Entanglement is a phenomenon in which two quantum particles become strongly correlated. The state of one particle is linked to the state of another, making entanglement an important resource for quantum information processing.

What is Quantum Decoherence?

- Quantum states are extremely fragile and can be disturbed by thermal vibrations, electromagnetic fields, radiation and other environmental interactions. The resulting loss of quantum coherence is called decoherence.
- Another related phenomenon is "entanglement sudden death", where entanglement disappears abruptly. Decoherence and entanglement loss can introduce errors and undermine the reliability of quantum computations.

About RRI's New Approach:

- Traditionally, scientists use repeated corrective interventions and quantum error-correction techniques to delay decoherence. However, repeated operations require significant resources and may themselves introduce errors.
- The RRI team demonstrated that a single, carefully timed operation can potentially delay decoherence and prevent entanglement sudden death. Thus, timing itself becomes a new control parameter.
- The researchers emphasise that this is a proof of concept, not a complete solution to decoherence or a replacement for quantum error correction. Further testing on different quantum computing platforms is required.



Significance:

- The approach could potentially:
  - » Reduce repeated corrective interventions.
  - » Improve control over fragile quantum states.
  - » Complement quantum error-correction methods.
  - » Contribute to the development of more reliable and scalable quantum processors.

Applications of Quantum Computing:

- Quantum computing has potential applications in:
  - » **Cryptography:** Quantum algorithms such as Shor's algorithm could threaten existing encryption systems.
  - » **Drug discovery:** Simulation of molecules and chemical reactions.
  - » **Materials science:** Development of advanced materials.
  - » **Optimisation:** Logistics, supply chains and traffic management.
  - » **Scientific research:** Modelling complex physical and chemical systems.

India and Quantum Technology:

- The research is significant in the context of India's National Quantum Mission, launched to strengthen capabilities in quantum computing, communication, sensing, metrology, materials and devices.

Conclusion:

The RRI research represents an important advance in controlling fragile quantum states. By using the timing of a single operation as an additional control parameter, it could complement existing error-correction methods. However, wider testing across different quantum-computing platforms is necessary before practical applications can be established.

6 Economy

New MDR Framework on UPI: Balancing the Financial Sustainability and Inclusion of Digital Public Infrastructure

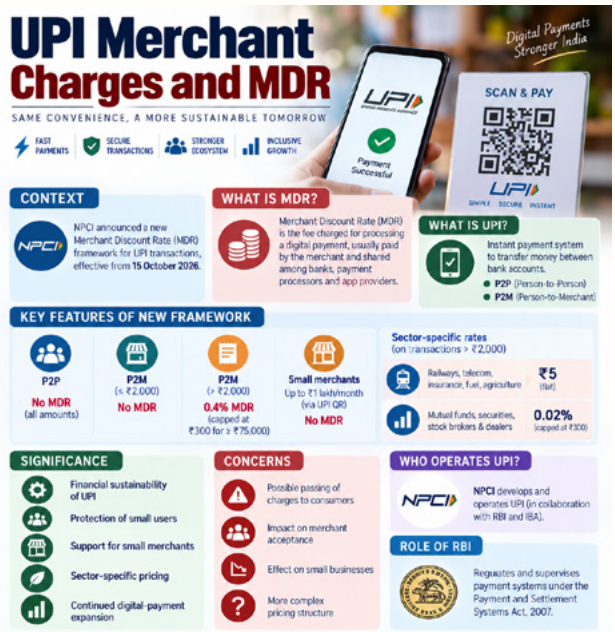
Context:

Recently, the National Payments Corporation of India (NPCI) has introduced a new Merchant Discount Rate (MDR) framework for Person-to-Merchant (P2M) UPI transactions. Under this, a 0.4% MDR will apply to eligible merchant transactions above Rs.2,000, while for transactions of Rs.75,000 or more, it will be capped at a maximum of Rs.300 per transaction. This framework will come into effect from 15 October 2026. Importantly, this charge is not to be paid by consumers, but will be applicable on the merchant side within the payment ecosystem.

This development is important because UPI has so far largely been viewed as a digital payment mechanism where transaction costs for both consumers and merchants have been extremely low or zero. Therefore, the new MDR model is not merely a change in the fee structure, but a broader policy issue concerning the balance between the long-term financial sustainability and inclusiveness of Digital Public Infrastructure (DPI).

Background and Growing Importance of UPI:

- The Unified Payments Interface (UPI) was developed by NPCI and launched in 2016. Its objective was to enable instant and interoperable digital payments across different bank accounts, payment applications and financial institutions.
- UPI has ensured that digital payments are not limited only to the urban middle class, but have also reached small shopkeepers, street vendors and rural consumers through QR codes, mobile phones and bank accounts. It has emerged as one of the major achievements of India's Digital Public Infrastructure model.
- According to NPCI, in August 2026, UPI processed approximately 24,508.96 million, or 24.5 billion, transactions worth around Rs.29.82 lakh crore. This scale demonstrates that UPI is no longer merely a payment mechanism, but has become a fundamental infrastructure of India's digital economy.



What is Merchant Discount Rate (MDR)?

- MDR is a charge associated with accepting digital payments by a merchant, which is distributed among the participants involved

in processing the payment. These may include banks, payment service providers and payment applications.

- MDR is not collected as a tax by the government or NPCI; rather, it is distributed among participants in the payment ecosystem. Its purpose is to provide an economic foundation for the operation, security, technological capacity and expansion of the payment network.

Key Features of the New MDR Framework:

- Under the new provisions:
  - » No MDR will be charged on P2M UPI payments up to Rs.2,000.
  - » A 0.4% MDR will apply to eligible P2M transactions above Rs.2,000.
  - » For eligible transactions of Rs.75,000 and above, the MDR will be capped at a maximum of Rs.300 per transaction.
  - » All Person-to-Person (P2P) UPI transactions will remain completely free, irrespective of the amount transferred.
- Eligible small merchants have also been protected. Under the P2PM category, small merchants receiving up to Rs.1 lakh per month through UPI QR arrangements, such as street vendors and neighbourhood shops, will continue to benefit from zero MDR.
- Thus, it is clear that the new model is not based on blanket pricing, but is a differentiated framework based on transaction value and merchant category.

Different MDR for Special Sectors:

- A uniform 0.4% MDR has not been applied to all sectors. In essential and relatively low-margin sectors such as railways, telecommunications, insurance, fuel and agricultural inputs, a flat MDR of Rs.5 will be applicable on transactions above Rs.2,000.
- Similarly, eligible capital-market transactions related to mutual funds, securities, stockbrokers and dealers will attract an MDR of 0.02%, subject to a maximum cap of Rs.300.
- This framework recognises that different sectors have different cost structures and profit margins. Therefore, a uniform MDR may not be suitable for all sectors.

Reason for Introducing the Merchant Discount Rate (MDR):

- The most important rationale behind this policy is the long-term financial sustainability of UPI. Processing billions of UPI transactions requires continuous investment. Activities such as server capacity, network uptime, cybersecurity, fraud prevention, technological upgrades, data security and customer support involve continuous expenditure.
- Earlier, the zero-MDR model was primarily focused on encouraging the rapid expansion and widespread adoption of digital payments. MDR on P2M UPI transactions was made zero from 2020. The government has also provided financial support to payment ecosystem participants through incentive schemes to sustain the digital payment ecosystem.
- In this context, the new framework seeks to address the question of whether the world's largest real-time digital payment network can continue to operate in the long run by relying only on government incentives. The new MDR model seeks to bridge this gap by generating revenue from selected high-value merchant transactions.

Impact on Consumers:

- For consumers, the most important point is that MDR is not a consumer transaction fee.
- According to the government:
  - » P2P UPI payments will remain free.
  - » Merchant payments up to Rs.2,000 will remain free.
  - » UPI payments received by eligible small merchants will also continue to remain zero-MDR.
  - » Approximately 96% of P2M transactions are estimated to remain unaffected by the new MDR framework.
- Thus, the impact on the daily digital payment behaviour of ordinary consumers is likely to remain limited. The framework is primarily focused on large or high-value

merchant transactions.

Impact on Merchants:

- The direct impact of this policy will be on merchants whose average UPI transaction value exceeds Rs.2,000. Large retailers, e-commerce businesses, hospitality, high-value services and other organised businesses may experience an increase in payment-processing costs.
- However, a 0.4% MDR may remain competitive compared with several traditional card payment arrangements. At the same time, the maximum cap of Rs.300 limits the impact on very large transactions.
- Nevertheless, a potential concern is that some merchants may attempt to incorporate the cost indirectly into the prices of goods and services. Therefore, strong regulatory monitoring will be essential. The government has clarified that MDR should not be directly passed on to customers and that UPI application providers will not be permitted to impose additional hidden platform charges.

Key Challenges

- **Identification of Small Merchants:** Proper identification of eligible small merchants under the P2PM category and monitoring of their transactions will be important. Misclassification could result in unnecessary costs for small merchants.
- **Indirect Transfer of Costs:** Although MDR is not to be directly charged to customers, merchants may still attempt to pass on the cost to consumers through other means. Strong monitoring will therefore be necessary.
- **Impact on Digital Inclusion:** The biggest strengths of UPI have been its simplicity and low cost. Excessive charges or complex classification mechanisms could affect the adoption of digital payments by small businesses in the future.
- **Balancing the Payment Ecosystem:** The mechanism for distributing MDR among banks, FinTech companies, payment service providers and app providers should be designed in a manner that preserves innovation and competition.
- **Cybersecurity:** A portion of the revenue should not be limited only to commercial gains, but should also be reinvested in cybersecurity, fraud detection, system resilience and infrastructure redundancy.

Way Forward:

- The future policy for UPI should not be limited only to determining MDR. India must develop a balanced digital payment model.
- A simple and transparent MDR classification system should be ensured for small merchants.
- A portion of the revenue generated through MDR could be linked at the policy level to promote reinvestment in cybersecurity and technological infrastructure.
- RBI, NPCI and financial institutions should provide clear information about fee-related rules to consumers and merchants.
- Along with digital payments, small merchants should also be provided greater access to digital accounting, formal credit, insurance and digital credit.
- It is essential to preserve the open and interoperable nature of UPI so that the fee structure does not weaken competition.

Conclusion:

UPI has become a key pillar of India's digital economy. Therefore, ensuring its economic sustainability is as important as keeping it affordable, secure and inclusive. The new MDR framework coming into effect from 15 October 2026 is not a complete end to the zero-charge model, but a targeted pricing mechanism for selected high-value merchant transactions. Protecting most routine merchant payments up to Rs.2,000, P2P payments and transactions of eligible small merchants helps preserve the inclusive character of the system. The real challenge will be to ensure that UPI becomes economically sustainable while continuing to uphold its core principles of “low cost, broad access and universal usability.”

National Accounts Statistics 2026

Context:

The Ministry of Statistics and Programme Implementation (MoSPI) released the National Accounts Statistics 2026 on 31 August 2026. The publication contains 60 statements covering revised national income and macroeconomic indicators. It includes Final Estimates for FY 2022–23 and FY 2023–24, First Revised Estimates for FY 2024–25, and revised indicators for FY 2025–26.

What are National Accounts Statistics?

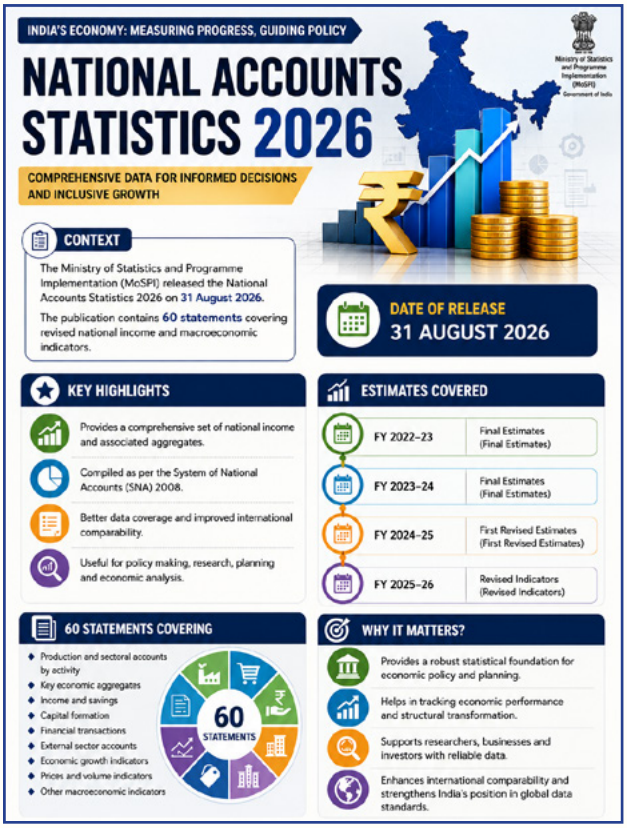
- National Accounts Statistics is India's official compilation of major macroeconomic aggregates such as Gross Domestic Product (GDP), Gross Value Added (GVA), consumption, savings and investment.
- These statistics are essential for measuring economic performance and framing economic policies.

GDP Growth Revisions:

- The latest publication revised several GDP growth figures. Real GDP growth for FY 2023–24 was revised from 7.2% to 7.3%, while nominal GDP growth increased from 11.0% to 11.1%.
- For FY 2024–25, real GDP growth was revised from 7.1% to 7.2%, whereas nominal growth was revised downward from 9.7% to 9.4%.
- For FY 2025–26, real GDP growth increased from 7.7% to 7.8%, while nominal growth declined from 8.9% to 8.6%.

New Base Year of GDP:

- A major feature is the adoption of 2022–23 as the new base year, replacing 2011–12. The new series was introduced on 27 February 2026.
- Updating the base year helps national accounts better reflect changes in consumption patterns, production structures, emerging industries and the modern services economy.



About Real GDP and Nominal GDP:

- Real GDP measures economic output at constant prices and therefore provides a better measure of actual volume growth.
- Nominal GDP is measured at current prices and reflects both changes in output and prices.
- GDP = GVA + Net Taxes on Products, while GVA = Output − Intermediate Consumption.

Quarterly GDP Growth:

- India's real GDP grew by 7.8% in Q1 of FY 2026–27, while nominal GDP grew by 10.3%. Quarterly estimates help assess short-term economic momentum and emerging trends.

Why is GDP Estimates Revised?

- GDP estimates are revised as additional information becomes available. Revisions may incorporate new administrative data,

improved surveys, updated production information, revised price indices and methodological improvements.

- Thus, revisions are a normal feature of national income accounting and do not necessarily imply that earlier estimates were incorrect.

Conclusion:

The National Accounts Statistics 2026 highlights the importance of regularly updating the statistical base, incorporating better datasets and revising estimates as new information becomes available. A robust national accounts system is essential for accurate economic assessment and evidence-based policymaking.

Chipflation: Rising Prices of Consumer Electronics in 2026

Context:

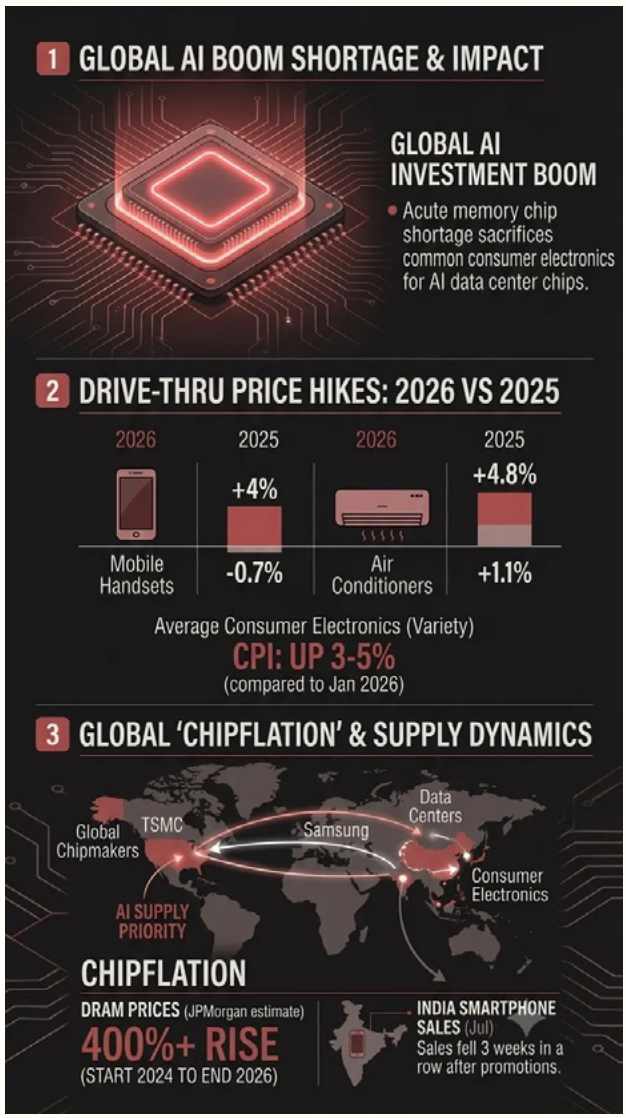
In recent times, Consumer electronics are witnessing a sharp rise in prices in 2026 due to "chipflation"—a shortage and rising cost of memory chips driven largely by the global Artificial Intelligence (AI) boom. According to MoSPI's CPI data, prices of several electronics rose 3–5% between January and July 2026, much faster than in 2025.

What is Chipflation?

- Chipflation refers to a situation where memory chips become more expensive and harder to procure, reversing the historical trend of declining semiconductor costs.
- Memory chips are essential for smartphones, laptops, TVs, refrigerators, washing machines, air conditioners and other electronic devices.

Why is Chipflation Occurring?

- **AI and Data-Centre Boom:** The rapid expansion of generative AI and data centres has created enormous demand for advanced chips and high-performance memory.
- **Preference for High-Margin Chips:** Major manufacturers such as TSMC, Samsung and SK Hynix are prioritising advanced chips used in AI infrastructure, reducing capacity available for conventional memory such as DRAM.



- **Slow Expansion of Supply:** New semiconductor fabrication capacity requires huge investment, technological expertise and several years to build and operationalise. Hence, supply cannot quickly respond to rising demand.
- **Geopolitical and Supply-Chain Constraints:** Export restrictions, geopolitical tensions and concentrated semiconductor supply

chains can further disrupt availability and increase production costs.

Impact on Consumer Electronics:

- **Smartphones:** Prices increased around 4% between January–July 2026.
- **Air conditioners:** Prices rose 4.8% during the same period.
- **Televisions:** Prices increased around 3.5%.
- Higher input costs can create cost-push inflation and increase the burden on consumers.

About Memory Chips and Semiconductors:

- A semiconductor is a material with controlled electrical conductivity, with silicon being the most widely used.
- Semiconductor chips contain tiny electronic components such as transistors and enable devices to process, store and transmit information.
- DRAM (Dynamic Random Access Memory) is a type of memory chip widely used in computers, smartphones and other electronic devices.

Why is it Important for India?

- India's growing digital economy and dependence on imported electronic components make semiconductor supply-chain resilience strategically important.
- Chipflation can affect electronics, automobiles, telecommunications, defence and digital infrastructure.

India's Response:

- The Semicon 2.0 programme aims to:
  - » Build domestic semiconductor design capabilities.
  - » Develop strategic semiconductor technologies.
  - » Promote commercially viable indigenous chips and their deployment.

Way Forward:

India needs to strengthen domestic semiconductor manufacturing and R&D, develop skilled manpower, diversify import sources, build resilient supply chains and promote international technology partnerships.

Conclusion:

India must strengthen chip design, manufacturing, supply-chain diversification and semiconductor R&D to reduce external dependence and build technological resilience.

UK Recognises India's Carbon Credit Trading Scheme (CCTS)

Context:

Recently, the United Kingdom (UK) recognised India's Carbon Credit Trading Scheme (CCTS) as a qualifying carbon-pricing mechanism under its Carbon Border Adjustment Mechanism (CBAM). This could reduce the effective CBAM liability on eligible Indian exports by allowing credit for the carbon price already paid in India.

What is the Carbon Credit Trading Scheme?

- India's Carbon Credit Trading Scheme (CCTS) is a domestic carbon-market mechanism aimed at reducing greenhouse gas emissions and assigning an economic value to carbon emissions.
- It was enabled through amendments to the Energy Conservation Act, 2001, and notified by the Ministry of Power.
- The scheme primarily follows an emissions-intensity approach. Entities performing better than prescribed emissions-intensity targets can earn Carbon Credit Certificates (CCCs), while those failing to meet the targets may need to purchase credits.

What is CBAM?

- The Carbon Border Adjustment Mechanism (CBAM) imposes a carbon-related cost on certain carbon-intensive imports. Its main objective is to prevent carbon leakage, where industries shift production to countries with weaker climate regulations.
- The UK plans to implement CBAM from 2027, covering carbon-intensive products such

as iron and steel, aluminium, fertilisers, cement, ceramics, glass and hydrogen.



Significance for India:

- The UK's recognition of India's CCTS is significant for Indian exporters, as UK importers of eligible Indian goods may claim carbon-price relief corresponding to the qualifying carbon price already paid under India's CCTS.
- This can:
  - » Reduce the effective carbon cost on Indian exports.
  - » Improve the competitiveness of Indian carbon-intensive products.
  - » Help prevent double carbon taxation.
  - » Provide international recognition to India's emerging carbon-market framework.
  - » Strengthen India–UK cooperation in climate policy and carbon markets.
- However, the extent of relief will depend on the effective carbon price actually borne by the goods and compliance with the UK's evidence and verification requirements.

Way Forward:

- India should strengthen the CCTS and its Monitoring, Reporting and Verification (MRV) framework, accelerate industrial decarbonisation, and promote clean technologies.
- It should also pursue mutual recognition of credible carbon-pricing mechanisms, engage constructively with major trading partners, and ensure that climate-related trade measures remain consistent with WTO principles.

Conclusion:

The UK's recognition of CCTS will boost Indian export competitiveness and promote decarisation. India should use this opportunity to develop a credible and transparent carbon market while ensuring that climate measures do not become trade barriers.

Dedicated Freight Corridors: Transforming India's Freight Logistics

Context:

Recently, Prime Minister Narendra Modi dedicated three important sections of the Western Dedicated Freight Corridor (WDFC) covering 326 route kilometres and developed at a cost of over Rs.20,700 crore.

What are Dedicated Freight Corridors?

- Dedicated Freight Corridors are specialised railway routes designed exclusively for freight trains. They allow heavier and longer trains to operate at higher speeds without competing with passenger services for railway capacity.
- India's two major operational corridors are:

Feature	Eastern DFC	Western DFC
Length	1,337 km	1,506 km
Route	Ludhiana–Sonnagar	Dadri–JNPT
Major focus	Coal and bulk freight	Containers and EXIM cargo
Key regions	Northern and eastern India	Northern and western India
Major benefit	Coal movement and industrial connectivity	Port connectivity and container movement

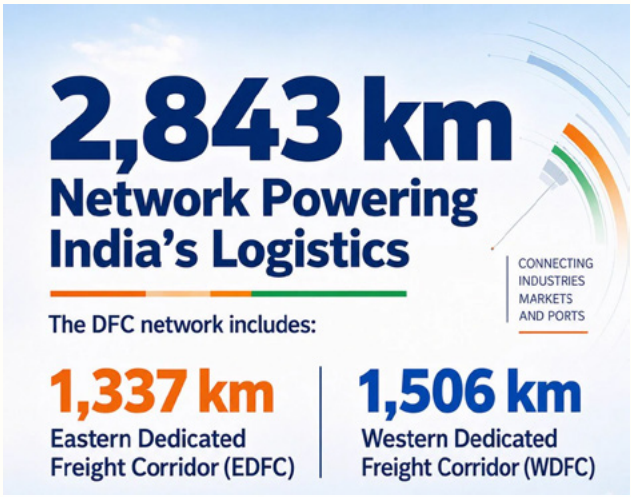
- The Dedicated Freight Corridor Corporation of India Limited (DFCCIL), under the Ministry of Railways, is responsible for developing and operating these corridors.
- DFCCIL describes the DFC programme as a flagship heavy-haul railway infrastructure initiative connecting inland regions with ports.

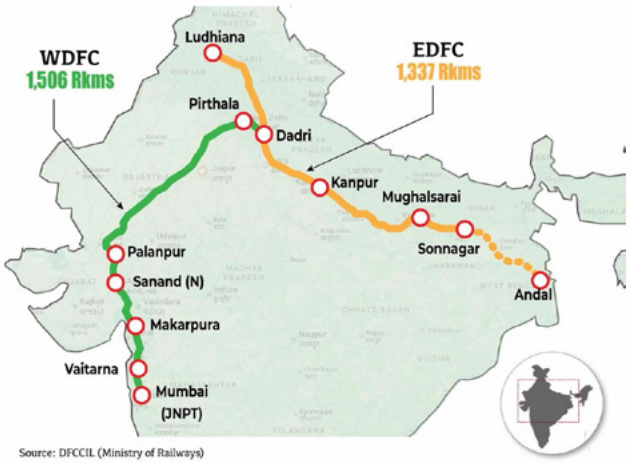
About inaugurated WDFC:

- The newly inaugurated WDFC sections are:
  - New Sanand (North)–New Makarpura
  - New Umbergaon–New Saphale
  - New Saphale–New JNPT
- The direct connectivity with Jawaharlal Nehru Port Authority (JNPA) will facilitate faster EXIM cargo movement, reduce logistics costs and help decongest Mumbai's conventional railway network.

Key Features of Western Dedicated Freight Corridor (WDFC):

- **Double-stack container trains:** The WDFC supports high-capacity double-stack container operations.
- **Higher axle loads:** Enables movement of heavier freight trains.
- **Higher speed:** Dedicated tracks permit faster freight movement.
- **Decongestion:** Freight traffic shifts away from conventional passenger routes.
- **Multimodal connectivity:** Better integration of railways with ports, roads and logistics hubs.





Significance:

- **Lower Logistics Costs:** Faster and more reliable rail freight can reduce transportation and inventory costs, improving India's competitiveness.
- **Boost to EXIM Trade:** Direct connectivity with western ports facilitates smoother movement of containers and export-import cargo.
- **Decongestion of Rail Network:** Shifting freight to dedicated routes frees capacity on conventional railway lines for passenger and additional freight services.
- **Industrial Development:** Better connectivity between production centres, markets and ports can encourage industrial corridors and regional economic development.
- **Environmental Benefits:** Greater use of rail

for freight can reduce dependence on road transport, fuel consumption and transport-related emissions.

India's Freight Performance:

- Indian Railways' freight loading has increased significantly—from 1,098 million tonnes in 2014-15 to around 1,670 million tonnes in 2025-26. This indicates the growing importance of railways in India's logistics ecosystem.

Other Government Initiatives:

- **National Logistics Policy (2022):** Integrated approach to reducing logistics costs.
- **PM GatiShakti:** Multimodal infrastructure planning through a GIS-based platform.
- **Unified Logistics Interface Platform (ULIP):** Digital integration of logistics-related systems.
- **Multi-Modal Logistics Parks:** Integrated warehousing and transportation infrastructure.
- **Gati Shakti Multi-Modal Cargo Terminals:** Modernisation of freight terminals.
- **Private wagon investment schemes:** Encouraging specialised freight wagons.

Challenges:

- High dependence on road-based freight transport.
- Last-mile and first-mile connectivity gaps.
- Fragmented logistics ecosystem.
- Inadequate cold-chain and warehousing infrastructure.
- Land acquisition and project execution delays.
- Need for better integration among rail, road, ports and waterways.

Way Forward:

- India should focus on end-to-end multimodal logistics, rather than merely expanding railway capacity. Greater integration of DFCs with ports, MMLPs, industrial corridors, warehouses and digital logistics platforms is essential.
- The proposed Dankuni–Surat East-West Dedicated Freight Corridor, announced in Union Budget 2026, can further strengthen east-west freight connectivity.

Conclusion:

The DFC network marks a shift towards a faster, specialised and efficient freight railway system. By reducing transit time, logistics costs and congestion while improving port connectivity, DFCs can strengthen India's manufacturing, exports and supply chains and support the vision of a globally competitive logistics economy.

India Electric Mobility Index 2025

Context:

Recently, NITI Aayog released the India Electric Mobility Index (IEMI) 2025, developed in collaboration with WRI India. It is a first-of-its-kind index that evaluates the progress of electric mobility across India's 36 States and Union Territories, covering policy implementation, EV adoption, charging infrastructure and innovation.

About the IEMI:

- The IEMI is a composite index based on 16 performance indicators grouped into three thematic areas:
  - » Transport Electrification Progress – 50%
  - » Charging Infrastructure Readiness – 30%
  - » EV Research & Innovation Status – 20%
- Scores are updated annually using the outcomes of quarterly assessments, enabling comparison of the evolving e-mobility ecosystem across States and UTs.

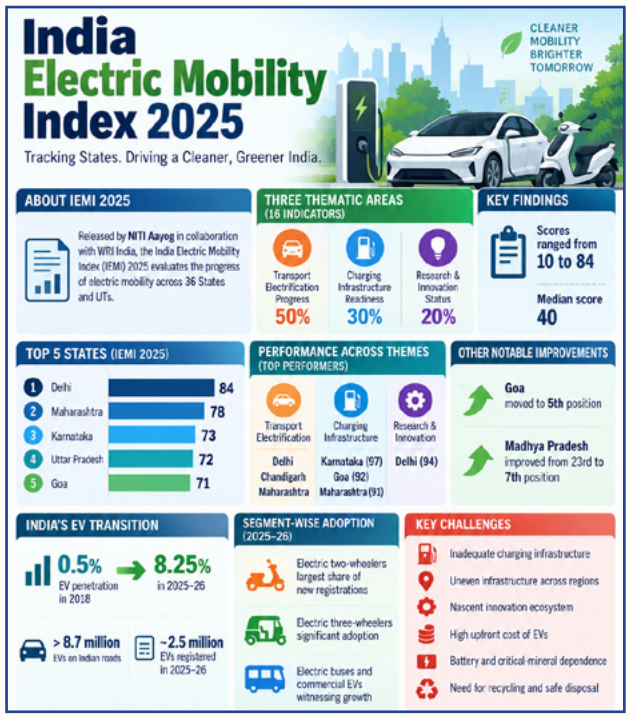
Key Findings:

- The composite scores ranged from 10 to 84, with a median score of 40.
- Delhi topped the index with a score of 84.
- Maharashtra ranked second with 78.
- Karnataka ranked third with 73.

- Goa climbed significantly to the fifth position.
- Madhya Pradesh improved from 23rd to 7th position.
- Among large States, Tamil Nadu, Madhya Pradesh, Odisha, Andhra Pradesh, Telangana, Haryana, Rajasthan and Uttar Pradesh were classified as frontrunners, while Chhattisgarh, West Bengal, Bihar, Kerala, Jharkhand, Punjab and Gujarat were categorised as emerging performers.

Performance across Themes:

- **Transport Electrification:** Delhi, Chandigarh and Maharashtra were the top performers, reflecting stronger EV adoption and consumer demand.
- **Charging Infrastructure:** Karnataka recorded the highest score of 97, followed by Goa (92) and Maharashtra (91). The category considers charger availability, subsidies, electricity access and building regulations.
- **Research and Innovation:** Delhi led with a score of 94, reflecting its performance in EV startups, R&D and patents.



Status of India's EV Transition:

- India's EV penetration increased from 0.5% in 2018 to 8.25% in 2025–26. More than 8.7 million EVs were on Indian roads, while around 2.5 million EVs were registered during 2025–26.
- Electric two-wheelers constituted the largest share of new registrations, while electric three-wheelers also recorded significant adoption. Electric buses and commercial electric vehicles are witnessing growing deployment.

Major Challenges:

- Inadequate charging infrastructure
- Uneven infrastructure across regions
- Dispersed settlements
- Nascent EV innovation ecosystem
- High upfront cost of EVs
- Battery and critical-mineral dependence
- Need for recycling and safe battery disposal

Government Initiatives:

- Important measures include PLI-Auto, e-AMRIT, PM E-DRIVE and PM-eBus Sewa–Payment Security Mechanism Scheme.
- These initiatives seek to promote EV adoption, domestic manufacturing, charging infrastructure and electric public transport.

Way Forward:

- India needs to develop interoperable and geographically distributed charging networks, promote domestic battery and component manufacturing, strengthen R&D, establish robust battery-recycling systems and provide predictable long-term policy support. Greater electrification of public transport and commercial fleets can generate substantial environmental benefits.

Conclusion:

The IEMI provides a useful state-level evidence-based framework for tracking India's electric mobility transition. However, achieving India's broader EV and climate objectives will require not only higher EV sales but also reliable charging infrastructure, domestic

manufacturing, technological innovation and sustainable battery ecosystems.

India–New Zealand FTA 2026

Context:

Recently, India and New Zealand have ratified their Free Trade Agreement (FTA), which will come into effect on October 20, 2026. The agreement aims to double bilateral trade to around USD 5 billion (□35,000 crore) in the next four to five years.

Key Features:

- **Market Access & Tariff Liberalisation:**
  - » New Zealand will provide 100% duty-free access to Indian goods.
  - » India will provide tariff-free or reduced-duty access covering nearly 95% of New Zealand's exports by value, through commitments on around 70% of tariff lines.
  - » Indian sectors such as textiles, leather, footwear, gems and jewellery and engineering goods are expected to benefit.
- **Protection of Sensitive Sectors:**
  - » India has retained protection for vulnerable domestic sectors. Dairy and sensitive agricultural products have been excluded from tariff concessions. Key protected products include sugar, rice, wheat, onions, chickpeas, peas, almonds, spices and edible oils.
  - » This reflects India's approach of combining trade liberalisation with protection of farmers and domestic producers.
- **Investment Commitment**
  - » New Zealand has committed USD 20 billion in investment into India over 15 years. Potential areas include agricultural technology, kiwi farming, apiculture, engineering and manufacturing.
  - » Investment can help integrate Indian firms into global value chains and strengthen domestic manufacturing.
- **Services and Professional Mobility**
  - » The agreement includes commitments across 118 service sectors, covering areas such as IT, engineering, healthcare, education and construction.
  - » It also provides pathways relating to skilled professionals, youth mobility and traditional knowledge practitioners, including provisions concerning AYUSH and traditional medicine.



Economic Significance:

- Expands market access for Indian exporters.
- Supports MSMEs, handloom artisans and labour-intensive industries.
- Promotes export diversification.
- Encourages foreign investment and technology transfer.
- Provides opportunities to use India as a manufacturing and export hub.

Strategic Significance:

- The FTA strengthens India's economic engagement with New Zealand and the

wider Indo-Pacific/Oceania region. It can contribute to resilient supply chains and deeper economic diplomacy at a time of increasing global tariffs and trade barriers.

Challenges:

- Non-tariff barriers and stringent product standards may limit actual export gains.
- MSMEs need greater awareness of rules of origin and FTA procedures.
- Increased imports could create competitive pressure in some domestic industries.
- The USD 20-billion investment commitment will require effective implementation.

Conclusion:

The India–New Zealand FTA represents a calibrated approach to trade liberalisation, combining extensive export opportunities with safeguards for sensitive domestic sectors. Its success will depend on effective implementation, utilisation by Indian exporters and conversion of investment commitments into productive economic activity.

RBI Absorbs Rs. 71,971 Crore Liquidity through VRRR

Context:

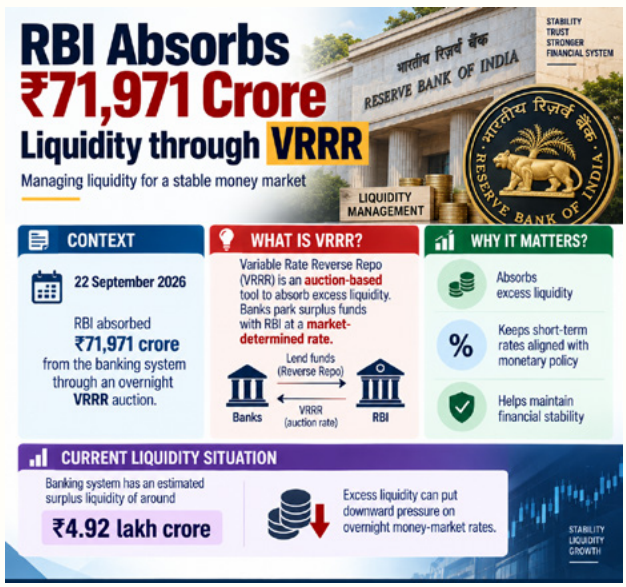
Recently, The Reserve Bank of India (RBI) absorbed Rs.71,971 crore from the banking system through an overnight Variable Rate Reverse Repo (VRRR) auction on 22 September 2026. The move aims to manage surplus liquidity and keep short-term money-market rates aligned with the monetary-policy framework.

What is VRRR?

- Variable Rate Reverse Repo (VRRR) is an auction-based liquidity-absorption tool through which banks temporarily park surplus funds with the RBI at a market-determined rate.
  - » **Reverse Repo:** Banks lend funds to RBI.
  - » **VRRR:** Interest rate is determined through auction.
  - » **Purpose:** Absorb excess/transient liquidity.
- It helps keep the Weighted Average Call Rate (WACR) aligned with the policy repo rate. RBI has used VRRR auctions as part of its liquidity-management framework.

Current Liquidity Situation:

- The banking system currently has an estimated surplus liquidity of around ₹4.92 lakh crore. Such excess liquidity can put downward pressure on overnight money-market rates and cause them to move below the RBI's desired operating level.
- The RBI therefore uses liquidity-management instruments to maintain orderly and balanced financial conditions.



Reasons for Surplus Liquidity:

- The present liquidity surplus has been attributed mainly to:
  - » **Heavy mobilisation of FCNR(B) deposits:** Foreign Currency Non-Resident deposits brought additional foreign-currency inflows into the banking system.
  - » **Currency swaps with RBI:** Such operations can alter rupee liquidity available to banks.
  - » **Government expenditure:** Month-end spending on salaries, pensions and

other government payments injects liquidity into the banking system.

Why is RBI Absorbing Liquidity?

- **Inflation Control:** Excess liquidity can increase credit and aggregate demand, creating inflationary pressures.
- **Monetary Policy Transmission:** Liquidity management helps short-term market rates move in line with the policy rate.
- **Financial Stability:** It prevents excessive surplus funds from encouraging speculative or riskier lending.
- **Managing Capital Inflows:** Large capital/forex inflows can create additional rupee liquidity, requiring sterilisation.

Legal and Institutional Framework:

- **Reserve Bank of India Act, 1934**
  - **Section 17:** Provides the statutory framework for RBI's banking and monetary operations, including liquidity-management operations.
  - **Section 42(1):** Empowers RBI to prescribe Cash Reserve Ratio (CRR) for scheduled banks.
  - The Standing Deposit Facility (SDF) was enabled through an amendment to Section 17. Unlike collateralised reverse-repo operations, SDF allows RBI to absorb liquidity without providing collateral.
- **Banking Regulation Act, 1949**
  - **Section 24:** Provides the statutory framework for the Statutory Liquidity Ratio (SLR), requiring banks to maintain prescribed liquid assets.

Major Liquidity Absorption Instruments:

Instrument	Nature	Mechanism
SDF	Overnight	Banks deposit surplus funds with RBI without collateral
VRRR	Short-term	Auction-based liquidity absorption
OMO Sales	Durable	RBI sells Government Securities
CRR	Structural	Banks maintain cash reserves with RBI
MSS	Structural	Special securities absorb excess liquidity

About LAF Corridor:

- **SDF:** Floor of the corridor
- **Repo Rate:** Central policy rate
- **MSF:** Ceiling of the corridor
- RBI uses this framework to influence short-term interest rates and liquidity conditions.

Significance for India:

- Supports price stability.
- Improves monetary-policy transmission.
- Maintains orderly money markets.
- Prevents excessive surplus liquidity.
- Balances liquidity management with credit availability.

Conclusion:

The RBI's VRRR operation demonstrates fine-tuning of systemic liquidity without necessarily changing the policy repo rate. Such instruments are essential for maintaining monetary stability, effective policy transmission and orderly functioning of financial markets.

7 Defence and Internal Security

RAKSHA: India's 10-Year Roadmap for Global Defence Diplomacy

Context:

Recently, on 3 September 2026, Defence Minister Rajnath Singh released the 'RAKSHA' Defence Diplomacy Document in New Delhi. This document presents the strategic direction for India's global defence partnerships, security cooperation, and defence diplomacy over the next 10 years. Its objective is to strengthen India's role in regional stability, maritime security, and global defence cooperation by linking national security interests with more active international cooperation. Through RAKSHA, India has attempted to expand defence diplomacy beyond military exercises and defence relations by linking it with foreign policy, defence production, capacity building, and maritime security within a broader framework.

What is Defence Diplomacy?

- Defence Diplomacy refers to the use of defence institutions, armed forces, military training, joint exercises, defence cooperation, strategic dialogue, and military capabilities to advance foreign policy and national security objectives.
- Traditionally, the primary objective of defence policy has been to protect the country in the event of war. However, in the changing global order, defence capabilities are also being used for confidence building, strategic partnerships, crisis management, capacity building, and regional stability.
- The defence document seeks to institutionalise this broader approach. According to the Ministry of Defence, defence diplomacy is an important pillar of India's foreign policy, and the new document presents a clear and actionable vision for the coming decade.



Four Major Pillars of RAKSHA

- **Strategic Partnerships**
  - » The first pillar of RAKSHA is to deepen bilateral and multilateral security cooperation. In the current global order, instead of depending on any single power, India is developing issue-based and interest-based partnerships with different countries.
  - » This includes military dialogue, strategic negotiations, joint exercises, defence industrial cooperation, and building long-term security relations.
  - » Such partnerships are important for India because the contemporary security environment has become increasingly

complex and multidimensional. Along with conventional warfare, risks related to cybersecurity, space, drones, maritime security, terrorism, and critical technologies are also increasing.

» In this context, defence diplomacy can provide India with opportunities to exchange experience, technology, and security information with different countries.

- **Capacity Building**
  - » The second important pillar is Capacity Building. It includes joint military exercises, training programmes, and the exchange of best military practices with friendly countries.
  - » Capacity building should not be viewed merely as the provision of military equipment. It can also include military training, institutional capacity, humanitarian assistance and disaster relief, maritime surveillance, and professional military education.
  - » For India, a major advantage is that this can strengthen the security capabilities of partner countries while also developing long-term institutional relationships with them.
- **Indigenous Defence Exports**
  - » The third pillar of RAKSHA is Indigenous Defence Exports. Its objective is to establish defence platforms developed under Make in India in global markets and develop India as a reliable defence manufacturing partner.
  - » This initiative is important against the background of India's changing defence economy. In FY 2025–26, India's defence production reached approximately Rs.1.78 lakh crore, while defence exports touched a record □38,424 crore. According to the Ministry of Defence, Indian defence products are being exported to more than 80 countries.
  - » This shows that defence exports are no longer merely an economic activity; they can also become an instrument of foreign policy. Defence relations between two countries do not remain limited to the purchase of equipment. They can also lead to training, maintenance, technical assistance, logistics, and long-term institutional linkages.
  - » Thus, RAKSHA represents an important step towards strengthening the relationship between defence production and foreign policy.
- **Maritime Security**
  - » The fourth pillar of RAKSHA is Maritime Security. It emphasises strengthening India's role in the Indian Ocean Region as a Net Security Provider and First Responder.
  - » India's geographical location makes it naturally important in the Indian Ocean Region. India's maritime trade, energy supplies, sea lines of communication, and island neighbourhood are directly linked to maritime security.
  - » Challenges such as piracy, illegal fishing, human trafficking, natural disasters, marine pollution, and the security of important maritime routes have increased the importance of cooperation in the Indian Ocean.
  - » Through its role as a First Responder, India can strengthen its ability to provide humanitarian assistance, disaster relief, and necessary security cooperation during crises.

Significance of RAKSHA for India:

- **Better Coordination between Foreign Policy and Defence Policy:** India's foreign policy increasingly gives importance to the interrelationship between security, economy, technology, and strategic interests. By making defence diplomacy an institutional component of foreign policy, RAKSHA can provide a basis for better coordination between the two domains.
- **Strengthening Strategic Autonomy:** India has long emphasised the policy of Strategic Autonomy. By developing relations with multiple countries through defence diplomacy, India can move towards reducing

excessive dependence on any single source, market, or partner. However, multi-partnership does not mean joining a military alliance. The challenge for India will be to maintain its independent decision-making capability while expanding cooperation.

- **Atmanirbhar Bharat and the Defence Industry:** The growth of India's defence production capabilities has created opportunities for the private sector, MSMEs, and start-ups. In April 2026, the Ministry of Defence stated that defence exports had reached Rs.38,424 crore in FY 2025–26, with contributions from both the public and private sectors. RAKSHA can connect this industrial capability with international markets and strategic partnerships.
- **India's Role in the Indian Ocean Region:** The Indian Ocean is extremely important for India's security and economic interests. Through maritime cooperation, joint exercises, coastal surveillance, and Humanitarian Assistance and Disaster Relief (HADR) activities, India can strengthen security relations with regional countries.

Major Challenges:

- **Technological Competition:** The global defence market is already strongly competitive, with countries such as the United States, Russia, France, and Israel, among others, having well-established positions. Indian products will have to compete on the basis of quality, cost, timely delivery, and after-sales services.
- **Technology Transfer and Intellectual Property:** While cooperating in advanced defence technologies, it will be necessary to maintain a balance between national security interests and commercial interests.
- **Different Strategic Priorities of Partner Countries:** India will have to balance its relations simultaneously with Western countries, Russia, West Asia, Africa, and the Indo-Pacific region.
- **Institutional Coordination:** Effective defence diplomacy will require continuous coordination among the Ministry of Defence, Ministry of External Affairs, armed forces, defence industry, DRDO, and other institutions.

Way Forward:

- For RAKSHA to be effective, high-level strategic declarations alone will not be sufficient. It must be linked with concrete action plans.
- Along with defence exports, India will need to focus on defence research and development, indigenous design, testing capabilities, and global after-sales support.
- At the same time, training and capacity-building programmes for partner countries can be made more institutionalised. Indian military training institutions can be used to develop long-term training programmes for foreign military officers.
- In the Indian Ocean Region, India can further strengthen maritime domain awareness, humanitarian assistance and disaster relief, anti-piracy cooperation, and search-and-rescue capabilities.

Conclusion:

RAKSHA is a document that provides a broad strategic direction to India's defence diplomacy for the next decade. Its significance is not limited to military cooperation; it seeks to bring defence diplomacy, strategic partnerships, self-reliant defence production, and maritime security within a common framework. For India, the real challenge will be to translate this roadmap from a declaratory document into tangible outcomes. If strategic partnerships are effectively linked with reliable defence production, technological innovation, capacity building, and maritime cooperation, defence diplomacy can become a more effective instrument of India's broader foreign policy and national security strategy. From this perspective, RAKSHA should not be understood merely as a 10-year defence plan, but rather as an effort to integrate security, diplomacy, and the defence economy into India's emerging global role.

India Clears Rs.1.10 Lakh Crore Defence Acquisitions for Army, Navy and Air Force

Context:

Recently, The Defence Acquisition Council (DAC), chaired by Defence Minister Rajnath Singh, accorded Acceptance of Necessity (AoN), in-principle administrative approval, to defence acquisition proposals worth about Rs.1.10 lakh crore for the Army, Navy and Air Force. Around 98% of the approved procurements will be sourced from Indian industry, giving a major boost to defence indigenisation.

Defence Acquisition Council (DAC):

- The DAC is the highest decision-making body within the Ministry of Defence for major defence procurement and capital-acquisition matters.
- It was established in 2001 following the recommendations of the Group of Ministers on "Reforming the National Security System" after the Kargil War.
- It is chaired by the Union Defence Minister and covers the procurement requirements of the Armed Forces, including the Army, Navy, Air Force and Indian Coast Guard.



Core Mandate and Functions:

- The DAC seeks to ensure timely procurement of military equipment, balance operational requirements with available resources and promote Atmanirbhar Bharat in defence.
- Its key functions include:
  - » **Acceptance of Necessity (AoN):** Provides the mandatory in-principle approval before major procurement proceeds further.
  - » **Procurement route:** Determines acquisition categories under the Defence Acquisition Procedure (DAP), including Buy (Indian-IDDM), Buy & Make and Make.
  - » **Long-term planning:** Provides approvals and direction for long-term capability-development plans.
  - » **Policy formulation:** Recommends changes to procurement procedures to improve transparency, efficiency and indigenisation.

Major Acquisitions:

- **Indian Army:** Approvals include CBRN reconnaissance vehicles, High Mobility Vehicles, Self-Propelled Mechanical Mine Layers, Advanced Light Helicopters, Trawl Tanks and the Sarvatra Bridge System. These will improve mobility, logistics, CBRN preparedness and battlefield manoeuvrability.
- **Indian Navy:** The Navy received approval for Arudhra Radars and the design, development and subsequent procurement of Marine Gas Turbines. Indigenous MGTs can reduce dependence on foreign suppliers for critical warship propulsion.
- **Indian Air Force:** Approvals cover capabilities for fighters, transport aircraft and helicopters, along with Ground-Based Multi-Purpose Jammers (GBMPJs) and the Defence Forces Secure Access Card (DEFSAC) system.

Significance for Atmanirbhar Bharat:

- The approximately 98% Indian sourcing is the most significant aspect of the decision. It can:

- » Reduce dependence on foreign defence suppliers.
- » Strengthen domestic defence manufacturing.
- » Promote indigenous R&D and critical technologies.
- » Generate employment and strengthen MSMEs.
- » Enhance India's strategic autonomy.
- » Support future defence exports.

- India's defence production has already reached a record Rs.1.78 lakh crore in FY 2025–26, while defence exports reached Rs.38,424 crore, indicating the expanding domestic defence ecosystem.

Conclusion:

The Rs.1.10 lakh crore approvals represent more than military modernisation. With 98% domestic sourcing, they advance India's twin objectives of operational preparedness and strategic self-reliance. Sustained investment in indigenous design, R&D and critical technologies will be essential for transforming India from a major defence importer into a globally competitive defence technology and manufacturing power.

ORV Sagar Manthan

Context:

Recently, Kolkata-based Garden Reach Shipbuilders & Engineers (GRSE) launched India's advanced indigenous Ocean Research Vessel ORV Sagar Manthan for the National Centre for Polar and Ocean Research (NCPOR), under the Ministry of Earth Sciences (MoES). The Rs.840-crore vessel is expected to be commissioned by early 2028.

About ORV Sagar Manthan:

- Sagar Manthan is India's first advanced ocean research vessel built by GRSE and will gradually replace the 43-year-old ORV Sagar Kanya. It is 89.5 m long, 18.8 m wide, has a gross tonnage of about 5,900 tonnes and can operate at 14 knots.
- Designed for severe sea conditions, it will undertake research in the Indian Ocean, Bay of Bengal, Southern Ocean and waters around Antarctica, with an expected service life of around 30 years.

Key Scientific Capabilities:

- The vessel is equipped with:
  - » Swath multibeam and geophysical seismic surveys up to 6 km depth.
  - » Sub-bottom profilers and oceanographic instruments.
  - » CTD profiling, water and biological sampling.
  - » Seabed corers, grabs and rock-dredging systems.
  - » Advanced Doppler weather radar and atmospheric observation systems.
  - » Facilities to deploy and recover AUVs and ROVs.
  - » Moorings, data buoys and onboard data-processing facilities.
- It will support research on marine minerals, climate change, tsunamis, ocean dynamics and biodiversity.



Link with Deep Ocean Mission:

- The Deep Ocean Mission seeks to develop

technologies for sustainable exploration of deep-sea resources. Sagar Manthan will significantly strengthen its Deep Ocean Survey and Exploration component.

About Deep Ocean Mission (DOM):

- India's Deep Ocean Mission, launched in 2021 by MoES with an outlay of about Rs.4,077 crore, is a comprehensive initiative aimed at deep-sea exploration and strengthening the Blue Economy.
- Its major components include:
  - **Samudrayaan:** Development of MATSYA 6000, an indigenous manned submersible designed to carry three aquanauts to 6,000 m depth.
  - **Deep-Sea Mining:** Development of technologies to explore polymetallic nodules containing nickel, cobalt, manganese and copper in the Central Indian Ocean Basin.
  - **Ocean Climate Advisory:** Development of advanced ocean-climate prediction and advisory services.
  - **Energy and Freshwater:** Research on Ocean Thermal Energy Conversion and offshore desalination.
  - **Marine Biology:** Establishment of an Advanced Marine Station for Ocean Biology for biotechnology and conservation.
- Sagar Manthan strengthens the Deep Ocean Survey and Exploration vertical of DOM by providing an advanced indigenous research platform.

Strategic Significance:

- **Atmanirbhar Bharat:** Reduces dependence on imported research vessels.
- **Blue Economy:** Supports marine resources, shipping, energy, logistics and ocean-based industries.
- **Climate & Disaster Management:** Improves understanding of ocean-atmosphere interactions, cyclones and tsunamis.
- **Critical Minerals:** Enables exploration of strategic deep-sea mineral resources.
- **Maritime Capability:** Enhances India's scientific and strategic presence in the Indian Ocean Region.

Conclusion:

ORV Sagar Manthan marks an important step in India's transition from importing ocean-research platforms to building them domestically. Integrated with the Deep Ocean Mission, it can strengthen India's scientific capabilities, resource security, climate resilience and long-term Blue Economy ambitions.

Exercise Samudra Laksamana 2026

Context:

Recently, INS Mysore participated in the 4th edition of Exercise Samudra Laksamana with the Royal Malaysian Navy at Lumut, Malaysia, from September 9–12, 2026. The exercise aimed to enhance naval cooperation, interoperability and operational coordination between India and Malaysia.

What is Exercise Samudra Laksamana?

- Samudra Laksamana is an annual bilateral maritime exercise between the Indian Navy and the Royal Malaysian Navy. It involves naval personnel, specialised ships and maritime assets of both countries.
- The exercise strengthens professional cooperation and enhances the ability of both navies to conduct coordinated maritime operations.

Phases of the Exercise:

- The exercise is conducted in two phases:
  - **Harbour Phase:** It includes professional interactions, cross-ship visits, subject-matter exchanges and sharing of operational experiences and best practices.
  - **Operational Sea Phase:** It involves tactical manoeuvres, coordinated drills and maritime exercises designed to enhance

communication, interoperability and operational coordination.

Significance:

- The exercise reflects the growing depth of India-Malaysia maritime cooperation. It strengthens mutual confidence, operational preparedness and regional maritime security, particularly in the strategically important Indo-Pacific region.



About India-Malaysia Defence Cooperation:

- India and Malaysia share a defence partnership under the Enhanced Strategic Partnership. Institutional mechanisms such as the Malaysia-India Defence Cooperation Meeting (MIDCOM) and Sub Committee on Military Cooperation (SCMC) support bilateral defence cooperation.

Key Pillars of Defence Cooperation:

- Major areas include institutional dialogues, military exercises, defence technology, cybersecurity, Maritime Domain Awareness (MDA) and Humanitarian Assistance and Disaster Relief (HADR). Exercises such as Harimau Shakti and Samudra Laksamana strengthen interoperability.

Strategic Importance of Malaysia for India:

- Malaysia's location near the Strait of Malacca, a vital global trade route, gives it major strategic importance. Strong ties support India's Act East Policy, ASEAN engagement and Indo-Pacific strategy.

Conclusion:

Exercise Samudra Laksamana strengthens India's maritime partnership with Malaysia and contributes to regional stability, defence preparedness and a free, open and secure Indo-Pacific.

PRAHAAR Strategy and New Extradition Portal

Context:

Recently, The Union Home Minister inaugurated the PRAHAAR – National Counter-Terrorism Policy and Strategy conference in New Delhi on 28 September 2026 and launched a new Extradition Portal to synergise and expedite efforts to bring fugitives back to India. The conference focused on strengthening PRAHAAR and ensuring its implementation down to the police-station level.

What is Terrorism?

- Terrorism broadly refers to the systematic use or threat of violence and intimidation to create fear and achieve political, ideological or other objectives.
- Under Section 113 of the Bharatiya Nyaya Sanhita (BNS), 2023, a terrorist act includes acts intended to threaten India's unity, integrity, sovereignty, security or economic security, or to strike terror through explosives, firearms, hazardous substances or other means.
- **Terrorism differs from insurgency:** insurgency generally involves an organised challenge to state authority, often with

territorial or political objectives, whereas terrorism primarily uses violence and fear as instruments of coercion.



About PRAHAAR: India's Counter-Terrorism Framework

- India's National Counter-Terrorism Policy & Strategy (PRAHAAR) was released by the Ministry of Home Affairs in February 2026. It adopts a whole-of-government and whole-of-society approach and provides a proactive, intelligence-led framework.
- **Seven Pillars of PRAHAAR:**
  - » Prevention – preventing terrorist attacks and protecting citizens.
  - » Response – ensuring swift and proportionate action.
  - » Aggregating Internal Capacities – strengthening inter-agency coordination.
  - » Human Rights & Rule of Law – ensuring lawful counter-terrorism.
  - » Attenuating Conditions – addressing radicalisation and conditions conducive to terrorism.
  - » Aligning International Efforts – strengthening global cooperation.
  - » Recovery & Resilience – building societal resilience through a whole-of-society approach.

New Extradition Portal:

- The new portal seeks to improve coordination and expedite the process of bringing fugitives from foreign countries back to India.
- The government has also called upon State Police forces to establish dedicated teams working with Central agencies.
- According to the government's reported figures, 288 fugitive criminals were brought back to India from 36 countries between 2019 and 2026.

Institutional & Legal Architecture:

- India's counter-terrorism architecture includes the NIA, Multi-Agency Centre (MAC), State Police/ATS, MHA's Counter Terrorism and Counter Radicalization Division, and mechanisms for combating terror financing. Key legislation includes the UAPA, NIA Act, NSA and BNS.

Emerging Challenges:

- India faces cross-border terrorism, radicalisation through digital platforms, encrypted communication, dark-web activities, cryptocurrency-based terror financing and potential CBRN threats.
- The MHA strategy also stresses technology, international cooperation and capacity building of State counter-terrorism units.

Way Forward:

Effective implementation requires Centre-State coordination, real-time intelligence sharing, stronger State ATS capabilities, disruption of terror financing, international legal cooperation and technology-enabled investigation, while maintaining human rights and due process.



Place in News

Northern Sea Route (NSR)

In recent times, The Northern Sea Route (NSR) in the Arctic is emerging as a seasonal alternative to the Suez Canal route for Asia–Europe shipping. It can reduce the sailing distance by up to about 40% on some Europe–Asia voyages.



What is the Northern Sea Route?

- The Northern Sea Route (NSR) is a maritime corridor of approximately 5,600 km that runs along Russia's Arctic coast. It broadly extends from the Kara Gate, located between the Barents Sea and the Kara Sea, to the Bering Strait, which separates Siberia from Alaska.
- The NSR is considered the shortest maritime link between Western Eurasia and the Asia-Pacific region along Russia's Arctic coastline.
- Several important ports and settlements are located along the route, including Sabetta, Dikson, Dudinka, Khatanga, Tiksi and Pevek, which support shipping, resource transportation and regional connectivity.

Marmara Sea, Turkey

The Marmara Sea in Türkiye witnessed a major maritime accident in which a cargo ship sank during severe weather conditions.



- **Geographical Location:** The Sea of Marmara is a small inland sea located entirely within Türkiye, between its European and Asian parts. It forms an important natural link between the Black Sea and the Aegean Sea through the Bosphorus Strait and Dardanelles Strait respectively.
- **Strategic Location:** The Sea of Marmara is part of the Turkish Straits system, one of the world's important maritime gateways. To the northeast, the Bosphorus Strait connects it with the Black Sea, while to the southwest, the Dardanelles connects it with the Aegean Sea. The sea therefore provides a

maritime route between the Black Sea and the Mediterranean Sea.

- **Important Islands:** The Marmara Sea contains several islands, including the Marmara Islands, Princes' Islands and Avşa Island. The largest city on its shores is Istanbul, which lies on both sides of the Bosphorus and is strategically positioned between Europe and Asia.
- **Geological Significance:** The Marmara region lies along the North Anatolian Fault, a major active fault zone where the Anatolian Plate moves relative to the Eurasian Plate. Consequently, the region is highly vulnerable to earthquakes, making the Marmara Sea important for understanding Turkey's seismic geography.

Mokha and Bab al-Mandeb Strait

Mokha, a strategic port city on Yemen's Red Sea coast, and the Bab al-Mandeb Strait recently came into focus after Houthi forces reportedly launched a major offensive along Yemen's Red Sea coast, seized Mokha, and took control of the Bab al-Mandeb Strait.

About Mokha and Bab al-Mandeb:

- The Bab al-Mandeb Strait is a narrow maritime chokepoint of about 32 km at its widest point, connecting the Red Sea with the Gulf of Aden and the Indian Ocean. It lies between Yemen in the Arabian Peninsula and Djibouti and Eritrea in the Horn of Africa. The strait forms the southern gateway to the Red Sea and the Suez Canal, linking the Indian Ocean with Europe and the Mediterranean.



- A key geographical feature is Perim Island (Mayun), a Yemeni volcanic island situated within the strait. It divides the passage into two channels.
- Mokha, located around 80 km north of Bab al-Mandeb, is a historic Yemeni port on the Red Sea coast. It was once an important centre of international coffee trade and remains strategically significant because of its proximity to the maritime chokepoint.
- The Bab al-Mandeb–Red Sea–Suez Canal route is vital for global trade, carrying containerised goods, oil and other commodities. Any disruption can force ships to take the longer route around the Cape of Good Hope, increasing transportation time, fuel consumption and costs.

Chile

India reaffirmed its commitment to finalizing a Comprehensive Economic Partnership Agreement (CEPA) with Chile by the end of 2026.

About Chile:

- Chile, with its capital Santiago, is located in southwestern South America along the Pacific coast. It is the world's narrowest country, stretching about 4,300 km from north to south with an average width of only 175 km.
- Chile is bordered by Peru to the north, Bolivia to the northeast, and Argentina to the east. To the south, the Drake Passage separates mainland Chile from Antarctica.



Geography:

- Atacama Desert in the north is the driest non-polar desert on Earth.
- Patagonia in the south is characterised by glaciers, fjords and alpine tundra.
- The Andes Mountains form much of Chile's eastern boundary.
- Located along the Pacific Ring of Fire, Chile is highly vulnerable to earthquakes, tsunamis and volcanic eruptions.
- **Highest Point:** Ojos del Salado (6,893 m) is the world's highest active volcano and the second-highest mountain in South America.

Islands & Archipelagos:

- **Easter Island (Rapa Nui):** Famous for its monumental Moai statues.
- **Juan Fernández Archipelago:** Located in the Pacific Ocean.
- **Tierra del Fuego:** An archipelago at the southern tip of South America, divided between Chile and Argentina.

Economic Significance:

- Chile is the world's largest copper producer.
- It is part of the Lithium Triangle, comprising Chile, Argentina and Bolivia, which holds significant global lithium resources.

Power Packed News

Türkiye Joins Artemis Accords

- Recently,, Türkiye became the 71st country to join the Artemis Accords, strengthening international cooperation in peaceful and sustainable space exploration. The agreement was signed at NASA Headquarters in Washington, D.C. by Türkiye's Minister of Industry and Technology, Mehmet Fatih Kacır, in the presence of NASA Administrator Jared Isaacman.
- The Artemis Accords, launched in 2020 by the United States and seven partner countries, establish common principles for the exploration and use of the Moon, Mars and other celestial bodies. They are grounded in the 1967 Outer Space Treaty and emphasise peaceful purposes, transparency, interoperability, emergency assistance, scientific data sharing and the preservation of space heritage sites.

Ramon Magsaysay Awards 2026

- Recently, The Ramon Magsaysay Award 2026, often regarded as Asia's premier civilian honour, was conferred upon Tommy Koh of Singapore, Runa Khan of Bangladesh, and Bo Kyi of Myanmar for their exemplary contributions to society.
- Tommy Koh was recognised for his contribution to international diplomacy and law, Runa Khan for her humanitarian work among poor and climate-vulnerable communities, and Bo Kyi for his sustained efforts towards human rights, justice and the protection of political prisoners. The awards highlight the role of individuals in promoting human dignity, social justice and inclusive development in Asia.

ISRO's GSLV-F17 Successfully Launches EOS-05

- Recently, the Indian Space Research Organisation (ISRO) successfully launched the GSLV-F17 carrying the EOS-05 (GISAT-1A) Earth observation satellite from the Second Launch Pad at the Satish Dhawan Space Centre, Sriharikota.
- Weighing around 2,367 kg, EOS-05 was injected into a Sub-Geosynchronous Transfer Orbit (Sub-GTO) approximately 18 minutes after liftoff. It is intended to operate in a geosynchronous orbit at about 36,000 km altitude.
- The satellite is designed to provide high-frequency and near-real-time imaging of the Indian subcontinent, with observations at intervals of around 30 minutes. Its applications include weather forecasting, disaster management, agriculture, urban planning and strategic surveillance.

UPI–UZQR Linkage

- Recently, India and Uzbekistan have enabled UPI-based payments through Uzbekistan's UZQR system, allowing Indian travellers, students and business visitors to make merchant payments using their existing UPI apps.
- The agreement involves NPCI International Payments Ltd. (NIPL) and Uzbekistan's National Interbank Processing Centre (NIPC), operator of the HUMO payment system. It has been approved by the RBI and Central Bank of Uzbekistan.

- Users can scan UZQR codes at participating retail, hospitality and service outlets, with payments directly debited from Indian bank accounts.

Retired Air Marshal Jitendra Mishra Becomes First CEO of Ram Temple Trust

- Former chief of the Indian Air Force's (IAF) Western Air Command, retired Air Marshal Jitendra Mishra, has been appointed as the first Chief Executive Officer (CEO) of the Shri Ram Janmabhoomi Teerth Kshetra Trust in Ayodhya.
- A total of 5,585 applications were received from across the country for the prestigious position. Following shortlisting and interviews by a high-level search committee, Jitendra Mishra's name was unanimously approved. Air Marshal Mishra served the Indian Air Force with distinction for nearly 39 years. He was heading the Western Air Command during the renowned 'Operation Sindoor', for which he was awarded the Sarvottam Yudh Seva Medal. He retired from service on April 30, 2026.
- As CEO, he will oversee all operational aspects related to the administration of the Ram Temple complex, security arrangements, financial management, and facilities for devotees.

Tenzing Norgay National Adventure Awards 2024

- Recently, The Ministry of Youth Affairs and Sports announced the Tenzing Norgay National Adventure Awards 2024, recognising four individuals for outstanding achievements and contributions to adventure sports in India.
- The awards were given in different categories. Baljeet Kaur received the award for Land Adventure after becoming the first Indian woman to scale five 8,000-metre peaks in a single season. Skalzang Rigzin was recognised in the Land Adventure category for becoming the first Indian to summit Mount Everest without supplemental oxygen or Sherpa support.
- In the Water Adventure category, Rimo Saha was honoured for her achievements in national and international para-swimming. The Lifetime Achievement Award went to Shiv Prasad Chamoli for his contribution to winter sports and the promotion of adventure activities.
- Each award carries a cash prize of Rs.15 lakh, along with a bronze statuette of Tenzing Norgay, a certificate and ceremonial attire.

Smriti Mandhana Crosses 11,000 International Runs

- Recently, Indian vice-captain Smriti Mandhana became the first woman cricketer to score 11,000 international runs. Mandhana surpassed former Indian captain Mithali Raj's 10,868 runs, becoming the highest run-scorer in women's international cricket across the three formats.
- She has also recently become the leading run-scorer in T20I cricket, surpassing New Zealand's Suzie Bates.

India's Forex Reserves Touch Record $740.8 Billion

- Recently, India's foreign exchange (forex) reserves reached a record $740.803 billion for the week ended 28 August 2026, according to the RBI. Reserves rose by $11.475 billion, marking

the ninth consecutive weekly increase.

- Foreign exchange reserves are assets held by a country's central bank in foreign currencies, gold and other international reserve assets.
- India's reserves mainly comprise:
  - **Foreign Currency Assets (FCAs):** Foreign-currency deposits and securities.
  - **Gold Reserves:** Held for diversification and financial security.
  - **Special Drawing Rights (SDRs):** International reserve assets created by the IMF.
  - **Reserve Tranche Position (RTP):** India's readily accessible quota-based position with the IMF.
- In the latest increase, FCAs rose by $9.337 billion to $600.670 billion, while gold reserves increased by $2.191 billion to $116.409 billion. Strong foreign-currency inflows and RBI's forex swap measures supported the rise.

Dr. Dinesh Sharma Appointed LG of Andaman & Nicobar Islands

- Recently, Dr. Dinesh Sharma, 62, has been appointed as the new Lieutenant Governor (L-G) of the Andaman and Nicobar Islands by President Droupadi Murmu. The oath was administered by Calcutta High Court Chief Justice Ravindra Vithalrao Ghuge. He succeeds Admiral (Retd.) D.K. Joshi, who had served since October 2017.
- Under Article 239, Union Territories without legislatures are administered by the President through an appointed Administrator, designated as Lieutenant Governor in certain UTs. The L-G functions as the constitutional and administrative head and exercises direct administrative authority on behalf of the Union Government.
- Unlike a State Governor, an L-G in a UT without a legislature does not normally function through a Council of Ministers.

Eight High Courts Get New Chief Justices

- Recently,, President Droupadi Murmu appointed new Chief Justices to eight High Courts following recommendations of the Supreme Court Collegium. Key appointments include Justice Valluri Kameswar Rao as Chief Justice of Patna High Court, Justice Ravindra Vithalrao Ghuge as Chief Justice of Calcutta High Court, and Justice Mahesh Chandra Tripathi as Chief Justice of Bombay High Court.
- Other appointments include Justice Ashwani Kumar Mishra (Punjab & Haryana), Justice Krushna Ram Mohapatra (Chhattisgarh), Justice Alpesh Yeshvant Kogje (Madhya Pradesh), Justice Dr. Pushpendra Singh Bhati (Jammu & Kashmir and Ladakh), and Justice Sanjay Kumar Agrawal (Rajasthan).
- Under Article 217(1), High Court judges, including Chief Justices, are appointed by the President. The process involves consultation with the Chief Justice of India and the Governor of the concerned state, while the Supreme Court Collegium recommends appointments. Article 222(1) provides for transfer of High Court judges by the President after consultation with the CJI.

Joheirry Mola Dominguez Crowned Miss World 2026

- Recently, Joheirry Mola Dominguez, 24, of the Dominican Republic, was crowned Miss World

2026 at the 73rd Miss World finale held in Nha Trang, Vietnam. The event, hosted at 2 April Square, marked the first time Vietnam hosted the Miss World competition.

- Elisabeth Reynés of Spain was named first runner-up, while Taanusiya Chetty of Malaysia secured second runner-up. Mola's victory gave the Dominican Republic its second Miss World title, after Mariasela Álvarez won in 1982.
- India was represented by Nikita Porwal, who reached the Top 40 but did not enter the Top 20. The next Miss World competition is scheduled to be held in Tanzania in 2027.

Lahore Named SCO Tourism and Cultural Capital 2026–27

- Recently, Lahore has been designated the Shanghai Cooperation Organisation (SCO) Tourism and Cultural Capital for 2026–27, coinciding with Pakistan assuming the organisation's rotating chairmanship. The decision was finalised in September 2026 at the 26th SCO Council of Heads of State meeting in Bishkek, Kyrgyzstan.
- The initiative aims to promote people-to-people contacts, cross-border tourism, cultural exchanges and regional cooperation, while showcasing the heritage of the designated city. Lahore, widely regarded as Pakistan's cultural heart, reflects a rich Mughal, Sufi and British colonial heritage. Its major landmarks include the Lahore Fort and Shalimar Gardens, both UNESCO World Heritage Sites, along with the Badshahi Mosque, Walled City and historic Sufi shrines.
- The SCO was established in 2001, succeeding the Shanghai Five mechanism formed in 1996. Its headquarters is in Beijing, China. The organisation currently comprises 10 members: China, India, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan, Uzbekistan, Iran and Belarus.
- Previous SCO Tourism and Cultural Capitals include Varanasi (2022–23), Almaty (2023–24), Qingdao (2024–25) and Cholpon-Ata (2025–26).

Exercise Veer Guardian 2026

- Recently, Exercise Veer Guardian 2026 is a 14-day bilateral air combat exercise between the Indian Air Force (IAF) and Japan Air Self-Defence Force (JASDF), held from September 9–22, 2026, at Air Force Station Jodhpur, Rajasthan.
- The second edition of the exercise follows its inaugural edition in January 2023 at Hyakuri Air Base, Japan. The 2026 edition is significant as it marks the first deployment of JASDF fighter aircraft to Indian soil for the exercise.
- The IAF participated with Su-30MKI, Rafale and indigenous LCA Tejas, while Japan deployed F-2A fighters and C-2 transport aircraft. IAF Chief Air Chief Marshal A.P. Singh and JASDF Chief General Takehiro Morita visited the exercise and flew in the Tejas, highlighting growing defence interoperability.
- Veer Guardian forms the air component of India-Japan defence cooperation, complementing Dharma Guardian (Army) and JIMEX (Navy). It strengthens operational coordination, air-combat skills and interoperability between the two forces.

Painted Haveli Towns of Shekhawati Enter UNESCO Tentative List

- The Painted Haveli Towns of Shekhawati were added to UNESCO's Tentative List of World Heritage Sites on June 1, 2026, following submission by India's Permanent Delegation to

UNESCO. The cultural heritage nomination covers a serial cluster of 14 historic towns across Rajasthan's Jhunjhunu, Sikar and Churu districts, including Mandawa, Nawalgarh, Fatehpur, Churu, Sikar and Jhunjhunu.

- Shekhawati, named after Rao Shekha, a 15th-century Kachhwaha Rajput chieftain, developed through semi-autonomous feudal estates known as Thikanas.
- It later prospered as an important centre of Marwari merchant communities, whose wealth from long-distance inland trade between the Gangetic plains and Gujarat ports financed elaborate mansions.

Kishor Makwana Receives Dr. APJ Abdul Kalam Jan Seva Puraskar 2026

- Recently, Kishor Makwana, Chairman of the National Commission for Scheduled Castes (NCSC), received the Dr. APJ Abdul Kalam Jan Seva Puraskar 2026 on September 9, 2026, at the 16th Sansad Ratna Awards 2026 ceremony held at the Dr. Ambedkar International Centre, New Delhi. The award was presented by the Prime Point Foundation and Sansad Ratna Awards Committee.
- The NCSC is a constitutional body established under Article 338 to safeguard the rights and interests of Scheduled Castes. Originally a Special Officer for SCs and STs, it became a multi-member commission through the 65th Constitutional Amendment Act, 1990.
- The 89th Constitutional Amendment Act, 2003 bifurcated it into the NCSC and the National Commission for Scheduled Tribes (NCST) under Articles 338 and 338A respectively.

Exercise Yudh Abhyas 2026

- Exercise Yudh Abhyas 2026, the 22nd edition of the annual India-US bilateral Army exercise, was conducted from September 9–28, 2026. For the first time since its inception in 2004, it adopted a Two-Theatre Format, simultaneously testing combat capabilities in Rajasthan's semi-desert terrain and Uttarakhand's high-altitude environment.
- At the Mahajan Field Firing Range, Rajasthan, troops focused on mechanised operations, live firing and long-range precision strikes. At the Auli Foreign Training Node, Uttarakhand, around 95 km from the LAC, training emphasised mountain warfare, air mobility and cold-weather operations.
- Yudh Abhyas strengthens India-US strategic interoperability and complements exercises such as Vajra Prahar and Malabar.

28th Western Zonal Council Meeting 2026

- Recently, The 28th meeting of the Western Zonal Council was held on September 7, 2026, in Panaji, Goa, under the chairmanship of Union Home Minister Amit Shah. Goa Chief Minister Pramod Sawant served as Vice-Chairman.
- Representatives from Goa, Maharashtra, Gujarat and Dadra and Nagar Haveli and Daman and Diu participated.
- The meeting discussed issues related to internal security, cybercrime, financial fraud and implementation of new criminal laws, while emphasising stronger digital crime-management systems for urban cooperative banks.

- Zonal Councils are statutory, advisory bodies, not constitutional bodies. They were established under Sections 15–22 of the States Reorganisation Act, 1956, based on an idea proposed by Prime Minister Jawaharlal Nehru in 1955 to promote inter-state cooperation.
- India has five Zonal Councils—Northern, Central, Eastern, Western and Southern. The Union Home Minister is the common Chairman, while member-state Chief Ministers serve as Vice-Chairman by rotation for one year.

Elena Rybakina Wins US Open 2026

- Recently, Kazakhstan's Elena Rybakina defeated two-time defending champion Aryna Sabalenka of Belarus in the 2026 US Open women's singles final at Arthur Ashe Stadium, New York.
- The victory marked Rybakina's third Grand Slam singles title, following her Wimbledon triumph in 2022 and Australian Open title in 2026. She also rose to WTA World No. 1, ending Sabalenka's 99-week reign at the top.
- Born in Russia, Rybakina switched her sporting nationality to Kazakhstan in 2018, receiving greater institutional and financial support from the country's tennis federation. The US Open is one of tennis's four Grand Slam tournaments, alongside the Australian Open, French Open and Wimbledon.
- It is played on hard courts, while the French Open uses clay and Wimbledon grass. Rybakina's 2026 Grand Slam achievements leave the French Open as the only major title missing for her potential Career Grand Slam.

Alexander Zverev Wins US Open 2026

- Germany's Alexander Zverev defeated American Ben Shelton to win the 2026 US Open men's singles title on September 13, 2026. The final was played at Arthur Ashe Stadium, New York, and lasted 3 hours and 33 minutes.
- The victory gave Zverev his second Grand Slam title, following his French Open triumph earlier in 2026. It also marked redemption after his defeat to Dominic Thiem in the 2020 US Open final, where he had surrendered a two-set advantage.

World Circular Economy Forum 2026: India Hosts 10th Edition

- Recently, India hosted the 10th World Circular Economy Forum (WCEF) 2026 from September 15–18 at Mahatma Mandir, Gandhinagar, Gujarat. It was the first time the WCEF was held in South Asia, with over 2,000 stakeholders from more than 65 countries participating.
- The theme, "Circular Economy: Transition for People and Prosperity," focused on resource efficiency, sustainable production and inclusive green growth.
- Two major initiatives were launched:
  - » the Policy Framework for Reuse of Treated Sewage
  - » Roadmap for Circularity in the MSME Sector
- A circular economy replaces the linear "take-make-use-discard" model by promoting repair, reuse, refurbishment, sharing and recycling, thereby reducing resource depletion and waste. It seeks to decouple economic growth from environmental degradation.

India Clinches Junior Asia Cup 2026 Men's and Women's Titles

- Recently, India achieved a golden double at the AHF Junior Asia Cup 2026, winning both the men's and women's hockey titles in Moqi, China.
- The Indian women's team defeated hosts China 1-0 to secure their third consecutive Junior Asia Cup crown. Sanika Chandrakant Mane scored the decisive goal in the 17th minute from an aerial pass. India had earlier defeated Pakistan 19-0 in the quarter-final and South Korea 5-1 in the semi-final.
- The Indian men's team defeated South Korea 4-1 to win their sixth continental title. Ajeet Yadav, Anmol Ekka, Prabhdeep Singh and Ashu Maurya scored for India.
- The victory added to India's previous Junior Asia Cup triumphs in 2004, 2008, 2015, 2023 and 2024. Anmol Ekka emerged as the tournament's leading scorer with 17 goals, setting a new scoring record.

Dr. Sanjukta Parashar Takes Charge of CRPF's CoBRA

- In September 2026, Dr. Sanjukta Parashar, a 2006-batch IPS officer of the Assam-Meghalaya cadre, became the first woman Inspector General (IG) to lead the Commando Battalion for Resolute Action (CoBRA), the elite jungle-warfare wing of the Central Reserve Police Force (CRPF). She succeeded 1996-batch IPS officer Danesh Rana.
- CoBRA was raised during 2008–09 to strengthen India's response to Left-Wing Extremism (LWE) and other insurgencies.
- Its personnel specialise in jungle warfare, guerrilla tactics, ambush and counter-ambush operations, intelligence-based missions, and long-range patrolling. The force operates particularly in LWE-affected regions such as Chhattisgarh and Jharkhand, besides other internal-security theatres.

PM Vishwakarma Scheme Completes Three Years

- Recently, The PM Vishwakarma Scheme, launched on 17 September 2023, completed three years of implementation on 17 September 2026, reaching its milestone of 30 lakh registered traditional artisans and craftspeople. It is a Central Sector Scheme, fully funded by the Union Government, with an outlay of Rs.13,000 crore for 2023–24 to 2027–28.
- The scheme is jointly implemented by the Ministry of MSME, Ministry of Skill Development and Entrepreneurship (MSDE), and Department of Financial Services (DFS). Its core philosophy rests on Samman (Respect), Samarthya (Capability), and Samriddhi (Prosperity), while seeking to preserve the traditional Guru-Shishya Parampara.
- Around 24.4 lakh artisans have received basic skill training, accompanied by a Rs.500 daily stipend, while over 18.15 lakh have received modern toolkits worth up to Rs.15,000. Credit support includes collateral-free loans of Rs.1 lakh and Rs.2 lakh at a concessional 5% interest rate.
- The scheme covers 18 traditional trades, including carpenters, blacksmiths, potters, goldsmiths, cobblers, tailors, masons and toy makers.

EPFO Wage Ceiling Raised to Rs.25,000

- Recently, The Union Cabinet raised the mandatory EPFO wage ceiling from Rs.15,000 to Rs.25,000 per month, effective 17 September 2026, coinciding with Vishwakarma Jayanti. The earlier ceiling, fixed in September 2014, remained unchanged for nearly 12 years.
- The revision is expected to bring 51 lakh to 1 crore additional employees earning between Rs.15,000 and Rs.25,000 within mandatory social-security coverage.
- The measure operates under the Employees' Provident Funds and Miscellaneous Provisions Act, 1952, alongside the broader framework of the Code on Social Security, 2020. The estimated government financial outgo is Rs.11,339 crore annually, or about Rs.56,696 crore over five years.
- Under the Employees' Provident Fund (EPF), the standard 12% contribution raises the maximum employee contribution from Rs.1,800 to Rs.3,000 per month. The Employees' Pension Scheme (EPS) ceiling rises from Rs.1,250 to Rs.2,082.50, while EDLI insurance-linked contribution increases from Rs.75 to Rs.125.

Moody's Raises India's FY27 Growth Forecast to 7%

- Recently, Moody's Ratings has raised its forecast for India's real GDP growth in FY2026–27 to 7%, from 6%, reaffirming India's position as the fastest-growing G20 economy. India recorded 7.8% real GDP growth in Q1 FY27, supported by robust domestic demand. Private Final Consumption Expenditure (PFCE) grew 7.1%, while Gross Fixed Capital Formation (GFCF) expanded 11.9%. Manufacturing GVA increased by 9.2%, and financial, real estate, IT and professional services recorded 12.1% growth.
- For comparison, Moody's forecast is above the RBI's 6.6%, S&P's 6.6% and IMF's 6.4% FY27 projections. Moody's continues to maintain India's sovereign rating at Baa3 with a stable outlook.

Aichi-Nagoya Asian Games 2026: India Finishes Fourth

- Recently, The 20th Asian Games (Aichi-Nagoya 2026) were held in Japan from 19 September to 4 October 2026, across Aichi Prefecture and Nagoya.
- Organised under the aegis of the Olympic Council of Asia (OCA), the Games brought together athletes from 45 Asian countries and regions. A total of 43 sports, 71 disciplines and 469 medal events were contested.
- The Games witnessed the debut of sports such as mixed martial arts (MMA), padel, surfing, virtual taekwondo and teqball, while chess, go, bridge and dragon boat racing were excluded from the programme. Selected events, including hockey and archery, also served as qualification pathways for the Los Angeles 2028 Olympics.
- India participated with a 503-member athlete contingent, including 269 men and 234 women, competing across 36 disciplines.
- India finished fourth in the medal standings with 85 medals—21 gold, 27 silver and 37 bronze. Although this was below India's record 107-medal haul at Hangzhou 2022, strong performances were recorded in archery, athletics, hockey, kabaddi and cricket. Archery contributed nine medals, including five golds.
- The Games also witnessed notable breakthroughs, including Pranavi Urs' individual golf gold and India's first pole-vault medal by Baranica Elangovan.

Luke J. Lindberg Appointed WFP Executive Director

- Recently, U.S. agriculture official Luke J. Lindberg was appointed Executive Director of the United Nations World Food Programme (WFP). He succeeds Cindy McCain and will serve a five-year term. At 37, Lindberg becomes the youngest person to head the WFP.
- The appointment was made by UN Secretary-General António Guterres and FAO Director-General Qu Dongyu, following confirmation by the WFP Executive Board. The WFP has traditionally been headed by a U.S. citizen, reflecting the significant financial contribution of the United States as its largest single donor.
- Established in 1961 at the initiative of the FAO and UN General Assembly, the WFP is headquartered in Rome, Italy. It is governed by a 36-member Executive Board and relies entirely on voluntary contributions. Its core mandate is combating hunger and malnutrition and providing emergency food assistance during conflicts, disasters and climate-related crises. The organisation received the Nobel Peace Prize in 2020.

Anant Nag Conferred Dadasaheb Phalke Award 2024

- Recently, Veteran Kannada actor Anant Nag was conferred the Dadasaheb Phalke Award for 2024 by President Droupadi Murmu on 22 September 2026 during the 72nd National Film Awards ceremony. He became only the second Kannada actor to receive India's highest cinema honour, after Dr. Rajkumar, who received it in 1995.
- Born Anant Nagarkatte in 1948, Anant Nag has enjoyed a career spanning more than five decades and over 300 films, primarily in Kannada along with Hindi and other regional languages. His notable works include Sankalpa, Ankur, Hamsageethe and Minchina Ota. He also gained nationwide recognition through the television series Malgudi Days. He was awarded the Padma Bhushan in 2025 and has received multiple Filmfare and Karnataka State Film Awards. He has also served in Karnataka's public life as an MLA and MLC.
- Instituted in 1969, the Dadasaheb Phalke Award commemorates Dadasaheb Phalke, regarded as the father of Indian cinema and director of Raja Harishchandra (1913), India's first full-length feature film. Devika Rani was its first recipient. The award comprises a Swarna Kamal, shawl and Rs.15 lakh. The 72nd National Film Awards ceremony was held at Ekta Nagar, Gujarat, marking the first shift outside New Delhi.

Kumik Declared Ladakh's First Heritage Village

- Recently, Kumik village, located in the Zanskar region of Kargil district, has been officially declared Ladakh's first designated Heritage Village by Lieutenant Governor Vinai Kumar Saxena on 15 September 2026. The announcement was made during the inauguration of the 11th Ladakh Zanskar Festival, the first edition following Zanskar's attainment of district status in April 2026.
- Kumik represents a "living heritage", where local communities continue to preserve traditional mud architecture, sacred spaces, agricultural practices and age-old customs. The village also safeguards significant Tibetan Buddhist textual heritage, including Kanjur (Kangyur) manuscripts, which contain the canonical teachings attributed to the Buddha. They can be contrasted with the Tengyur, comprising scholarly commentaries and treatises.
- Situated in the high-altitude Trans-Himalayan cold desert of Zanskar, the heritage status

seeks to promote cultural conservation alongside sustainable development and tourism. It reflects the national vision of "Vikas Bhi, Virasat Bhi", integrating infrastructure development with preservation of India's cultural heritage.

Exercise Tarang Shakti 2026

- Recently, The Indian Air Force (IAF) hosted the second edition of Exercise Tarang Shakti in Jodhpur, Rajasthan, from September 26 to October 12, 2026. Described as India's premier multinational air exercise, it brings together friendly foreign air forces for joint aerial operations, tactical training and interoperability drills.
- The exercise aims to enhance interoperability, mission planning, tactical coordination and operational cooperation among participating air forces. It provides an opportunity to train in a multinational environment, exchange best practices and understand different operational procedures and doctrines.
- The inaugural edition of Tarang Shakti was conducted in 2024 in two phases at Sulur, Tamil Nadu, and Jodhpur, Rajasthan. It witnessed participation from several countries, including Australia, France, Germany, Greece, Singapore, Spain, the UAE, the UK and the US.

SLINEX-26

- India and Sri Lanka conducted the 13th edition of the Sri Lanka–India Naval Exercise (SLINEX-26) from September 17 to 21, 2026, in Visakhapatnam under the aegis of the Indian Navy's Eastern Naval Command. The annual bilateral exercise aims to strengthen maritime cooperation, operational coordination and interoperability between the two neighbouring countries.
- The exercise comprised Harbour and Sea Phases. The participating ships were INS Kavaratti and INS Jyoti from the Indian Navy and SLNS Sindurala from the Sri Lanka Navy. INS Kavaratti is an indigenously built Anti-Submarine Warfare (ASW) Corvette, while INS Jyoti is a Fleet Tanker.
- Conceived in 2005, SLINEX has evolved into an important institutional mechanism for India–Sri Lanka defence cooperation. It contributes to maritime security in the Indian Ocean Region (IOR) and supports information sharing and capacity building.

Mirabai Chanu Wins Silver at Asian Games 2026

- Recently, Indian weightlifter Mirabai Chanu won the silver medal in the women's 49 kg category at the 2026 Asian Games in Aichi-Nagoya, Japan, ending India's 28-year wait for an Asian Games weightlifting medal.
- Chanu lifted a total of 198 kg, comprising 87 kg in the snatch and 111 kg in the clean and jerk. North Korea's Ri Song Gum won gold, while Indonesia's Wijayana Luluk Diani Tri secured bronze with a total lift of 191 kg.
- The medal is particularly significant because Karnam Malleswari's silver in the 63 kg category at the 1998 Bangkok Asian Games was India's last weightlifting medal at the continental Games. Chanu's achievement therefore marks the return of India to the Asian Games weightlifting podium after nearly three decades.
- The achievement also adds another major milestone to Chanu's distinguished career. She

is an Olympic silver medallist, World Championships gold medallist and multiple-time Commonwealth Games champion.

India-Netherlands Sign MoUs to Advance Gujarat's Kalpasar Project

- India and the Netherlands have signed two tripartite Memorandums of Understanding (MoUs) to strengthen technical cooperation for Gujarat's Kalpasar Project, also known as the Gulf of Khambhat Project. The agreements involve India's Central Water Commission, Gujarat's Kalpasar Department, and Dutch organisations Deltares and Delft University of Technology (TU Delft).
- The MoUs focus on hydraulic and hydrological modelling, coastal and structural engineering, salinity management, climate-resilient infrastructure, ecological assessment, digital applications and capacity building. The collaboration aims to improve the project's planning, design and Detailed Project Report (DPR).
- The initiative builds on a Letter of Intent for technical cooperation signed during Prime Minister Narendra Modi's visit to the Netherlands in May 2026.
- The Kalpasar Project envisages constructing a barrage across the Gulf of Khambhat to create a freshwater reservoir using river water from the Narmada, Mahi, Dhadhar and Sabarmati. Its major objectives include improving water availability, particularly in the Saurashtra region, and supporting regional development.
- The proposed project also includes road and rail connectivity and 2,470 MW of hybrid renewable energy generation.

Fatima Zahra El Mansouri Becomes Morocco's First Woman Prime Minister

- On 29 September 2026, Morocco's King Mohammed VI appointed Fatima Zahra El Mansouri as the country's first woman Prime Minister, following the parliamentary elections held on 23 September 2026. Her appointment marks a significant milestone for women's political representation in the Arab world.



- El Mansouri is a senior leader of the Authenticity and Modernity Party (PAM), which emerged as the largest party in the election, winning 97 of the 395 seats in the House of Representatives. As PAM lacks an absolute majority of 198 seats, she must build a coalition to form the government.
- Previously, she served as Mayor of Marrakech and Morocco's Minister of National Planning, Urban Planning, Housing and City Policy. She is also a trained lawyer.

MCQs Based on Current Affairs

1. With reference to the recent "One Nation, One Time" initiative and the Legal Metrology (Indian Standard Time) Rules, 2026, consider the following statements:

1. The Rules make IST the mandatory, single reference time under the statutory backing of the Legal Metrology Act, 2009.
2. The National Physical Laboratory (CSIR-NPL) uses White Rabbit Technology (WRT) over fiber-optic networks to achieve microsecond-to-nanosecond time synchronization across institutions.
3. The initiative aims to enhance national security by relying primarily on the US-controlled Global Positioning System (GPS) for primary time-stamping.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

2. Consider the following statements regarding the recent bilateral developments between India and Uzbekistan:

1. India and Uzbekistan upgraded their bilateral ties to a Comprehensive Strategic Partnership during the Prime Minister's visit to Tashkent in August 2026.
2. Both nations set a target to achieve USD 5 billion in annual bilateral trade by the year 2030.
3. The original Strategic Partnership between the two countries was established in 2011, marking 15 years by 2026.

Which of the statements given above are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

3. Consider the following statements regarding the Integrated Fertilizer Management System:

1. It is a national end-to-end digital tracking platform developed and technically supported by the National Informatics Centre (NIC).
2. Under the current Direct Benefit Transfer (DBT) framework for fertilizers, the subsidy amount is transferred directly into the verified bank accounts of individual farmers.
3. The platform employs big data analytics to examine fertilizer purchases across specific parameters such as buyer categories, landholdings, and crop types.

Which of the statements given above are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

4. Consider the following statements regarding the Shanghai Cooperation Organisation (SCO):

1. The SCO was originally formed in 2001, evolving from the grouping known as the "Shanghai Five."
2. Iran is a full member state of the Shanghai Cooperation Organisation.
3. The Secretariat of the SCO is located in Tashkent, Uzbekistan.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

5. The "Strait of Hormuz," often seen in the news regarding West Asian instability and energy security, connects which of the following bodies of water?

A: Red Sea and the Gulf of Aden
B: Persian Gulf and the Gulf of Oman
C: Caspian Sea and the Black Sea
D: Mediterranean Sea and the Red Sea

6. With reference to the Great Lakes of North America, consider the following statements:

1. Lake Ontario is the easternmost and lowest in elevation among the five Great Lakes.
2. All five Great Lakes are entirely located within the territorial boundaries of the United States, sharing no border with Canada.
3. Lake Ontario is connected to the Atlantic Ocean via the St. Lawrence River.

Which of the statements given above is/are

correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

7. Consider the following statements regarding the 26th Meeting of the Council of Heads of State of the SCO:

1. The summit was hosted in Bishkek, marking the 25th anniversary of the founding of the SCO.
2. English was approved as an official and working language of the SCO via a protocol amendment to the SCO Charter during this summit.
3. Turkmenistan is one of the ten full member states that signed the Bishkek Declaration at this summit.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

8. Consider the following statements regarding the newly declared Monument of National Importance, Gollala Gudi:

1. It is located in the Mulugu district of Telangana, in close proximity to the UNESCO World Heritage Site Ramappa Temple.
2. Architecturally, it is designed as a Trikutalaya, featuring an east-facing mandapa surrounded by three sanctums (garbhagrihas).
3. The statutory protection and notification of this site were issued under the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

9. With reference to the Kakatiya dynasty and their temple architecture style in medieval Deccan, consider the following statements:

1. The Kakatiya rulers predominantly used granite and sandstone for their intricate architectural layouts.
2. A Trikutalaya temple style is completely unique to the imperial capitals of Warangal and was never replicated in smaller rural settlements like Palampet.

Which of the statements given above is/are correct?
A: 1 only
B: 2 only
C: Both 1 and 2
D: None

10. Consider the following statements regarding the deletion of names from electoral rolls and the statutory machinery involved:

1. Booth Level Officers (BLOs) are empowered to independently decide on claims and objections regarding the deletion of voter names after field verification.
2. Form 7 can be utilized either to object to the inclusion of another person's name in the electoral roll or to request the deletion of one's own name.
3. Under Section 22 of the Representation of the People Act, 1950, the Electoral Registration Officer (ERO) can delete entries only after conducting an appropriate inquiry and providing an opportunity to be heard.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

11. Consider the following statements regarding the recently released 'RAKSHA' document:

1. It is a 10-year strategic roadmap for India's defence diplomacy.
2. Nuclear arms race expansion is listed as one of its core pillars.
3. It focuses on strengthening maritime security in the Indian Ocean Region.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

12. Consider the following statements regarding the 7th Status of Coral Reefs of the World report:

1. Global hard coral cover has declined by about 9.5% compared with the reference period.
2. Marine heatwaves driven by climate change are identified as the primary global driver of this coral cover decline.
3. The Global Coral Reef Monitoring Network (GCRMN) operates as an operational network of the International Coral Reef Initiative (ICRI).

Which of the statements given above are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

13. Consider the following statements regarding coral reefs:

1. Reef-building corals share a mutualistic symbiotic relationship with microscopic algae called zooxanthellae.
2. Coral reefs are exclusively restricted to shallow tropical waters and cannot survive in cold or deep-sea regions.
3. Coral polyps belong to the animal kingdom, whereas zooxanthellae are photosynthetic organisms.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

14. Consider the following statements regarding the Bar Council of India (BCI) and its disciplinary jurisdiction:

1. The BCI is a statutory body established under the Advocates Act, 1961.
2. The BCI and State Bar Councils possess express statutory powers under the Advocates Act to initiate disciplinary action against law students for campus misconduct or protests.
3. Disciplinary and administrative authority over law students before their enrolment exclusively vests in their respective educational institutions or universities.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

15. Consider the following statements regarding the United Nations Children's Fund (UNICEF):

1. It was established by the United Nations Security Council in 1946 to provide emergency relief to children in post-war Europe.
2. The organization is a specialized agency of the United Nations and is funded through a mix of mandatory assessed contributions from member states and voluntary donations.
3. It was awarded the Nobel Peace Prize in 1965 for its humanitarian work.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 3 only
C: 2 and 3 only
D: 1, 2, and 3

16. With reference to the time-bound targets outlined under the national roadmap to eradicate the drug menace by 2029, consider the following statements:

1. The government has set a target to dismantle 100 national and international drug networks by March 2029.
2. The strategy relies exclusively on domestic policing without incorporating financial or reverse-investigation models into the supply chain.
3. The roadmap envisions creating 1 lakh 'Nasha Mukt Mitras' and expanding de-addiction centers across the country.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

17. Consider the following statements regarding the EOS-05 satellite, recently launched by ISRO:

1. EOS-05 is India's first-ever imaging satellite designed to operate from a geosynchronous orbit.

2. It was successfully launched onboard the Polar Satellite Launch Vehicle (PSLV-C series).
3. The satellite provides near-real-time and continuous geo-imaging observation of the Indian landmass.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

18. Consider the following statements regarding 'Climate Overshoot' and the 1.5°C global warming threshold discussed in the recent UNEP Spotlight Report:

1. Crossing the 1.5°C threshold in a single calendar year automatically implies that the long-term temperature goals of the 2015 Paris Agreement have legally and scientifically failed.
2. Under the overshoot framework, some ecological impacts—such as glacier loss and coral reef degradation—can become irreversible even if global average temperatures eventually decline.
3. According to the scientific assessment, the pre-industrial baseline used to calculate global warming levels is measured from the average temperatures of the 1750–1800 period.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

19. With reference to the term "Chipflation", recently seen in the news, consider the following statements:

1. It refers to a persistent rise in the prices of consumer electronics driven by the high manufacturing costs of eco-friendly green chips.
2. The global boom in Artificial Intelligence (AI) has diverted semiconductor manufacturing capacity away from standard memory components like Dynamic Random Access Memory (DRAM).
3. Under this phenomenon, large cloud infrastructure providers get priority access to chips, leading to supply constraints for traditional consumer electronic manufacturers.

Which of the statements given above are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

20. Consider the following statements regarding the recent India–China Corps Commander-level talks:

1. The first-ever Corps Commander-level talks in the eastern sector of Arunachal Pradesh were held at the Wacha-Damai border meeting point.
2. The Line of Actual Control (LAC) is a legally demarcated and mutually agreed international boundary between India and China.
3. The Working Mechanism for Consultation and Coordination on India-China Border Affairs (WMCC) was established in 2012 to address border management issues.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

21. Consider the following statements regarding the Vibrant Villages Programme (VVP):

1. The original Vibrant Villages Programme (VVP-I) is a Centrally Sponsored Scheme aimed at the northern land border villages.
2. The Vibrant Villages Programme–II (VVP-II) is structured as a Central Sector Scheme to cover selected blocks along other international land borders, while excluding areas already covered under VVP-I.
3. The Ministry of Defense is the nodal ministry responsible for the overall implementation and funding allocation of the programme.

Which of the statements given above are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

22. Consider the following statements regarding Foreign Currency Non-Resident (Bank) – FCNR(B) deposits:

1. In an FCNR(B) account, both the principal and the interest earned are repatriable in foreign currency.
2. Under the special liquidity window announced by the Reserve Bank of India, the central bank absorbed the hedging costs to encourage foreign capital mobilization.
3. Private sector banks secured the largest share of the total $130 billion FCNR(B) inflows, outperforming public sector and foreign banks.

Which of the statements given above are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

23. Consider the following statements regarding the liquidity surplus in the Indian banking system:

1. A massive surge in banking system liquidity to over Rs 10 lakh crore was primarily driven by inflows from foreign exchange operations and special US dollar-rupee forex/FCNR(B) swap facilities.
2. High excess liquidity in the banking system naturally pushes short-term interest rates and overnight rates above the policy repo rate.
3. An overwhelming liquidity surplus complicates the central bank's task of controlling headline inflation.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

24. Consider the following statements regarding the Supreme Court Collegium in India:

1. The Collegium system is explicitly provided for under Article 124 of the original Constitution of India.
2. The Supreme Court Collegium for the appointment of apex court judges consists of the Chief Justice of India (CJI) and four other senior-most judges of the court.
3. Recommendations made by the Collegium are binding on the Central Government if reiterated by the Collegium.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

25. Consider the following statements regarding the Swachh Vayu Sarvekshan:

1. It is a biennial assessment conducted by the Ministry of Housing and Urban Affairs (MoHUA) to rank cities based on real-time ambient air quality data.
2. The framework relies entirely on the reduction of PM10 and PM2.5 levels, giving it a 100% weightage in final rankings.
3. It promotes competitive federalism by evaluating the governance and implementation of City-Specific Clean Air Action Plans (CAPs).

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 3 only
C: 2 and 3 only
D: 1, 2, and 3

26. With reference to the National Clean Air Programme and the Swachh Vayu Sarvekshan 2026, consider the following statements:

1. The NCAP targets a reduction of up to 40% in PM10 concentrations or the attainment of national standards by 2025-26.
2. In the Swachh Vayu Sarvekshan 2026, Lucknow secured the top rank in the category of cities with a population above 10 lakh, having successfully brought its annual PM10 levels below the National Ambient Air Quality Standard (NAAQS).
3. The evaluation methodology involves a multi-tier process including city self-evaluation, state-level monitoring, and independent field verification.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

27. Consider the following statements regarding India's Carbon Credit Trading Scheme (CCTS):

1. It is a domestic market-based mechanism that operates primarily on an absolute emission-cap approach.
2. The scheme was enabled through amendments to the Energy Conservation Act, 2001, and is notified by the Ministry of Power.
3. Entities that perform better than their prescribed targets earn Carbon Credit Certificates (CCCs).

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

28. With reference to the United Kingdom's Carbon Border Adjustment Mechanism (CBAM) and its recent recognition of India's CCTS, consider the following statements:

1. The primary objective of CBAM is to prevent carbon leakage by leveling the carbon cost between domestic production and carbon-intensive imports.
2. The UK's recognition of CCTS allows UK importers of eligible Indian goods to claim relief for carbon prices already paid in India.
3. CBAM applies universally to all imported goods regardless of their carbon intensity or sector.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

29. Consider the following statements regarding the Ocean Research Vessel (ORV) Sagar Manthan:

1. It is India's first advanced indigenous ocean research vessel built by Garden Reach Shipbuilders & Engineers (GRSE).
2. It is designed to completely replace the aging ORV Sagar Kanya.
3. It operates under the Ministry of Defence to handle maritime security and deep-sea submarine rescue operations.

Which of the statements given above is/are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

30. With reference to India's Deep Ocean Mission (DOM), consider the following statements:

1. It is a comprehensive initiative launched by the Ministry of Earth Sciences (MoES) to support the Blue Economy.
2. 'Samudrayaan' under this mission involves developing an indigenous manned submersible named MATSYA 6000.
3. ORV Sagar Manthan directly strengthens the Deep Ocean Survey and Exploration vertical of the Deep Ocean Mission.

Which of the statements given above are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

31. With reference to the legal and security aspects of the Strait of Hormuz crisis, consider the following statements:

1. Under the United Nations Convention on the Law of the Sea (UNCLOS), foreign vessels enjoy the right of 'transit passage' through the Strait of Hormuz for continuous and expeditious navigation.
2. 'Operation Sankalp' is a maritime security initiative launched by the Indian Navy to ensure the safe passage of Indian-flagged vessels transiting through the Gulf region.

Which of the statements given above is/are correct?

A: 1 only
B: 2 only
C: Both 1 and 2
D: None

32. Consider the following statements regarding the International Space Summit 2026:

1. It was held at the Grand Palais in Paris, France.
2. The summit marked the first global gathering of its kind, focusing exclusively on deep-space mining regulations rather than Earth orbit management.

Which of the statements given above is/are

correct?
A: 1 only
B: 2 only
C: Both 1 and 2
D: None

33. Consider the following statements regarding the Digital India Land Records Modernisation Programme (DILRMP) 3.0 (2026–2031):

1. It is a Centrally Sponsored Scheme implemented jointly by the Ministry of Electronics and Information Technology (MeitY) and the Ministry of Rural Development.
2. The programme introduces a GIS-enabled "Land Stack" designed to integrate land records, cadastral maps, and property registration across states into a federated national framework.
3. Under this phase, a 14-digit Unique Land Parcel Identification Number (ULPIN) or Universal Bhu-Aadhaar is issued to provide an unambiguous identity to every land parcel.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

34. With reference to India–Sri Lanka bilateral relations and regional security, consider the following statements:

1. Sri Lanka is a member of the Colombo Security Conclave (CSC), which focuses on regional maritime security and counter-terrorism.
2. Bilateral military exercises conducted between the two nations include Mitra Shakti (Army) and SLINEX (Navy).
3. The first visit by an Indian Defence Minister to Sri Lanka took place in the year 2026, marking a complete zero-contact historical defence baseline prior to this year.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

35. Consider the following statements regarding the Chabahar Port and India's connectivity strategy:

1. The Chabahar Port bypasses Pakistan to provide India direct access to Afghanistan and Central Asia.
2. India signed a 10-year long-term agreement with Iran in May 2024 to equip and operate the Chabahar Port terminal.
3. Chabahar Port lies entirely outside the scope of the International North-South Transport Corridor (INSTC) framework.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

36. With reference to recent developments in India–Iran relations and multilateral groupings, consider the following statements:

1. Iran joined the SCO as a full member in 2023 and became part of the BRICS grouping in 2024.
2. During the recent bilateral discussions on the sidelines of the BRICS Summit, both India and Iran emphasized ensuring freedom of navigation and commerce through the critical Strait of Hormuz.
3. United States sanctions on Iran have completely eliminated any potential for non-oil trade, such as the export of Indian basmati rice and pharmaceuticals to Iran.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

37. With reference to consumer protection laws and digital marketplace regulations in India, consider the following statements:

1. E-commerce platforms must undertake an annual self-audit and prominently display a compliance certificate regarding the prevention and regulation of dark patterns.
2. For imported products, platforms are legally mandated to disclose both the country of origin and specific importer details.

3. The Central Consumer Protection Authority was originally established under the provisions of the Consumer Protection Act, 1986.
Which of the statements given above is/are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

38. Consider the following statements regarding the classical Tamil text Thirukkural:

1. It is composed of 1,330 couplets divided equally into four major sections: Aram, Porul, Inbam, and Veedu.
2. Each individual kural (couplet) strictly consists of seven words and emphasizes universal humanism over caste, religious, or racial distinctions.
3. The Porul section primarily deals with statecraft, economics, political ethics, and good governance.
Which of the statements given above is/are correct?

A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

39. Consider the following statements regarding the Uniform Civil Code (UCC) and the Indian Constitution:

1. Article 44 of the Constitution explicitly makes the Uniform Civil Code a justiciable legal right enforceable by the Supreme Court of India.
2. Directive Principles of State Policy (DPSPs), including Article 44, are fundamental in the governance of the country and guide the State in making laws.
3. India currently has uniform criminal laws and commercial laws across communities, but personal laws continue to differ based on religion.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

40. Consider the following statements regarding the recent bilateral developments between India and the Philippines:

1. India has been formally designated as the fifth official strategic partner of the Philippines.
2. The two countries signed a Plan of Action covering the period 2025–2029 to implement the Strategic Partnership.
3. The Philippines decided to join the India-led Coalition for Disaster Resilient Infrastructure (CDRI).

Which of the statements given above are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

41. Consider the following statements regarding the Coalition for Disaster Resilient Infrastructure (CDRI):

1. It is a legally binding, treaty-based intergovernmental organization headquartered in New Delhi.
2. It was launched by the Prime Minister of India at the UN Climate Action Summit in 2019.
3. Its membership is restricted exclusively to national governments and United Nations agencies.
4. The Infrastructure for Resilient Island States (IRIS) is a notable initiative associated with CDRI.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1,3 and 4 only
C: 2 and 4 only
D: 1, 2, 3 and 4

42. Consider the following statements regarding the 18th BRICS Summit held in September 2026:

1. The theme for India's BRICS Chairship in 2026 was “Building for Resilience, Innovation, Cooperation and Sustainability.”
2. The summit marked the 20th anniversary of the founding of the BRICS grouping.
3. The BRICS New Delhi Declaration explicitly supported unilateral tariffs and economic sanctions to maintain fair trade balance.
Which of the statements given above is/are correct?

A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

43. Consider the following statements regarding Exercise Samudra Laksamana:

1. It is an annual bilateral maritime exercise conducted between the Indian Navy and the Royal Malaysian Navy.
2. The 4th edition of the exercise in 2026 was hosted at Lumut, Malaysia, with participation from Indian Naval Ship (INS) Mysore.
3. The exercise is exclusively restricted to a Harbour Phase focused on theoretical classroom lectures and diplomatic talks.

Which of the statements given above are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

44. With reference to the strategic ties and recent developments between India and Malaysia, consider the following statements:

1. India and Malaysia upgraded their bilateral relationship to a Comprehensive Strategic Partnership (CSP).
2. Malaysia occupies a vital geopolitical position along the Strait of Malacca, through which a significant portion of India's trade and energy supplies transit.
3. Both nations have formally ruled out local currency settlements and mandate all bilateral trade to be denominated strictly in US Dollars.

Which of the statements given above are correct?
A: 1 and 2 only
B: 2 only
C: 2 and 3 only
D: 1, 2, and 3

45. Consider the following statements regarding the All India Official Language Conference:

1. The 6th All India Official Language Conference was held in Mumbai (Navi Mumbai), Maharashtra, coinciding with Hindi Diwas 2026.
2. This annual national convention series is organized by the Ministry of Culture in collaboration with the Sahitya Akademi.
3. During the 2026 event, the prestigious Rajbhasha Gaurav and Rajbhasha Kirti Awards were presented to recognize contributions to the progressive use of Hindi.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

46. Consider the following statements regarding Article 343 of the Indian Constitution:

1. It declares Hindi in the Devanagari script as the official language of both the Union and all Indian states.
2. The numerals to be used for the official purposes of the Union must strictly follow the Devanagari form of numerals.
3. It originally permitted the use of the English language for official Union purposes for a period of 15 years from the commencement of the Constitution.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 3 only
C: 2 and 3 only
D: 1, 2, and 3

47. Consider the following statements regarding the legal framework governing outer space:

1. The Outer Space Treaty of 1967 places a comprehensive ban on the deployment of all conventional and conventional counter-space weapons in outer space.
2. The Prevention of the Placement of Weapons in Outer Space (PPWT) is a binding international treaty proposed by Russia and China that comprehensively bans Earth-to-space weapons.
3. The Artemis Accords, while promoting peaceful and responsible space exploration, do not constitute a comprehensive weapons ban.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 3 only

C: 2 and 3 only
D: 1, 2, and 3

48. Consider the following statements regarding the Kishau Multipurpose Project:

1. The project is proposed to be constructed on the Tons River, which is a major tributary of the Yamuna River.
2. It is located along the border of Himachal Pradesh and Uttarakhand.
3. The central government bears 90% of the cost allocated specifically for the water component of the project.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

49. Consider the following statements regarding the new Merchant Discount Rate (MDR) framework for Unified Payments Interface (UPI) transactions, effective from October 15, 2026:

1. Person-to-Person (P2P) UPI transactions are completely exempt from MDR, regardless of the transaction value.
2. Person-to-Merchant (P2M) transactions up to Rs.2,000 attract a standard 0.4% MDR charge from the merchant.
3. Small P2PM merchants who receive up to Rs.1 lakh per month through UPI QR codes remain fully exempt from MDR.
4. RBI directly operates and manages the technical infrastructure of the UPI network, while the National Payments Corporation of India acts solely as a policy regulator.

Which of the statements given above are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 1, 2 and 3 only
D: 1, 2, 3 and 4

50. Consider the following statements regarding the Global Gender Gap Index:

1. It is released annually by the World Economic Forum (WEF).
2. It uses a parity-based approach where 0% represents complete gender parity.
3. It measures gender disparities across four key dimensions, including Health and Survival and Political Empowerment.

Which of the statements given above is/are correct?
A: 1 and 2 only
B: 1 and 3 only
C: 2 and 3 only
D: 1, 2, and 3

ANSWER

1	A	11	B	21	A	31	C	41	D
2	D	12	D	22	D	32	A	42	A
3	B	13	B	23	B	33	C	43	A
4	A	14	B	24	C	34	A	44	A
5	B	15	B	25	B	35	A	45	C
6	B	16	B	26	B	36	A	46	B
7	A	17	B	27	C	37	A	47	B
8	D	18	B	28	A	38	C	48	D
9	A	19	C	29	A	39	B	49	C
10	C	20	B	30	D	40	C	50	B

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