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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
Dhyeya IAS

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Indian Society & Art and Culture

Legislative Reconfiguration of Transgender Rights: An Analysis of Constitutionality, Autonomy and the Role of the State

Context:

The foundational spirit of Indian democracy rests on the principles of equality, dignity, and liberty, which are embedded in the Fundamental Rights of the Constitution. Recently, the constitutional validity of the Transgender Persons (Protection of Rights) Amendment Act, 2026, passed by Parliament, has been challenged through four separate petitions in the Kerala and Delhi High Courts.

While the government considers it a “historic reform” aimed at preventing the “misuse of identity” within the transgender community and ensuring that welfare schemes reach genuine beneficiaries, human rights activists and a significant section of the transgender community have termed it a “regressive step.”

Historical and Judicial Background:

- The modern constitutional foundation of transgender rights in India was established by the landmark judgment in *NALSA v. Union of India*. This judgment was not limited to granting a specific right but expanded the interpretation of the Indian Constitution in an inclusive and progressive direction. The Court clearly stated “Gender identity is not to be determined by external authorities, but by an individual’s internal experience.”

- This principle was grounded in human dignity and personal autonomy.
- In this historic judgment, the Supreme Court:
 - » Recognized transgender persons as a third gender.
 - » Declared self-identification as a fundamental right.
 - » Linked it with Articles 14, 19, and 21 of the Constitution.
- Additionally, in *K.S. Puttaswamy vs. Union of India*, the Court established the right to privacy as a fundamental right and clarified that personal identity, including gender identity, is an integral part of individual autonomy and dignity.
- The Transgender Persons (Protection of Rights) Act, 2019 is seen as an attempt to give legislative form to the principles laid down in *NALSA* (2014), as it recognized rights in areas such as non-discrimination, education, healthcare, and employment. The objective was to ensure social inclusion and institutional protection for transgender persons. However, it also contained a procedural limitation by introducing a certification process through the District Magistrate.

Key Provisions of the Amendment Act, 2026

- The 2026 Amendment introduces four major changes to the 2019 Act:
 - » The amendment narrows the broad definition of “transgender person.” It now primarily includes socio-cultural identities (such as hijra, kinnar, aravani, jogta) and individuals with specific biological variations.
 - » It removes Section 4(2) of the 2019 Act, which granted the right to self-perceived gender identity based on self-declaration.

The definition is now linked to biological and physical criteria.

- » A Certificate of Identity will now require the recommendation of a Medical Board appointed by the District Magistrate, chaired by the Chief Medical Officer (CMO).
- » It introduces stringent punishments (10 years to life imprisonment) for offenses such as forced gender change, abduction, or coercing someone into adopting a transgender identity through deception.

existential aspect of an individual’s identity. Subjecting it to state certification may be seen as a violation of personal dignity.

- **Article 19(1)(a)- Freedom of Expression:** Gender identity is expressed through clothing, behavior, and social presentation. If the state controls this identity, it may adversely affect freedom of expression.
- **Article 14- Right to Equality:** Article 14 ensures equality before the law. However, imposing a stricter certification process on

<p>1 CONTEXT</p> <p>The Transgender Persons (Protection of Rights) Amendment Act, 2026, passed by Parliament, is being challenged in the Kerala and Delhi High Courts.</p> <ul style="list-style-type: none"> ✓ Government calls it a “historic reform” to prevent “misuse of identity” and ensure welfare reaches genuine beneficiaries. ✗ Activists and the transgender community call it a “regressive step” that undermines dignity and autonomy. 	<p>2 HISTORICAL & JUDICIAL BACKGROUND</p> <p>NALSA v. Union of India (2014) A landmark judgment that transformed constitutional understanding of gender.</p> <ul style="list-style-type: none"> Recognized transgender persons as a third gender Declared self-identification as a fundamental right Linked it with Articles 14, 19 and 21 of the Constitution <p>K.S. Puttaswamy v. UOI (2017) Right to Privacy is a Fundamental Right. Personal identity, including gender identity, is integral to autonomy and dignity.</p> <p>The Transgender Persons (Protection of Rights) Act, 2019 Sought to give legislative effect to NALSA principles by ensuring rights in non-discrimination, education, healthcare, employment and more. However, it introduced certification via District Magistrate.</p> <p><i>“Gender identity is not to be determined by external authorities, but by an individual’s internal experience.”</i></p>		
<p>3 KEY PROVISIONS OF THE AMENDMENT ACT, 2026</p>			
<p>1. NARROW DEFINITION The definition of “transgender person” is narrowed to include mainly socio-cultural identities (hijra, kinnar, aravani, jogta) and individuals with specific biological variations.</p>	<p>2. REMOVAL OF SELF-IDENTIFICATION Section 4(2) of the 2019 Act, which allowed self-perceived gender identity based on self-declaration, is removed. The definition is now linked to biological and physical criteria.</p>	<p>3. MEDICAL BOARD CERTIFICATION A Certificate of Identity will now require the recommendation of a Medical Board appointed by the District Magistrate, chaired by the Chief Medical Officer (CMO).</p>	<p>4. STRINGENT PUNISHMENTS Introduces severe punishments (10 years to life imprisonment) for forced gender change, abduction, or coercing someone into adopting a transgender identity through deception.</p>
<p>4 CONSTITUTIONAL ANALYSIS</p> <p>21 ARTICLE 21: RIGHT TO LIFE & PERSONAL LIBERTY Gender identity is an existential aspect of an individual’s identity. Subjecting it to state certification may violate personal dignity, autonomy and the right to life.</p> <p>ARTICLE 19(1)(a): FREEDOM OF EXPRESSION Gender identity is expressed through clothing, behavior and social presentation. State control over identity can adversely affect freedom of expression.</p> <p>ARTICLE 14: RIGHT TO EQUALITY Imposing a stricter certification process on transgender persons creates an additional burden, leading to unequal treatment even in similar circumstances.</p> <p>PRINCIPLE OF CONSTITUTIONAL MORALITY The amended Act contradicts the principle of self-identification (NALSA) and restricts privacy & autonomy (Puttaswamy). Thus, it deviates from constitutional morality.</p>	<p>5 KEY CHALLENGES</p> <p>DISPARITY IN PENAL PROVISIONS Max punishment of 2 years for sexual abuse or violence against transgender persons is far lower than for similar offenses against women. Violates “equal protection of the law”.</p> <p>RIGHT TO FAMILY & RESIDENCE Provision to reside with biological families is unrealistic given rejection and violence. Sending to rehabilitation centres may restrict freedom.</p> <p>LACK OF RESERVATION No provision for horizontal reservation in education and public employment, a key demand for real social transformation.</p> <p>LACK OF INSTITUTIONAL INFRASTRUCTURE Uncertainty about availability of competent and trained medical boards in every district.</p> <p>POSSIBILITY OF CORRUPTION & DELAY Multi-layered approval system may encourage rent-seeking and informal transactions, causing delays.</p> <p>RURAL-URBAN DISPARITY Rural areas lack awareness, institutional access and administrative facilities, limiting equal access to rights.</p>		

Constitutional Analysis:

- **Article 21- Right to Life and Personal Liberty:** The scope of Article 21 has expanded over time to include dignity, autonomy, and personal identity. Gender identity is an

transgender persons places an additional burden compared to other citizens, leading to unequal treatment even in similar circumstances.

- The most serious concern with the amended Act is that it contradicts the principle

of “self-identification” established in the NALSA judgment and restricts the rights to privacy and autonomy recognized in the Puttaswamy judgment. Thus, it appears to deviate from the principle of constitutional morality developed by the judiciary.

Challenges:

- **Disparity in Penal Provisions:** The Act provides a maximum punishment of 2 years for sexual abuse or physical violence against transgender persons. In comparison, similar offenses against women carry much stricter penalties. This disparity raises questions about the principle of “equal protection of the law.”
- **Right to Family and Residence:** The Act grants transgender persons the right to reside with their biological families. However, in reality, this community often faces the greatest violence and rejection from their own families. The provision allowing them to be sent to rehabilitation centres may restrict their freedom.
- **Lack of Reservation:** A key demand of the community has been horizontal reservation in education and public employment. The Act remains silent on this issue, making it difficult to achieve real social transformation through mere anti-discrimination provisions.
- **Lack of Institutional Infrastructure:** There is uncertainty regarding the availability of competent and trained medical boards in every district. A lack of expertise and resources may make the process slow and cumbersome.
- **Possibility of Corruption and Delay:** A multi-layered approval system may increase bureaucratic hurdles, encouraging rent-seeking behavior and informal transactions.
- **Rural-Urban Disparity:** This system may deepen rural-urban inequalities, as rural areas lack awareness, institutional access, and administrative facilities, thereby limiting equal access to rights.

Way Forward:

- For effective protection of transgender rights, it is essential to restore the principle of self-identification in line with NALSA (2014), ensuring dignity and autonomy.
- A simple, self-declaration-based process with minimal administrative intervention should be adopted.
- Gender-sensitization training for officials must be made mandatory. Awareness and inclusion should be promoted through education and media.
- Finally, continuous judicial review should be ensured so that legislative provisions remain aligned with constitutional values.

Conclusion:

The 2026 Amendment Act on transgender rights presents a crucial test for India’s constitutional framework. It is not merely a legislative change but a question of balancing rights and control, autonomy and regulation, and dignity and administrative convenience. If the state limits rights through certification and control, it will not only impact the transgender community but also signal a broader concern for the democratic framework. Therefore, it is imperative to develop a framework that upholds the core spirit of the Constitution while balancing individual dignity, social inclusion, and administrative efficiency.

Short Issues

Maternal Mortality Rate in India

Context:

Recently, a study published in The Lancet Obstetrics, Gynaecology & Women's Health has expressed serious concern regarding India's health sector. According to the study, achieving the Sustainable Development Goal (SDG 3.1) of reducing the Maternal Mortality Rate (MMR) to below 70 per 100,000 live births by 2030 is becoming increasingly challenging for India.

Key Findings of the Study:

Current Status:

- » According to the study, India's MMR was approximately 116 in 2023. Although India has achieved a remarkable decline of nearly 80% compared to the 1990 level of 508, the pace of reduction has significantly slowed since 2015.
- » At present, around 10% of the total maternal deaths worldwide (approximately 24,700 deaths) occur in India.

Regional Disparities: A major obstacle in India's progress is the wide disparity among states:

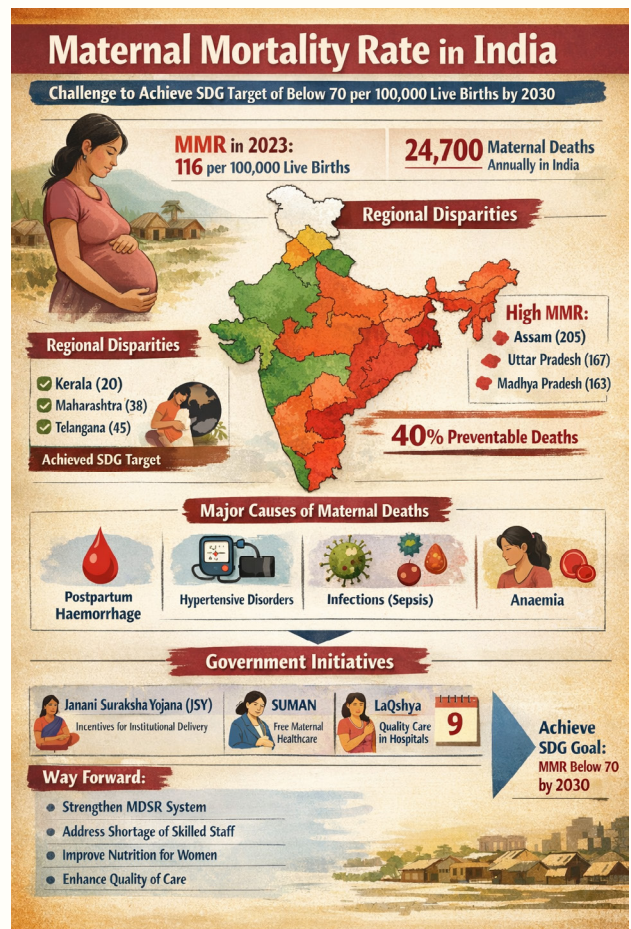
- » **Leading States:** Kerala (20), Maharashtra (38), and Telangana (45), along with 8 states, have already achieved the SDG target (below 70).
- » **Lagging States:** States such as Assam (205), Uttar Pradesh (167), and Madhya Pradesh (163) continue to face serious challenges. In these states, inadequate health infrastructure and socio-economic factors keep mortality rates high.

Major Causes of Death:

- » According to the study, more than 40% of maternal deaths are preventable. The major causes include:
 - » **Postpartum Haemorrhage:** Excessive

bleeding after childbirth.

- » **Hypertensive Disorders:** Pre-eclampsia and eclampsia.
- » **Infections (Sepsis):** Infections caused by unhygienic delivery conditions.
- » **Anaemia:** Malnutrition remains a chronic issue among Indian women.



Government Initiatives:

- » The Government of India has implemented several important schemes under the National Health Mission (NHM):
 - » **Janani Suraksha Yojana (JSY):** Cash incentives to promote institutional deliveries.
 - » **SUMAN (Surakshit Matritva Aashwasan):** Ensures free and quality maternal healthcare services.
 - » **LaQshya:** Aims to improve the quality

of care in labour rooms and operation theatres.

- » **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA):** Provides free antenatal check-ups to pregnant women on the 9th of every month.

Way Forward:

- **Monitoring Mechanism:** Strengthen the Maternal Death Surveillance and Response (MDSR) system in high MMR districts to ensure scientific analysis of each death.
- **Human Resources:** Address the shortage of skilled birth attendants and anaesthetists in rural areas.
- **Focus on Nutrition:** Investment must increase not only in maternal care but also in the nutrition of adolescent girls and pregnant women (e.g., Anaemia Mukh Bharat).
- **Quality of Care:** With the rise in institutional deliveries, the focus must now shift to improving the quality of care so that no woman dies after reaching a healthcare facility.

Conclusion:

India has made commendable progress in maternal health; however, the Lancet report serves as a serious warning. To achieve the target of 70 by 2030, policy efforts must focus particularly on lagging states and on ensuring healthcare access for women at the last mile.

Rural Land Inequality in India

Context:

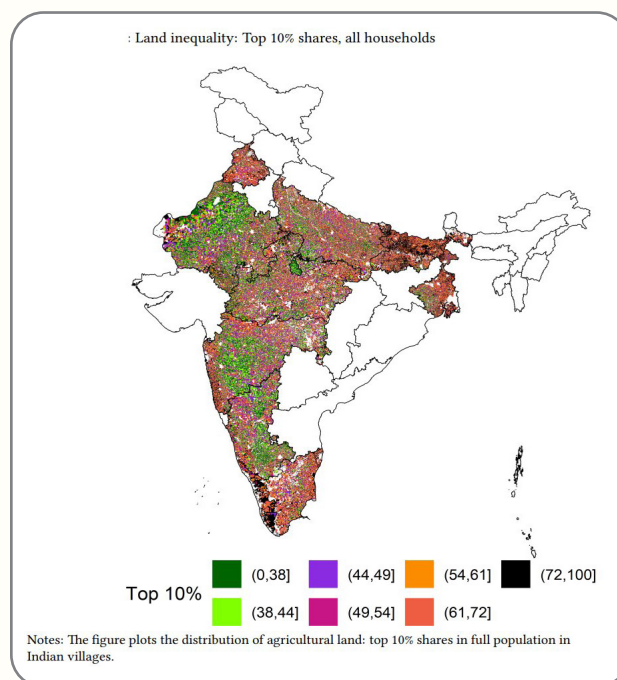
Recently, a research paper released by the World Inequality Lab (WIL), titled “Land Inequality in India: Nature, History and Market”, has exposed disturbing data of land ownership in rural India. This report not only reflects economic inequality but also raises serious questions on India’s socio-political structure.

Main Findings of the Report:

According to the report, the distribution of rural

land in India is highly unequal:

- **Concentration:** The top 10% of rural households own 44% of the total land. Meanwhile, the top 1% owns 18% and the top 5% hold 32% of the land.
- **Condition of Landlessness:** About 46% of families in rural areas of India are landless. In an agriculturally prosperous state like Punjab, the rate of landlessness is the highest (73%).
- **Village-level Analysis:** On average, the largest landowner in a village owns 12.4% of the total village land. In some cases (3.8% of villages), a single person owns more than half of the land.



Historical and Structural Factors of Inequality:

The report highlights three main reasons behind this inequality:

- **Colonial Legacy:** The study shows that in areas where the ‘Zamindari system’ (where landlords collected taxes and owned land) was implemented during British rule, inequality is still higher compared to areas where ‘Ryotwari’ or princely systems existed. The impact of historical

institutional arrangements still dominates land distribution.

- **Caste and Social Hierarchy:** There is a deep connection between land ownership and social status. In villages where the population of Scheduled Castes (SC) and Scheduled Tribes (ST) is higher, the problems of landlessness and small landholdings are more severe. The historical dominance of upper castes over land still continues.
- **Agro-ecology:** In fertile and resource-rich regions, higher land concentration is observed because historically powerful groups strengthened their control over profitable assets.

State-wise Performance:

There is wide variation among Indian states in terms of land inequality:

- **High Inequality States:** Kerala (Gini coefficient 90), Bihar, Punjab, Tamil Nadu and West Bengal have the most unequal land distribution.
- **Low Inequality States:** Karnataka and Rajasthan have relatively more balanced land distribution (Gini coefficient below 65).

Review of Land Reforms:

After independence, India implemented land reforms such as abolition of intermediaries, land ceiling, and consolidation of holdings. However, this report highlights their limitations:

- **Lack of Implementation:** The 'Ceiling Act' could not be effectively implemented due to benami property transfers and legal loopholes.
- **Role of Market:** Development of modern infrastructure and irrigation facilities has increased land value, leading to further growth in the wealth of large landowners, while marginal farmers have lagged behind in market competition.
- **Challenge of Digitization:** Despite modernization of land records, the gap between actual ownership and possession still remains a major obstacle.

Way Forward:

- Land is not only an economic resource but also a means of social security and dignity. To reduce this inequality, the following steps are necessary:
 - » **Effective Land Ceiling Laws:** State governments should review land ceiling laws and actually distribute surplus land among the landless.
 - » **Cooperative Farming:** Small and marginal farmers should be encouraged for collective farming so that they can better benefit from resources and markets.
 - » **Social Inclusion:** Marginalized communities (SC/ST) should be given priority in land allocation policies.
 - » **Transparent Data:** The 'Digital India Land Records Modernization Programme' (DILRMP) needs to be made more transparent and inclusive.

Conclusion:

Land inequality in India is not only an economic issue but also a challenge to the principles of democracy and social justice. If India has to achieve the goal of "inclusive development," it will have to redefine land reforms anew.

CBSE Three Language Formula 2026

Context:

Recently, the Central Board of Secondary Education (CBSE) has announced the mandatory implementation of the 'three-language formula' for Class 6 from the academic session 2026–27 in accordance with the National Education Policy (NEP) 2020.

What is the Three-Language Formula?

- The concept of the three-language formula was first introduced in the National Education Policy of 1968. At present, it has been revived under NEP 2020. Its main provisions are as follows:
 - » **From Class 6 to 10:** Students will have to

study three languages.

- » **Primacy of Indian languages:** Out of these three, at least two languages must be of Indian origin.
- » **Flexibility:** States and students have the freedom to choose languages, provided they follow the rule of two Indian languages.

WHAT IS THE 3 LANGUAGE FORMULA?

Under the new education policy 2020, 3 languages will be taught in all government and private schools of the country.

▪ 1st Language

Student's mother tongue/ local language (regional language)

▪ 2nd Language

Hindi or another Indian language of the state

▪ 3rd Language

English or any other foreign language.



Controversy over Three-Language Formula-

South Indian states, especially Tamil Nadu and Karnataka, have strongly opposed this policy. Their arguments are based on the following points:

- **Two-language vs Three-language policy:** Tamil Nadu has been following a 'two-language policy' (Tamil and English) since 1968. According to them, the burden of a third language puts additional mental pressure on students and goes against their regional identity (linguistic pride).
- **Lack of Reciprocity:** A major reason for the controversy is that while students of non-

Hindi-speaking states are often encouraged to learn Hindi as a third language, in Hindi-speaking states (such as Uttar Pradesh, Bihar), South Indian languages (like Tamil, Telugu, Kannada) are hardly ever made compulsory. Most schools in North India choose Sanskrit as the third language, due to which the original objective of cultural exchange fails.

- **Structural Advantage:** Critics argue that this policy gives unfair advantage to Hindi speakers. They only have to learn two main languages (Hindi and English), while non-Hindi speakers are forced to learn a third language (often Hindi) in addition to their mother tongue and English.
- **Lack of Resources:** Many states argue that there is a severe shortage of teachers and infrastructure in schools to teach South Indian or other regional languages, due to which ultimately students are left with Hindi as the only option.

Constitutional and Federal Framework:

- **Article 343:** The official language of the Union shall be Hindi (in Devanagari script).
- **Article 351:** It is the duty of the Central Government to promote the spread of Hindi so that it may serve as a medium of expression of India's composite culture.
- **Right to Education:** Education is a subject in the 'Concurrent List', which gives both the Centre and the States the power to make laws. However, states believe that the Centre is using financial incentives (such as Samagra Shiksha fund) to forcibly implement its language policies.

Way Forward:

- The objective of the Three-Language Formula is to foster national unity and multilingualism; however, adopting a balanced and sensitive approach is essential for its success.
- To promote multilingualism, concrete efforts must be undertaken to teach South Indian languages even in Hindi-speaking states,

thereby fostering a spirit of reciprocity and cultural exchange.

- While respecting the autonomy of the states, the Centre should take into account the linguistic diversity and sensitivities of various states, rather than adhering to a "one-rule-for-all" policy.
- Instead of presenting language instruction as a mandatory requirement, it should be promoted as a valuable skill and an opportunity, thereby inspiring students to learn various languages voluntarily and with genuine interest.

Conclusion:

In a diverse nation like India, language is not just a medium of communication but also a symbol of identity. While implementing language policy, the spirit of 'cooperative federalism' should be paramount.

India's First Petroglyph Conservation Park in Ladakh

Context:

Recently, taking a significant step towards preserving its prehistoric cultural heritage, India is establishing its first Petroglyph Conservation Park in Ladakh, which was inaugurated on World Heritage Day (18 April 2026). The park is located along the Indus River and aims to conserve prehistoric rock carvings that are under threat from development, tourism, and natural erosion, and which represent a heritage dating back thousands of years.

About Petroglyphs:

- Petroglyphs are prehistoric rock carvings created by engraving symbols, figures, or inscriptions onto rock surfaces. They provide valuable insights into early human life and cultural evolution.
- In Ladakh, these carvings depict hunting scenes, animals like ibex, religious symbols such as Buddhist stupas, and inscriptions in languages like Sanskrit and Chinese,

highlighting the region's historical role as a cultural crossroads.

About the Petroglyph Conservation Park:

- The park will serve as a scientifically managed conservation-cum-interpretation centre. It will house petroglyphs relocated from vulnerable areas and present them in a curated, educational format.
- Designed as an open-air museum, it will facilitate research, awareness, and tourism while ensuring preservation.

INDIA'S FIRST PETROGLYPH CONSERVATION PARK
AT SINDHU GHAT, LEH - LADAKH

Key Details

- **Location:** Sindhu Ghat, Leh (Indus River, Ladakh)
- **Foundation Stone Laid:** 18 April 2026 (World Heritage Day)
- **Launched by:** Lt. Governor Vinai Kumar Saxena

About Petroglyphs

- Prehistoric Rock Carvings
- Depict: Hunting Scenes, Ibex, Buddhist Symbols

Purpose of the Park

- Protect Endangered Rock Art
- Relocate Petroglyphs Safely
- Educational & Tourist Site

Fast Facts

- 400+ Petroglyph Sites in Ladakh
- Along Indus & Zaskar Rivers
- Largest Rock Art Collection in South & Central Asia

Preserving Ancient Rock Carvings

Need for Conservation:

- Like other rock art sites in India, such as Bhimbetka Rock Shelters, Ladakh is also significant at the global level.
- Ladakh hosts nearly 400 petroglyph sites, making it a major repository of rock art. However, these are threatened

by unregulated tourism, infrastructure development, climate conditions, and lack of awareness.

- Many carvings located along the Indus and Zaskar valleys are particularly at risk. The park aims to safeguard such artefacts and reduce pressure on original sites.

Institutional Framework:

- The project involves collaboration between the Archaeological Survey of India and the Ladakh administration through a Memorandum of Understanding.
- This ensures scientific conservation, documentation, and long-term preservation through coordinated efforts.

Significance of the Initiative:

- **Cultural Importance:** Preserves evidence of prehistoric civilisation.
- **Sustainable Tourism:** Promotes responsible tourism and local livelihoods.
- **Educational Value:** Acts as a research and learning hub.
- **Strategic Relevance:** Strengthens Ladakh's identity as a global heritage destination.

Challenges:

- **Risks associated with relocation:** Removing petroglyphs from their original sites may affect their historical context and authenticity.
- **Financial constraints:** The high costs of conservation, transportation, and maintenance in the high-altitude Himalayan region may place financial pressure on the project.
- **Need for community participation:** Without the active involvement of local communities, ensuring the long-term success of conservation efforts becomes difficult.
- **Balancing development and conservation:** Infrastructure development and expanding tourism increase pressure on heritage sites, making conservation efforts more challenging..

Conclusion:

The Petroglyph Conservation Park marks a major step in preserving India's ancient heritage. It integrates conservation with education and tourism, ensuring that development aligns with cultural preservation while strengthening long-term India-heritage sustainability goals.

Guntur Municipal Corporation receives prestigious United Nations 'GEM' Award

Context:

Recently, the Guntur Municipal Corporation (GMC) of Andhra Pradesh has gained global recognition by winning the fourth Gender Equality Mobilization (GEM) Award, presented by the United Nations Industrial Development Organization in Vienna. At a ceremony held in Vienna, the capital of Austria, GMC was honored for its inclusive and sustainable development initiatives. This achievement presents a vivid example of the successful implementation of the Sustainable Development Goals (SDGs), particularly SDG 5 (Gender Equality) and SDG 11 (Sustainable Cities and Communities).

Key Points:

- **Sustainable Cities Integrated Approach Pilot (SCIAP):** The main foundation of Guntur's success is the 'Sustainable Cities Integrated Approach Pilot' (SCIAP) project. This project is funded by the Global Environment Facility (GEF) and implemented by United Nations Industrial Development Organization and UN-Habitat.
 - » **Objective:** To integrate sustainability into urban planning and promote investment in green infrastructure.
 - » **Pilot Cities:** In India, along with Guntur, cities such as Bhopal, Jaipur, Mysuru, and Vijayawada have been selected under this project.
- **Gender-Inclusive Waste Management Model:** The primary reason for the award is GMC's model that links waste management with

women’s empowerment.

- » **E-Auto Initiative:** The corporation trained more than 200 women as electric auto drivers and deployed them for door-to-door waste collection.
- » **Formal Employment:** The program identified informal waste pickers and provided them with skill training, enabling dignified and formal employment.
- » **Green Economy:** By replacing diesel vehicles with electric vehicles, the corporation has taken steps toward zero-emission goals, helping address climate change challenges.

UNIDO and India:

- **UNIDO:** It is a specialized agency of the United Nations headquartered in Vienna,

with a mission to promote Inclusive and Sustainable Industrial Development (ISID).

- **India’s Role:** India is a founding member of UNIDO and actively participates both as a

EXPLANATORY IMAGE: UNIDO GEM AWARD 2026 to GUNTUR MUNICIPAL CORPORATION (GMC)

GMC WINS THE 4TH GEM AWARD in 2026

AWARD GIVEN BY: UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO) IN VIENNA.

RECOGNISED INITIATIVE: EMPLOYING OVER 200 WOMEN AS ELECTRIC AUTO DRIVERS FOR WASTE COLLECTION

PROJECT FRAMEWORK: SUSTAINABLE CITIES INTEGRATED APPROACH PILOT (SCIAP)

PROMOTING ZERO-EMISSION WASTE MANAGEMENT

SUPPORTING WOMEN’S EMPOWERMENT

CREATING GREEN JOBS IN URBAN SANITATION

ADDITIONAL GMC ACHIEVEMENTS

SYNANDOUS GROPHIP SECTION

STATE-LEVEL APPRECIATION for Strong Property Tax Collection (2025-26)

recipient and a contributor to its programs.

Conclusion:

Guntur’s model follows a “bottom-up” approach, where local-level innovations create a global impact. It demonstrates how Urban Local Bodies (ULBs) can combine modern technology (EVs) with social inclusion to build a self-reliant and environmentally sustainable ecosystem.

Polity & Governance

Jan Vishwas (Amendment of Provisions) Bill, 2026: Structural Reform in India's Regulatory Framework

Context:

Recently, after being passed by both Houses of Parliament, the “Jan Vishwas (Amendment of Provisions) Bill, 2026” has also received the assent of the President. The objective of the Bill is to make India’s regulatory and administrative framework more citizen-friendly, transparent, and trust-based. The Act will come into force on a date notified by the Central Government, and different dates may be prescribed for amendments relating to various Acts.

- The “Jan Vishwas (Amendment of Provisions) Bill, 2026” seeks to remove numerous minor procedural violations from the category of criminal offences, which earlier compelled citizens, small traders, and entrepreneurs to face unnecessary criminal prosecution and administrative complexities.
- At present, India is continuously working towards strengthening the concepts of “Ease of Doing Business,” “Ease of Living,” and “Minimum Government, Maximum Governance.” In this context, the Bill is regarded as a significant effort to promote “Trust-based Compliance” in place of a punitive regulatory approach within India’s governance system.
- This Bill is not merely a legal reform, but also reflects a transformation in India’s administrative mindset, wherein citizens are viewed not as potential offenders but as participants in the development process.

Background:

- For a long time, India has had numerous laws under which even minor procedural violations carried provisions for imprisonment. In many cases, citizens and businesses had to face criminal proceedings for issues such as documentation errors, delays in license renewal, technical non-compliance, or administrative mistakes.
- This system led to several challenges:
 - » Excessive burden on courts
 - » Uncertainty in business activities
 - » Fear and distrust among investors
 - » Compliance pressure on Micro, Small and Medium Enterprises (MSMEs)
 - » Possibilities of administrative corruption
 - » Adverse impact on entrepreneurship and innovation
- The World Bank and various economic institutions have also indicated from time to time that excessive criminalisation negatively affects India’s business environment. In this context, the government had earlier decriminalised several provisions through the Jan Vishwas Act, 2023. The 2026 Amendment Bill is an expanded and more comprehensive continuation of that process.

Jan Vishwas Bill, 2026: Key Features

- **Amendments to Multiple Central Acts:** The Bill proposes amendments to 79 Central Acts falling under 23 Ministries. This indicates that the reform is not limited to a single sector but represents a broad administrative transformation.

- **Decriminalisation:** The Bill proposes changes in a total of 784 provisions, of which 717 relate to decriminalisation.
 - » This means:
 - Imprisonment for minor procedural violations will be removed.
 - Economic or administrative penalties will replace imprisonment.
 - A warning mechanism will be introduced for first-time minor violations.
 - » This change makes India's regulatory system more practical and rational.
- **Proportionate Penalty System:** Earlier, many laws prescribed stringent punishments irrespective of the seriousness of the violation. The new Bill promotes a "Proportionate Penalty System," meaning that penalties will correspond to the nature and severity of the offence. This is consistent with the fundamental principles of fairness and reasonableness in justice.
- **Citizen-Friendly Reforms:** The Bill includes several important reforms connected with the daily lives of citizens:
 - » Additional validity period after the expiry of driving licenses
 - » Extended time limit for filing motor accident compensation claims
 - » Decriminalisation of minor violations in public places
- These provisions are expected to provide administrative relief to ordinary citizens.

Relief for MSMEs and the Startup Sector

- Micro, Small and Medium Enterprises (MSMEs) play a crucial role in India's economy. However, due to complex compliance systems, these entities often remained under legal pressure.
 - » Potential benefits of the Bill:
 - Reduction in compliance costs
 - Greater ease of doing business
 - Promotion of startup culture
 - Increased confidence among entrepreneurs
 - Improvement in investment attractiveness

- » This becomes especially significant at a time when India is attempting to establish itself as a Global Manufacturing Hub.



Jan Vishwas Bill, 2026
(Amendment of Provisions)
Promoting Ease of Doing Business & Ease of Living

Objective
Decriminalizing minor offences that currently carry provisions for imprisonment, promoting trust-based governance

Key Features

- **Wide Scope**
Amends 79 Acts across 23 ministries
- **Rationalization of Punishment**
Prioritizes penalties over imprisonment
- **784 Provisions Amended**
- **Wide Scope**
Amends 79 Acts across 23 ministries
- **Compounding of Offences**
Adjudicating Officers to resolve minor violations
- **Protection of Govt. Properties**
Stronger penalties for encroachment

Potential Benefits

- **Ease of Doing Business**
Boosts investor confidence
- **Judicial Efficiency**
Reduces burden on courts
- **Trust-Based Governance**
Increases citizen trust in government

Challenges

- **Executive Discretion**
Risk of misuse in penalty adjudication
- **Compromising on Environment**
Fear of weak environmental penalties
- **Centre-State Coordination**
Need for similar reforms in state laws

Jan Vishwas Bill, 2026: A Step Towards Regulatory Reform & Trust-Based Governance
Minimum Government, Maximum Governance

Significance of the Bill:

- **Global Investment Competition:** In the current global environment, companies are searching for new investment destinations under the China-plus-One strategy. India seeks to capitalize on this opportunity. In such a scenario, a simplified regulatory system sends a positive signal to foreign investors.
- **Expansion of the Digital Economy:** India is rapidly moving towards a digital economy. New enterprises are continuously emerging in sectors such as startups, fintech, e-commerce, and digital services. If harsh criminal action is imposed for small technical or procedural violations,

innovation may be hindered. Therefore, a trust-based compliance system has become a necessity for the modern economy.

- **Need to Reduce Judicial Burden:** India has millions of pending court cases. A significant number of these are related to procedural or minor economic violations. Decriminalisation can:
 - » Reduce the burden on courts
 - » Enable greater focus on serious crimes
 - » Make the justice delivery system more effective
- **Vision of “Viksit Bharat 2047”:** India has set the target of becoming a developed nation by 2047. For this, administrative reforms, investment growth, and entrepreneurship promotion are essential. The Jan Vishwas Bill can be viewed as part of this broader reform-oriented vision.

Potential Benefits of the Bill:

- **Improvement in Ease of Doing Business:** Although the World Bank’s earlier ranking system has been discontinued, the regulatory environment remains extremely important for global investors. A simpler and less punitive framework can make India more competitive.
- **Reduction in Administrative Corruption:** When minor violations carry the threat of imprisonment, administrative discretion increases, which may also increase the possibility of corruption. Restricting procedural matters to civil penalties may reduce arbitrariness.
- **Encouragement to Entrepreneurship:** Young entrepreneurs and startup founders are often intimidated by complex legal procedures. A trust-based system can:
 - » Encourage innovation
 - » Increase risk-taking capacity
 - » Accelerate economic activities
- **Building Trust Between Citizens and the State:** The Bill reflects a governance philosophy in which the State views citizens as “partners” rather than suspects. This aligns with the modern concept of democratic administration.

Challenges:

- **Risk of Excessive Liberalisation:** If decriminalisation becomes excessively broad, companies may stop taking compliance seriously.
- **Impact on Corporate Accountability:** If financial penalties are too low, large corporations may treat them merely as a “cost of doing business,” thereby weakening regulatory compliance.
- **Lack of Administrative Capacity:** A civil penalty system can be effective only when administrative institutions are:
 - » Transparent,
 - » Technically competent,
 - » And accountable.
- **Issue of State Laws:** The Bill is primarily limited to Central Acts, whereas many compliance-related problems are linked to State laws as well. If similar reforms are not introduced by States, the broader impact may remain limited.

International Perspective:

- In many developed countries, minor economic or procedural violations are not treated as criminal offences.
 - » In the United States and Europe, civil penalty systems are implemented in many cases.
 - » Countries such as Singapore and the UAE have developed business-friendly regulatory frameworks.
 - » OECD countries have adopted the “Regulatory Guillotine” model, under which unnecessary regulations are eliminated.
 - » India’s step is therefore aligned with global trends.

Way Forward:

- The success of the Jan Vishwas Bill will not be ensured merely by passing the law. Its effective implementation will require several measures:
 - » Development of online portals, single-window systems, and automated compliance mechanisms

- » Clear and publicly accessible penalty determination systems to prevent arbitrariness
- » Coordinated reforms by both Central and State Governments
- » Awareness among businesses and citizens regarding the new provisions so that they can effectively benefit from the reforms

Conclusion:

The “Jan Vishwas (Amendment of Provisions) Bill, 2026” represents a significant structural reform in India’s administrative and regulatory framework. It signals a transition from a

punitive governance system to a trust-based administrative approach. This reform is not limited to improving the ease of doing business; it also seeks to make the relationship between citizens and the State more collaborative. If implemented with effective execution, transparent administration, and institutional accountability, it can provide a new direction to India’s economic progress, investment attractiveness, and administrative efficiency. To realize the vision of “Viksit Bharat 2047,” such reforms are essential—reforms that uphold the rule of law while freeing citizens and entrepreneurs from unnecessary fear and procedural complexities.

Short Issues

Sattankulam Custodial Deaths

Context:

On 6 April 2026, a Madurai court sentenced nine policemen to death for the 2020 brutal custodial torture and killing of P. Jayaraj and J. Benicks in Sattankulam, Tamil Nadu.

Background and Investigation:

- The incident occurred on 19 June 2020, when the victims were detained for allegedly breaching COVID-19 curfew hours.
- Investigation revealed the charge was false, the victims were subjected to brutal night time torture, causing their death within days.
- The case, initially handled locally, was transferred to the Central Bureau of Investigation (CBI) following Madras High Court’s suo motu intervention.
- After evaluating evidence, including CCTV, the CBI filed chargesheets, leading to the conviction of all nine personnel, inspectors to constables.

Significance of the Verdict:

- This rare application of the death penalty

for custodial deaths underscores that law enforcement officers are not above the law.

- The judgment reinforces Article 21 of the Constitution (Right to Life and Personal Liberty) and aligns with D.K. Basu vs. State of West Bengal (1997), which set procedural safeguards to prevent custodial torture.
- This reflects the judicial system's strict stance towards the police and ensures the protection of Article 21.

About Custodial Death:

- Custodial death occurs when a person dies while in the custody of law enforcement, due to torture, excessive force, medical neglect, or poor confinement conditions.
- According to NHRC and NCRB data, from April 2021 to February 2022, India recorded 125 deaths in police custody and 1,606 in judicial custody. Between 2020–22, Parliament data reported 4,484 custodial deaths, with states like UP, West Bengal, Maharashtra, and Madhya Pradesh accounting for high incidences.

Constitutional Safeguards:

- Article 21 protects life and liberty, interpreted to forbid torture and custodial

violence.

- Article 22 provides rights for arrested persons: notification of grounds of arrest, the right to legal counsel, and production before a magistrate within 24 hours. Preventive detention, however, has additional safeguards like advisory boards and limited duration.

Types of Detention:

- **Punitive Detention:** Post-conviction punishment ordered by a court.
- **Preventive Detention:** Pre-offence detention to prevent threats to public order; not punitive but preventive in nature, with stricter safeguards under Article 22.

Judicial Guidelines:

- **D.K. Basu (1997):** Identification of officers, arrest memo, family notification, production before magistrate, medical exams, lawyer consultation, and register maintenance.
- **Nilabati Behera vs. State of Orissa (1993):** Custodial death violates Article 21; state liable to compensate, affirming Supreme Court's power under Articles 32/226 to protect fundamental rights.

Conclusion:

The Sattankulam verdict is a watershed moment for custodial justice in India. It reinforces constitutional protections, highlights the accountability of law enforcement and signals the judiciary's determination to uphold human dignity and the rule of law. While the judgment sends a strong deterrent message, comprehensive police reforms and strict adherence to procedural safeguards remain essential to prevent future custodial deaths.

Parliament Passes CAPF (General Administration) Bill, 2026

Context:

Recently, The Indian Parliament has passed

the Central Armed Police Forces (General Administration) Bill, 2026 through a voice vote in both Houses.

About CAPFs:

- The Central Armed Police Forces (CAPFs) are a group of central security forces under the Ministry of Home Affairs responsible for internal security, border management, and counter-insurgency operations. These include forces like the CRPF, BSF, CISF, ITBP and SSB.

Key Features of the Bill:

- **Unified Administrative Framework:** The Bill seeks to create a common legal and administrative framework governing recruitment, promotion, seniority, and service conditions of Group A officers across CAPFs.
- **Deputation of IPS Officers:**
 - » 50% of Inspector General (IG) posts
 - » At least 67% of Additional Director General (ADG) posts
 - » 100% of Director General (DG) and Special DG posts
 - » will be filled through deputation of Indian Police Service (IPS) officers.
- **Rule-Making Powers:** The Central Government is empowered to frame rules on recruitment, promotions, and service conditions, ensuring uniformity and clarity.
- **Overriding Effect:** The provisions of the Act will override any inconsistent laws, court judgments, or administrative orders.

Objective:

- The government has stated that the Bill aims to strengthen India's internal security framework, remove inconsistencies, and improve coordination among CAPFs and state police forces.

Significance of the Bill:



- **Administrative Reform:** Introduces uniform service conditions, reducing fragmentation across forces.
- **Operational Efficiency:** Enhances

coordination and command structure in internal security operations.

- **Legal Clarity:** Provides a statutory framework replacing multiple rules and executive orders.
- **Strengthening Security Architecture:** Aims to modernise governance of CAPFs in line with evolving threats.

approach in cadre management between CAPF officers and IPS officers on deputation, thereby addressing concerns related to career progression and morale.

- Transparent and well-defined promotion policies should be introduced to foster motivation and a sense of fairness among CAPF personnel. Strengthening consultative mechanisms with stakeholders, including force representatives, state governments, and experts, will help in addressing operational and administrative challenges collaboratively.

CAPF: COURT vs GOVERNMENT BILL	
 SUPREME COURT MAY 2025	 GOVT BILL 2026
<ul style="list-style-type: none"> ✓ CAPFs are OGAS ✓ Reduce IPS deputation ✓ Improve career progression ✓ Cadre review & rule changes 	<ul style="list-style-type: none"> • Can override any court judgment • Deputation fixed in law • IG: Up to 50% • ADG: Min 67% • DG: 100% deputation
From reducing deputation → to legally locking it in	
Source: Supreme Court Judgment (May 2025) & CAPF Bill (2026)	

Conclusion:

The passage of the CAPF (General Administration) Bill, 2026 marks a major reform in India’s internal security governance. While it aims to bring uniformity, clarity, and efficiency, concerns regarding cadre management and morale must be carefully addressed. The success of the legislation will depend on its balanced implementation, ensuring both administrative efficiency and fairness within the forces.

Concerns and Criticism:

- **Impact on Morale:** Opposition leaders and experts argue that reserving senior posts for IPS officers may demotivate CAPF cadre officers and limit career progression.
- **Promotion Stagnation:** Concerns have been raised regarding potential stagnation, including claims of delayed promotions and limited upward mobility.
- **Federal Concerns:** Critics argue that centralised control over appointments and service rules may undermine the spirit of cooperative federalism.
- **Legislative Scrutiny:** Opposition demanded that the Bill be referred to a parliamentary committee, citing lack of adequate consultation.

Way Forward:

- To ensure the effective implementation of the CAPF (General Administration) Bill, 2026, it is essential to maintain a balanced

Governor’s Power Under Article 161

Context:

Recently, a Madras High Court ruled that the Governor is bound by the advice of the Council of Ministers while exercising powers under Article 161 of the Constitution of India, particularly in matters of remission and premature release of convicts. This judgment resolves conflicting interpretations and reinforces the principle of executive accountability within India’s constitutional framework.

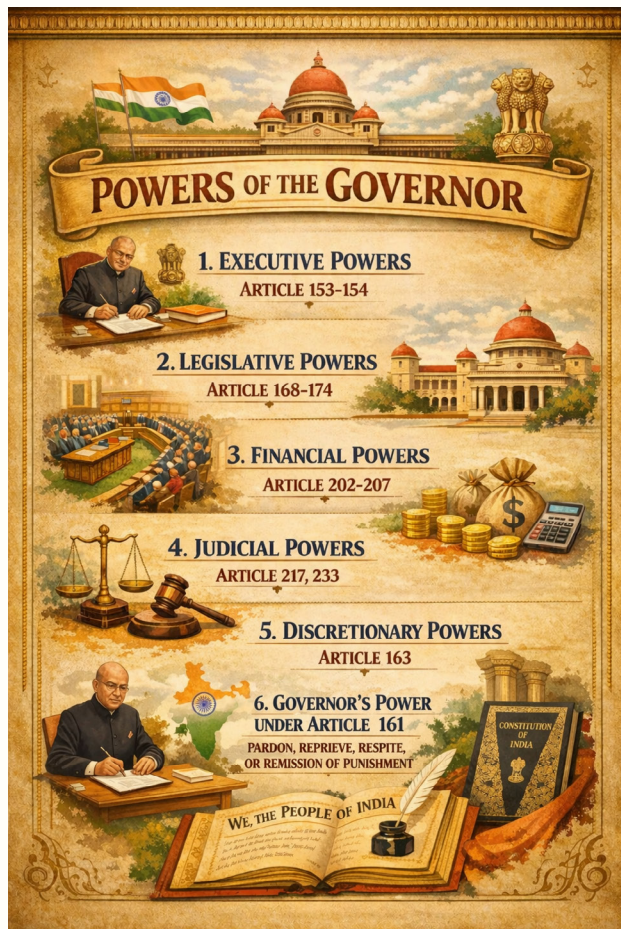
Background of the Case:

- The Full Bench comprising Justices A.D. Jagadish Chandira, G.K. Ilanthiraiyan, and Sunder Mohan was responding to a reference made by a Division Bench due to conflicting rulings in 2024 on the Governor’s discretionary powers.

- The Court relied on key Supreme Court precedents, including *Maru Ram v. Union of India* (1980), *Shamsher Singh v. State of Punjab* (1974) and *A.G. Perarivalan Case* (2022), which had consistently clarified the constitutional position on this issue.
- In the case of the *Madhya Pradesh Special Police Establishment Act* (2003), the Supreme Court clarified that if a decision of the Council of Ministers appears to be biased, the Governor may exercise their discretion to grant sanction for prosecution.

About Article 161:

- Article 161 empowers the Governor to grant pardons, reprieves, respites, or remissions and to suspend, remit, or commute sentences for offences under laws within the State's executive domain.
 - » Remission refers to reducing the duration of a sentence without changing its nature, such as shortening imprisonment without removing conviction.
 - » While the Governor cannot pardon a death sentence, this power lies with the President under Article 72 of the Constitution of India, they may commute or remit it.
 - » This power overrides statutory limits like Section 433A CrPC, as affirmed in *Maru Ram*. However, as held in *Shamsher Singh*, the Governor must act on ministerial advice.
 - » The power is also subject to judicial review if exercised arbitrarily, mala fide or discriminatorily, and does not extend to court-martial cases.
 - » Importantly, a pardon removes conviction, whereas remission only reduces the sentence.



Key Ruling of the Court:

- The Court categorically held that the Governor cannot exercise independent discretion under Article 161 and is constitutionally bound by the advice of the State Council of Ministers.
- Any deviation from such advice would violate the parliamentary system of governance. It also clarified that reliance on the M.P.
- *Special Police Establishment Case* (2003) was misplaced, as that case dealt with statutory discretion rather than constitutional clemency powers.
- The judgment reinforces parliamentary democracy by affirming that real executive authority lies with elected representatives. It clarifies constitutional ambiguity by resolving conflicting High Court interpretations, ensuring legal consistency.
- By limiting the Governor's discretion, it prevents misuse or politicisation of clemency powers. Furthermore, it strengthens federal balance by upholding the authority of states

in matters within their jurisdiction.

Conclusion:

The ruling marks a significant reaffirmation of constitutional morality and democratic governance. By emphasizing that the Governor must act on ministerial advice, it preserves the spirit of the Constitution and ensures that clemency powers are exercised in a fair, accountable, and non-arbitrary manner, thereby strengthening India's parliamentary system.

Amaravati as Sole Capital of Andhra Pradesh

Context:

Recently, The Andhra Pradesh Reorganisation (Amendment) Bill, 2026 was passed in the Lok Sabha, granting legal status to Amaravati as the sole capital of Andhra Pradesh. The move has been described as a watershed moment aimed at resolving years of uncertainty over the state's capital.

Background:

- After the bifurcation of Andhra Pradesh in 2014 under the Andhra Pradesh Reorganisation Act, Hyderabad was designated as a temporary common capital. Subsequently, Amaravati was proposed as the new capital.
- However, policy shifts in later years led to the idea of multiple capitals, creating administrative ambiguity and investor concerns. The latest amendment restores the vision of a single capital.

Key Features of the Amendment:

- Provides legal sanctity to Amaravati as the only capital.
- Ends prolonged uncertainty affecting governance and infrastructure development.
- Reinforces the original framework of state reorganisation.
- Ensures a stable administrative and

institutional setup.



Significance:

- The amendment is expected to restore investor confidence and accelerate development projects worth over Rs.56,000 crore.
- Amaravati is envisioned as a global-standard capital and a major economic growth engine. The clarity in policy is likely to improve governance efficiency, attract investments, and generate employment.

Role of People and Participatory Development:

- A unique aspect of Amaravati's development is the land pooling model. Over 29,000 farmers voluntarily contributed more than 34,000 acres of land.
- The sustained protests by farmers and women for over 1,600 days highlight democratic resilience and citizen participation in governance. The Bill is also seen as recognition of their sacrifices.

Constitutional and Legal Aspects:

- The Constitution of India does not explicitly define the process for selecting a state capital.
- Articles 3 and 4 empower Parliament to reorganize states and make related provisions, including capital designation.
- States can decide their capital through legislative or executive actions.

- In cases of reorganisation, Parliament plays a decisive role (e.g., Andhra Pradesh Reorganisation Act, 2014).

Way Forward:

With legal clarity in place, Amaravati is expected to emerge as a hub of governance, commerce, and innovation. The focus will now be on timely execution of infrastructure projects and inclusive urban development. The amendment marks a crucial step towards administrative stability, economic growth, and long-term planning in Andhra Pradesh.

Telangana Gig and Platform Workers (Registration, Social Security and Welfare) Bill, 2026

Context:

Recently, the Telangana government has introduced the 'Telangana Gig and Platform Workers (Registration and Welfare) Bill, 2026'. After Rajasthan, Telangana has become the second state in the country to bring such legislation. This bill is a significant step towards safeguarding the rights of workers in the rapidly growing 'gig economy'.

Key Provisions of the Bill:

The 'Telangana Gig and Platform Workers (Registration and Welfare) Bill, 2026' includes several detailed provisions to ensure worker protection and define the accountability of aggregators:

- **Registration and Identification:**
 - » **Mandatory Registration:** All gig and platform workers must register with the state government.
 - » **Unique ID:** After registration, each worker will be assigned a unique ID, valid across all platforms, enabling them to directly access government schemes.
 - » **Aggregator Responsibility:** Aggregators must submit the database of their existing workers to the Board within 60 days of the law coming into force.
- **Social Security and Welfare Fund:**
 - » **Welfare Fee:** Aggregators must contribute a fee ranging from 1% to 2% on each transaction (payment).
 - » **Utilization of Fund:** The collected amount will be used for welfare measures such as accident insurance, health benefits, pensions, marriage assistance, and maternity benefits.
 - » **Additional Funding Sources:** The fund may also include government grants, Corporate Social Responsibility (CSR) funds, and donations.
- **Working Conditions and Transparency:**
 - » **Algorithm Transparency:** Companies must clearly disclose how their automated systems determine work allocation, ratings, and payments.
 - » **Protection Against Unfair Termination:** No worker can be removed from work without a valid reason and a 7-day prior notice.
 - » **Safe Working Environment:** Aggregators must ensure a safe workplace free from any form of discrimination (based on caste, religion, gender, etc.).
- **Grievance Redressal Mechanism:**
 - » **Internal Committee:** Platforms with more than 100 workers must establish an internal dispute resolution committee.
 - » **Three-Tier System:** A structured mechanism has been provided, ranging from a district-level grievance officer to a state-level Appellate Authority.
- **Penalties for Violations:**
 - » **Financial Penalty:** Violations of rules may attract fines ranging from Rs.50,000 to Rs.2 lakh.
 - » **Stringent Provisions:** Failure to pay the welfare fee may lead to imprisonment of up to one year, or a fine, or both.

Gig and Platform Workers Social Security



Aggregator Contribution Framework

Contribute amount to percentage of turnover to worker social security

Who is Covered



Gig Worker

Freelance or task-based work



Platform Worker

Engaged via digital platforms



Unorganised Worker

Self-employed, home-based or informal

Registration & Portability



National registration system allows portability of benefits from across platforms and states

Social Security Benefits



Health Insurance



Accident & Disability Cover



Maternity Benefits



Old Age Protection

No Employer-Employee Relationship

Benefits are provided without altering worker classification

No Employer-Employee Relationship



laws do not clearly define gig workers, limiting their access to labour courts or legal remedies.

Conclusion:

This bill by Telangana is a progressive step towards ensuring 'decent work' for gig workers. However, its effective implementation will depend on the autonomy of the welfare board and the transparency with which aggregators comply with the law. It can serve as a model for other states, helping protect India's vast gig workforce from exploitation.

Voting Right and Right to Contest Elections Are Not Fundamental Rights

Context:

Recently, the Supreme Court of India set aside a judgment of the Rajasthan High Court and clarified that the right to vote and the right to contest elections are not Fundamental Rights. Instead, these are statutory rights created and regulated by law. The case arose from disputes related to elections of District Milk Producers Cooperative Societies in Rajasthan, where eligibility conditions for candidates were challenged.

Background of the Case:

- The dispute originated under the Rajasthan Cooperative Societies Act, 2001, where by-laws of District Milk Producer Cooperative Societies prescribed certain eligibility conditions for contesting elections, such as:
 - » Minimum milk supply by members
 - » Continuous participation in operations
 - » Audit and performance compliance standards
- These conditions were challenged in the Rajasthan High Court, which in 2015 and 2022 struck them down as restrictive. The matter was later appealed to the Supreme Court.

Challenges:

- **Job Insecurity:** Gig workers do not have permanent contracts. Companies retain 'hire and fire' powers, allowing them to remove workers without prior notice.
- **Lack of Social Security:** They are treated as 'independent contractors' rather than 'employees', which deprives them of benefits like PF, pension, gratuity, paid leave, and health insurance.
- **Income Uncertainty:** Earnings depend entirely on the number of orders or tasks. Rising fuel costs and reduced commissions by companies are lowering their real income.
- **Algorithmic Control:** Work allocation and ratings are determined by 'invisible' algorithms. Low ratings or inactivity may lead to account suspension.
- **Lack of Legal Recognition:** Current labour

Key Observations of the Supreme Court:

- Electoral Rights are Statutory, Not Fundamental
- The Court held that:
 - » The right to vote is not a Fundamental Right under Part III of the Constitution
 - » The right to contest elections is also not a constitutional right
 - » Both rights exist only when created by law
- Thus, these rights are regulable and subject to conditions imposed by legislation.

Eligibility vs Disqualification:

- The Court distinguished between:
 - » **Eligibility conditions:** Positive requirements to ensure capable participation
 - » **Disqualification:** Legal restrictions based on negative grounds
- It held that the disputed conditions (milk supply, continuity, etc.) are valid eligibility criteria, not unconstitutional disqualifications.

Scope of Judicial Review:

- The Court noted that the High Court erred under Article 226 because:
 - » Cooperative societies are generally not “State” under Article 12
 - » They do not usually perform sovereign public functions
 - » Internal election disputes should be resolved through statutory mechanisms

Principle of Alternative Remedy

- The Court emphasized that:
 - » Remedies under the Cooperative Societies Act must be exhausted first
 - » Registrar and appellate authorities are competent to decide disputes
 - » Judicial intervention should be limited when statutory remedies exist

Constitutional and Legal Significance:

- **Article 19(1)(c):** The right to form associations exists, but it does not automatically confer

electoral rights in cooperatives.

- **Article 12 Interpretation:** Cooperative societies are generally not considered “State”, limiting direct enforcement of Fundamental Rights.
- **Consistency with Previous Judgments:** The ruling reaffirms that:
 - » Voting rights are statutory (under Representation of the People framework)
 - » Right to contest elections is not an inherent constitutional right

Impact of the Judgment:

- **Strengthening Cooperative Governance**
 - » Ensures only active and eligible members contest elections
 - » Improves accountability and efficiency
- **Judicial Restraint**
 - » Limits court interference in internal affairs of cooperatives
 - » Strengthens self-regulation mechanisms
- **Clarity in Electoral Rights**
 - » Clearly distinguishes Fundamental and Statutory Rights
 - » Prevents over-expansion of constitutional claims

Conclusion:

The Supreme Court’s ruling reaffirms a core principle of Indian constitutional law that electoral participation rights are not automatically granted by the Constitution but are created and regulated by statute. The judgment strengthens cooperative governance, ensures legal clarity, and promotes judicial restraint while maintaining balance in democratic administration.

Karnataka Honour Killing Law 2026

Context:

In response to rising incidents of honour-based violence, recently the Karnataka government has introduced the Freedom of Choice in Marriage and Prevention and Prohibition of Crimes in the

Name of Honour and Tradition Bill, 2026. This Bill protects the rights of consenting adults to marry and prevents interference by society.

About Honour-Based Violence:

- Honour-based violence is a violent act or abuse committed in the name of protecting the so-called reputation (honour) of a family or community.
- It often occurs when a person (especially women) acts against the social or cultural norms of the family. It includes serious incidents such as physical violence, harassment, forced marriage, and honour killings.

Key Features of the Bill:

- **Absolute Freedom of Choice:**
 - » Marriage is considered a personal decision between two consenting adults
 - » Requirement of approval from family, caste, or community is removed
- **Criminalisation of Honour-Based Crimes:**
 - » Violence, threats, harassment, and social boycott are made punishable
 - » Provision of at least 5 years additional imprisonment
 - » Offences are made cognizable and non-bailable
- **Institutional Mechanism:**
 - » **Eva Nammava Vedike:**
 - District-level support institution
 - Provides counselling and assistance in marriage
 - » **Fast-track courts:**
 - Ensure speedy justice
 - » **Monitoring committees:**
 - Oversee implementation of the law

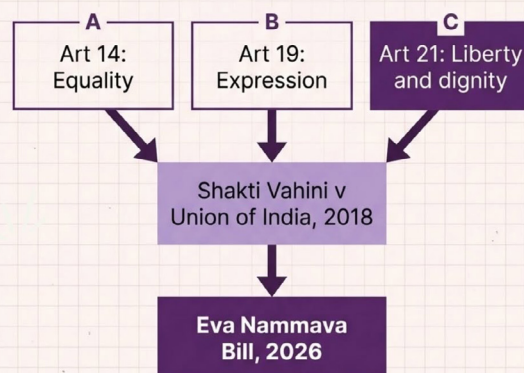
Significance of the Bill:

- This law is an important step towards protecting individual liberty as it establishes marriage as a matter of personal choice.
- It also promotes social reform by challenging caste-based restrictions and encouraging inter-caste marriages.
- It strengthens gender justice by protecting women who are often victims of honour-

based crimes.

- Additionally, it reinforces the Rule of Law by promoting a preventive rather than reactive governance system.

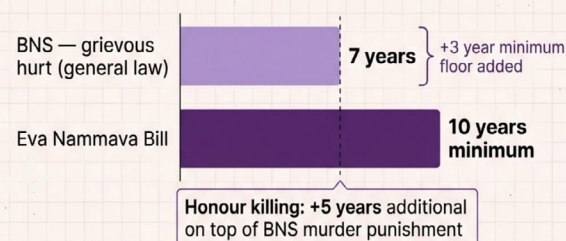
Three articles. One right.



The bill rests on Arts 14, 19, and 21. In 2018, the Supreme Court said honour killings violate Art 21. Karnataka has now written that into law.

From a court's words in 2018 to a legislature's act in 2026.

What the law prescribes



Constitutional Aspects:

- This law is in line with the values of the Indian Constitution. It protects dignity, autonomy and the right to choose one's partner under Article 21 of the Indian Constitution.
- It also ensures freedom of expression and choice under Article 19 of the Indian Constitution.
- Furthermore, it strengthens the prohibition

of caste or social discrimination under Article 14 of the Indian Constitution.

- The law also reflects the principle of “constitutional morality,” where individual rights and freedoms are placed above social pressure and traditional restrictions.

Conclusion:

Karnataka’s law is a progressive step towards eliminating honour-based violence and establishing the absolute right of adults to choose their partners. Although it strengthens constitutional rights, its success will depend on effective implementation and social change. Ultimately, it represents a shift from traditional norms to a rights-based framework grounded in liberty, equality, and dignity.

131st Constitution (Amendment) Bill, 2026

Context:

Recently, the 131st Constitution (Amendment) Bill, 2026, which was part of a larger delimitation and electoral reform package, was defeated in the Lok Sabha. The Bill sought to enable redistribution of Lok Sabha seats based on the 2011 Census and facilitate the implementation of women’s reservation in legislatures.

Background and Objectives:

- The legislative package aimed to achieve two major objectives:
 - » Implementation of 33% women’s reservation in Parliament and State Assemblies (targeted for 2029 elections)
 - » Application of the principle of “one person, one vote, one value” through delimitation based on updated population data

Key proposals included:

- Redistribution of Lok Sabha constituencies based on 2011 Census
- Expansion of Lok Sabha strength from present levels to around 850 seats

- Ensuring uniform increase in representation across States

Key Outcomes of the Bill’s Defeat:

- The Bill failed to achieve the required two-thirds majority in Lok Sabha, leading to its rejection.
- Consequently, the associated delimitation package was also stalled.
- The government had proposed increasing Lok Sabha strength and implementing women’s reservation through this framework, but the plan remains pending.

Key Issues in Debate:

- **Federal Concerns:** Opposition argued that delimitation based on population could reduce representation of certain States, especially in southern India.
- **North–South Divide Allegation:** Government rejected claims of regional bias, asserting equal representation of all States.
- **Women’s Reservation Linkage:** Opposition criticised linking women’s quota to delimitation exercise.
- **“One Person, One Vote” Principle:** Government defended the Bill citing population imbalance due to freeze based on the 1971 Census.

Implications:

- **Delay in Delimitation:** Fresh redrawing of constituencies remains stalled.
- **Women’s Reservation Uncertainty:** Implementation timeline remains unclear.
- **Federal Sensitivities Intensified:** Debate over representation vs regional balance continues.
- **Policy Vacuum:** Electoral reform agenda faces uncertainty without consensus.

About Constitutional Amendment Bill:

- Under Article 368 of the Constitution, a Constitution Amendment Bill follows a special and rigid procedure as it can be introduced in either House of Parliament and requires a special majority, i.e., majority of the total membership of the House and

two-thirds of members present and voting, with no provision of a joint sitting in case of disagreement between the two Houses.

- After passage in Parliament, it requires the assent of the President and in certain cases affecting federal provisions, ratification by at least half of the State Legislatures is also necessary.
- The Indian Constitution thus provides a balanced amendment process that combines rigidity with flexibility to preserve the basic structure while allowing necessary changes in governance.
- Amendments related to delimitation are particularly significant as they affect the representation of States in the Lok Sabha and the federal balance between the Union and States. Under Articles 81 and 82, delimitation is carried out after every Census.

Conclusion:

The defeat of the 131st Constitution (Amendment) Bill, 2026 reflects the complexities of constitutional amendments involving federal structure, electoral representation, and social justice measures. It highlights the importance of Article 368 procedure, special majority requirement, and political consensus in shaping major constitutional reforms in India.

Promotion and Regulation of Online Gaming Rules, 2026

Context:

Recently, The Government of India notified the Promotion and Regulation of Online Gaming Rules, 2026 under the Promotion and Regulation of Online Gaming (PROG) Act, 2025. The Rules will come into force from 1 May 2026.

Background:

- The PROG Act, 2025 was enacted to:
 - » Prohibit online money gaming (RMG)
 - » Promote e-sports and online social gaming

- » Protect users from financial, psychological, and social harm
- It reflects India's ambition to become a global gaming hub while ensuring user safety and regulatory oversight.

Purpose of the Rules:

- Defining a clear mechanism to classify games
- Establishing a central regulatory authority
- Introducing a registration regime
- Ensuring user protection and transparency
- Providing penalty and appeal mechanisms

Key Features of the Promotion and Regulation of Online Gaming Rules, 2026:

- **Online Gaming Authority of India (OGAI):** Established under MeitY; headquartered in Delhi; multi-ministerial representation from key departments.
- **Functions of OGAI:** Classify games; maintain public registry; handle grievances and appeals; coordinate enforcement with banks and agencies.
- **Classification of Online Games:** Based on stake payment, expectation of winnings, revenue model, and monetisation of in-game assets.
- **Timeline for Determination:** Classification decision to be completed within 90 days.
- **Registration Framework:** Mandatory for e-sports and notified social games; registration certificate valid up to 10 years.
- **Restriction on E-sports:** Online money games are explicitly prohibited from being recognised as e-sports.
- **User Safety Features:** Includes age verification, parental controls, time limits, reporting mechanisms, counselling support, and fair-play monitoring.
- **Grievance Redressal System:** Two-tier system: (1) Platform level, (2) OGAI, with final appeal to Secretary, MeitY.
- **Enforcement Mechanism:** Digital proceedings; time-bound disposal within 90 days; penalties based on severity, recurrence, user harm, and gains from

violation.



PROMOTION & REGULATION OF ONLINE GAMING RULES, 2026
 EFFECTIVE FROM: 1ST MAY 2026

— A SAFE | TRANSPARENT | RESPONSIBLE GAMING ECOSYSTEM FOR INDIA —

KEY HIGHLIGHTS

- 1 ONLINE GAMING AUTHORITY OF INDIA**
 - New central regulator under MeitY
 - Digital-first, multi-sector body
 - Handles complaints, enforcement and regulation
 - Promotes a safe, fair and transparent gaming ecosystem
- 2 GAME CLASSIFICATION SYSTEM**

BASED ON

 - ONLINE MONEY GAME (RESTRICTED)
 - SOCIAL GAME / E-SPORT (ALLOWED)
 - Stakes, winnings, revenue model
 - Monetisation methods
 - Ensures clear distinction between money games and permitted games.
- 3 REGISTRATION SYSTEM**
 - Mandatory for E-sports and notified online games
 - Validity: Up to 10 Years
 - Digital Registration Certificate issued by the Authority
- 4 USER SAFETY FEATURES (MANDATORY)**
 - Age verification & parental controls
 - Time limits & gaming restrictions
 - User reporting & grievance tools
 - Counselling support & fair-play monitoring
 - Designed to protect users, especially children and vulnerable groups.
- 5 TWO-TIER GRIEVANCE SYSTEM**
 - LEVEL 1: Game Provider** (Users can raise complaints)
 - LEVEL 2: Gaming Authority** (within 30 days)
 - FINAL APPEAL: Secretary, MeitY** (Ensures fair and timely redressal)
- 6 PENALTIES & ENFORCEMENT**
 - Digital investigations and evidence-based action
 - Cases resolved within 90 days
 - Penalties based on:
 - User harm
 - Financial gains
 - Severity of violation
 - Strict, proportionate and dissuasive action against violations.

POLICY OBJECTIVES

- Protect children and vulnerable users
- Prevent financial risks, fraud and addiction
- Ensure industry transparency and accountability
- Promote innovation, E-sports and social gaming
- Position India as a Global Gaming Hub

IMPORTANT NOTE

ONLINE MONEY GAMES CANNOT BE RECOGNIZED AS E-SPORTS.

Significance:

- The Promotion and Regulation of Online Gaming Rules, 2026 are significant as they enhance consumer protection by curbing gaming addiction, financial losses, and misleading advertisements.
- They provide regulatory certainty through clear rules and time-bound decisions, while promoting a legitimate gaming industry and discouraging illegal platforms. Additionally, they help reduce gambling addiction and youth exploitation, encouraging responsible gaming.

Challenges:

- Defining skill vs chance remains complex
- Enforcement across offshore platforms
- Risk of over-regulation impacting startups
- Coordination with States (public order, betting laws)

Way Forward:

- Strengthen technological enforcement (AI-based monitoring)
- Enhance digital literacy and awareness
- Foster global cooperation on cross-border gaming
- Maintain a balance between regulation and innovation

Conclusion:

The Online Gaming Rules, 2026 mark a decisive shift in India's digital governance. By combining strict prohibition of money gaming with promotion of e-sports, the framework aims to create a safe, transparent, and innovation-driven gaming ecosystem.

Anti-Defection Law and the Rajya Sabha Chairman's Decision

Context:

The recent acceptance by the Rajya Sabha Chairman, C. P. Radhakrishnan, of the merger of seven MPs from Aam Aadmi Party (AAP) with the Bharatiya Janata Party (BJP) has reignited debate over the efficacy of the Tenth Schedule (Anti-Defection Law). While the move is constitutionally permissible, it raises deeper concerns about democratic ethics and institutional neutrality.

About The Tenth Schedule:

- The 10th Schedule of the Indian Constitution, commonly known as the Anti-Defection Law, was introduced by the 52nd Constitutional Amendment Act, 1985 and later strengthened by the 91st Constitutional Amendment Act, 2003.
- It was enacted to curb political defections by disqualifying legislators who switch parties after being elected, thereby promoting stability in governments and maintaining ethical political practices.
- However, Under Paragraph 4 (Merger Clause):
 - If two-thirds members agree, it is treated as a valid merger

- » Members are protected from disqualification
- The Chairman acts as the adjudicating authority in defection cases in the Rajya Sabha.

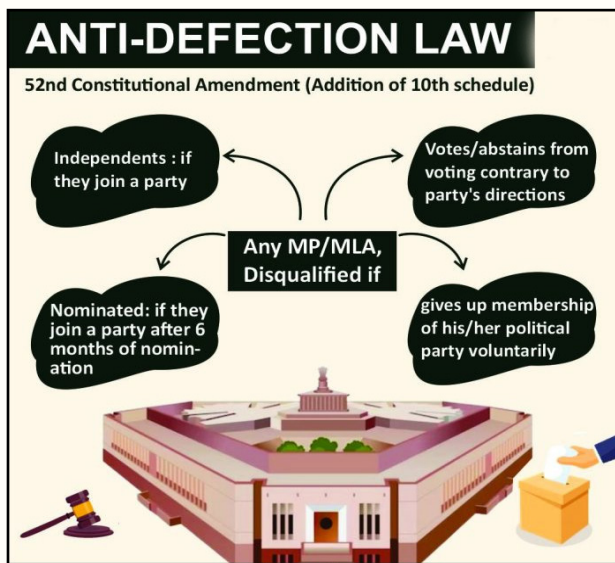
Issues and Concerns:

- **Spirit vs Letter of Law:** While legally valid, the decision raises questions about the spirit of the anti-defection law, which aims to prevent opportunistic political shifts. The merger clause has effectively become a loophole for collective defections.
- **Institutional Neutrality:** The Chairman's decision has drawn criticism regarding:
 - » Possible partisanship
 - » Lack of detailed scrutiny into whether the merger was genuine or engineered
 - » This reflects a broader concern about entrusting adjudicatory powers to political office holders.
- **Impact on Parliamentary Democracy:** The merger significantly strengthens the ruling party's position in the Upper House while weakening opposition representation. This may:
 - » Reduce deliberative quality of legislation
 - » Undermine the representative mandate of voters
- **Absence of Procedural Safeguards:** Unlike judicial proceedings, decisions under the Tenth Schedule often lack:
 - » Transparent hearings
 - » Time-bound processes
 - » Independent oversight
- **Broader Implications:** This episode underscores a structural paradox:
 - » The anti-defection law ensures stability but may simultaneously enable large-scale political realignments that distort electoral mandates.
 - » It highlights the tension between:
 - Legislative stability
 - Democratic accountability
- **Judicial Context:** The Supreme Court in *Kihoto Hollohan* (1992) upheld:
 - » Speaker/Chairman's role

- » But allowed judicial review

- **However, in practice:**

- » Courts intervene only after the Chairman's decision
- » This makes the Chairman's ruling crucial and often decisive



Way Forward:

- To address these concerns, several reforms may be considered:
 - » Revisiting the merger clause, possibly requiring fresh elections
 - » Establishing an independent tribunal instead of relying on the Speaker/Chairman
 - » Introducing time-bound decision-making
 - » Strengthening intra-party democracy to reduce defections

Conclusion:

The Rajya Sabha Chairman's decision in the MP's merger case is constitutionally sound but normatively contentious. It exposes the limitations of the current anti-defection framework, particularly the merger exception. Reforming the Tenth Schedule is essential to ensure that it upholds not just legal correctness, but also the spirit of democratic integrity and accountability.



International Relations

India–South Korea Relations: A New Chapter from Strategic Partnership to Co-innovation

Context:

Recently, South Korean President Lee Jae-myung was on a state visit to India from April 19–21, 2026. During this visit, 16 Memorandums of Understanding (MoUs) were signed to strengthen bilateral relations between South Korea and India. The primary objective of these agreements was to further reinforce the "Special Strategic Partnership," with a particular emphasis on digital cooperation in sectors such as e-mobility, green energy, advanced manufacturing, and artificial intelligence (AI) and semiconductors. The visit came at a time of global economic uncertainty marked by inflation risks, energy insecurity, and disruptions in global supply chains. The agreements covered key sectors such as semiconductors, electric mobility, green energy, shipbuilding, and advanced manufacturing, along with a target to double bilateral trade to \$50 billion by 2030.

Background of India–South Korea Relations:

- India and South Korea share deep historical, cultural, and civilizational links dating back over two millennia. The legend of Queen Heo Hwang-ok and the spread of Buddhism from India to Korea are key symbols of these ancient connections, which continue to strengthen people-to-people relations and mutual goodwill.
- Modern diplomatic relations were established in 1973 and have steadily expanded over time. The relationship was upgraded to a Strategic Partnership in 2010

and further elevated to a Special Strategic Partnership in 2015. This reflects growing political trust, regular high-level exchanges, and expanding cooperation in multiple areas.

- Economic relations gained strong momentum after the signing of the Comprehensive Economic Partnership Agreement (CEPA) in 2010. South Korea has become an important economic partner for India, with major investments in sectors such as automobiles, electronics, shipbuilding, steel, and consumer goods. Companies like Samsung, Hyundai, LG, and POSCO have significantly contributed to India's industrial and manufacturing growth, though both sides continue efforts to address trade imbalances.
- Strategically, both countries share common interests in ensuring a free, open, and stable Indo-Pacific region. India's Act East Policy and South Korea's New Southern Policy have further strengthened cooperation in trade, security, and connectivity. In recent years, the partnership has also expanded into emerging sectors such as artificial intelligence, semiconductors, green energy, and critical minerals, reflecting a forward-looking and technology-driven relationship.

Key Outcomes of the Visit:

- The visit of the President of South Korea marked a major step forward in strengthening the India–South Korea Special Strategic

Partnership, with both sides agreeing to significantly expand political, institutional, and strategic engagement. The two countries decided to institutionalize annual leader-level summits, ensuring sustained high-level political guidance to the relationship. They also agreed to intensify ministerial-level interactions across key domains such as Foreign Affairs, Defence, Finance, Trade, and Science & Technology.

- A major institutional outcome was the establishment of the India–Korea Industrial Cooperation Committee, which will serve as a central platform to coordinate industrial policy, investment flows, and technology collaboration, reflecting a shift toward a more structured and execution-oriented partnership.
- In the economic and trade domain, both countries set an ambitious target of expanding bilateral trade to \$50 billion by 2030, signaling a strong commitment to deepen economic interdependence. To achieve this, they agreed to accelerate negotiations for upgrading the Comprehensive Economic Partnership Agreement (CEPA 2.0), aimed at reducing tariff and non-tariff barriers, improving market access, and promoting services and digital trade.
- New institutional mechanisms such as the India–Korea Financial Cooperation Forum and the Economic Security Dialogue were launched to strengthen financial connectivity, address supply chain vulnerabilities, and promote resilient trade architecture.
- In the technology and innovation space, both sides launched the India–Korea Digital Bridge, which will focus on advanced cooperation in artificial intelligence, semiconductors, data governance, and digital infrastructure. This initiative is designed to enhance technological interoperability and promote joint innovation ecosystems. In addition, fintech integration efforts, including digital payment system linkages, were agreed upon to facilitate

smoother financial transactions and boost economic connectivity. The partnership also emphasizes collaboration in emerging technologies such as green hydrogen, advanced manufacturing, and clean energy solutions, positioning both countries as key players in future global technology value chains.

- Strategic, defence, and global cooperation also witnessed significant strengthening during the visit. Defence ties were expanded through initiatives such as the KIND-X Defence Innovation Accelerator, aimed at linking startups, research institutions, and defence industries from both countries, while building upon existing cooperation projects like the K9 Vajra self-propelled artillery system. Space collaboration between ISRO and the Korea AeroSpace Administration (KASA) was further enhanced, opening new avenues in satellite technology and exploration. In the Indo-Pacific context, South Korea’s participation in the Indo-Pacific Oceans Initiative (IPOI) and the launch of a structured 2+2 dialogue mechanism underscored growing strategic convergence. Additionally, both sides strengthened cooperation on sustainability, climate action, and critical minerals, while also significantly expanding cultural, educational, and people-to-people exchanges, including scholarships, language programs, and the declaration of 2028–29 as the Year of India–Korea Friendship, highlighting the long-term vision of the partnership.

Strategic Significance for India:

- The strengthening of India–South Korea relations is important for India’s economic and industrial growth. It helps India reduce dependence on China-centric supply chains and supports the development of more resilient manufacturing systems. The partnership also gives India access to advanced technologies such as semiconductors, high-end manufacturing, and defence innovation. This directly

LEADERSHIP DRIVING THE MOMENTUM

Strong leadership. Shared vision. Global impact.

PM NARENDRA MODI

VISION
"From chips to ships, talent to tech"

FOCUS
Supply chains, innovation, Indo-Pacific

PRESIDENT LEE JAE MYUNG

FOCUS
Manufacturing + AI + Energy

LED ONE OF THE LARGEST KOREAN BUSINESS DELEGATIONS

KEY OUTCOMES

NEW ECONOMIC COOPERATION COMMITTEE

FINANCIAL COOPERATION FORUM LAUNCHED

STRONG ALIGNMENT ON GLOBAL GOVERNANCE

ECONOMIC ENGINE OF THE PARTNERSHIP

Driving growth, jobs and shared prosperity.

CURRENT REALITY

Trade: **~\$27B**

Korea trade surplus (imbalance issue)

FUTURE TARGET

\$50B by 2030

KEY MOVES

CEPA upgrade negotiations restarted

FOCUS SECTORS:

SEMICONDUCTORS

STEEL

SHIPBUILDING

ENERGY

BIG INVESTMENT

POSCO-JSW \$1B+ STEEL PLANT IN ODISHA

A milestone investment strengthening industrial cooperation.

supports the “Make in India” initiative, as Korean investments are increasing in key sectors like electronics, shipbuilding, and defence manufacturing. Overall, it boosts trade, exports, and India’s integration into global value chains.

- Strategically, the partnership enhances India’s position in the Indo-Pacific region and strengthens its role as a key middle power. It improves cooperation in maritime security and regional stability. At the same

time, it helps India maintain a balanced foreign policy amid global tensions, especially the US–China rivalry and wider geopolitical uncertainties.

Way Forward:

- Promoting Co-production and Co-innovation:** Both countries should move beyond purely transactional trade relations and adopt a model based on co-production and co-innovation. Joint research and development (R&D) should be prioritized in areas such as semiconductors, artificial intelligence, battery technology, and defence manufacturing.
- Korean Townships:** The proposed ‘Special Korean Industrial Townships’ in India need to be developed expeditiously to attract greater investment and strengthen the manufacturing ecosystem.
- MSME Collaboration:** Under recent agreements, fostering partnerships between Micro, Small and Medium Enterprises (MSMEs) and startups can strengthen innovation-driven growth. This would require joint funding, technology exchange, and improved market access.
- Strengthening People-to-People Ties:** The proposed ‘India–Korea Friendship Year’ (2028–29) should be leveraged as an opportunity to deepen cooperation in education, culture, tourism, and skill development.

Conclusion:

The 2026 India–South Korea summit marks a turning point in bilateral relations, transforming the partnership into a multi-dimensional strategic alliance. With a clear five-year roadmap, deeper economic integration, and growing alignment in the Indo-Pacific, India–RoK ties are poised to become a cornerstone of Asia’s emerging geopolitical and economic architecture. Sustained implementation of these commitments will determine whether this partnership evolves into a model of middle-power cooperation in a multipolar world.

Short Issues

Historic Change of Power in Hungary and India–Hungary Relations

Context:

In the recently concluded parliamentary elections in Hungary, the Péter Magyar-led 'Tisza Party' secured a historic victory. This win has defeated Viktor Orbán and his Fidesz party, who have been in power for the past 16 years. India's Prime Minister Narendra Modi congratulated Péter Magyar on this victory and reiterated the commitment to taking bilateral relations between the two countries to new heights.

Background of the Political Change:

- Péter Magyar, who was once a close associate of the Orbán administration, emerged as a strong critic. His campaign primarily focused on eliminating government corruption, restoring the Rule of Law, and improving Hungary's strained relations with the European Union.
- In the elections, the Tisza Party secured 138 out of 199 seats, indicating a major ideological and structural shift in Hungary's politics.

India–Hungary Bilateral Relations:

- Relations between India and Hungary have historically been close, friendly, and multi-dimensional, based on shared values, mutual respect, and cultural exchanges.
- Since the establishment of diplomatic relations in 1948, both countries have developed strong political, economic, and educational cooperation, with Indian investment and trade steadily increasing. Historically, Hungary remembers India's role during the Hungarian Revolution of 1956, when India intervened to help save the life of Árpád Göncz.



India-Hungary: A Strengthening Partnership



Reaffirming a long-standing, substantive partnership with Hungary's incoming government.



DIPLOMATIC CONTINUITY WITH NEW LEADERSHIP

Prime Minister Modi committed to advancing shared priorities with Hungary's incoming government.



A MULTIFACETED AND SUBSTANTIVE PARTNERSHIP

The relationship is built on decades of close political and economic cooperation.

KEY PILLARS OF FUTURE COOPERATION



TRADE



DEFENSE



GREEN ENERGY



SCIENCE & TECHNOLOGY

- From an economic perspective, bilateral trade reached approximately \$1.3–1.5 billion in 2024, while India has invested around \$3.3 billion in Hungary, particularly in the pharmaceuticals, automotive, and IT sectors.
- Hungary serves as an important partner in India's trade relations with the European Union and acts as a strategic gateway to Central Europe.
- At the strategic level, both countries support each other on global platforms

such as the United Nations and the World Trade Organization, and Hungary remains committed to strengthening the India–European Union strategic partnership.

Significance of the 2026 Leadership Change for India:

- **Economic Cooperation:** Hungary is an important investment destination for India in Central Europe. Indian companies have a strong presence there in sectors like Information Technology (IT), pharmaceuticals, and automobiles.
- **Strategic Partnership:** Hungary can be an influential voice in the negotiations of the India–European Union Free Trade Agreement (FTA). With new leadership, India can further strengthen its ‘Act West’ policy.
- **Multilateral Platforms:** Both countries have consistently cooperated on multilateral forums. Prime Minister Modi’s message makes it clear that India remains committed to continuity and cooperation despite internal political changes in Hungary.

Challenge:

- The change of power in Hungary may also present certain challenges for India. If the new government aligns its foreign policy more closely with European Union standards, India may need to make additional diplomatic efforts to maintain coordination with Hungary on sensitive issues such as the Russia–Ukraine conflict.

Conclusion:

This change of power in Hungary symbolizes the evolving wave of democracy. For India, a stable and democratic Hungary is not only a reliable economic partner but also an important strategic ally in Europe. In the future, high-level visits and bilateral working group meetings between the two countries are likely to give new direction to these relations.

West Asia Conflict and Rising Poverty in India

Context:

Recently, a report by the United Nations Development Programme (UNDP) has highlighted that the ongoing West Asia conflict could push about 2.5 million people in India into poverty. This report underlines the broader human development impacts of military escalation in the Middle East on Asia-Pacific economies, including rising inflation, food insecurity, and weakening livelihoods.

Key Findings of the UNDP Report:

- Around 8.8 million people globally are at risk of falling into poverty
- Asia-Pacific could face economic losses of up to \$299 billion
- South Asia is the most affected region due to high population and vulnerability to price shocks
- India’s poverty rate may rise from 23.9% to 24.2%.
- About 2.46 million people in India could be pushed into poverty.

Impact on India:

- India is particularly vulnerable due to heavy dependence on West Asian energy imports:
 - » More than 90% of crude oil is imported
 - » Over 40% of crude oil and 90% of LPG imports come from West Asia

Economic Impact:

- Rise in oil prices (10–15%) leading to inflation
- Increased transport and input costs affecting industries
- Rise in food prices and decline in household purchasing power
- Pressure on government finances and fiscal deficit

Impact on Poverty and Human Development:

- According to the report, the crisis will worsen multidimensional poverty:

- Increased deprivation in food, health, and education
- Greater burden on vulnerable and informal sector workers
- Decline in the Human Development Index (HDI)
- India may lose about 0.03–0.12 years of HDI progress, indicating a setback in development gains.

- Inflation and economic stress. The food security system must also be made more effective and robust to ensure access to essential food items despite rising prices.
- To control inflation, the government must maintain fiscal discipline and follow prudent economic policies. Finally, diplomatic efforts at regional and international levels should be enhanced to resolve such global crises, ensuring peace and economic stability.

WEST ASIA CONFLICT & RISING POVERTY IN INDIA

How Geopolitical Shocks Can Push Millions into Poverty

CONTEXT

- UNDP report flags West Asia conflict risks
- Affects Asia-Pacific economies
- Rising inflation, food insecurity & weak livelihoods

GLOBAL IMPACT SNAPSHOT

- 8.8 million people globally at risk of falling into poverty
- \$299 billion potential economic loss in Asia-Pacific
- South Asia most affected due to high population & price vulnerability

INDIA: KEY RISK INDICATORS

- Poverty rate may rise: 23.9% → 24.2%
- 2.46 million people could be pushed into poverty

INDIA'S ENERGY DEPENDENCY

- 90%+ Crude oil imported
- 40% of crude oil from West Asia
- 90% of LPG imports from West Asia

ECONOMIC IMPACT

- 10–15% rise in oil prices
- Higher transport & production costs
- Food price inflation & lower purchasing power
- Pressure on government finances & fiscal deficit

IMPACT ON POVERTY & HUMAN DEVELOPMENT

- Increased deprivation in food, health & education
- Greater burden on informal & vulnerable workers
- Decline in Human Development Index (HDI)
- India may lose 0.03–0.12 years of HDI progress

WAY FORWARD

- Diversify energy & boost renewables
- Strengthen strategic oil reserves
- Strengthen social safety nets for vulnerable groups
- Make food security systems robust & efficient
- Enhance diplomatic & international cooperation

CONCLUSION

The West Asia conflict is a reminder that "economic resilience, energy security & inclusive policies" are essential to protect the most vulnerable.

Conclusion:

The West Asia conflict shows how external geopolitical shocks can derail domestic development. For India, this crisis is a reminder of the need for economic resilience, energy security, and inclusive policies to protect the most vulnerable sections of society.

China surpasses US as India's largest trading partner in FY26

Context:

Recently, China has overtaken the United States to become India's largest trading partner in FY 2025-26, with bilateral trade reaching USD 151.1 billion. This marks a reversal after four consecutive years (FY22-FY25) during which the US held the top position.

Key Highlights of India–China Trade:

- In FY 2025–26, India–China bilateral trade reached USD 151.1 billion, marking a significant expansion in economic engagement between the two countries.
- During the same period, India's exports to China stood at USD 19.47 billion, registering a robust growth of 36.66% year-on-year, while imports from China rose to USD 131.63 billion, increasing by 16%.
- As a result, India's trade deficit with China widened sharply to around USD 112.6 billion, the highest ever recorded.
- This reflects a key structural imbalance in the trade relationship, where despite notable export growth, India continues to

Way Forward:

- India needs to adopt a multi-dimensional strategy to deal with this crisis. First, energy sources should be diversified, including promoting renewable energy and strengthening strategic oil reserves to reduce the impact of external shocks.
- At the same time, it is important to strengthen social safety nets for vulnerable sections to protect livelihoods during

depend heavily on Chinese imports, leading to a persistently large and widening trade gap.



India-US Trade Performance:

- Although the United States is no longer India's largest trading partner, it continues to remain a key export destination. India's exports to the US stood at USD 87.3 billion, registering a marginal growth of 0.92%, while imports from the US increased significantly by 15.95% to USD 52.9 billion. As a result, India's trade surplus with the US declined to USD 34.4 billion from USD 40.89 billion in the previous year.

India's Overall Trade Scenario:

- India's external sector shows a widening deficit. Total exports reached USD 860.09 billion (+4.22%), while imports rose faster to USD 979.40 billion (+6.47%), resulting in a trade deficit of USD 119.3 billion.
- Merchandise exports were USD 441.78 billion, while imports stood at USD 774.98

billion, creating a large deficit. However, services exports of USD 418.31 billion generated a strong surplus of USD 213.89 billion, partially offsetting the gap.

Why China Regained Top Position:

- China's rise as India's largest trading partner is driven by dependence on imports of electronics, machinery, chemicals, and intermediates, alongside import-intensive manufacturing growth. In contrast, India-US trade growth remains moderate.
- The widening USD 112 billion China deficit highlights external vulnerability, supply chain dependence, and the need for diversification. Policy focus must include boosting domestic manufacturing (PLI), export diversification, and reducing import reliance through a China+1 strategy.

Conclusion:

China's re-emergence as India's largest trading partner in FY26 reflects deepening global supply chain integration rather than a sudden geopolitical shift. However, the widening trade deficit underscores India's continued reliance on imported intermediate goods. Long-term trade sustainability will depend on stronger domestic manufacturing, export diversification, and reduced strategic import dependence.

India-Austria Relations

Context:

Recently, The Federal Chancellor of Austria Dr. Christian Stocker visited India for a four-day official visit, marking the first such visit by an Austrian Chancellor in over four decades. The visit is significant as it reflects renewed diplomatic engagement between India and Austria and aims to strengthen cooperation in key strategic and economic areas such as defence, technology, trade, and innovation.

Key Outcomes of the Visit:

- The visit resulted in several important agreements across multiple sectors. In

defence and security, both countries signed a Letter of Intent to enhance military and defence industry cooperation and agreed to establish a Joint Working Group on Counter-Terrorism. Economically, a Fast-Track Mechanism was introduced to ease investment-related processes and improve the business environment.

- In the field of technology, collaboration was strengthened in areas like quantum technology, machine learning, lasers, and material science. Space cooperation was also expanded through plans for a joint space industry seminar in Vienna in 2026.
- Additionally, agreements were made in food safety, cybersecurity, infrastructure, and vocational training. Initiatives like the Working Holiday Programme and startup collaboration frameworks further promote youth mobility and innovation exchange between the two countries.

USD 1.08 billion in 2019–20 to USD 2.06 billion in 2023–24, with India recording a trade surplus.

- Key Indian exports include electronics, textiles, and machinery, while imports from Austria mainly consist of heavy machinery and steel. Austria has also invested significantly in India, with cumulative FDI reaching around USD 663 million.
- Key agreements such as the Double Taxation Avoidance Agreement and Investment Protection Agreement provide a strong legal framework.
- The Comprehensive Migration and Mobility Partnership (2023) has further strengthened cooperation in skill development and student exchange.

Austria's Geographical Position:

- Austria is a landlocked, mountainous country in Central Europe sharing borders with several European nations. It follows a policy of permanent neutrality since 1955 but has been a member of the European Union since 1995.
- Strategically located at the crossroads of Europe, Austria acts as an important transit hub connecting Eastern and Western Europe through the Danube corridor and Alpine routes.
- Its stable political system, advanced economy, and focus on innovation make it an important partner in India's engagement with Europe. Austria also plays a role in global peacekeeping and multilateral diplomacy.

Conclusion:

The visit of the Austrian Chancellor marks a new phase in India–Austria relations, strengthening cooperation across defence, technology, trade, and education. It reflects mutual trust and shared interests in innovation, sustainability, and global security. Overall, the engagement is expected to deepen strategic ties and open new opportunities for long-term partnership between the two countries.

VISIT OF

FEDERAL CHANCELLOR OF AUSTRIA TO INDIA

List of Outcomes

- ◆ Agreement on **Audiovisual Co production** between India & Austria
- ◆ Joint announcement on setting up a **Fast Track Mechanism for Indian & Austrian companies**
- ◆ MoU on **food safety** between **AGES***, **Austria** & **FSSAI#**, **India**



About India-Austria Bilateral Relations:

- India and Austria share strong and growing bilateral relations supported by trade, investment and institutional agreements. Bilateral trade has more than doubled from

Visit of Vice President C. P. Radhakrishnan to Sri Lanka

Context:

Recently, India's Vice President C. P. Radhakrishnan was on an official visit to Sri Lanka. In Colombo, he held talks with Sri Lankan President Anura Kumara Dissanayake. The main focus of these discussions was on strengthening bilateral relations, development cooperation, and regional stability.

Key Highlights of the Visit:

- This was the first bilateral visit by an Indian Vice President to Sri Lanka, reflecting the importance India accords to its neighbouring country. Both leaders emphasized deepening multifaceted relations while discussing a wide range of issues.
 - » India reiterated its 'Neighbourhood First' policy and stressed cooperation and mutual development.
 - » Key issues discussed included the Indian housing project for Tamil communities, a USD 450 million assistance package for cyclone-affected areas, and the long-standing fishermen dispute in the Palk Strait.
 - » During the visit, interactions were also held with the Indian-origin Tamil community and the Indian diaspora.

Background of India-Sri Lanka Relations:

- India and Sri Lanka share deep historical and cultural ties spanning over 2,500 years, rooted in trade, migration, and the spread of Buddhism through the emissaries of Emperor Ashoka. Strong connections, especially among Tamil communities, continue to persist.
- Politically, Sri Lanka is an important partner in India's 'Neighbourhood First' policy and its maritime vision 'MAHASAGAR', highlighting its strategic importance.

Key Areas of Cooperation:

- India is a major development partner of Sri

Lanka, with flagship initiatives such as the Indian Housing Project, under which more than 50,000 houses have been built for Tamil communities.

- This cooperation extends to infrastructure, railways, energy, and digital connectivity.
- Economically, India is one of Sri Lanka's largest trading partners, providing support through lines of credit and grants for infrastructure and post-crisis reconstruction.
- India has also played a significant role in humanitarian assistance, including providing USD 450 million for cyclone-affected areas and acting as the first responder during the 2022 economic crisis.
- Maritime and security cooperation is also crucial, with both countries working together on maritime security, anti-piracy measures, and coastal surveillance in the Indian Ocean region.

Key Issues:

- Despite strong ties, certain challenges persist. The fishermen dispute in the Palk Strait continues to be a source of tension, with frequent arrests.
- The Tamil issue, including rehabilitation and political reconciliation, remains sensitive. Additionally, Sri Lanka's strategic location has attracted the attention of external powers, particularly China, raising India's concerns.

Significance:

- This visit strengthens India's leadership role in South Asia and helps balance external strategic influences. It reflects India's development diplomacy through people-centric initiatives and highlights the continuity of high-level engagements, thereby enhancing mutual trust.

Conclusion:

Overall, the visit reflects the deep and multifaceted partnership between India and Sri Lanka. Based on shared history, cultural affinity and strategic interests, continued cooperation,

development partnership, and mutual trust are likely to further strengthen bilateral relations.

India–Russia RELOS Pact

Context:

Recently, India and Russia operationalised the Reciprocal Exchange of Logistics Agreement (RELOS) after its signing in February 2025 and subsequent ratification by Russia. The agreement marks a significant evolution in bilateral defence engagement, moving beyond traditional arms transfers to deeper operational cooperation.

Key Provisions of RELOS:

- The Reciprocal Exchange of Logistics Agreement (RELOS) between India and Russia allows for the deployment of up to 3,000 troops in each other’s territory, along with the simultaneous stationing of up to five warships and ten aircraft.
- The agreement is valid for an initial period of five years and may be extended for another five years with mutual consent. It provides comprehensive logistics support, including port access, repair services, and essential supplies for naval vessels, as well as air traffic control, navigation assistance, and maintenance facilities for aircraft.
- Additionally, the pact encompasses provisions for joint military exercises, training initiatives, and humanitarian assistance and disaster relief operations, thereby enhancing operational cooperation between the two countries.

Scope of the Agreement:

- Joint military exercises
- Training and capacity building
- Humanitarian assistance & disaster relief (HADR)
- Deployment of military formations
- Access to naval bases and airfields, including Arctic regions

Strategic Significance:

- **Enhanced Military Logistics:** The agreement between India and Russia facilitates long-duration military deployments by providing assured access to logistics support, while also ensuring timely maintenance and servicing of Russian-origin equipment used by India.
- **Arctic Access:** It enables India to gain strategic access to Russian facilities in the Arctic region, enhancing its presence in an area of growing geopolitical and economic importance.
- **Operational Readiness:** The pact improves interoperability between the armed forces of both countries and strengthens their ability for rapid deployment during missions and contingencies.
- **Strategic Autonomy:** By reducing dependence on third-party logistics and support, the agreement reinforces India’s ability to pursue an independent foreign policy amid increasing global polarization.

INDIA–RUSSIA RELOS PACT
 A MAJOR STEP TOWARDS DEEPER DEFENCE & OPERATIONAL COOPERATION

WHAT IS RELOS?
 The Reciprocal Exchange of Logistics Agreement (RELOS) allows India and Russia to provide each other logistics support, base access and operational facilitation for their armed forces.

KEY PROVISIONS OF RELOS

UP TO 3,000 TROOPS Can be deployed in each other's territory	5 WARSHIPS Up to five warships can be stationed simultaneously	10 AIRCRAFT Up to ten aircraft can be stationed simultaneously	5+5 YEARS Valid for 5 years, extendable for another 5 years by mutual consent	COMPREHENSIVE LOGISTICS SUPPORT Port access, repair services and essential supplies for naval vessels Air traffic control, navigation assistance and maintenance facilities for aircraft Covers joint exercises, training and humanitarian assistance & disaster relief (HADR)
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SCOPE OF THE AGREEMENT	STRATEGIC SIGNIFICANCE
<ul style="list-style-type: none"> Joint military exercises Training and capacity building Humanitarian assistance & disaster relief (HADR) Deployment of military formations Access to naval bases and airfields, including Arctic regions 	<ul style="list-style-type: none"> ENHANCED MILITARY LOGISTICS Facilitates long-duration deployments with assured logistics support and timely maintenance of Russian-origin equipment. ARCTIC ACCESS Grants India strategic access to Russian facilities in the Arctic region, an area of growing geopolitical and economic importance. OPERATIONAL READINESS Improves interoperability and strengthens ability for rapid deployment during missions and contingencies. STRATEGIC AUTONOMY Reduces dependence on third-party logistics and support, reinforcing India's independent foreign policy in a polarized world.

STRONGER TOGETHER FOR PEACE & SECURITY

India–Russia Defence Relations:

- India and Russia share a “Special and Privileged Strategic Partnership”, with defence cooperation as a key pillar.

- Military-Technical Cooperation is significant, as nearly 60–70% of India’s military equipment is of Russian/Soviet origin, including systems like the S-400 Triumph, T-90 Tank, and Su-30MKI.
- The partnership has evolved into joint development and production, highlighted by projects such as the BrahMos and AK-203.
- Defence ties are guided by the institutional framework of the India-Russia Intergovernmental Commission on Military and Military Technical Cooperation.
- Regular joint exercises like the INDRA Exercise strengthen interoperability and operational coordination between the two countries.

Conclusion:

The RELOS pact marks a shift in India–Russia defence ties from a buyer–seller model to deeper operational and logistics cooperation. Despite geopolitical challenges and India’s diversification efforts, it strengthens mutual trust and interoperability. For India, it enhances military preparedness, strategic reach, and reinforces its goal of strategic autonomy in a multipolar world.

BRICS–MENA Dialogue

Context:

Recently, a meeting was held in New Delhi between Deputy Foreign Ministers and Special Envoys of BRICS countries and MENA (Middle East and North Africa) countries. The meeting was chaired by India’s Ministry of External Affairs. The main focus of the meeting was the ongoing conflict in West Asia involving the U.S., Israel, and Iran. All participating countries expressed deep concern about the situation and its impact on regional stability.

About the Discussion:

- The countries discussed several important issues related to West Asia:

- » The ongoing conflict in the region
- » The Palestine and Gaza situation
- » The need for humanitarian aid to affected people
- » The role of United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) in relief work
- » A common view on maintaining a zero-tolerance approach to terrorism

However, the discussion also showed that not all countries agreed on everything. Different countries had different views about the conflict and its causes.

BRICS–MENA DIALOGUE
BUILDING BRIDGES. PROMOTING DIALOGUE. STRENGTHENING THE GLOBAL SOUTH.

1 CONTEXT

- RECENT MEETING**
A meeting of Deputy Foreign Ministers and Special Envoys of BRICS countries and MENA countries was held in New Delhi.
- CHAIRD BY**
Ministry of External Affairs, India
- MAIN FOCUS**
The ongoing conflict in West Asia involving the U.S., Israel, and Iran. All countries expressed deep concern about the situation and its impact on regional stability.

2 ABOUT THE DISCUSSION

The countries discussed several key issues related to West Asia.

- The ongoing conflict in the region
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3 ABOUT BRICS–MENA

BRICS–MENA refers to cooperation and dialogue between the BRICS countries and the Middle East and North Africa (MENA) region, operating under the expanded BRICS+ framework. It serves as a platform where developing and emerging economies come together to discuss global issues and strengthen cooperation.

BRICS COUNTRIES: Brazil, Russia, India, China, South Africa

NEW MEMBERS: Egypt, UAE, Iran, Ethiopia (and others)

MENA COUNTRIES (EXAMPLES): Saudi Arabia, UAE, Iran, Egypt, Algeria and others

A platform for dialogue, cooperation and collective action on issues that impact the Global South and the world.

4 SIGNIFICANCE OF BRICS–MENA

- ENERGY POWERHOUSE**: MENA is rich in oil and natural gas—critical for global energy security and stability.
- STRATEGIC LOCATION**: Connects Asia, Africa and Europe—critical for trade, connectivity and geopolitics.
- ECONOMIC WEIGHT**: BRICS–MENA represents a significant share of the world’s population and GDP.
- VOICE OF THE GLOBAL SOUTH**: Strengthens collective voice of developing countries in global institutions like UN, IMF and World Bank.
- WIDER COOPERATION**: Creates space for dialogue on energy, trade, development and conflict resolution.
- MUTUAL BENEFITS**: Promotes shared growth, investment, innovation and resilient supply chains.

About BRICS–MENA:

- BRICS–MENA refers to cooperation and dialogue between the BRICS countries and the Middle East and North Africa (MENA) region, operating under the expanded BRICS+ framework. It serves as a platform where developing and emerging economies come together to discuss global issues and strengthen cooperation.

Significance of BRICS–MENA:

- This grouping is important for several reasons. The MENA region is rich in energy

resources such as oil and natural gas, making it crucial for global energy security.

- Geographically, it holds strategic importance as it connects Asia, Africa, and Europe. Together, BRICS and MENA countries account for a significant share of the global population and GDP, giving the grouping considerable economic weight.
- The platform also strengthens the voice of the Global South and helps raise the concerns of developing countries in global institutions like the United Nations, IMF, and World Bank.
- Additionally, it provides an important space for dialogue on global issues such as energy, trade, development, and conflict resolution.

Role of India:

- India chaired the meeting and played a “bridge” role among participating countries. Its importance is enhanced by its strong relations with several West Asian nations.
- India consistently supports dialogue and diplomacy over conflict and helps bring diverse countries onto a common platform. This reflects India’s growing global diplomatic influence.

Key Challenge:

- Despite bringing countries together, the major challenge is the divergence of interests and perspectives among member states. For example, countries like Iran, the UAE, and others have differing positions on several issues.
- As a result, achieving a unified stance is difficult. Currently, BRICS–MENA functions more as a dialogue platform rather than a decision-making body.

Conclusion:

BRICS–MENA cooperation is significant as it brings together major emerging economies and energy-rich countries. Its evolution reflects the shift towards a multipolar world order, where Global South countries are playing an increasingly important role in global decision-making processes.

India–New Zealand Free Trade Agreement

Context:

Recently, India and New Zealand formally signed a landmark Free Trade Agreement (FTA) in New Delhi. The agreement, concluded after years of negotiations, aims to significantly deepen bilateral economic engagement and expand trade opportunities.

Key Highlights of the FTA:

- **Trade Expansion Target:** Bilateral trade expected to double to USD 5 billion within five years.
- **Duty-Free Access:** 100% tariff elimination on Indian exports to New Zealand.
- **Investment Commitment:** USD 20 billion investment from New Zealand over 15 years.
- **Balanced Approach:** Sensitive sectors like dairy and select agricultural products protected.
- **Fast-Tracked Agreement:** One of India’s quickest FTAs, negotiated between March and December 2025.

INDIA-NEW ZEALAND FTA SIGNED!
A HISTORIC MILESTONE FOR STRONGER PARTNERSHIP

India and New Zealand have signed a landmark Free Trade Agreement (FTA) —a defining moment that will unlock new opportunities, boost trade, and drive inclusive growth.

TARGET TO DOUBLE BILATERAL TRADE TO ~\$5 BILLION IN 5 YEARS

KEY HIGHLIGHTS

- 100% DUTY-FREE ACCESS:** For Indian exports on 8,000+ products
- TARIFFS CUT ON ~95%:** Of New Zealand exports to India
- \$20 BILLION INVESTMENT:** Commitment from New Zealand in India over the next 15 years
- 5,000+ VISA PATHWAYS:** For Indian professionals and workers annually
- TARGET TO DOUBLE TRADE:** Bilateral trade targeted to reach ~\$5 billion in 5 years

SECTORS SET TO BENEFIT

INDIA'S ADVANTAGE	NEW ZEALAND'S STRENGTHS
<ul style="list-style-type: none"> Textiles & Garments Pharmaceuticals Engineering Goods Leather & Footwear Marine Products 	<ul style="list-style-type: none"> Agriculture & Dairy Forestry & Wood Products Wool & Wool Products Coal & Minerals Horticulture

STRATEGIC BALANCE, MUTUAL GROWTH

- Sensitive sectors like dairy and agriculture have been protected.
- Stronger collaboration in services, innovation, education, and sustainable development.
- A major step in India's vision of becoming a global trade powerhouse.

THE BIG IMPACT

- Boost to Exports:** New opportunities for Indian businesses across key sectors.
- More Jobs:** Greater trade and investments will drive employment.
- Stronger Ties:** Deepens the India–New Zealand Strategic Partnership.
- Resilient Supply Chains:** Diversifying trade partners for a secure and stable future.

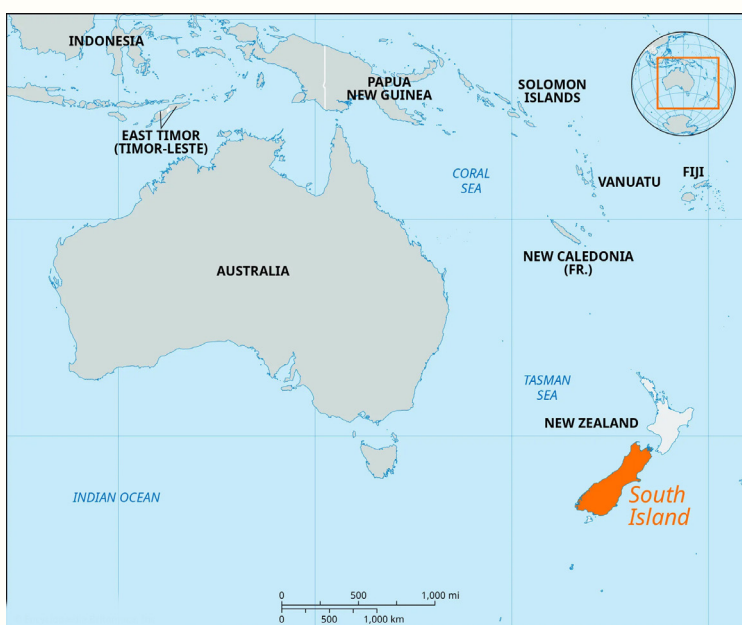
“ This FTA is not just about trade—it’s about building a stronger, prosperous, and future-ready partnership.”

India–New Zealand Economic Relations:

- New Zealand is India's second-largest trading partner in Oceania.
 - » **Merchandise Trade:** Increased from USD 873 million (2023–24) to USD 1.3 billion (2024–25).
 - » **Services Trade:** Reached USD 634 million in 2024, driven by IT, travel, and business services.
 - » **Trade Balance:** India maintains a positive trade balance.
 - » **Diaspora Link:** Around 300,000 people of Indian origin in New Zealand strengthen cultural and economic ties.
- Recognition of India's traditional systems under AYUSH
- » **Mobility:**
 - 5,000 skilled worker visas for Indian professionals
- » **Student Benefits:**
 - Work up to 20 hours/week
 - Post-study work visas up to 4 years
- » **Working Holiday Visa:** 1,000 youth annually
- **Investment & Institutional Cooperation:**
 - » USD 20 billion FDI commitment
 - » MSME support through institutional linkages
 - » Mutual recognition of organic

Salient Features of the Agreement:

- **Market Access & Tariffs**
 - » 100% tariff elimination by New Zealand on Indian goods
 - » India offers access on 70% tariff lines, with phased reductions
 - » Exclusions include dairy, select crops, and strategic industrial goods
- **Boost to Key Sectors**
 - » **Labour-intensive sectors:** textiles, leather, footwear, gems & jewellery
 - » **Advanced sectors:** pharmaceuticals, engineering goods, electronics
 - » **Agriculture:** fruits, spices, cereals, processed food
- **Agriculture & Rural Development:**
 - » Agricultural Productivity Partnership to improve farm output
 - » Joint initiatives for apples, kiwifruit, and honey
 - » Establishment of Centres of Excellence and technology transfer
 - » Tariff Rate Quotas (TRQs) to balance imports with domestic protection
 - » certification
 - » Faster customs clearance (24–48 hours)
- **Services & Mobility Opportunities**
 - » **Services:**
 - New Zealand opens 118 sectors with MFN commitments in 139 sectors



India's Expanding FTA Network:

- India has actively pursued trade agreements to enhance global integration:
 - » India–UAE CEPA (2022)
 - » India–Australia ECTA (2022)
 - » India–EFTA TEPA (2024)
 - » India–UK CETA (2025)
 - » India–Oman CEPA (2025)

Challenges:

- Managing domestic industry concerns (especially agriculture)
- Ensuring effective implementation of tariff concessions
- Addressing non-tariff barriers
- Balancing trade liberalization with self-reliance goals

Conclusion:

The India–New Zealand FTA marks a significant milestone in India's trade diplomacy. By combining market access, investment, mobility, and technological cooperation, the agreement promises broad-based benefits across sectors. It aligns with India's vision of becoming a globally integrated economy and advancing the goal of Viksit Bharat 2047.

UAE Announces Exit from OPEC

Context:

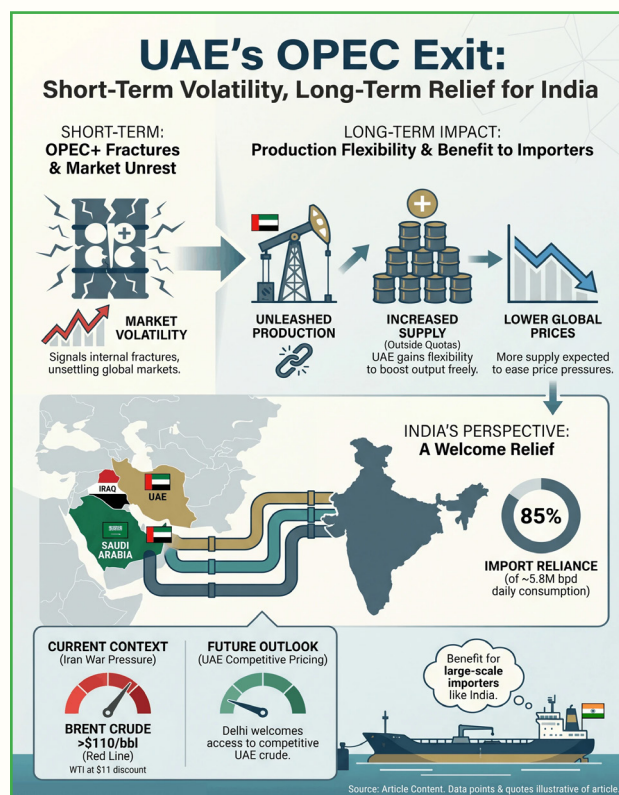
Recently, The United Arab Emirates has announced its exit from the Organization of the Petroleum Exporting Countries, effective May 1. This move removes one of the cartel's largest producers and raises concerns about weakening OPEC's influence over global oil supply and prices.

About OPEC:

- The Organization of the Petroleum Exporting Countries (OPEC) is a permanent intergovernmental organization established in 1960 at the Baghdad Conference by five founding members—Iran, Iraq, Kuwait,

Saudi Arabia, and Venezuela—to coordinate and unify petroleum policies among oil-producing nations.

- Headquartered in Vienna, OPEC currently consists of around 12 developing oil-exporting countries (subject to periodic changes due to exits), collectively accounting for roughly 30–40% of global oil output and about 80% of the world's proven oil reserves.
- The primary objective of OPEC is to coordinate petroleum policies, stabilize global oil markets, ensure fair prices for producers, and maintain a steady supply for consumers. In 2016, the broader alliance known as OPEC+ was formed, bringing together OPEC members and major non-OPEC producers like Russia to jointly manage oil production and influence global energy markets.



Reasons behind UAE's Exit:

- **Discontent with Production Quotas**
 - » UAE has long opposed OPEC-imposed limits on oil output.

- » Heavy investments in expanding capacity (up to ~5 million barrels/day) created pressure to produce more.
- **Strategic Economic Vision**
 - » Shift toward maximizing revenue and leveraging expanded production capacity.
 - » Desire for greater autonomy in energy policy.
- **Changing Internal Dynamics of OPEC**
 - » Earlier exit of Qatar in 2019 signaled weakening cohesion.
 - » Increasing divergence among member states.
- **Geopolitical Tensions**
 - » Strained relations with Saudi Arabia, OPEC's dominant player.
 - » Broader regional rivalries and policy differences.
- **Greater Market Volatility**
 - » Reduced coordination may lead to price fluctuations.
 - » Difficulty in stabilizing global oil markets.
- **Rise of Competitive Production**
 - » Countries may prioritize national output over collective agreements.
 - » Increased competition among oil producers.
- **Impact on OPEC+**
 - » Exit from OPEC+ weakens broader cooperation mechanisms.
 - » Reduces effectiveness of coordinated production cuts.

Implications for India:

- **Energy Security**
 - » India, a major oil importer, depends heavily on OPEC nations.
 - » Fragmentation could create supply uncertainties.
- **Price Volatility**
 - » Fluctuating crude prices may impact inflation and fiscal stability.
- **Strategic Opportunities**
 - » Potential for diversified sourcing and better bargaining power.
 - » Scope to strengthen ties with non-OPEC producers.

Conclusion:

The UAE's exit from OPEC marks a significant shift in global energy geopolitics, reflecting weakening cartel cohesion and rising national energy priorities. This development may accelerate the transition toward a more fragmented and competitive global oil market, with far-reaching implications for energy security, pricing, and international relations.

What are OPEC & OPEC+:


OPEC (Organization of the Petroleum Exporting Countries) is a group of major oil-producing nations that coordinate petroleum policies to help maintain stable oil markets.



Founding members



 Founded in 1960 in Baghdad

 Produces about 30% of the world's oil

OPEC+

 Formed in 2016

 OPEC + 10 non-OPEC producers, including Russia

 Accounts for 41% of global oil production

Implications of UAE's Exit:

- **Weakening of OPEC's Cartel Power**
 - » Loss of a major producer reduces OPEC's ability to control supply.
 - » Less spare capacity within the group.



Environment & Ecology



India's Green Energy Revolution: A New Global Milestone in Renewable Energy Capacity

Context:

India has recently reached a major milestone in its clean energy transition by becoming the third-largest country in the world in terms of installed renewable energy capacity. This achievement marks a significant shift in the global energy landscape, with India surpassing Brazil and strengthening its position among leading renewable energy nations. The development is based on data released by the International Renewable Energy Agency (IRENA).

The report highlights India's rapid expansion in solar, wind, hydro, and other renewable energy sources. The announcement was formally shared by the Union Minister for New and Renewable Energy, Pralhad Joshi, in April 2026, who credited the achievement to strong policy support, rising investments, and sustained government focus on clean energy transition. This milestone reflects India's growing leadership in global climate action and its commitment to reducing dependence on fossil fuels while meeting rising energy demand.

Key Highlights of the Development:

- India's renewable energy sector has witnessed exceptional growth over the past decade. The total installed renewable energy capacity has now crossed 250 GW, while the broader non-fossil fuel capacity stands at 283.46 GW (March 2026).
- A major driver of this growth has been the

record expansion in FY 2025–26, where India added 55.3 GW of new renewable capacity, nearly double the previous year's additions. This surge demonstrates the rapid scaling of clean energy infrastructure across the country.

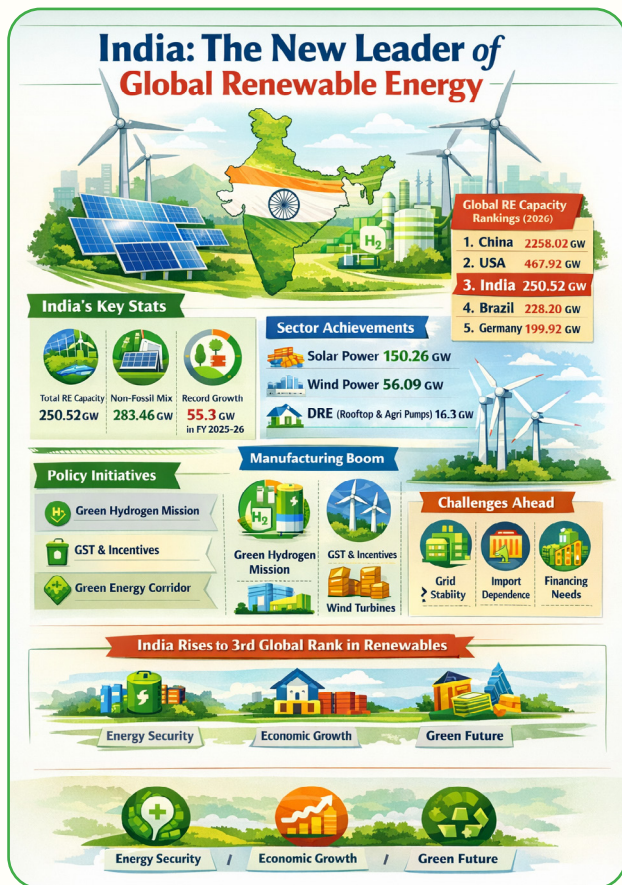
- Another historic milestone came in June 2025 when India achieved over 50% of installed electricity capacity from non-fossil fuel sources, five years ahead of its Paris Agreement target. This reflects India's proactive climate strategy and accelerating shift away from fossil fuels.

Global Scenario and India's Position:

Rank	Country	Capacity (GW)	Special Remark
1	China	2258.02	Global manufacturing hub
2	USA	467.92	Advanced technological leadership
3	India	250.52	Fastest growth rate
4	Brazil	228.20	High dependence on hydropower
5	Germany	199.92	Backbone of European energy

Renewable Energy Share in Power Generation:

- India also recorded its highest-ever renewable energy contribution to electricity generation. In July 2025, renewable sources met 51.5% of electricity demand during peak hours, showcasing their growing importance in daily energy supply.
- However, across the full financial year (FY 2025–26), non-fossil fuel sources contributed 29.2% of total electricity generation. This difference highlights a key challenge: while installed capacity is rapidly increasing, actual generation remains limited by intermittency and infrastructure constraints.



- Solar and wind energy depend heavily on weather conditions, making them variable in output. The absence of large-scale energy storage systems and limited grid flexibility

further restrict full utilization of renewable capacity. Strengthening storage technologies and modernizing grid infrastructure will be essential for improving efficiency.

Sector-wise Growth Trends:

- Solar Energy Dominance:**
 - Solar energy remains the backbone of India's renewable expansion. Installed solar capacity has grown dramatically from 2.82 GW in 2014 to over 150 GW in 2026.
 - In FY 2025–26 alone, India added a record 44.6 GW of solar capacity, the highest annual increase so far. Key drivers include rooftop solar expansion, utility-scale solar parks, and rural electrification initiatives.
 - Government schemes such as the PM-KUSUM have encouraged farmers to adopt solar energy for irrigation and income generation. Additionally, Distributed Renewable Energy (DRE) systems have helped decentralize energy production, particularly in rural and semi-urban regions.
- Wind Energy Expansion:**
 - Wind energy has also recorded strong growth. India added 6.05 GW of wind capacity in FY 2025–26, the highest annual addition in its history, taking total installed capacity beyond 56 GW.
 - India is now the fourth-largest wind energy producer globally, supported by improved turbine efficiency, better project execution, and supportive policy frameworks. Wind energy complements solar by generating power during different seasonal and time-based cycles, improving overall system balance.
- Bioenergy and Small Hydro Project:**
 - Bioenergy and small hydro projects are gradually expanding, contributing to energy diversification. Waste-to-energy initiatives are converting agricultural residues and urban waste into usable

electricity, reducing pollution while generating power.

- » Small hydro projects, particularly in hilly regions, provide localized clean energy with minimal environmental disruption. These sources, though smaller in scale, play an important role in ensuring regional energy access and sustainability.

Government Initiatives and Policy Measures:

- India's renewable energy growth is strongly supported by policy reforms and financial incentives. Key initiatives include:
 - » Reduction of GST on renewable energy equipment from 12% to 5%, lowering project costs
 - » Incentives for battery storage and lithium-ion manufacturing
 - » Introduction of Virtual Power Purchase Agreements (VPPAs) for corporate renewable procurement
 - » Development of the Green Energy Corridor to improve transmission infrastructure
 - » Launch of monitoring systems to promote transparency in renewable imports
- These measures have improved investor confidence, reduced financial barriers, and strengthened grid connectivity across renewable-rich regions.

Manufacturing and Atmanirbhar Bharat:

- A major pillar of India's energy strategy is domestic manufacturing under the vision of Atmanirbhar Bharat (Self-Reliant India).
- India's solar module manufacturing capacity has reached 172 GW, while wind turbine manufacturing capacity stands at 24 GW. These achievements reduce dependence on imports and strengthen energy security.
- Production Linked Incentive (PLI) schemes have played a crucial role in encouraging domestic manufacturing of solar panels, batteries, and related components. Import monitoring systems further support supply

chain transparency.

- This industrial expansion is also generating employment, boosting exports, and positioning India as a potential global hub for renewable energy manufacturing.

National Green Hydrogen Mission: Future Outlook

- India's next major step in clean energy is the National Green Hydrogen Mission, which aims to produce 5 million metric tonnes of green hydrogen annually by 2030.
- The mission is expected to:
 - » Add around 125 GW of renewable energy capacity
 - » Attract investments worth Rs.8 lakh crore
 - » Generate over 6 lakh jobs
 - » Reduce emissions in steel, refining, and transport sectors
- Green hydrogen is seen as a transformative energy carrier that can decarbonize hard-to-abate industries and support India's long-term net-zero goals.

Challenges:

- Despite rapid progress, several challenges remain:
 - » Grid integration issues due to fluctuating renewable output
 - » Insufficient energy storage systems
 - » Financial stress in DISCOMs (distribution companies)
 - » Land acquisition and regulatory delays
 - » Continued dependence on coal, which still contributes around 70% of electricity generation
- These challenges highlight the transitional nature of India's energy system. Addressing them will require investment in storage technologies, policy reforms, and stronger institutional coordination.

Global Significance of India's Achievement:

- India becoming the third-largest renewable energy producer is globally significant. It demonstrates that large developing

economies can simultaneously pursue economic growth and environmental sustainability.

- Unlike many developed nations that transitioned after industrialization, India is adopting clean energy during its growth phase. This makes its model especially relevant for other developing countries.
- India's progress also strengthens its role in international climate negotiations and reinforces commitments under the Paris Agreement, positioning it as a bridge between developed and developing nations.

Way Forward:

- To achieve its target of 500 GW non-fossil fuel capacity by 2030, India must focus on:
 - » Expanding energy storage infrastructure
 - » Developing smart grid systems
 - » Promoting hybrid renewable projects

(solar + wind)

- » Improving DISCOM financial health
- » Streamlining regulatory approvals
- » Enhancing central-state coordination
- These steps will ensure stability, efficiency, and scalability in the renewable energy ecosystem.

Conclusion:

India's emergence as the third-largest renewable energy producer marks a landmark achievement in its energy transition journey. It reflects strong policy direction, technological progress, and large-scale investment in clean energy infrastructure. However, the next phase will be more complex, requiring system integration, storage solutions, and institutional reforms. If these challenges are addressed effectively, India can not only meet its climate goals but also emerge as a global leader in sustainable

Branch _____
Aliganj Lucknow

New Batch

UPPCS

GENERAL STUDIES

11 MAY 2026

09:00 AM | **06:00 PM**
Morning Batch | Evening Batch

Mode: Online/Offline

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Short Issues

Two New Designated Repositories Notified

Context:

Recently, the Government of India has notified two major institutions as Designated Repositories under Section 39 of the Biological Diversity Act, 2002. This step will enhance the scientific documentation, conservation, and sustainable use of India's rich biological heritage. With these new designations, the number of repositories in the national network has increased to 18, further strengthening the study and protection of biological resources.

What are Designated Repositories?

- Under the Biological Diversity Act, 2002, Designated Repositories are institutions recognized by the government to preserve biological resources and associated information.
- These institutions (such as central or state laboratories, universities) securely store deposited samples for research, academic, or commercial use and function as part of a central network.

About the Newly Designated Repositories:

- The Ministry of Environment, Forest and Climate Change, Government of India, has notified the following two institutions:
 - » **Referral Centre 'Bhavasagara' (CMLRE, Kochi):** Located at the Centre for Marine Living Resources and Ecology (CMLRE) under the Ministry of Earth Sciences in Kochi, this centre has been recognized as the national repository for deep-sea fauna. It preserves more than 3,500 taxonomically identified specimens, including rare invertebrates and deep-sea fishes. It will play a leading role in research and inventorying biological resources in the deep Indian Ocean.
 - » **MACS Collection of Microorganisms (ARI, Pune):** Located at the Agharkar Research Institute (ARI), Pune, this

centre focuses on specialized microbial cultures. It is particularly known for difficult-to-grow and anaerobic/extremophilic species, which are crucial for industrial and health research.

Biological Diversity Act, 2002:

- This Act was enacted to fulfill the obligations of the 1992 Convention on Biological Diversity (CBD), with the objectives of:
 - » Conservation of biological diversity.
 - » Sustainable use of its components.
 - » Fair and equitable sharing of benefits arising from the use of biological resources (Access and Benefit Sharing – ABS).

Three-Tier Structure:

- **National Biodiversity Authority (NBA):** Regulates approvals for foreign entities and transfer of research results.
- **State Biodiversity Boards (SBBs):** State-level regulation.
- **Biodiversity Management Committees (BMCs):** Local-level conservation and documentation through People's Biodiversity Registers (PBRs).

Recent Amendment (2023):

- The Biological Diversity (Amendment) Act, 2023 focuses on decriminalizing minor offences, promoting AYUSH practitioners, and facilitating research and commercial utilization.
- It aims to balance Ease of Doing Business with conservation goals.

Conclusion:

The inclusion of new repositories in Kochi and Pune is crucial for India's bio-economy and conservation strategies. It will not only safeguard the country's unique marine and microbial diversity but also provide a strong foundation for future scientific discoveries, contributing to sustainable development.

Plastic Waste Management (Amendment) Rules, 2026

Context:

The Ministry of Environment, Forest and Climate Change (MoEFCC) has recently notified the Plastic Waste Management (Amendment) Rules, 2026. Implemented from 31 March 2026, these rules bring significant improvements to India's original 2021 and 2022 regulations. Their primary objective is to reduce plastic pollution and accelerate India's transition towards a circular economy.

Key Amendments and Features:

- **Mandatory Recycled Content:** Under the new rules, producers, importers, and brand owners (PIBOs) are required to use a specified percentage of recycled plastic in plastic packaging.
 - » **Category I (Rigid Plastics):** Target of 30% for 2025-26, increasing to 60% by 2028-29.
 - » **Category II & III (Flexible and Multilayer Packaging):** Phased targets are also set for these categories.
- **Strict Reuse Rules:** For the first time, rigid plastic packaging (e.g., water bottles larger than 5 liters) has reuse targets.
 - » **Target for 2025-26:** 70%, eventually increasing to 85%. This aims to curb the "use and throw" culture.
- **New Definition of 'Recycling':** The amendment broadens the definition of recycling to include not only the production of new items but also waste-to-energy processes. Co-processing in cement/steel industries and use in road construction are now recognized as acceptable end-of-life disposal methods.
- **Decentralized Enforcement:** Local bodies (municipalities and gram panchayats) are given greater powers to ensure effective implementation. They are now responsible for on-ground segregation and management of plastic waste.

- **Verification and Audit:** Compliance with Extended Producer Responsibility (EPR) can now be audited by registered environment auditors, increasing transparency and data accuracy.



Challenges and Benefits:

- **Benefits:**
 - » **Environmental Impact:** Reduces plastic waste going to landfills and protects marine ecosystems.
 - » **Economic Opportunities:** Generates investment and employment opportunities in the recycling industry.
 - » **Sustainable Development Goals (SDGs):** Supports SDG 12 (Responsible Consumption & Production) and SDG 13 (Climate Action).
- **Challenges:**
 - » **Collection and Segregation:** Source-level segregation remains a major challenge

in India.

- » **Technical Barriers:** Using recycled plastic for food and pharmaceutical packaging is complex due to health standards (FSSAI regulations).
- » **Impact on Small Industries:** Compliance and new technologies can pose a financial burden for small producers.

Conclusion:

These 2026 amendments mark a milestone in India's commitment to the UN Treaty on Plastic Pollution. Balancing industrial growth with strict environmental mandates is challenging for a developing economy, but this is a necessary step toward SDG 12: Responsible Consumption and Production.

Conference on Conservation of Wildlife Migratory Species

Context:

Recently, the 15th Meeting of the Conference of the Parties (COP15) to the Convention on the Conservation of Migratory Species of Wild Animals (CMS) was held in Campo Grande, Brazil. The theme of this summit was "Connecting Nature to Sustain Life." During this summit, several historic decisions were taken for the conservation of migratory species, among which the inclusion of 40 new species in the protection list is particularly significant.

Key Outcomes:

- **Expansion of the Appendices:** At COP15, a total of 40 new species, subspecies, and populations were added to the CMS Appendices:
 - » **Appendix I:** This includes endangered species that require strict protection. This time, species such as the Snowy Owl and the Giant Otter have been included.
 - » **Appendix II:** This includes species that require international cooperation for their conservation. It now includes the

Striped Hyena and various species of Thresher Sharks.

- **Recognition of Marine Flyways:** For the first time, global Marine Flyways were formally recognized at the conference. This will promote coordination among member countries to protect migration routes of seabirds and other marine species.
- **Global Initiative Against Illegal Hunting:** A new global initiative has been launched to prevent illegal and unsustainable hunting (Illegal Taking) of migratory species. This initiative focuses particularly on regions where large-scale hunting of migratory birds and mammals takes place.
- **Ecological Connectivity:** The central focus of COP15 was on ecological connectivity. This means that conserving species alone is not sufficient; it is equally important to ensure that their migratory routes (such as corridors and wetlands) remain uninterrupted and secure.

What is CMS?

The **Convention on Migratory Species (CMS)** is a United Nations-backed environmental treaty focused on the conservation of **migratory animals** and their **habitats**.

It brings together countries, known as Parties, to coordinate conservation efforts **across species' full migratory ranges**. CMS enables **collective action** to address threats that no single nation can effectively manage alone.



India and the Conservation of Migratory Species (CMS):

- India has been a signatory to CMS since 1983. It hosted COP13 in Gandhinagar in February 2020. Currently, India is playing a leading role in the conservation of the Central Asian Flyway (CAF), which extends from the Arctic region to the Indian Ocean.
- **Convention on the Conservation of Migratory Species (CMS):**
 - » Also known as the Bonn Convention.
 - » It is the only global treaty under the aegis of the United Nations Environment Programme (UNEP) that works for the conservation of migratory species and their habitats.
 - » **Secretariat:** Bonn, Germany.
 - » **Next Conference (COP16):** To be held in 2029 in Germany, marking the 50th anniversary of CMS.
 - » **Newly Included Species:** Striped Hyena, Giant Otter, Zimbabwe's cheetah population, and migratory catfish of the Amazon.

Importance of Migratory Species:

- Migratory species are indicators of ecosystem health. They play a crucial role in pollination, seed dispersal, and pest control. However, climate change, habitat fragmentation, and linear infrastructure (such as roads and power lines) pose serious threats to their survival.
- The decisions taken at CMS COP15 represent a significant step towards achieving the targets of the Kunming-Montreal Global Biodiversity Framework (GBF).

Conclusion:

CMS COP15 has clearly demonstrated that the conservation of migratory species is a shared global responsibility that transcends national boundaries. The inclusion of 40 new species highlights the severity of the global biodiversity crisis, while also reinforcing the collective

commitment to protect them.

Bhavasagara: India's First Deep-Sea Fauna Repository

Context:

Recently, the Ministry of Environment, Forest and Climate Change (MoEFCC) has recognized the 'Bhavasagara' referral centre located in Kochi as a National Repository for Deep-Sea Fauna. This step marks a historic move towards strengthening India's marine biodiversity conservation framework.

Legal and Institutional Framework:

- 'Bhavasagara' has been granted this recognition under Section 39 of the Biological Diversity Act, 2002. The centre operates under the Centre for Marine Living Resources and Ecology (CMLRE), Kochi.
- With this recognition:
 - » The centre has received legal authority for the collection, documentation, and conservation of marine biological resources.
 - » It has become the official national repository and reference centre for deep-sea fauna.

Key Features of 'Bhavasagara':

- **Extensive Collection:** Currently, the centre houses more than 3,500 classified and geo-referenced specimens. These include deep-sea invertebrates (such as molluscs and arthropods) and vertebrates (such as sharks and rays).
- **Custodian of Specimens:** The centre will serve as the official custodian of type specimens, based on which new species are described. This is highly significant for taxonomic research.
- **Digital and Genetic Data:** In addition to physical specimens, the repository will also preserve DNA sequences and related biological data for future research.

Statistical Details of Species (as of 2021):

- **Total Recorded Species:** 4,371
- **Protista:** 1,032 species (primarily unicellular organisms forming the base of ecosystems)
- **Animalia:** 3,339 species (including multicellular organisms such as sponges, corals, crabs, fishes, and marine mammals)

BHAVASAGARA REFERRAL CENTRE
Source: PIB | Subject: Environment

CONTEXT & DESIGNATION
MoEFCC designated as National Repository for Deep-Sea Fauna under Biological Diversity Act, 2002 (March 30, 2026).

ABOUT THE CENTRE: A National Repository for Deep-Sea Marine Life.

PARENT ORGANISATION & MINISTRY
CMLRE, Kochi, Kerala | Functions under Ministry of Earth Sciences (MoES).

AIM & OBJECTIVES
Unlock deep-sea mysteries, strengthen Blue Economy & marine biodiversity framework. Foster expertise for UN Decade of Ocean Science (2021–2030).

KEY FEATURES & FUNCTIONS

- EXTENSIVE COLLECTION:** Houses 3,500+ taxonomically identified & geo-referenced voucher specimens.
- DIVERSE BIOLOGICAL RANGE:** Invertebrates (cnidarians, molluscs, arthropods, echinoderms) & Vertebrates (elasmobranchs, teleostean fishes).
- SECURE CUSTODY:** Preserves biological samples & critical data, including DNA sequences, for future reference.
- CUSTODIAN OF NEW SPECIES:** Official repository for any new deep-sea species discovered within Indian waters (Type Specimens).
- SCIENTIFIC HUB:** Centralized platform for researchers & academic institutions to access deep-sea natural history.

SIGNIFICANCE

- Protects & documents India's deep-sea biological heritage.
- Supports sustainable economic growth related to ocean resources.

Significance for India:

- **Boost to Deep Ocean Mission:** The Government of India's Deep Ocean Mission is a key pillar of the Blue Economy. Declaring 'Bhavasagara' as a national repository will provide a strong foundation for scientific exploration and sustainable utilization of untapped ocean resources.
- **Conservation of Marine Biodiversity:** The deep sea (depths greater than 200 meters) is among the least explored regions on Earth. A dedicated national repository will help in identifying endangered marine species and formulating effective conservation policies.
- **International Commitments:** This initiative aligns with the goals of the United Nations Decade of Ocean Science for Sustainable

Development (2021–2030). It reflects India's commitment to marine conservation at the global level, especially in the context of the Biodiversity Beyond National Jurisdiction (BBNJ) treaty.

- **Research and Innovation:** The centre will function as a knowledge hub for researchers, academicians, and policymakers. It will facilitate the discovery of new species and help in understanding the impacts of climate change on marine ecosystems.

Conclusion:

The designation of 'Bhavasagara' as a national repository is not merely an administrative decision but a symbol of India's scientific sovereignty and responsibility towards marine resources. As India moves towards becoming a major maritime power, such institutions will play a crucial role in balancing the 'utilization' and 'conservation' of ocean resources.

Water Crisis in India: Drying Rivers and Declining Reservoirs

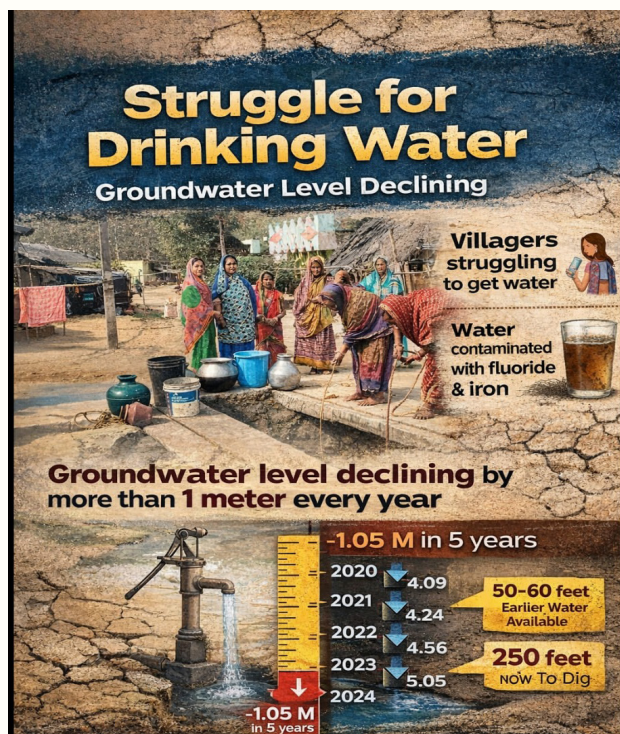
Context:

The Central Water Commission (CWC) has recently released data which highlighted the severity of the water crisis in India. Water storage in 166 major reservoirs across the country has shrunk to nearly half of their total capacity. Even before summer begins, this situation indicates that the water crisis may deepen in the coming months.

Analysis of the Current Situation:

- The total storage capacity of India's reservoirs is about 178.78 billion cubic meters (BCM). According to the Central Water Commission (CWC), the total water storage in major reservoirs is around 56–57%, while in many regions it has fallen below 50%.
- The situation is particularly alarming in South India, where reservoir storage has been limited to around 47%.

- In contrast, western and central India have relatively better water storage, but a declining trend is evident there as well. In Bihar, Tamil Nadu, and some reservoirs in the northeastern region, water levels have been recorded significantly below normal, signaling a threat to local water supply and agriculture.



Major Causes of the Water Crisis:

- **Deficit Rainfall:** Around 70% of the country has received below-normal rainfall this year. After March, most regions witnessed a lack of rainfall, preventing the recharge of reservoirs.
- **Seasonal Factors:** The period from March to June naturally sees a decline in water levels. Rising temperatures during this time increase evaporation and also raise water demand.
- **Drying Rivers:** Water flow has reduced in the basins of major rivers like the Periyar, Kaveri, and Krishna, increasing water stress. Bihar's Chandan Dam has completely dried up.

- **Rising Water Demand:** Water demand is continuously increasing due to agriculture, urbanization, and industrialization. Heavy dependence on reservoirs for irrigation causes rapid depletion of water levels.

Possible Impacts:

- **Drinking Water Crisis:** In South India and some urban areas, drinking water shortages may intensify during summer. The situation may be even more severe in rural areas.
- **Impact on Agriculture:** Irrigation of rabi crops and summer crops may be affected, leading to a possible decline in agricultural production.
- **Energy Production:** Hydropower generation may decrease, increasing pressure on energy supply.
- **Environmental Impact:** Drying rivers and falling water levels will negatively impact aquatic ecosystems.

Way Forward:

- India must adopt a comprehensive approach to tackle the water crisis. Promoting Integrated Water Resources Management (IWRM) is essential to ensure balanced water use. Expansion of micro-irrigation techniques such as drip and sprinkler systems can reduce water consumption in agriculture.
- Regular desiltation and recharge of reservoirs are necessary. Additionally, crop diversification should be encouraged to shift towards less water-intensive crops. Strengthening rainwater harvesting and local water conservation measures, along with data-driven policymaking, can make water management more effective.

Conclusion:

India's water crisis is not only seasonal but also structural in nature. The country's water system is highly dependent on the monsoon, while water management policies are still not sufficiently effective. Regional imbalance is another major issue—South India is more

affected, whereas some other regions remain relatively better off. Moreover, excessive groundwater extraction and reduced reservoir capacity (due to silt accumulation) further aggravate the crisis. If timely and effective measures are not taken, this crisis could impact not only water supply but also food security and economic development. Therefore, it is essential to prioritize water management and adopt a sustainable and holistic strategy.

Ban on the Production of Hydrofluorocarbons (HFCs) in India After 2027

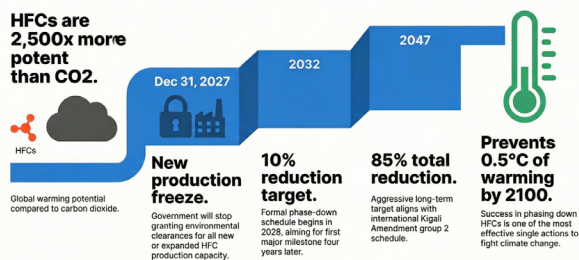
Context:

The Ministry of Environment, Forest and Climate Change (MoEFCC) has recently issued an important directive. Under this, no new Environmental Clearance (EC) will be granted for the production of Hydrofluorocarbons (HFCs) after December 31, 2027. This step is a major strategic decision aimed at fulfilling India's international commitments under the Kigali Amendment.

Significance of the 2027 Timeline for India:

- India has chosen to be part of the “Group 2” countries under the Kigali Amendment. For India, 2028 is the “freeze year.” This means that by 2028, India's HFC production and consumption must stabilize at a fixed level (the average of 2024–26).
- The government's 2027 directive is a tool to implement this “freeze.” By not approving new factories after 2027, the government ensures that production capacity does not exceed the baseline level. Additionally, existing projects must submit an affidavit stating that they will be fully operational by the end of 2027.

India's Roadmap to Phase Out HFCs



About HFCs and the Montreal Protocol:

- The issue of Hydrofluorocarbons (HFCs) is directly linked to the Montreal Protocol (1987). Originally, this treaty aimed to phase out substances that deplete the ozone layer, such as Chlorofluorocarbons (CFCs). When CFCs were banned, industries shifted to HFCs because they do not harm the ozone layer.
- However, it was later discovered that HFCs are extremely potent greenhouse gases. Their Global Warming Potential (GWP) is thousands of times higher than that of carbon dioxide (CO₂). As a result, the Kigali Amendment (2016) was introduced to phase down HFC production and consumption, with the goal of preventing up to 0.5°C of global temperature rise by the end of the century.

About the Kigali Amendment:

- Year:** 2016 (adopted in Kigali, Rwanda)
- Objective:** Reduce HFC production and consumption by more than 80% by the late 2040s
- India's Role:** As part of “Group 2” developing countries, India must freeze its HFC consumption at a defined level in the future

Challenges and India's Strategy:

- For a country like India with a hot climate, phasing out HFCs is challenging due to rising demand for cooling (air conditioners and refrigeration).
- India Cooling Action Plan (ICAP):** Launched in 2019, it aims to reduce refrigerant

demand by 25–30% by 2037–38.

- **Green Alternatives:** Natural refrigerants: Ammonia (NH_3), Propane (R-290) and CO_2 .
- **HFOs (Hydrofluoroolefins):** Ozone-safe and have very low global warming potential.
- **Economic Impact:** Around 70% of India's HFC production is concentrated in Gujarat and Maharashtra. Transitioning will require investment by MSMEs to adopt new technologies.

Conclusion:

The 2027 deadline is a significant step toward India's Net Zero target (2070). It will not only reduce emissions but also encourage Indian industries to innovate in green technologies and move toward a more sustainable future.

Flow Reduction in Chambal River and Shift of Dolphins to Yamuna

Context:

A recent report of Wildlife Institute of India (WII) has highlighted a sharp decline in the Chambal River's flow, causing serious ecological impacts. A key finding is the downstream shift of Gangetic dolphins toward the Chambal–Yamuna confluence.

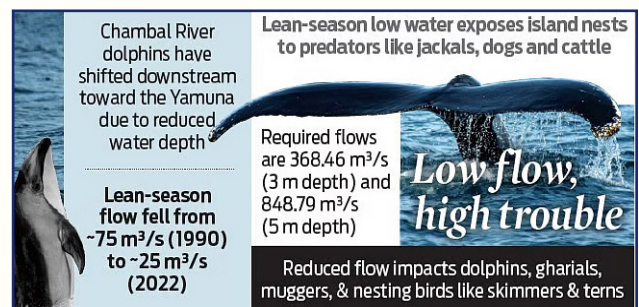
Key Highlights of the Report:

- The report highlights a sharp decline in the flow of the Chambal River over the past three decades, indicating significant hydrological stress. Flow data shows a reduction from about 75 cubic meters per second (cumec) in 1990 to around 25 cumec in 2022 during the lean season.
- This decline is mainly attributed to increased water extraction from tributaries and flow regulation by major dams and barrages, including the Gandhi Sagar Dam, Rana Pratap Sagar Dam, Jawahar Sagar Dam, and Kota Barrage.

- As a result, the river is experiencing high ecological stress, raising concerns about biodiversity loss and potential downstream drying. One of the key impacts has been on aquatic life, particularly the Gangetic dolphin, which has shifted downstream and is now concentrating near the Chambal–Yamuna confluence, where relatively deeper waters remain available.

Ecological Impact of Chambal River Flow Reduction:

- **Gangetic Dolphin:** Requires minimum ~3 meters water depth for survival. Reduced depth restricts movement, feeding, and breeding habitats. Habitat compression leads to localized clustering, increasing vulnerability.
- **Ghariales & Mugger Crocodiles:** Ghariales need 1–4 meters depth depending on age. Muggers prefer deeper, undisturbed waters. Reduced flow disrupts breeding and basking habitats.
- **Riverine Birds:** Low flow exposes sandbars and river islands, which are key nesting sites for species like Indian Skimmer and Black-bellied Tern. Formation of land bridges allows predators (dogs, jackals, cattle) to access nests, increasing mortality.
- **Hydrological Concerns:** River width in lean season is ~150 meters. Required ecological flow: ~368.46 m^3/s for 3 m depth and ~848.79 m^3/s for 5 m depth. Current flow is significantly lower, indicating hydrological imbalance.



About Ganges River dolphin:

- The Ganges dolphin (“Tiger of the Ganges”) was discovered in 1801. It is India’s National Aquatic Animal (declared in 2009) and the State Aquatic Animal of Assam. It acts as an indicator of river ecosystem health.
 - » **Habitat:** Found in the Ganga–Brahmaputra–Meghna and Karnaphuli–Sangu river systems (India, Nepal, Bangladesh).
 - » **Features:** A freshwater species, almost blind, and depends on ultrasonic echolocation for hunting. Usually found alone or in mother–calf pairs. Locally called “Susu” due to the sound produced during breathing.
 - » **Population:** According to Project Dolphin (2020), there are about 6,327 dolphins in India. More than 50% decline since 1957.
 - » **Threats:** Pollution (EDCs, heavy metals, pesticides), industrial waste, agricultural runoff, entanglement in fishing nets, poaching, habitat loss due to dams, and noise from vessels.

Conservation Status:

- **IUCN:** Endangered
- **Wildlife Protection Act, 1972:** Schedule I
- **CITES:** Appendix I
- **CMS:** Appendix I

About Chambal River:

- The Chambal River is a 1,024 km long perennial river in Central India, originating in Madhya Pradesh’s Vindhya Range and flowing through Rajasthan and Uttar Pradesh to join the Yamuna.
- Known as one of India's cleanest, it supports a rich ecosystem in the National Chambal Sanctuary, featuring critically endangered gharials, Ganges river dolphins, and mugger crocodiles

Conclusion:

The Chambal River flow decline is a serious ecological crisis, impacting species like the Gangetic dolphin and gharial. The dolphin shift toward the Yamuna highlights the need for

environmental flow regulation and basin-level conservation. Sustainable water management and strong conservation measures are essential to protect the Chambal–Yamuna river ecosystem and its biodiversity.

State of India’s Bats Report 2024-25

Context:

Recently, the State of India’s Bats (SoIBats) 2024-25 report was released, which is India’s first national assessment of bat diversity. It has been prepared by the Nature Conservation Foundation in collaboration with the Bat Conservation International. The report highlights major research gaps, conservation concerns, and the important role of bats in maintaining ecological balance.

About Bats:

- Bats are the only flying mammals in the world.
- They are nocturnal creatures and use echolocation for navigation.
- Two main types:
 - » **Megabats:** Fruit-eating bats (fruit bats)
 - » **Microbats:** Insect-eating bats that use echolocation
- **Ecological role:** They help in pollination, seed dispersal, and insect control.

Key Highlights of the Report:

- **Species Diversity:** India hosts around 135 bat species, making bats the largest mammalian order in the country.
- **Endemism:** About 16 species are endemic (found only in India), concentrated in regions like the Western Ghats and Andaman & Nicobar Islands.
- **Threatened Species:** 7 species are listed under threatened categories by the International Union for Conservation of Nature (IUCN).
- **Data Deficiency:** Around 35 species remain unassessed or data deficient, indicating a lack of scientific research.

- **Geographical Distribution:** States like West Bengal and Meghalaya show high diversity, while northern plains show relatively low diversity due to habitat limitations.
- **Roosting Patterns:** Bats commonly roost in caves, trees, and even man-made structures such as old buildings and monuments.

- **Taxonomic and Ecological Uncertainty:** Some species facing threats (e.g., due to mining or hunting) are still not properly classified in conservation frameworks.

Conservation Concerns:

- **Habitat Loss:** Deforestation, mining, and urban expansion threaten natural roosting sites.
- **Human Persecution:** Myths and fear lead to hunting and destruction of bat colonies.
- **Climate Change:** Alters habitat suitability and food availability.
- **Disturbance of Roosting Sites:** Especially caves and old structures.

Ecological and Economic Importance:

- Bats provide critical ecosystem services:
 - » Pollination of plants
 - » Seed dispersal aiding forest regeneration
 - » Pest control, reducing reliance on pesticides
- Their role in maintaining ecological balance directly supports agriculture and biodiversity.

Implications for Policy and Governance:

- **Biodiversity Conservation:** Need to include bats in mainstream conservation planning.
- **Public Health Linkages:** Habitat disruption may increase zoonotic disease risks, highlighting the need for a One Health approach.
- **Urban Planning:** Conservation strategies must account for bats in cities.
- **Scientific Research:** Urgent need for funding, monitoring programs, and institutional support.

Conclusion:

The State of India's Bats Report serves as a wake-up call for policymakers and conservationists. Addressing research gaps, strengthening conservation frameworks, and promoting awareness are essential to protect these often-overlooked yet ecologically vital mammals. Integrating bat conservation into India's broader environmental policies will

STATE OF INDIA'S BATS 2024-25
INDIA'S FIRST NATIONAL ASSESSMENT OF BAT DIVERSITY
The State of India's Bats (SolBats) 2024-25 report is prepared by the Nature Conservation Foundation in collaboration with Bat Conservation International.

ABOUT BATS

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- They are nocturnal creatures and use echolocation for navigation.
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KEY HIGHLIGHTS OF THE REPORT

SPECIES DIVERSITY ~135 BAT SPECIES India hosts around 135 bat species, making bats the largest mammalian order in the country.	ENDEMISM ~16 ENDEMIC SPECIES About 16 species are endemic (found only in India), concentrated in regions like the Western Ghats and Andaman & Nicobar Islands.	THREATENED SPECIES 7 SPECIES 7 species are listed under threatened categories by the International Union for Conservation of Nature (IUCN).	DATA DEFICIENCY ~35 SPECIES Around 35 species remain unassessed or data deficient, indicating a lack of scientific research.	GEOGRAPHICAL DISTRIBUTION States like West Bengal and Meghalaya show high diversity, while northern plains show relatively low diversity due to habitat limitations.
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ROOSTING PATTERNS
Bats commonly roost in caves, trees, and even man-made structures such as old buildings and monuments.

KEY ISSUES IDENTIFIED IN THE REPORT

- LACK OF DEDICATED RESEARCH INFRASTRUCTURE:** India lacks specialised bat research centres, despite bats being ecologically significant.
- DATA DEFICIENCY:** A large number of species are either unassessed or poorly studied, leading to incomplete conservation status evaluation.
- REGIONAL BIAS IN STUDIES:** Most research is concentrated in biodiversity hotspots like the Western Ghats, leaving other regions understudied.
- TAXONOMIC AND ECOLOGICAL UNCERTAINTY:** Some species facing threats (e.g., due to mining or hunting) are still not properly classified in conservation frameworks.

CONSERVATION CONCERNS

- HABITAT LOSS:** Deforestation, mining, and urban expansion threaten natural roosting sites.
- HUMAN PERSECUTION:** Myths and fear lead to hunting and destruction of bat colonies.
- CLIMATE CHANGE:** Alters habitat suitability and food availability.
- DISTURBANCE OF ROOSTING SITES:** Especially caves and old structures.

ECOLOGICAL AND ECONOMIC IMPORTANCE

- POLLINATION OF PLANTS:** Bats pollinate many plants, including economically important crops.
- SEED DISPERSAL:** They disperse seeds of many plants, aiding forest regeneration and biodiversity.
- PEST CONTROL:** Bats consume large numbers of insects, reducing reliance on pesticides.
- ECOLOGICAL BALANCE:** Their role in maintaining ecological balance directly supports agriculture, livelihoods and biodiversity.

IMPLICATIONS FOR POLICY AND GOVERNANCE

- BIODIVERSITY CONSERVATION:** Need to include bats in mainstream conservation planning and strengthen legal protection and habitat conservation.
- PUBLIC HEALTH LINKAGES:** Habitat disruption may increase zoonotic disease risks, highlighting the need for a One Health approach.
- URBAN PLANNING:** Conservation strategies must account for bats in cities—protect roosts in buildings, bridges and heritage sites.
- SCIENTIFIC RESEARCH:** Urgent need for funding, long-term monitoring programs, taxonomic studies and institutional support.
- AWARENESS & ENGAGEMENT:** Public awareness, community participation and myth-busting are essential for bat conservation.

BATS ARE VITAL. CONSERVE THEM. SECURE OUR FUTURE. Science. Conservation. Coexistence.

Key issues Identified in the report:

- **Lack of Dedicated Research Infrastructure:** India lacks specialised bat research centres, despite bats being ecologically significant.
- **Data Deficiency:** A large number of species are either unassessed or poorly studied, leading to incomplete conservation status evaluation.
- **Regional Bias in Studies:** Most research is concentrated in biodiversity hotspots like the Western Ghats, leaving other regions understudied.

be crucial for sustainable development and biodiversity protection.

Odisha becomes first state to implement Marine Spatial Plan

Context:

Recently, The Odisha government officially rolled out the Marine Spatial Plan (MSP) on April 16, 2026. While pilot projects were earlier implemented in the Union Territories of Puducherry and Lakshadweep, Odisha has become the first full-fledged state to adopt and implement the MSP in its second phase of India's sustainable ocean planning initiative.

About Marine Spatial Planning (MSP):

- Marine Spatial Planning is a scientific and integrated framework for managing ocean and coastal spaces to ensure sustainable and balanced use of marine resources.
- It supports the development of:
 - » Fisheries and aquaculture
 - » Ports and shipping infrastructure
 - » Marine tourism
 - » Ocean energy projects
 - » Coastal biodiversity conservation
- The MSP is part of India's broader focus on the Blue Economy and sustainable ocean governance.

Key Objectives & Implementation:

- Scientific Zoning:** The MSP uses advanced tools such as benthic mapping (seafloor mapping) and geospatial data to demarcate marine zones for different activities like fishing, shipping, tourism, and aquaculture, while protecting ecologically sensitive areas.
- Implementing Partners:** The plan is jointly implemented by the Government of Odisha and the National Centre for Coastal Research under the Ministry of Earth Sciences.
- International Support:** It is part of the Indo-Norway Integrated Ocean Initiative, based on a 2019 MoU between India and Norway for sustainable ocean management.

- Odisha's Context:** Odisha has a coastline of over 550 km, featuring rich ecosystems such as mangroves, estuaries, and lagoons. These areas support fisheries, tourism, and livelihoods but are increasingly under pressure from development and climate risks.



Significance for Odisha:

- Blue Economy Growth:** Chief Minister Mohan Charan Majhi described MSP as a “game changer” that will balance economic development with environmental protection along Odisha's coastline.
- Conflict Resolution:** By clearly defining marine usage zones, MSP reduces conflicts between sectors—for example, balancing port expansion with traditional fishing rights.

- **Climate Resilience:** The plan strengthens protection of critical ecosystems like mangroves and estuaries, which act as natural buffers against coastal erosion, storms, and extreme weather events.
- **Synergy with OMBRIC:** MSP complements the Odisha Marine Biotechnology Research and Innovation Corridor (OMBRIC), launched in August 2025, which promotes marine biotechnology research, startups, and livelihood opportunities.

Broader Significance:

- Strengthens India's Blue Economy strategy
- Promotes science-based coastal governance
- Ensures sustainable use of marine resources
- Integrates economic development with ecosystem protection
- Enhances long-term climate adaptation in coastal regions

Conclusion:

Odisha's adoption of Marine Spatial Planning marks a significant milestone in India's ocean governance framework. By combining scientific mapping, international cooperation, and sustainable development principles, the initiative ensures balanced use of marine resources while safeguarding fragile coastal ecosystems.

New Snake Species *Calamaria garoensis* Discovered

Context:

Recently, A new species of snake, *Calamaria garoensis*, has been discovered in the Garo Hills region of Meghalaya.

About *Calamaria garoensis*:

- *Calamaria garoensis* belongs to the genus *Calamaria*, commonly known as reed snakes. These are:
 - » Small, non-venomous, and secretive snakes
 - » Typically found underground or within

leaf litter

- » Difficult to detect due to their hidden lifestyle
- The species was identified through detailed taxonomic analysis after field surveys in dense forest ecosystems.
- The species was discovered through a collaborative effort involving several institutions, including the Zoological Survey of India, Help Earth etc.
- This highlights the importance of interdisciplinary and international collaboration in biodiversity research, especially in ecologically rich but underexplored regions.

About Garo Hills:

- The Garo Hills is part of the Indo-Burma Biodiversity Hotspot, one of the richest ecological regions in the world. It features:
 - » Dense tropical and subtropical forests
 - » High diversity of reptiles and amphibians (herpetofauna)
 - » Many unexplored habitats
- The discovery indicates that many species remain undocumented in Northeast India.

Significance of the Discovery:

- Enhances scientific understanding of India's biodiversity
- Highlights the ecological richness of Northeast India
- Strengthens the case for forest and wildlife conservation
- Brings global attention to lesser-known species and habitats

Conclusion:

The discovery of *Calamaria garoensis* underscores the immense but still underexplored biodiversity of Northeast India. It highlights the need for continued research, conservation efforts, and sustainable management of fragile ecosystems to protect India's natural heritage.

Shekha Jheel Declared Ramsar Site

Context:

Recently, India has added the Shekha Jheel Bird Sanctuary in Aligarh, Uttar Pradesh to the list of Ramsar sites, raising the country's total to 99 internationally important wetlands under the Ramsar Convention.

About Shekha Jheel Bird Sanctuary:

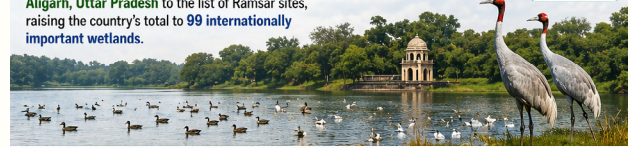
- Shekha Jheel is a freshwater wetland located in Aligarh district, about 17 km from the city, covering nearly 25 hectares. It is a man-made wetland, formed in 1852 due to seepage from the Upper Ganga Canal, yet it has evolved into a rich ecological habitat.
- It is an important stopover on the Central Asian Flyway, attracting around 20,000 migratory birds annually. The wetland supports about 249 bird species, including over 60 wetland-dependent species such as bar-headed goose, painted stork, ducks, and the state bird of Uttar Pradesh, the sarus crane.
- It also supports terrestrial fauna like nilgai, blackbuck, and mongoose, reflecting a diverse ecosystem.

About Ramsar Convention:

- The Ramsar Convention is an international treaty adopted in 1971 at Ramsar, Iran, aimed at the conservation and sustainable use of wetlands.
- Its core principle is the "wise use" of wetlands, balancing ecological conservation with sustainable development. Wetlands under the convention include both natural and artificial water bodies, permanent or temporary, freshwater or saline, and even coastal marine areas up to six metres depth at low tide.
- World Wetlands Day is observed annually on February 2 to raise awareness about wetland conservation.

SHEKHA JHEEL DECLARED RAMSAR SITE

India has added Shekha Jheel Bird Sanctuary in Aligarh, Uttar Pradesh to the list of Ramsar sites, raising the country's total to 99 internationally important wetlands.



ABOUT SHEKHA JHEEL BIRD SANCTUARY

- Freshwater wetland located in Aligarh district, about 17 km from the city, covering nearly 25 hectares.
- A man-made wetland, formed in 1852 due to seepage from the Upper Ganga Canal, yet it has evolved into a rich ecological habitat.
- An important stopover on the Central Asian Flyway, attracting around 20,000 migratory birds annually.
- Supports about 249 bird species, including over 60 wetland-dependent species such as bar-headed goose, painted stork, ducks, and the state bird of Uttar Pradesh, the sarus crane.
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RAMSAR SITES IN INDIA

- India joined the Ramsar Convention in 1982.
- With 99 sites, India ranks first in Asia and third globally after the United Kingdom and Mexico.
- Tamil Nadu has the highest number of Ramsar sites (20), followed by Uttar Pradesh (12).
- The Sundarban Wetland in West Bengal is the largest Ramsar site in India, while Renuka Lake in Himachal Pradesh is the smallest.
- Wetlands in India are protected under laws such as the Wildlife Protection Act, 1972, the Environment Protection Act, 1986, and the Wetlands Rules, 2017.



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Conclusion:

The inclusion of Shekha Jheel as a Ramsar

site highlights India's growing commitment to wetland conservation and biodiversity protection. It strengthens ecological security, supports migratory bird conservation along global flyways, and reflects India's balanced approach toward development and environmental sustainability.

Study on Extreme Climate Events

Context:

A new study published in Nature Ecology & Evolution warns that climate change-driven extreme weather events could severely impact global biodiversity in the coming decades. The research highlights that by 2085, nearly 36% of terrestrial animal habitats may be exposed to multiple extreme climate events if global emissions continue on a high trajectory.

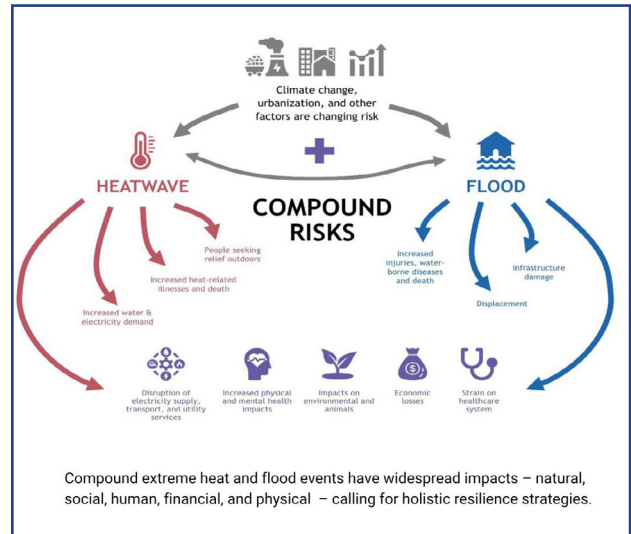
About Extreme Climate Events:

- Extreme climate events are rare and high-intensity weather phenomena that go beyond normal historical patterns. They include heatwaves and cold waves, floods and heavy rainfall, droughts, wildfires, and cyclones and storms.
- These events are increasingly becoming more frequent and severe due to human-induced climate change, particularly the rising concentration of greenhouse gases in the atmosphere.

Key Findings of the Study:

- The study by the Potsdam Institute for Climate Impact Research analysed around 34,000 vertebrate species and 794 ecosystems. It shows rising exposure of habitats to climate extremes by 2050, about 74% may face heatwaves, 16% wildfires, 8% droughts, and 3% floods.
- By 2085, nearly one-third of land habitats could face multiple overlapping extreme events. Biodiversity hotspots like the Amazon, tropical Africa, and Southeast Asia

are expected to be the most affected, with increasing heatwaves, droughts, and fires threatening ecosystems.



Why This Study is Important:

- The study highlights that climate change is not just gradual warming but also increasing extreme events that can cause mass species deaths and ecosystem disruption.
- For instance, Australian heatwaves (2019–20) killed over 72,000 flying foxes, and Pantanal wildfires killed around 17 million vertebrates.
- It also stresses that rapid emission cuts to net zero can still reduce these risks, emphasizing the urgent need for global climate action.

Implications for India and the World:

- **Biodiversity loss:** India, being a mega-diverse country, may face risks to ecosystems like the Western Ghats, Himalayas, and coastal regions.
- **Disaster risk increase:** Higher frequency of heatwaves, floods, and forest fires will increase disaster management challenges.
- **Need for climate-resilient planning:** Conservation strategies must include not only gradual climate change but also extreme event preparedness.

Way Forward:

- Accelerate global transition to net-zero emissions
- Strengthen ecosystem-based adaptation strategies
- Improve early warning systems for extreme events
- Integrate climate risk into biodiversity conservation planning
- Enhance international cooperation on climate mitigation

Conclusion:

The study clearly shows that climate change is intensifying not only average temperatures but also extreme weather events that threaten global biodiversity. Without urgent emission reductions, more than one-third of land animal habitats could face severe and overlapping climate shocks by the end of the century. However, timely climate action can still prevent the worst outcomes.

Five-Year Project to Strengthen Biodiversity Governance in Tamil Nadu and Meghalaya

Context:

Recently, The Ministry of Environment, Forest and Climate Change (MoEFCC), in collaboration with the National Biodiversity Authority (NBA), has launched a five-year project titled “Strengthening Institutional Capacities for Securing Biodiversity Conservation Commitments.” The initiative seeks to strengthen grassroots biodiversity governance by integrating conservation into local development planning and empowering community-based institutions.

Background:

- The project is supported by the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP), with a grant of USD 4.88 million for the

period 2025–2030.

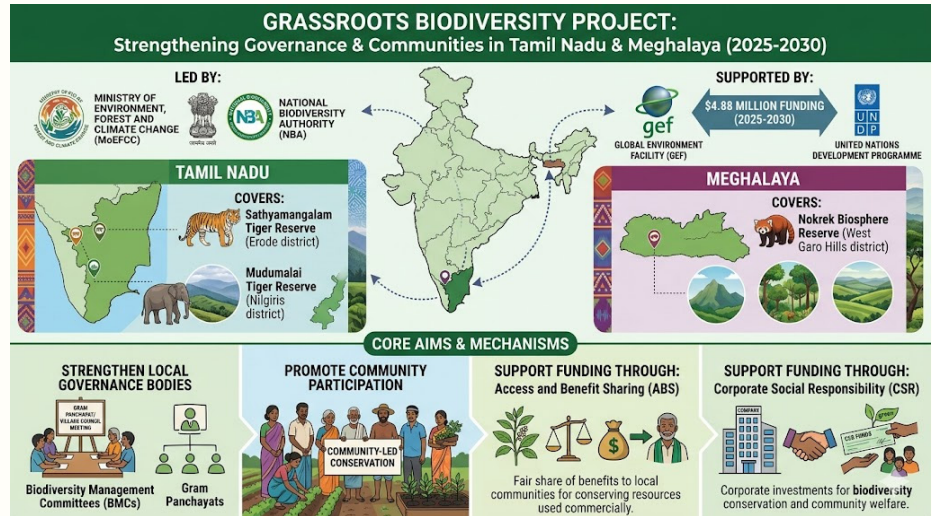
- This international support underscores the global importance of biodiversity conservation and India’s role in advancing inclusive, community-driven environmental governance.

Objectives of the Project:

- **Mainstreaming Biodiversity in Local Governance**
 - » Integration of biodiversity concerns into Gram Panchayat Development Plans (GPDs).
 - » Strengthening Panchayati Raj Institutions (PRIs) and Biodiversity Management Committees (BMCs).
 - » Development of multi-stakeholder platforms involving government departments, elected representatives, and civil society.
 - **Innovative Financing for Conservation**
 - » Operationalisation of Access and Benefit Sharing (ABS) frameworks.
 - » Mobilisation of Corporate Social Responsibility (CSR) funding.
 - » Promotion of green micro-enterprises for sustainable livelihoods linked to conservation outcomes.
 - **Knowledge Management and Capacity Building**
 - » Documentation and scaling of best practices across regions.
 - » Strengthening institutional capacities of NBA and MoEFCC.
 - » Enhancing participation of women, Scheduled Castes, and tribal communities in biodiversity governance.
- ### Focus Landscapes
- **Tamil Nadu – Sathyamangalam Landscape**
 - » Located at the confluence of the Western Ghats and Eastern Ghats.
 - » Includes Mudumalai Tiger Reserve and Sathyamangalam Tiger Reserve.
 - » Forest-fringe communities contribute traditional ecological knowledge for conservation.

- **Meghalaya – Garo Hills Landscape**
 - » Encompasses Nokrek Biosphere Reserve, Balpakram National Park, and Siju Wildlife Sanctuary.
 - » Community institutions such as Village Employment Councils (VECs) support participatory conservation planning.

- Integrates biodiversity with livelihood generation and rural development.
- Encourages innovative financing mechanisms for sustainability.



Governance Framework:

- Bottom-up governance led by Panchayati Raj Institutions (PRIs).
- Integration of Biodiversity Management Committees (BMCs) into local planning.
- Adoption of a Whole-of-Government and Whole-of-Society approach for inclusive implementation.

- Enhances India’s contribution to global biodiversity targets.

Alignment with Policy Frameworks:

The project aligns with:

- **National Frameworks**
 - » National Biodiversity Strategy and Action Plan (NBSAP 2024–2030)
 - » Tamil Nadu Vision 2030 and Meghalaya Vision 2030
 - » Decentralised rural governance initiatives
- **Global Frameworks**
 - » Kunming-Montreal Global Biodiversity Framework (30x30 target)
 - » Paris Agreement – Nationally Determined Contributions (NDCs)

Conclusion:

The MoEFCC–NBA initiative represents a forward-looking model of biodiversity governance that connects global environmental commitments with local action. By empowering grassroots institutions and communities, the project seeks to ensure that conservation becomes an integral part of sustainable and inclusive development.

Significance:

- Strengthens decentralised environmental governance.
- Promotes community-led conservation models.



Science & Technology



India's Nuclear Vision: From Resource Constraints to Technological Self-Reliance

Context:

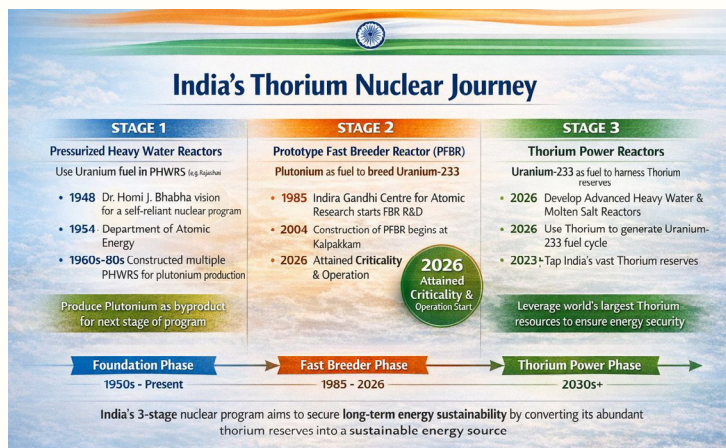
Recently, the Prototype Fast Breeder Reactor (PFBR) located at Kalpakkam, Tamil Nadu, achieved “criticality” for the first time on April 6, 2026, marking a historic and structural transformation in India’s nuclear energy programme. This achievement is not merely a scientific milestone but also a decisive step toward the implementation of India’s long-term energy strategy.

With this development, India has formally entered the second stage of its three-stage nuclear energy programme, which is crucial from the perspectives of energy self-reliance, resource efficiency, and technological sovereignty. This progress must also be viewed within the broader global context, where energy security, climate change, and clean energy transition have emerged as key policy drivers. For a rapidly developing nation like India, where energy demand is continuously rising, nuclear energy is emerging as a reliable, low-carbon, and stable alternative.

Criticality and Its Significance:

“Criticality” is the stage in a nuclear reactor’s lifecycle where a self-sustaining and controlled nuclear fission chain reaction is established. At this stage, the number of neutrons produced equals the number lost through absorption or leakage, enabling stable and continuous energy generation.

- While this does not mark the beginning of full electricity production, it is considered the most crucial milestone for the reactor’s safety and operational readiness.



- The achievement of criticality in the PFBR indicates that the reactor has moved beyond the construction and testing phase and is advancing toward operational status. This accomplishment is the result of decades of research, engineering, and technological innovation by institutions such as the Department of Atomic Energy and the Indira Gandhi Centre for Atomic Research.

India's Three-Stage Nuclear Programme:

- The conceptual foundation of India’s nuclear programme was laid by Homi Jehangir Bhabha. The core objective of this

programme is to maximize the utilization of India's limited uranium resources and abundant thorium reserves. The programme is based on the concept of a Closed Fuel Cycle, where spent fuel is reprocessed and reused.

» **Stage 1-Pressurized Heavy Water Reactors (PHWRs):**

In this stage, natural uranium is used for electricity generation. The process produces plutonium-239, which serves as fuel for the next stage.

» **Stage 2-Fast Breeder Reactors (FBRs):**

The PFBR represents this stage. It uses plutonium-based Mixed Oxide (MOX) fuel. These reactors have "breeding" capability, meaning they produce more fuel than they consume. By converting uranium-238 into plutonium-239, they significantly enhance fuel availability.

» **Stage 3- Thorium-Based Reactors:**

In the final stage, thorium-232 will be converted into uranium-233 to generate energy. This stage is considered the foundation of India's long-term energy security, given the country's abundant thorium reserves.

PFBR: Technical Features and Significance:

- The PFBR, developed by Bharatiya Nabhikiya Vidyut Nigam Limited (BHAVINI), is a 500 MW advanced reactor. Its key features include:

» **Use of MOX Fuel:** Made from a mixture

INDIA ACHIEVES A HISTORIC NUCLEAR MILESTONE!

Prototype Fast Breeder Reactor (PFBR) at Kalpakkam, Tamil Nadu has attained criticality on **6 April 2026**.

A giant leap towards energy security, self-reliance and a sustainable future.



INDIA JOINS AN ELITE CLUB

Only a few countries have mastered Fast Breeder Reactor technology:

RUSSIA	INDIA	CHINA	JAPAN	FRANCE	USA
Global leader with operational commercial reactors.	Now the second country with a commercial-scale breeder reactor.	Developing its fast reactor program.	Developed reactors like Monju, but program was largely shut down.	Built Superphénix, later closed due to political & economic reasons.	Early pioneer, but stopped commercial breeder programs.

WHY THIS IS A BIG DEAL

- ✓ Produces more fuel than it consumes
- ✓ Boosts energy security & self-reliance
- ✓ Paves the way for India's thorium future
- ✓ Supports clean energy & low-carbon goals

THE ROAD AHEAD

From criticality to full power generation

Once fully operational, PFBR will generate ~500 MW of electricity.

THE BIGGER PICTURE

This achievement is not just about technology. It's about India's determination to lead, innovate, and build a sustainable tomorrow.

A STRONGER INDIA. A BRIGHTER FUTURE.

- of uranium and plutonium oxides, derived from reprocessed fuel.
- » **Fast Neutron Spectrum:** Uses fast neutrons instead of slow ones, enhancing breeding efficiency.
- » **Uranium-238 Blanket:** Facilitates additional plutonium production.
- » **Closed Fuel Cycle:** Enables reuse of spent fuel, minimizing waste.
- Successful operation of the PFBR could place India among a select group of countries, alongside Russia, that operate fast breeder reactors at a commercial scale.

Nuclear Energy Scenario and Prospects:

- India's current nuclear energy capacity is approximately 8.78 GW, contributing around 3% of total electricity generation. Although this share appears modest, its

stability and base-load capacity make it critically important in the energy mix.

- The government has set a target to increase this capacity to 22.38 GW by 2031–32. This includes plans for indigenous 700 MW reactors as well as 1000 MW reactors developed through international collaboration.
- Additionally, India has entered into several civil nuclear cooperation agreements with multiple countries, reflecting global confidence in its nuclear programme.
- Globally, countries such as China and Russia are increasing investments in nuclear energy. As energy security and climate goals gain prominence, nuclear energy is witnessing renewed importance.
- India's thorium-based model presents an innovative alternative on the global stage. If successful, it could enable India not only to achieve energy self-reliance but also to emerge as a global leader in nuclear technology.

Role of Nuclear Energy in Climate Change Mitigation:

- The global challenge of climate change has made clean energy sources critically important. Under the Paris Agreement, India has committed to controlling emissions and promoting clean energy.
- India's declared goal of achieving net-zero emissions by 2070 reflects its long-term commitment in this direction. Nuclear energy is crucial to achieving this goal due to the following reasons:
 - » Low lifecycle emissions
 - » Continuous and reliable energy supply
 - » High energy density
 - » Minimal land use requirements
- Amid the intermittency of renewable energy sources, nuclear energy serves as a stable complement.

Policy Initiatives and Innovations:

- In the Union Budget 2025–26, the Government of India announced a "Nuclear Energy Mission" aimed at achieving 100 GW capacity by 2047. Several key initiatives are

underway:

- » **Small Modular Reactors (SMRs):** SMRs offer lower costs, higher safety, and flexibility. They can be deployed in remote areas and industrial clusters. At least five indigenously designed SMRs are expected to become operational by 2033, strengthening India's clean and reliable energy roadmap.
- » **Research and Development:** The Bhabha Atomic Research Centre (BARC) is working on advanced reactor designs such as high-temperature gas-cooled reactors and hydrogen production-based systems.
- » **SHANTI Act, 2025:** This legislation enables limited private sector participation in the nuclear sector, promoting investment and innovation.

Key Challenges:

- Despite its advantages, nuclear energy expansion faces several structural and social challenges:
 - » High capital costs and long construction timelines
 - » Radioactive waste management
 - » Safety concerns and risk of accidents
 - » Lack of public acceptance
 - » Technical complexities of the thorium cycle
- Addressing these challenges requires a robust regulatory framework, transparency, and scientific awareness.

Conclusion:

The achievement of criticality in the Prototype Fast Breeder Reactor at Kalpakkam marks a significant milestone in India's nuclear energy programme. It is not only a testament to scientific capability but also the result of effective coordination between policy, research, and long-term vision. India's three-stage nuclear programme is now transitioning from theory to practice. If implemented effectively, it has the potential to propel the country toward energy self-reliance, clean energy transition, and global technological leadership.

Short Issues

MITRA Mission: ISRO's Space Analog Study for Gaganyaan

Context:

The Indian Space Research Organisation (ISRO) is conducting the MITRA Mission (Mapping of Interoperable Traits and Response Assessment) from 2–9 April 2026 in Leh, Ladakh. The mission aims to understand crew safety, performance, and teamwork in human space missions. The high-altitude environment of Leh, at approximately 3,500 meters, with hypoxia (low oxygen), cold, and isolation, simulates space-like conditions. For this reason, it is considered a natural analogue for human spaceflight.

Main Objectives of the Mission:

- Study communication and coordination between the crew and ground teams.
- Evaluate decision-making and teamwork capabilities under stress and isolation.
- Develop training and strategies for future Gaganyaan missions based on human factors.

Collaboration and Organization:

- The mission was designed jointly by ISRO and the Institute of Aerospace Medicine (Indian Air Force). The mission was inaugurated virtually on 2 April 2026 by Dr. V. Narayanan, Chairman of ISRO.

Significance for Gaganyaan Programme:

- The Gaganyaan mission is ISRO's first human spaceflight programme, aimed at sending three astronauts into a 400 km orbit for three days and returning them safely to Earth. The mission is expected to be launched before 2026, using the LVM3 rocket, and India will become the fourth country to achieve this milestone.
- MITRA Mission provides critical data for this effort, including:
 - » Human adaptation to isolation and stress
 - » Physical and cognitive performance

- » Teamwork and decision-making capabilities
- This data will be used for simulation training, crew composition, and role allocation, ensuring the success and safety of the mission.

MITRA MISSION
MAPPING OF INTEROPERABLE TRAITS AND RESPONSE ASSESSMENT
2 - 9 APRIL 2026 | LEH, LADAKH

ISRO is studying how human crews adapt, perform, and work together in extreme conditions to ensure the success and safety of future space missions.

At ~3,500 m altitude, Leh's hypoxia, cold, and isolation create natural space-like conditions — a perfect analogue for human spaceflight.

MAIN OBJECTIVES	MISSION AT A GLANCE	COLLABORATION & ORGANIZATION
<ul style="list-style-type: none">Study communication and coordination between the crew and ground teams.Evaluate decision-making and teamwork capabilities under stress and isolation.Develop training and strategies for future Gaganyaan missions based on human factors.	<ul style="list-style-type: none">Location: Leh, Ladakh (~3,500 m altitude)Duration: 2 - 9 April 2026Environment: Hypoxia • Cold • IsolationNature: Human Factors & Team Performance Study	<ul style="list-style-type: none">ISROInstitute of Aerospace Medicine (Indian Air Force)Mission inaugurated virtually on 2 April 2026 by Dr. V. Narayanan, Chairman, ISRO.

SIGNIFICANCE FOR GAGANYAAN PROGRAMME	ABOUT ISRO
<p>Gaganyaan is ISRO's first human spaceflight mission: sending three astronauts to a 400 km orbit for three days and returning them safely to Earth.</p> <p>LAUNCH VEHICLE: LVM3 CREW: 3 ASTRONAUTS ORBIT: 400 km DURATION: 3 DAYS RETURN TO EARTH</p> <p>Target: Before 2026 India will become the fourth country to achieve this milestone.</p> <p>MITRA provides critical data for Gaganyaan:</p> <ul style="list-style-type: none">Human adaptation to isolation and stressPhysical and cognitive performanceTeamwork and decision-making capabilitiesUsed for simulation training, crew composition, and role allocation <p>Ensuring the success and safety of the mission.</p>	<p>The Indian Space Research Organisation (ISRO) is India's national space agency, established on 15 August 1969 by Dr. Vikram Sarabhai.</p> <p>Headquarters: Bengaluru, Karnataka</p> <p>Objectives: Develop space technology and deploy satellites, launch vehicles, and missions for national development.</p> <p>Key Launch Vehicles: PSLV, GSLV</p> <p>Key Missions: Chandrayaan, Gaganyaan, Shukrayaan, and more</p>

About ISRO:

- The Indian Space Research Organisation (ISRO) is India's national space agency, established on 15 August 1969 by Dr. Vikram Sarabhai.
- Headquartered in Bengaluru, Karnataka, ISRO's objectives include developing space technology and deploying satellites, launch vehicles (PSLV, GSLV) and missions (Chandrayaan, Gaganyaan, Shukrayaan) for national development.

Conclusion:

The MITRA Mission is a strategic initiative in India's human spaceflight preparation. By studying human and team responses in extreme and isolated environments, ISRO aims to ensure that astronauts are fully prepared for the challenges of space. The mission also

exemplifies multi-disciplinary collaboration, combining expertise in space science, defence, and medical research, supporting India's Gaganyaan programme and future human space exploration endeavours.

Artemis 2 Mission

Context:

Recently, the second phase of NASA's 'Artemis Mission', Artemis II was successfully launched from the Kennedy Space Center in Florida. This marks the first crewed mission to the Moon since 1972, in which four astronauts "Reid Wiseman, Victor Glover, Christina Koch, and Jeremy Hansen" successfully completed a 10-day journey aboard the Orion capsule and returned to Earth.

Mission Objectives:

- The primary goal of Artemis 2 was to test the capabilities of the Orion spacecraft and the Space Launch System (SLS) rocket.
- It was a Lunar Flyby mission, meaning the astronauts will not land on the Moon but will orbit around it and return to Earth.
- Through this mission, NASA wanted to ensure that life support systems in deep space are functioning properly, so that humans can be safely landed on the lunar surface in the future Artemis 3 mission.

Key Achievements:

- **Lunar Flyby Completed:** The crew successfully flew around the far side of the Moon.
- **New Distance Record:** The mission covered 252,756 miles, breaking the previous Apollo 13 record, marking the farthest distance ever traveled by humans.
- **Communication Blackout:** As the Orion spacecraft passed behind the Moon, the crew experienced a 40-minute communications blackout, which was expected and vital for testing.
- **Extensive Data Collection:** The crew witnessed

Earthrise from the Moon, observed a solar eclipse, and collected significant data on the lunar surface.

ARTEMIS 2 MISSION
HUMANITY'S NEXT GIANT LEAP TOWARD THE MOON

NASA successfully launched Artemis 2, the first crewed mission to the Moon since 1972. Four astronauts aboard the Orion spacecraft embarked on a 10-day journey to test systems, push boundaries, and pave the way for Artemis 3, which will land humans on the lunar surface.

LAUNCHED FROM Kennedy Space Center, Florida, USA
DURATION 10 DAYS

THE CREW

- REID WISEMAN: Commander
- VICTOR GLOVER: Pilot
- CHRISTINA KOCH: Mission Specialist
- JEREMY HANSEN: Mission Specialist

MISSION OBJECTIVES

- Test the Orion spacecraft and the Space Launch System (SLS) rocket.
- Conduct a Lunar Flyby: orbit around the Moon and return to Earth (no landing).
- Validate life-support systems and spacecraft performance in deep space.
- Pave the way for Artemis 3, which will land humans on the lunar surface.

KEY ACHIEVEMENTS

- LUNAR FLYBY COMPLETED:** The crew successfully flew around the far side of the Moon.
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- EXTENSIVE DATA COLLECTION:** The crew witnessed Earthrise from the Moon, observed a solar eclipse, and collected significant data on the lunar surface.

TECHNICAL CHALLENGES & FUTURE OUTLOOK

- Radiation:** Protecting astronauts from deep space radiation.
- Communication:** Overcoming delays and blackouts behind the Moon.
- Life-Support Systems:** Ensuring safety and reliability for long-duration missions.

Artemis 2 is a stepping stone. If successful, NASA plans to launch Artemis 3 in 2027–28, which will include the first woman and the first Black astronaut to step on the Moon's south pole.

ABOUT THE ARTEMIS PROGRAM

The Artemis program, led by NASA, is the primary initiative for lunar exploration, established in 2017 under Space Policy Directive 1. Its objectives include:

- Sending humans to the Moon by 2028 for the first time since Apollo 17.
- Establishing a sustainable lunar base in the 2030s as a foundation for deep space exploration.

The program involves:

- SLS Core Stage
- RS-25 Engines
- Solid Rocket Boosters
- Orion Spacecraft
- Human Landing Systems (HLS) (by private companies)

It is a global effort under the Artemis Accords, with partners around the world.

CONCLUSION

Artemis 2 tests the limits of technology and human endurance in deep space: radiation, communication barriers, and life-support systems. Its success brings us closer to Artemis 3 and the safe return of humans to the Moon, laying the foundation for long-term exploration and future missions to Mars.

Technical Challenges and Future Outlook:

- After this successful mission is a stepping stone toward sending humans to the Moon. Artemis 2 helps scientists understand how to deal with radiation and communication challenges in deep space.
- If successful, NASA plans to launch Artemis 3 in 2027–28, which will include the first woman and the first Black astronaut to step on the Moon's south pole.

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- Establishing a sustainable lunar base in the 2030s as a foundation for deep space exploration.
- The program involves the Space Launch System (SLS) core stage, RS-25 engines, solid rocket boosters, Orion spacecraft, and Human Landing Systems (HLS) developed by private companies, with international collaboration under the Artemis Accords.

systems. Its success will strengthen the foundation for long-term space exploration and future Mars missions.

Study on Adult Leukaemia

Context:

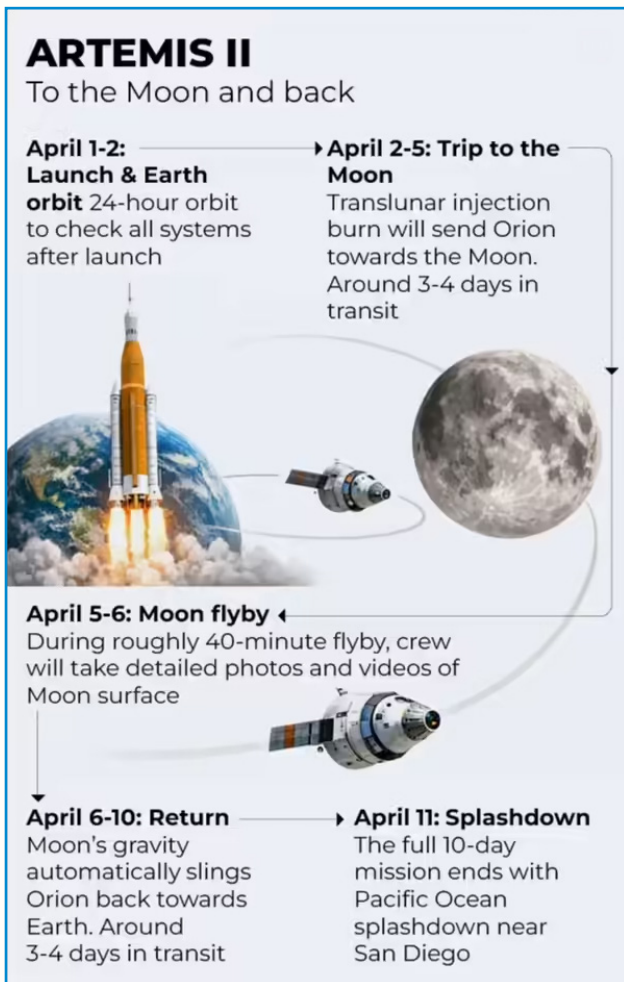
A recent study conducted in the United States on Acute Lymphoblastic Leukemia (ALL), a rapidly progressing blood cancer, found that mutations in the TP53 gene play a significant role in patients' response to treatment. This finding helps explain why treating ALL in adults is more challenging than in children, and why the disease frequently recurs following treatment.

About Leukaemia:

- Acute lymphoblastic leukaemia (ALL) is a fast-growing blood cancer affecting white blood cells and bone marrow. While it is the most common paediatric cancer, adult ALL presents unique challenges, including higher relapse rates and lower long-term survival.
- The disease is characterised by the uncontrolled proliferation of immature lymphocytes, which compromises immunity and normal blood function.

About TP53 and Its Role:

- TP53, often referred to as the “guardian of the genome,” regulates DNA repair and apoptosis. In healthy cells, TP53 can halt cell division to allow DNA repair or trigger programmed cell death when damage is irreparable.
- Mutations in TP53 disrupt these pathways, allowing cells with genetic errors to proliferate unchecked, ultimately contributing to cancer development.
- In adult ALL, TP53 mutations were found to enhance growth signals and impair apoptosis, making standard chemotherapy less effective and leading to higher relapse rates.



Conclusion:

This mission not only tests technical capabilities through lunar orbit but also aids in understanding the challenges of human missions in deep space, such as radiation, communication barriers, and life, support

What is leukemia?

A cancer found in the blood and bone marrow, caused by too many white blood cells in the body. The white blood cells don't let the body fight disease and prevent the body from making red blood cells and platelets.

Normal white blood cell count | Abnormal white blood cell count

4 types of leukemia

Acute lymphoblastic leukemia	Acute myelogenous leukemia	Chronic lymphoblastic leukemia	Chronic myelogenous leukemia
Found in lymphoid cells Grows quickly Common in children 6,000 cases a year	Found in myeloid cells Grows quickly Common in adults and children 18,000 cases a year	Found in lymphoid cells Grows slowly Common in adults 55+ 15,000 cases a year	Found in myeloid cells Grows slowly Common in adults 6,000 cases a year

About the Findings:

- Around 10% of adult ALL patients carried a TP53 mutation.
- TP53-mutant cells show increased growth signals and defective apoptosis, making chemotherapy less effective.
- Relapses are more frequent, and long-term survival is lower in patients with TP53 mutations.
- Bone marrow transplantation extended survival, though relapse remained common.
- Immunotherapy effectiveness declines after relapse due to loss of surface markers on TP53-mutant cells.

Implications:

- Highlights the need for genetically tailored treatments for adult ALL.
- Suggests early immunotherapy followed by bone marrow transplantation for TP53-mutant patients.
- Emphasises that conventional treatment approaches may not suffice for genetically high-risk groups.

- Offers insights into the biology of cancer relapse and drug resistance, potentially guiding future therapy development.

Relevance for India:

- TP53 mutations are common in high-burden cancers in India, including oral, breast, lung, and gallbladder cancers.
- Despite its clinical significance, TP53 is not routinely used for risk stratification or treatment decisions in India.
- Integrating TP53 mutation testing into Indian oncology practices could improve personalised therapy, prognosis, and patient outcomes.
- Addresses the gap between genomic research and practical application in Indian cancer management frameworks.

Conclusion:

The study provides critical insights into why adult ALL is aggressive and resistant to standard therapies. By identifying TP53 as a key genetic driver, it opens pathways for precision medicine approaches, including early immunotherapy and bone marrow transplantation. Incorporating such genomic knowledge into clinical practice, especially in India, can improve treatment efficacy, survival, and overall cancer management strategies.

New Method of Distance Measurement Based on Pulsars

Context:

Recently, astronomers from IIT Kanpur and the National Centre for Radio Astrophysics (NCRA), Pune have developed a new scientific method through which distances in deep space can be measured more accurately using signals from pulsars (Pulsars).

Key Points:

- In this new method, the behaviour of radio signals coming from pulsars is studied. When these signals pass through gas and

plasma present in space, they undergo changes such as dispersion and scattering. By analysing these changes, the distance can be estimated.

- This method reflects India’s growing capability in space science and is considered an important advancement in the field of astrophysics. This technique is expected to improve the accuracy of studies related to the structure of the Milky Way galaxy.

About Pulsars:

- Pulsars are extremely dense and rapidly rotating neutron stars, which emit signals in the form of radio waves at regular intervals. They are also called “cosmic lighthouses.”
- They were discovered in 1967 and have since become important tools in astronomy because their timing is extremely precise.

Working of Pulsars:

- Pulsars emit radio waves from their poles
- When these waves reach Earth, they are observed as regular pulses.
- Their rotation is extremely stable, due to which they act like a cosmic clock.

Scientific Basis of the New Method:

- Traditionally, distances in space were measured using the Dispersion Measure (DM) method, which studies the time delay of signals.
- The new method uses a combined approach of two effects:
 - » Dispersion (time delay of signals)
 - » Scattering (spreading of signals)
- By combining both effects, distance measurement becomes more accurate as it also accounts for the influence of interstellar plasma.

Importance of the Method:

- Measuring distances in space has always been one of the biggest challenges in astronomy.

Traditional methods include:

- » Trigonometric Parallax (for nearby stars)
- » Spectroscopic Methods
- » Dispersion-based Radio Astronomy
- All these methods have limitations, especially for very large distances. Hence, the pulsar-based method provides an advanced alternative.

Conclusion:

This new method will not only improve the accuracy of measuring cosmic distances but will also help in understanding the structure and evolution of the galaxy. This recent achievement places India in a strong position in global astrophysics research and shows that Indian scientists are continuously pushing the frontiers of space research.

NEW METHOD OF DISTANCE MEASUREMENT BASED ON PULSARS

Indian scientists from IIT Kanpur and NCRA, Pune have developed a new method to measure distances in deep space more accurately using signals from pulsars.

PULSAR (Cosmic Lighthouse) → **GAS & PLASMA IN SPACE (Interstellar Medium)** → **EARTH**

Signals received by radio telescopes

HOW THE NEW METHOD WORKS

- 1 Pulsars emit radio waves from their poles.
- 2 As the radio waves travel through gas and plasma in space, they undergo dispersion and scattering.
- 3 The signals reach Earth and are detected by radio telescopes.
- 4 By analysing the changes (dispersion and scattering), the distance to the pulsar is estimated.
- 5 This provides a more accurate distance in deep space.

ABOUT PULSARS

- Pulsars are extremely dense and rapidly rotating neutron stars that emit radio signals at regular intervals.
- They are called “cosmic lighthouses.”
- They were discovered in 1967 and have since become important tools in astronomy.
- Their timing is extremely precise, making them excellent cosmic clocks.

WORKING OF PULSARS

- 1 Pulsars emit radio waves from their poles.
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SCIENTIFIC BASIS OF THE NEW METHOD

Traditionally, distances in space were measured using the Dispersion Measure (DM) method, which studies the time delay of signals.

The new method uses a combined approach of two effects:

- 1 **DISPERSION** (Time delay of signals)
Lower-frequency waves travel slower than higher-frequency waves in plasma, causing a time delay.
- 2 **SCATTERING** (Spreading of signals)
Irregularities in plasma scatter the radio waves, causing the signal to spread out.

By combining dispersion and scattering, the new method accounts for the influence of interstellar plasma more completely, leading to more accurate distance measurements.

This will significantly improve our understanding of the structure of the Milky Way and other cosmic objects.

A PROUD STEP FOR INDIA
This innovation reflects India’s growing capability in space science and is a significant advancement in the field of astrophysics.

IIT KANPUR | NCRA - TIFR PUNE

National Quantum Mission

Context:

Recently, India's National Quantum Mission (NQM) has achieved a major milestone by successfully developing a 1,000-kilometre-long secure quantum communication network within just three years of its launch. This achievement places India in a strong global position in the emerging field of quantum technology.

Key Achievement:

- NQM demonstrated a 1,000 km quantum communication network much ahead of its planned timeline.
- This network is considered among the longest secure quantum communication networks in the world.
- It reflects India's rapidly growing scientific and technological capability.

Significance of the Achievement:

- **Strengthening National Security:** This technology ensures highly secure communication for:
 - » Defence
 - » Intelligence
 - » Critical government systems
- **Revolution in Cybersecurity:** Quantum communication is more secure than traditional encryption, thereby significantly strengthening digital security infrastructure.
- **Step towards Atmanirbhar Bharat:** This achievement reflects India's:
 - » Indigenous technological capability
 - » Growing self-reliance in deep-tech sectors
- **Move towards Global Leadership:** With this success, India is emerging as a leading country in quantum technology development.

About Quantum Communication Network:

- This technology is primarily based on Quantum Key Distribution (QKD).
- Quantum Key Distribution (QKD) is a secure communication technique that uses

the principles of quantum mechanics to generate a shared secret key between two parties.

- **Working Mechanism:**



- » It transmits data using photons (particles of light).
- » According to the no-cloning theorem of quantum physics, an unknown quantum state cannot be perfectly copied.

- **Unbreakable Security:**

- » If a hacker tries to intercept or measure the communication, the quantum state of photons changes immediately.
- » This instantly alerts the communicating parties that tampering has occurred, and the key becomes invalid.



National Quantum Mission
 India's Quantum Leap

-  Harnessing the Future with Quantum Power
-  Fueling Innovation, Strengthening Security, and Creating Jobs
-  India Rising as a Global Tech Leader

Objectives of the National Quantum Mission

- Quantum Computing Evolution
- Satellite-Based Quantum Communication
- Inter-City Quantum Key Distribution (QKD)
- Multi-Node Quantum Networks
- Advanced Quantum Sensing & Clocks
- Quantum Materials & Devices

- **Importance:**

- » Traditional encryption relies on mathematical problems that future quantum computers may break.
- » QKD is based on the laws of physics, making it virtually unbreakable in theory.



About the National Quantum Mission:

- The Government of India approved the mission in April 2023 with a budget of Rs.6,003.65 crore, and it is implemented by the Department of Science and Technology (DST).
- **Four Key Thematic Areas:**
 - » **Quantum Computing:** Development of intermediate-scale quantum computers with 50 to 1,000 qubits over 8 years
 - » **Quantum Communication:** Establishment of secure ground and satellite-based communication networks across India
 - » **Quantum Sensing and Metrology:** Development of highly sensitive sensors and atomic clocks
 - » **Quantum Materials and Devices:** Creation of new materials for quantum information processing

Conclusion:

The 1,000 km quantum communication milestone is not just a technological achievement but also a significant step towards Atmanirbhar Bharat. It lays the foundation for a future quantum internet, which will strengthen India's digital sovereignty and secure communication infrastructure.

India's First Quantum Computing Testing Facility in Amaravati

Context:

Recently, Chief Minister of Andhra Pradesh N. Chandrababu Naidu inaugurated India's first indigenous Quantum Computing Testing Facility and the "Amaravati Quantum Valley (AQV)" at Amaravati, located at SRM University Andhra Pradesh.

About Amaravati Quantum Valley:

- Amaravati Quantum Valley is India's first dedicated quantum technology hub established in Amaravati, Andhra Pradesh.
- It is part of the Rs.6,000 crore National Quantum Mission, whose aim is to make India a global technological power.
- Along with companies like IBM and Tata Consultancy Services (TCS), it will promote research, innovation, and high-level training (AI, cybersecurity) with a 156-qubit (initial target) quantum system.

Key Aspects of Amaravati Quantum Valley:

- **Objective:** To make India self-reliant in quantum research and compete technologically with China and the United States.
- **Location and Infrastructure:** It is located at SRM University and Medha Towers in Gannavaram, where indigenous "quantum reference facilities" are being established.
- **Key Partnership:** It is being developed in collaboration with the Tata Institute of Fundamental Research (TIFR), the Indian Institute of Science (IISc), and the Defence Research and Development Organisation (DRDO).
- **Feature:** It focuses on developing a complete ecosystem (skills, research, startups), designed on the lines of global centers such as Boston and Munich.

About Quantum Computing:

- Quantum computing uses principles of quantum mechanics to solve complex problems at extremely high speeds compared to classical computers.
 - » **Qubits:** While normal computers use 0 or 1 (bits), quantum computers use "qubits," which can exist in both 0 and

1 states simultaneously.

- » **Superposition:** It allows qubits to perform multiple calculations at the same time, greatly increasing processing power.
- » **Entanglement:** In this phenomenon, the state of one qubit instantly affects another, no matter how far apart they are. This accelerates data transmission and computation.

INDIA'S FIRST QUANTUM COMPUTING TESTING FACILITY IN AMARAVATI

ABOUT AMARAVATI QUANTUM VALLEY

- India's first dedicated quantum technology hub in Amaravati, Andhra Pradesh.
- Part of ₹6,000 crore National Quantum Mission, whose aim is to make India a global technology power.
- IBM and Tata Consultancy Services (TCS) will promote research, innovation, and high-level qubits with a 156-qubit (initial target) quantum system.
- IBM & Tata Consultancy Services (TCS), London with a 156-qubit (initial target) quantum system hub.

NATIONAL QUANTUM MISSION HIGHLIGHTS

- Quantum Computing: ₹6,003 cr. Budget 2022-2031
- Quantum Communication: 50-1,000 qubits Quantum computers
- Quantum Sensing: 50-1,000 qubits Quantum interconnectors
- Quantum Materials & Devices: Milestone: Develop ions and qubits.

KEY ASPECTS OF AMARAVATI

- SELF-RELIANCE:** Compete with US & China in quantum tech.
- LOCATION & INFRASTRUCTURE:** Located at SRM University Andhra Pradesh. Indigenous quantum reference facilities.
- KEY PARTNERSHIP:** Collaboration with TIFR, IISc, DRDO.
- COMPLETE ECOSYSTEM:** Startups, skills, research, Inspiration, ageing Boston & Munich.

ABOUT QUANTUM COMPUTING

- Qubits:** Quantum computers use qubits: 0 and 1.
- Superposition:** Enables qubits to run multiple calculations, at once.
- Drug Discovery & Healthcare:** Speed up molecular-level simulations for new drugs and vaccines.

SIGNIFICANCE FOR INDIA

- Develop 50-1,000 qubit quantum computers
- Establish 2,000 km quantum communication network
- Lead the Fourth Industrial Revolution in the year

VISION FOR THE FUTURE

- Develop 50-1,000 qubit quantum computers
- Establish 2,000 km quantum communication network
- Lead the Fourth Industrial Revolution, through education, industry—and government.

Strategic and Economic Importance for India:

- **Security and Cryptography:** Quantum computers can challenge current encryption methods. A domestic testing facility will help India become self-reliant in developing “post-quantum cryptography.”
- **Drug Discovery and Healthcare:** Molecular-level simulations can reduce the time for discovering new drugs and vaccines from

years to months.

- **Logistics and Data:** It will help optimize complex financial systems and supply chain management.

Challenges:

- Currently, India is in the NISQ (Noisy Intermediate-Scale Quantum) era. This means quantum computers exist but are highly sensitive to external noise and environmental disturbances, causing errors (decoherence).
- Controlling these errors and increasing the number of qubits is the biggest engineering challenge today.

About the National Quantum Mission:

- This achievement in Amaravati is part of India's National Quantum Mission, approved by the central government in April 2023 with a budget of Rs.6003.65 crore.
- **Goals (2023–2031):** To develop intermediate-scale quantum computers with 50 to 1,000 physical qubits within 8 years.
- **Four Thematic Hubs (T-Hubs):**
 - » Quantum Computing
 - » Quantum Communication
 - » Quantum Sensing and Metrology
 - » Quantum Materials and Devices
- **Major Achievements:** India has already achieved milestones such as a 1,000 km secure quantum communication link. The mission aims to establish a 2,000 km inter-city Quantum Key Distribution (QKD) network by 2027.

Conclusion:

The launch of this testing facility in Amaravati is not just a state achievement, but a new identity of “Atmanirbhar Bharat” (self-reliant India). It is an excellent example of the collaboration between education, industry, and government, which will enable India to lead the Fourth Industrial Revolution in the coming years.

Industrial Unrest: Structural Challenges and the Need for Reforms Amidst Development and Labour Crisis

Context:

The National Capital Region (NCR), including Delhi and industrial hubs like Noida, Greater Noida, Gurugram, Faridabad, and Manesar, is a key centre for manufacturing and services, contributing significantly to employment and industrial output. However, it has recently witnessed repeated incidents of industrial unrest, including strikes, protests, and violence, especially in manufacturing and automobile sectors.

In April 2026, unrest intensified due to wage disparities, long working hours, poor working conditions, and weak grievance redressal systems. Workers in Noida and Manesar demanded fair wages and better protections, leading to disruptions in production and affecting investor confidence, highlighting deep structural issues in labour relations.

Key Drivers of the Unrest:

- **Significant Wage Disparity with Neighbouring States:** The core trigger was the widening pay gap between Noida workers (earning roughly Rs.13,000–Rs.15,000) and those in Gurgaon, Haryana, where a 35% minimum wage increase brought salaries to around Rs.19,000, creating severe resentment.
- **Rising Inflation and Cost of Living:** Workers stated that low wages combined with rising rent and household expenses made it impossible to survive.
- **Poor Working Conditions and Exploitation:** Reports indicated widespread complaints about 12-hour shifts, lack of weekly off-days, and unpaid or unfairly paid overtime, forcing workers to demand better enforcement of labour laws.
- **Failed Negotiations and Slow Administration Response:** Initial peaceful protests failed to reach a resolution with employers or the labor department, causing frustration to boil over into violence.
- **Misinformation and Instigation:** Police identified that WhatsApp groups and social media were used to fuel misinformation (e.g., false reports of deaths), with over 50 bot accounts and external elements trying to incite violence after initial, smaller gatherings had begun to disperse.
- **Informalisation of the Organized Sector:** Over

Transforming Labour Governance

Before - 29 Existing Labour Laws

Now - **4** Labour Codes



80% of workers remain informal even within formal sectors. The rise of contractualization means workers lack the long-term benefits and security of "permanent" staff.

The Labor Codes:

- The 2026 unrest is deeply intertwined with the notification of the new Labour Codes in November 2025.
 - » **Code on Wages (2019):** While it introduced a "National Floor Wage," critics argue the lack of a clear setting methodology has led to the very state-wise disparities seen between Haryana and UP.
 - » **Industrial Relations Code (2020):** It raised the threshold for government permission for layoffs from 100 to 300 workers. This is perceived by labor unions as a dilution of job security, fueling the "leaderless" nature of the current protests as formal unions lose bargaining power.
 - » **Code on Social Security (2020):** Although it promises benefits for gig and platform workers, the actual delivery mechanisms remain under scrutiny.

History of Industrial Unrest in India:

- Industrial unrest refers to a situation of conflict or tension between employers and workers that disrupts normal industrial operations. It typically takes the form of strikes, protests, work stoppages, or lockouts and arises due to issues such as disputes over wages, unsafe or exploitative working conditions, job insecurity, delayed payment of salaries, and weak collective bargaining rights.
- Industrial unrest in India is not a new phenomenon. It can be traced back to the colonial era when industrialisation led to the emergence of wage labour in textiles, railways, and mining sectors. Poor working conditions, long hours, and low wages led to frequent strikes.
- After independence, industrial relations

became a key concern of the welfare state. The government aimed to balance industrial growth with labour welfare, leading to structured dispute resolution mechanisms.

- A major milestone was the enactment of the Industrial Disputes Act, 1947, which created a formal system for resolving disputes through conciliation, arbitration, and adjudication.
- The Act was rooted in the objective of maintaining industrial peace and harmony while ensuring workers' rights to collective bargaining and lawful strikes under regulated conditions.
- Over time, however, rapid industrialisation, globalization, and informalisation of labour created new forms of labour conflict that the traditional legal framework struggled to address.

INDUSTRIAL UNREST IN THE NCR
Widespread Protests & Strikes in Noida, Greater Noida, Manesar
APRIL 2026

Widespread Protests & Strikes in Noida, Greater Noida, Manesar
APRIL 2026

CONTEXT
Violent protests erupted due to wage disparities and new Labour Codes
Major industrial hubs in the NCR, such as Noida, Greater Noida, and Manesar, witnessed large-scale protests and strikes by workers over wage disparities and the implementation of new Labour Codes.

KEY DRIVERS OF THE UNREST

- WAGE DISPARITY**
₹ 13,000 – ₹ 15,000
✓ ₹ 19,000 / Gurgaon 30% post 35% wage increase
- RISING INFLATION**
Low wages combined with rising rents and household expenses made it impossible
- POOR WORKING CONDITIONS**
12-hour shifts, lack weekly offs, Unpaid/unfair initial overtime
- FAILED NEGOTIATIONS**
Failed talks with admins led to violent eruption
- MISINFORMATION**
Fake news & bot accs used to spread rumors
- INFORMAL SECTOR**
Over 80% of workers are still informal even in sector

THE LABOUR CODES

- CODE ON WAGES (2019)**
Introduced "National Floor Wage"
- INDUSTRIAL RELATIONS CODE (2020)**
Threshold raised from layoffs from 100 to 300 workers
- CODE ON SOCIAL SECURITY (2020)**
Promises social security for gig/platform workers, but delivery mechanisms
- CODE ON SOCIAL SECURITY (2020)**
Gig/platform workers, but delivery mechanisms still under scrutiny

Legal framework of labour unrest in India:

- India has a comprehensive legal framework

governing industrial relations, with the Industrial Disputes Act, 1947 serving as the cornerstone legislation. It provides mechanisms for investigation and settlement of disputes, regulation of strikes and lockouts, and procedures for layoff, retrenchment, and closure of industries.

- The Act also establishes labour courts and industrial tribunals for dispute resolution and ensures that strikes in essential services follow due legal procedures, including prior notice and conciliation efforts to maintain industrial harmony.
- In addition, the Code on Wages, 2019 aims to introduce a national floor wage and ensure minimum wages for all workers, with the objective of reducing regional wage disparities. The Industrial Relations Code, 2020 consolidates earlier laws related to trade unions, dispute resolution, and layoffs, while also modifying thresholds for retrenchment and strengthening formal recognition of trade unions.
- The Occupational Safety, Health and Working Conditions Code, 2020 focuses on improving workplace safety, regulating working hours, and ensuring better health conditions in factories and industrial establishments. Despite these legal provisions, challenges in implementation and enforcement continue to persist, often contributing to labour dissatisfaction and disputes.

Way Forward:

- To address the recent labour unrest, the government must go beyond short-term measures like ad hoc wage hikes and focus on structural reforms. A key step is mandatory formalisation of the workforce by ensuring digital appointment letters and payslips for all workers, including contractual employees. This will create transparency, strengthen accountability, and ensure that workers have documented proof of employment rights and entitlements.
- Effective implementation of the Labour

Codes is also essential to build a unified and modern labour framework. The transition to the Code on Wages and the Code on Social Security should be prioritised to provide a strong safety net for informal and gig workers. Alongside this, minimum wages should be revised regularly and linked to the Consumer Price Index (CPI), preferably on a semi-annual basis, to ensure wages keep pace with inflation and rising living costs.

- Finally, strengthening grievance redressal and improving worker welfare infrastructure is crucial for long-term stability. Labour departments need to be modernised with institutional mechanisms like Joint Conciliation Committees in industrial clusters to resolve disputes quickly. In addition, promoting affordable and accessible worker housing through government-supported rental schemes can help reduce the cost-of-living burden, ensuring better living conditions without excessive pressure on industries.

Conclusion:

Industrial unrest in NCR is a reflection of deeper structural issues in India's labour ecosystem rather than isolated incidents. While India possesses a comprehensive legal framework such as the Industrial Disputes Act, 1947 and newer labour codes, the gap between law and implementation remains significant. For sustainable industrial peace, India must focus not only on legal reforms but also on effective enforcement, fair wages, and inclusive industrial relations. NCR, being a key economic hub, requires particular attention to ensure that economic growth is not undermined by recurring labour conflicts.

Short Issues

RBI Monetary Policy Review 2026: Repo Rate, GDP Growth and Key Reforms

Context:

Recently, the Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) announced the decisions of its first bi-monthly meeting for the financial year 2026-27. Considering global geopolitical tensions and domestic inflationary pressures, the committee, chaired by Governor Sanjay Malhotra, adopted a 'Neutral' policy stance and decided to keep the repo rate unchanged at 5.25%.

Key Policy Rates:

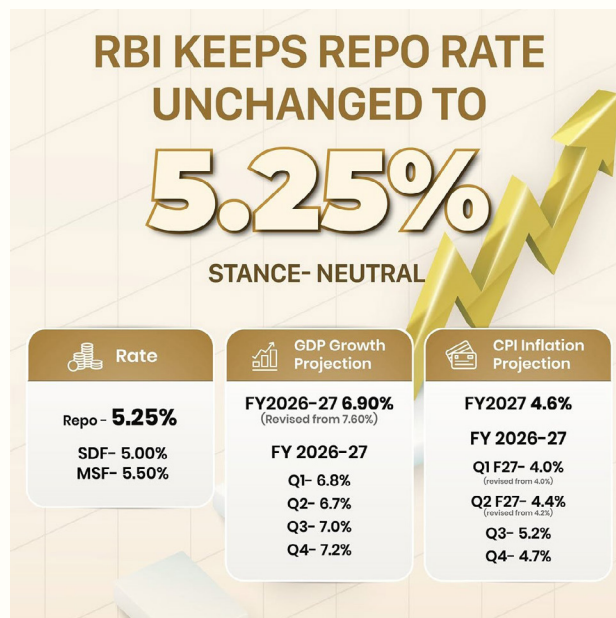
Rate	Current Status
Repo Rate	5.25% (unchanged)
Reverse Repo Rate	5.00%
Bank Rate	5.50%
Cash Reserve Ratio	3.00%
Statutory Liquidity Ratio (SLR)	18.00%

Major Economic Estimates:

- GDP Growth Forecast:** RBI has projected real GDP growth at 6.9% for FY 2026-27. Although lower than last year's 7.6%, India remains the fastest-growing major economy despite signs of a global slowdown. The moderation in growth is primarily due to disruptions in global supply chains caused by ongoing conflicts in West Asia (US-Iran tensions).
- Inflation (CPI):** Consumer Price Index (CPI)-based inflation is projected at 4.6% for FY 2026-27.
 - » **Challenges:** Volatility in crude oil prices and climate-induced impacts on food prices.
 - » **Strategy:** RBI aims to bring inflation closer to the medium-term target of 4%, while supporting economic growth.

Key Policy Reforms:

- Ease of Doing Business:** RBI has proposed removing the due diligence requirement under TReDS (Trade Receivables Discounting System) for micro, small, and medium enterprises (MSMEs), improving access to working capital and alleviating liquidity stress for small businesses.
- Financial Market Inclusion:** Non-banking financial companies (NBFCs) and housing finance companies (HFCs) are now permitted to participate in the term money market, enhancing liquidity and strengthening credit distribution.
- Banking Reforms:** Bank boards are advised to focus more on policy matters rather than daily operations. The requirement to maintain an Investment Fluctuation Reserve (IFR) has been proposed for removal, freeing additional capital for operational purposes.



About the Monetary Policy Committee:

- The Monetary Policy Committee (MPC) is a 6-member statutory body of the RBI, responsible for determining key policy rates such as the repo rate to control inflation and balance economic growth. Constituted

in 2016, it meets at least four times a year.

- » **Composition:** 3 members from RBI (including the Governor) and 3 appointed by the Government of India.
- » **Chairperson:** RBI Governor.
- » **Primary Function:** To achieve 4% inflation ($\pm 2\%$ tolerance band).
- » **Decision Process:** Each member has one vote; in case of a tie, the Governor has the casting vote.
- » **Significance:** MPC ensures transparency, accountability, and stability in India's monetary policy.

Conclusion:

The RBI's 'Neutral' stance signals that the central bank is not only focused on controlling inflation but also aims to maintain the momentum of economic growth. Future monetary policy will largely depend on incoming data and the global geopolitical situation.

Telangana Joins RBI's New Loan Strategy

Context:

Recently, Telangana has joined the group of nine states, including Andhra Pradesh, Bihar, Chhattisgarh, Kerala, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh that have adopted the Benchmark Issuance Strategy (BIS) launched by the Reserve Bank of India (RBI). Initiated on a pilot basis for the April–June 2026 quarter, this reform is a significant step toward enhancing transparency and liquidity in the State Development Loans (SDL) market.

What is the Benchmark Issuance Strategy (BIS)?

- Until now, the borrowing process of states was often fragmented, leading to limited liquidity in the secondary market for investors. The main features of the new strategy are:
 - » **Standardized Tenors:** States will now

issue securities in specific “benchmark buckets” such as 5-year, 10-year, and 15-year maturities.

- » **Pre-determined Calendar:** Similar to central government securities (G-Secs), states will follow a fixed calendar, providing investors with greater clarity about future supply.
- » **Increased Liquidity:** Issuing larger and standardized bonds will make buying and selling easier in the market, potentially lowering borrowing costs (yields) for states.

Significance for Telangana and Current Financial Situation:

- The timing of this reform is crucial for Telangana, which is currently facing serious debt management challenges:
 - » **Debt Restructuring:** In recent years, Telangana has used RBI mechanisms to repay older high-interest loans (10–12%) and replace them with new loans at lower rates (7–7.5%).
 - » **Debt Burden:** In the first half of FY 2025–26, Telangana raised approximately Rs.48,000 crore. However, a large portion (around Rs.32,303 crore) went toward repayment of previous loans and interest payments on major infrastructure projects like Kaleshwaram.
 - » **CAG Concerns:** Reports by the Comptroller and Auditor General (CAG) indicated that the state has relied heavily on short-term borrowing facilities such as the Special Drawing Facility (SDF) and Ways and Means Advances (WMA) to meet daily operational needs.

Potential Benefits of this Reform:

- **Reduced Interest Burden:** Access to long-term loans (up to 30 years) at lower interest rates will ease immediate financial pressure on the state treasury.
- **Expanded Investor Base:** Standardized bonds may encourage larger institutional investors, including foreign portfolio

investors (FPI) and pension funds, to invest in state debt.

- **Fiscal Discipline:** RBI's strict and transparent strategy will promote better fiscal responsibility and progress toward Fiscal Responsibility and Budget Management (FRBM) targets in states.

Challenges:

- While this strategy modernizes the borrowing framework, it does not address the underlying financial challenges of states, such as widening revenue deficits.
- For states like Telangana, merely restructuring debt is not enough; they must also increase their own tax revenue (SOTR) and control non-productive expenditure.

Conclusion:

The RBI's Benchmark Issuance Strategy is an excellent example of cooperative federalism, where the central bank provides professional expertise to states in managing their debt. Telangana's adoption of BIS represents a strategic shift toward improving financial health and could serve as a model for other states in the future.

- The Commission recommends the distribution of financial resources between the Centre and the states for the five-year period from 1 April 2026 to 31 March 2031.

FINANCE COMMISSION OF INDIA

The Government of India has established the 16th Finance Commission (Chairman- Dr. Arvind Panagariya)

Finance Commission is a constitutional body under **ARTICLE 280** that recommends the distribution of tax revenues between the Central government and the States.

CONSTITUTION OF THE COMMISSION
CONSTITUTES EVERY 5th YEAR
UNDER ARTICLE 280 OF THE INDIAN CONSTITUTION

TERMS OF REFERENCE FOR 16TH FINANCE COMMISSION

Vertical Devolution
 The proportion of the Centre's net tax revenue goes to the States.

Horizontal Devolution
 How states share is distributed among various States. It takes into account a State's population, fertility level, income level, geography, etc.

ISSUES

- The FC, appointed by the Centre, may be influenced by political factors.
- States claim that Centre often doesn't share funds as recommended by the Commission.
- Cess and surcharge, about 23% of gross tax receipts, are not shared with States.
- The share of taxes for southern States has decreased over the last six Finance Commissions.
- Industrialized states get less from the Centre than they contribute.
- Disagreements persist over tax sharing between the Centre and States.

Mismatch between revenue powers and expenditure duties leads to state dependence on Union transfers.

State Expenditure (61%)
 State Revenue (38%)

VERTICAL FISCAL IMBALANCE
 Importance of Reducing VFI

- Increases public spending efficiency by granting states more autonomy.
- Helps address imbalances during crises.
- Promotes a more equitable federal structure.

Central Government
वित्त आयोग
Not Bound by suggestions made by Finance Commission.

STRUCTURE
1 Chairman
4 Members

QUALIFICATIONS
FINANCE COMMISSION (MISCELLANEOUS PROVISIONS) ACT, 1951 specifies the qualifications for the Chairman and other members.

RECOMMENDS
 Principles for grants-in-aid from the Consolidated Fund and **Article 275**.
 Measures to boost state funds for panchayats and municipalities.
 Reviews and suggests improvements for disaster financing under the Disaster Management Act, 2005.

Role of Finance Commission

- Increase tax devolution to 49%.
- Address cesses and surcharges reducing the divisible pool.

The Sixteenth Finance Commission and Its Impact on Fiscal Federalism

Context:

Recently, the Government of India accepted the recommendations of the Sixteenth Finance Commission (16th FC) for the period 2026–31, raising serious concerns about the future of fiscal federalism and the financial balance between the Centre and the states.

About the Sixteenth Finance Commission:

- The 16th Finance Commission is a constitutional body constituted by the Government of India in November 2023, chaired by Dr. Arvind Panagariya, under Article 280 of the Constitution.

Key Recommendations of the 16th FC and Impact on Fiscal Federalism

- **Vertical Devolution**
 - » The share of states in central taxes has been maintained at 41%.
 - » This ensures financial stability, although several states had demanded an increase to 50% due to rising responsibilities.
- **Changes in Horizontal Distribution Criteria**
 - » The 16th FC has revised the horizontal distribution formula by introducing GDP contribution (10%) and removing the “tax effort” criterion.
 - » This shift moves allocation from equity-based redistribution toward efficiency and performance-based allocation. While income distance remains dominant, the new framework benefits

economically stronger states, potentially reducing redistributive justice.

- **Discontinuation of Statutory Grants**
 - » A major change is the discontinuation of revenue deficit grants and sector-specific grants.
 - » This reduces predictable fiscal support to weaker states and increases their dependence on conditional or discretionary grants, over which the Centre has greater control.
- **Shrinking Divisible Pool**
 - » Although states' share remains 41%, the effective divisible pool is shrinking due to the increasing use of cesses and surcharges, which are excluded from sharing with states.
 - » This results in lower actual transfers, weakening the spirit of fiscal federalism.
- **Increasing Influence of Discretionary Transfers:**
 - » With a reduction in untied transfers and an increase in conditional grants, the Centre gains greater leverage in influencing state policies.
 - » This marks a shift from rule-based fiscal federalism toward discretion-driven control.

Challenges to Fiscal Federalism:

- **Regional Imbalances:** Performance-based criteria may benefit economically advanced southern states while widening the fiscal gap for poorer states.
- **Declining Financial Autonomy:** Strict borrowing limits and conditional grants reduce states' access to untied funds for welfare schemes.
- **Strain on Cooperative Federalism:** The growing use of cesses and enhanced budgetary control is creating tension in Centre-state fiscal relations.

About the Finance Commission

- The Finance Commission (FC) is a key constitutional body under Article 280, tasked with ensuring equitable and balanced

distribution of financial resources between the Centre and the states. It is constituted by the President of India every five years or as needed.

- Its main functions include:
 - » Determining states' share in central taxes (Vertical Devolution)
 - » Allocating resources among states (Horizontal Devolution)
 - » Recommending grants-in-aid to states
- It also provides recommendations for financial support to panchayats and municipalities, promoting local-level development.

Conclusion:

The Finance Commission acts as the “balancing wheel” of fiscal federalism, ensuring fairness between the Centre and the states. With GST implementation and emerging fiscal challenges, its role is becoming increasingly complex, performance-oriented, and data-driven.

India Development Update Report 2026

Context:

Recently, the World Bank in its April 2026 “India Development Update” report has estimated India's GDP growth rate at 6.6% for Financial Year 2026–27 (FY27). Although this is lower than the estimated 7.6% in FY26, the World Bank has improved its previous January estimate (6.5%) by 0.1%. The report shows that despite the ongoing war in West Asia and global uncertainties, the Indian economy, due to its internal strength, continues to remain among the fastest-growing major economies in the world.

Main Points of the Report:

- The World Bank's 6.6% estimate is mainly based on the “Energy Shock” arising from the West Asia conflict. According to the data:
 - » **Crude Oil:** The report estimates the average crude oil price at \$90–\$100 per

barrel for FY27.

- » **Impact on Growth Rate:** Historically, every 10% increase in oil prices reduces India’s GDP growth by 0.3%.
- » **Inflation (CPI):** Retail inflation in FY27 is estimated to remain between 4.5% to 4.8%, which is within the target range of the Reserve Bank of India (2–6%).

Comparative Estimates by Global Institutions:

Different global and domestic institutions have varying estimates of India’s growth rate, reflecting their outlook on external risks:

Institution	FY27 Growth Estimate
Reserve Bank of India	6.9%
Asian Development Bank	6.9%
World Bank	6.6%
OECD	6.1%
Moody’s Ratings	6.0%

Challenges for India:

- Due to the West Asia crisis, India’s fiscal calculations are likely to be directly affected:
 - » **Subsidy Burden:** To protect the public from rising energy prices, the government may need to increase subsidies on LPG and fertilizers.
 - » **Current Account Deficit (CAD):** Due to rising import bills of oil and gold, India’s CAD is expected to increase from 1.2% in FY26 to 1.6% of GDP in FY27.
 - » **Export Situation:** Despite a slowdown in global demand, new Free Trade Agreements (FTAs) with the UK and European Union have expanded India’s preferential market access to 32% of global GDP.

India’s Economic Safety Cushion:

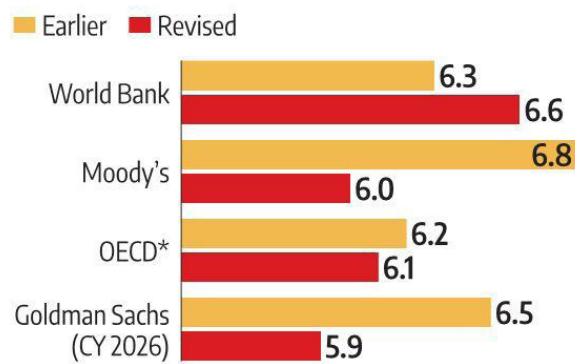
- According to the report, India is “fully capable” of withstanding these shocks due to the following strengths:
 - » **Foreign Exchange Reserves:** As of April 2026, India’s forex reserves reached a historic level of \$697.1 billion, sufficient

for more than 11 months of imports.

- » **Banking Sector Health:** Banks’ Gross Non-Performing Assets (GNPA) have declined to 2.3%, a multi-year low, boosting private investment.

On right track

India’s FY27 GDP growth projections (%)



*Organisation for Economic Co-operation and Development
Source: Agencies

Critical Analysis:

The slowdown in India’s growth is a result of global factors, not internal weaknesses.

- **Positives:**
 - » Strong macroeconomic management
 - » Diversified economy
 - » Policy flexibility
- **Challenges:**
 - » Increasing private investment
 - » Managing external risks
 - » Large-scale employment generation

Conclusion:

The World Bank report clearly indicates that although the West Asia war may slow India’s growth by up to 1%, strong domestic consumption and public infrastructure investment will keep India a “bright spot” in the global economy. The 6.6% growth rate stands as evidence of India’s economic resilience in a period of global slowdown.

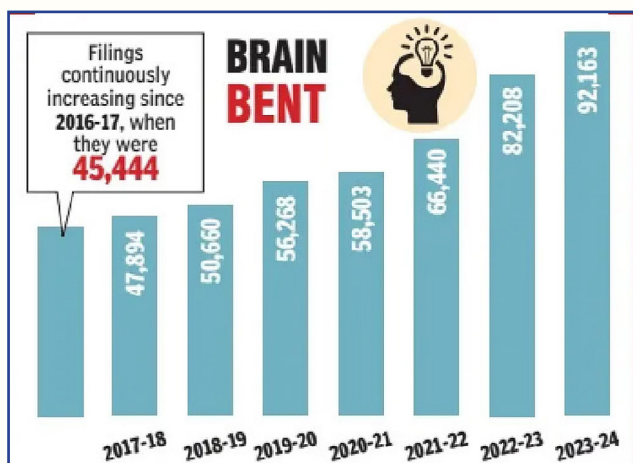
Patent Growth in India 2026

Context:

Recently, India has witnessed a record surge in patent filings in FY 2025–26, with applications rising to 1,43,729, marking a 30.2% increase over the previous year. This is the highest ever patent filing in India's history. With this growth, India has also emerged as the 6th largest patent filer globally.

Domestic Innovation:

- Out of the total applications, about 69% patents were filed by domestic applicants, which indicates an increase in indigenous innovation capability.
- **State-wise Performance:**
 - » Tamil Nadu at the top
 - » Karnataka at second position
 - » Maharashtra at third position
- This shows that innovation in India is mainly concentrated in industrial, technological, and startup-centric states.
- In the last five years, patent filing has recorded an increase of about 146%, which confirms a structural shift from “Made in India” to “Invented in India.”



About Patents:

- A patent is an exclusive legal right granted to an inventor for a new invention, allowing them to prevent others from making, using, or selling the invention without permission

for a limited period (usually 20 years).

- **Purpose of Patents:**
 - » Encourage innovation and creativity
 - » Protect intellectual property rights (IPR)
 - » Promote technological advancement
 - » Provide commercial benefits to inventors



Legal Framework for Patents in India:

- The patent system in India is governed by the Patents Act, 1970, which was amended in 2005 in accordance with the TRIPS Agreement. This reflects India's international trade and IPR commitments.
- **Institutional Structure:**
 - » **Controller General of Patents, Designs and Trademarks (CGPDTM):** A key institution under the Ministry of Commerce and Industry.
 - » **National IPR Policy, 2016:** With the objective of “Creative India, Innovative India,” promoting innovation.

Government Incentives and Reforms:

- Up to 80% fee exemption for startups, MSMEs, and women entrepreneurs
- Faster patent examination process through Expedited Examination
- About 95% patent applications filed digitally
- Legal support under SIPP (Start-up Intellectual Property Protection) scheme

Economic Importance:

- **India's global ranking:** sixth largest patent filer
- Strong IPR system increases attraction of FDI (Foreign Direct Investment)

- Transformation of India from a service-based economy to a knowledge-based economy
- Promotion of innovation-based industries and startups

Major Challenges:

- **Low R&D expenditure:** about 0.7% of GDP (USA ~3.5%, China ~2.4%)
- **Lack of commercialization:** only 10–15% of patents are converted into products
- **Shortage of human resources:** insufficient number of patent examiners, leading to increased backlog cases

Way Forward:

India needs to focus on increasing its Research and Development (R&D) investment to 2% of GDP in order to promote high-quality innovation. At the same time, it is essential to strengthen collaboration between universities and industry so that research can be effectively translated into practical products and technologies. Developing a robust ecosystem for the commercialization of patents is also crucial, enabling inventions to generate economic value. Additionally, the use of digital technologies and Artificial Intelligence (AI) in IPR administration should be expanded to make processes more transparent, faster, and efficient.

Conclusion:

The patent data of FY 2025–26 is not just statistical growth, but a reflection of India's changing scientific and innovation mindset. If India increases R&D investment, improves patent quality, and strengthens commercialization, then it can play a decisive role in achieving the goal of "Developed India 2047."

World Economic Outlook Report 2026

Context:

Recently, The International Monetary Fund (IMF), in its World Economic Outlook (WEO)

report, has raised India's GDP growth forecast for FY2026–27 (FY27) to 6.5%. This revision marks a 10-basis-point increase from the January estimate, positioning India as the world's fastest-growing major economy despite a deteriorating global landscape marked by the West Asia conflict and rising protectionism.

Drivers of India's Economic Upgrade:

- India's upward revision stems from domestic resilience and strategic trade shifts that have cushioned the economy from external shocks.
 - » **Trade Tariff De-escalation with the US:** A pivotal factor is the significant reduction in US tariffs on Indian goods, dropping from a peak of 50% to 10%. This has restored export competitiveness for key labor-intensive sectors such as textiles and jewellery.
 - » **Strong Carryover Momentum:** India recorded a stellar 7.6% growth in FY26, creating a robust statistical base and sustained internal demand that has "carried over" into the current fiscal year.
 - » **Resilient Domestic Demand:** While global markets struggle, India's internal consumption remains firm, supported by a rising working-age population and improved rural demand.

The Global Contrast:

- The IMF's optimism for India stands in stark contrast to its "gloomy" outlook for the global economy.
 - » **Global Growth Downgrade:** The IMF cut its 2026 global growth forecast to 3.1% (down from 3.3% in January).
 - » **West Asia Crisis:** Escalating tensions in the Middle East have triggered energy price spikes and disrupted shipping through the Strait of Hormuz, a critical chokepoint for nearly half of India's crude imports.
 - » **Inflationary Pressure:** Global headline inflation is projected to rise to 4.4% in

2026, driven by higher commodity costs.

Comparison of Growth Projections (FY27):

While the IMF is bullish, it remains more conservative than domestic and other multilateral institutions.

Institution	FY27 GDP Forecast (%)
Asian Development Bank	6.9%
Reserve Bank of India (RBI)	6.6%–6.9%
World Bank	6.6%
IMF	6.5%

Challenges:

- **Energy Security:** India's dependence on the Middle East makes it vulnerable to "oil shocks." The IMF warns that Brent crude breaching \$100+ per barrel could widen the Current Account Deficit (CAD).
- **Monsoon Risks:** The IMD has flagged a below-normal monsoon (92% of the long-term average) for 2026, which could dampen rural recovery and spike food inflation.
- **Fiscal Consolidation:** The IMF emphasizes the need for countries to rebuild "fiscal buffers" to manage future shocks, a key goal for India as it targets a fiscal deficit of 4.5% by FY26.

Conclusion:

India's upgrade to 6.5% reflects a "soft landing" in a hard world. While domestic demand and reduced trade barriers provide a shield, the twin risks of geopolitical volatility and climate-induced agricultural shocks remain the primary hurdles to sustaining this momentum.

MLFF Tolling System in India

Context:

Recently, The National Highways Authority of India (NHAI) has directed FASTag-issuing banks to verify and validate vehicle registration numbers (VRNs) linked with FASTags. This step comes amid concerns over mismatches between registered vehicle details and actual license

plates. Banks have also been instructed to blacklist invalid FASTags. The move is crucial for the upcoming rollout of the Multi-Lane Free Flow (MLFF) tolling system, which aims to enable seamless, barrier-less toll collection across India's highways.

About MLFF Tolling:

- Multi-Lane Free Flow (MLFF) tolling is an advanced electronic toll collection system that allows vehicles to pass through toll points at highway speeds without stopping or slowing down.
- It eliminates physical barriers by using a combination of RFID-enabled FASTag systems, Automatic Number Plate Recognition (ANPR) cameras, and GNSS-based tracking, which together identify vehicles and deduct toll charges automatically.

MLFF Tolling System in India

The National Highways Authority of India (NHAI) is rolling out the Multi-Lane Free Flow (MLFF) tolling system to enable barrier-less, seamless toll collection across India's highways.

What is MLFF Tolling?

Multi-Lane Free Flow (MLFF) tolling is an advanced electronic toll collection system that allows vehicles to pass through toll points at highway speeds without stopping.

How MLFF Works

Multi-Lane Free Flow (MLFF) tolling is an advanced electronic toll collection system that allows vehicles to pass through toll points at highway speeds without stopping.

- FASTag:** MLFF uses RFID-based FASTags
- ANPR Camera:** ANPR Camera captures number plates
- GPS:** GPS, Central System
- Generat System:** Charges Deducted Automatically

How MLFF Works

Vehicles pass under an overhead gantry equipped with:

- RFID Reader for FASTags:** captures number plates
- GPS, Tracking:** Automatically

How MLFF Works:

- The system operates through a network of

overhead gantries installed on highways. These gantries are equipped with RFID readers linked to FASTags and high-resolution ANPR cameras that capture vehicle number plates.

- The system matches the FASTag data with vehicle registration details and automatically deducts the applicable toll fee. Unlike traditional toll plazas, MLFF does not require boom barriers or manual intervention, ensuring continuous traffic flow.

Advantages of MLFF Tolling:

- MLFF significantly improves highway efficiency by enabling uninterrupted travel at speeds exceeding 100 kmph.
- It reduces congestion at toll plazas, eliminates waiting time, and enhances fuel efficiency by avoiding frequent stops.
- For commuters and freight operators, the system ensures faster transit, lower travel time and improved logistics efficiency, contributing to reduced operational costs.

Challenges:

- The success of MLFF heavily depends on accurate FASTag-vehicle registration mapping. Mismatches between FASTag details and actual vehicle data can lead to revenue leakage and enforcement challenges.
- Additionally, legacy FASTags issued before integration with the VAHAN database have created inconsistencies due to earlier manual verification processes. Ensuring updated and verified data is therefore essential for effective implementation and electronic enforcement mechanisms.

Rollout of MLFF in India:

The Ministry of Road Transport and Highways (MoRTH) has initiated the phased implementation of MLFF by awarding tenders for 16 toll plazas across states such as Haryana, Gujarat, Rajasthan, Delhi, Tamil Nadu, Andhra Pradesh, and Maharashtra.

Conclusion:

The introduction of MLFF tolling marks a major step towards a fully digital, barrier-free highway ecosystem in India. By integrating advanced technologies with FASTag infrastructure, the system aims to reduce congestion, improve efficiency, and modernise toll collection. However, its success will depend on robust data accuracy, strong enforcement mechanisms, and smooth technological integration across states.

Decline in India's Ranking in IMF

Context:

Recently, according to the World Economic Outlook released by the International Monetary Fund (IMF), India has slipped from being the fourth largest economy in the world to the sixth position in terms of nominal GDP. India now stands sixth after the United States, China, Germany, Japan, and the United Kingdom. However, this decline is more a result of statistical adjustments and exchange rate movements than any fundamental weakness in the Indian economy.

Major Factors Behind the Decline:

- **Exchange Rate and Depreciation of the Rupee:** Since the IMF compares economies based on nominal GDP in US dollar terms, the exchange rate plays a decisive role. The significant depreciation of the Indian rupee against the US dollar has reduced the dollar value of India's GDP in global markets, thereby affecting its ranking.
- **Base Year Revision:** In February 2026, India revised the base year for GDP calculation from 2011-12 to 2022-23. This change was necessary to reflect current consumption and production patterns more accurately. However, due to this statistical revision, a downward correction of around 3.5% in nominal GDP estimates was observed, which temporarily impacted the ranking.

- **Impact of Global Demand and Inflation:** Higher inflation levels in developed countries (especially the UK and Germany) have increased their nominal GDP. In contrast, India has managed to keep inflation relatively under control. Since nominal GDP includes inflation, European economies gained a relative advantage in rankings.
- **Global Economic Slowdown:** At the global level, supply chain disruptions and geopolitical tensions (such as the Ukraine conflict and crises in West Asia) have led to a rise in crude oil prices. This has put pressure on India's fiscal deficit and inflation.

India has slipped to the position of the world's 6th-largest economy

#	Country	GDP
1.	United States	\$32.38 Trillion
2.	China	\$20.85 Trillion
3.	Germany	\$5.45 Trillion
4.	Japan	\$4.38 Trillion
5.	United Kingdom	\$4.26 Trillion
6.	India	\$4.15 Trillion
7.	France	\$3.6 Trillion
8.	Italy	\$2.74 Trillion
9.	Russia	\$2.66 Trillion
10.	Brazil	\$2.64 Trillion

Source: IMF



Resilience Structure of the Indian Economy:

- Despite the decline in ranking, India possesses several strengths that make it a “global bright spot”:
 - » **Growth Rate:** With a growth rate of around 6.5%, India remains the fastest-growing major economy in the world.
 - » **Purchasing Power Parity (PPP):** When GDP is measured in terms of PPP, India continues to be the third-largest

economy globally.

- » **Infrastructure and Digital Reforms:** Investments in initiatives like Gati Shakti and Digital Public Infrastructure (DPI) have helped reduce production costs and improve efficiency.

Way Forward:

- To improve its ranking and ensure sustainable growth, India needs to focus on the following areas:
 - » **Stability of the Rupee:** Effective management of foreign exchange reserves and attracting foreign portfolio investment (FPI).
 - » **Export Promotion:** Moving beyond domestic consumption and promoting export-led growth.
 - » **Manufacturing Sector (PLI Scheme):** Increasing the share of manufacturing in GDP to 25%.
 - » **Skill Development:** Leveraging the demographic dividend by enhancing the skills of the youth.

Conclusion:

The decline in IMF ranking does not indicate any real economic weakness but is rather the result of exchange rate effects and statistical measurement factors. IMF projections suggest that India is likely to regain the fourth position by 2027 and reach the third position by 2031. Therefore, India's goal should not merely be to climb the GDP rankings, but to achieve inclusive growth and realize the vision of a \$5 trillion economy.

RBI's Proposed "Universal Kill Switch"

Context:

Recently, The Reserve Bank of India (RBI), in its April 2026 discussion paper, proposed a series of radical measures to curb the rising tide of digital payment frauds. The centerpiece of these proposals is a "Universal Kill Switch" designed

to empower customers against increasingly sophisticated cybercrimes.

About Universal Kill Switch:

- It is a unified, emergency mechanism that allows a bank customer to instantly disable all digital channels—including UPI, NEFT/IMPS, Mobile Banking, and Debit/Credit Cards—through a single action.
- **Objective:** To provide an "emergency brake" when a user suspects their account has been compromised or they have fallen victim to an Authorized Push Payment (APP) fraud (where the victim is manipulated into sending money).
- **One-Stop Solution:** Currently, users often have to block different services individually (e.g., blocking a card via an app but calling a helpline for UPI). The Kill Switch centralizes this process.
- **Reactivation Protocol:** To ensure security, restoring digital access would involve high-level authentication, such as a physical visit to a bank branch or advanced biometric verification, to prevent fraudsters from undoing the block.

Need for Such Measures:

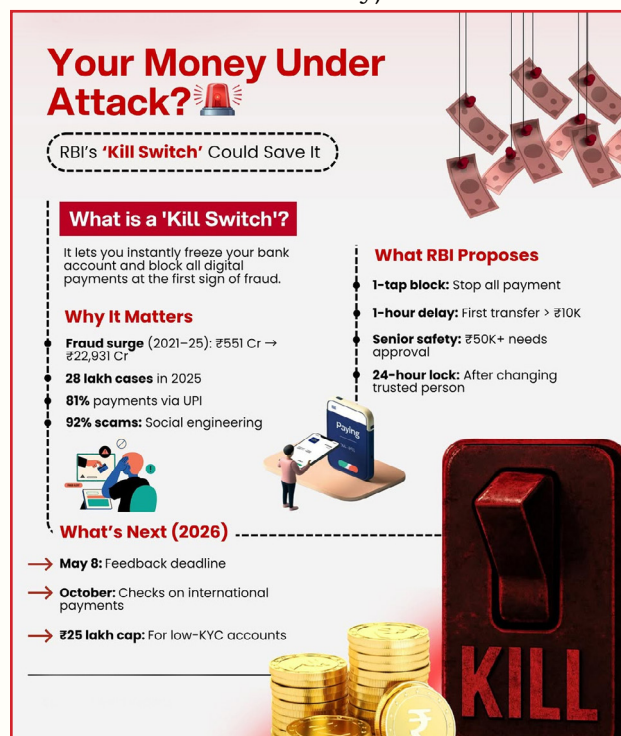
- **Digital Explosion:** India's digital payment ecosystem is one of the world's largest, making it a prime target for cyber-attacks.
- **Complexity of Scams:** The rise of deepfakes, AI-generated voice cloning, and sophisticated phishing has made traditional security less effective against social engineering.
- **Protection for Vulnerable Groups:** Senior citizens and digitally illiterate populations are often the primary targets of "mule account" operators and impersonation scams.

Other Key Proposals in the Discussion Paper:

- **Lagged Credits:** A mandatory 1-hour delay for first-time transfers to a new beneficiary or for transactions exceeding Rs.10,000.
- **The "Trusted Person" Model:** For high-

value transactions (above Rs.50,000) by senior citizens, a secondary approval from a pre-designated "trusted person" may be required.

- **Mule Account Limits:** Capping annual credits (e.g., at Rs.25 lakh) for accounts flagged as potential "mule" accounts (used to launder stolen money).



Your Money Under Attack?

RBI's 'Kill Switch' Could Save It

What is a 'Kill Switch'?
It lets you instantly freeze your bank account and block all digital payments at the first sign of fraud.

Why It Matters

- Fraud surge (2021-25): ₹551 Cr → ₹22,931 Cr
- 28 lakh cases in 2025
- 81% payments via UPI
- 92% scams: Social engineering

What RBI Proposes

- **1-tap block:** Stop all payment
- **1-hour delay:** First transfer > ₹10K
- **Senior safety:** ₹50K+ needs approval
- **24-hour lock:** After changing trusted person

What's Next (2026)

- **May 8:** Feedback deadline
- **October:** Checks on international payments
- **₹25 lakh cap:** For low-KYC accounts

KILL

Challenges and Concerns:

- **User Friction:** Instant payments are the backbone of the Indian digital economy. Introducing "lags" or complex kill switches could impact the ease of doing business and consumer convenience.
- **Exclusions:** RBI suggests that regular standing instructions (EMIs, utility bills) should not be affected by the kill switch, which requires a highly sophisticated technical backend to implement.

Conclusion:

The proposal marks a shift from "reactive" to "proactive" banking security. While it may introduce slight friction in digital journeys, it addresses the critical need for a safety net in

an era where cyber-fraud is becoming a major threat to financial stability and public trust in digital systems.

Designer Rice in India

Context:

Recently, Scientists at the CSIR - National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram, have developed a “designer rice” using advanced food-processing technology (not genetic modification).

About Designer Rice:

- Designer rice is a re-engineered staple food made using food processing science instead of genetic modification.
- It is produced by converting broken rice grains (a milling byproduct) into flour, adding nutrients, and reforming them into rice-like grains. It looks, tastes, and cooks like normal rice but is more nutritious.

Process:

- Broken rice is collected and ground into flour, then fortified with protein, iron, folic acid, and vitamin B12.
- Advanced processing reshapes it into rice grains, while also supporting a circular economy by using food waste efficiently.

Key Features:

- It contains over 20% protein (vs. 6–8% in normal rice), has a low glycemic index (<55) that helps control blood sugar, and is enriched with essential micronutrients like iron, folic acid, and vitamin B12 to reduce deficiencies such as anaemia and hidden hunger.

Health and Nutritional Significance:

- Designer rice helps address “hidden hunger” by providing essential nutrients through a common staple food.
- Its low glycemic index makes it diabetes-friendly by ensuring slower glucose release

and better blood sugar control.

- It also improves nutrition access for populations heavily dependent on rice without requiring major dietary changes.

Circular Economy Dimension:

- It promotes a circular economy by upgrading broken rice from a low-value byproduct into a high-value nutritional food.
- This reduces food waste and improves efficiency in the agricultural value chain, benefiting both farmers and processors.

Rice Production in India:

- India is one of the largest rice producers in the world. Rice grows in warm climates (20°C–37.5°C), requires abundant water, and thrives in alluvial soil.
- It is cultivated mainly during kharif and rabi seasons, making it a widely grown and essential staple crop across the country.

Fortified Rice vs Designer Rice:

Feature	Fortified Rice	Designer Rice
Method	Addition of	Structural redesign of rice
Technology	Extrusion, coating	Food processing re-engineering
Protein level	Normal	High (20%+)
Innovation type	Nutrient addition	Nutrient + structure transformation

Conclusion:

Designer rice represents a new generation of food innovation in India, combining science, sustainability, and nutrition. By transforming a staple food into a high-protein, diabetic-friendly, and fortified product, it addresses both malnutrition and metabolic health challenges, making it a significant step toward food and nutrition security.



Defence and Internal Security

India's Rising Defence Exports: From Economic Achievement to Strategic Transformation

Context:

Recently, the Indian defence industry has added a new golden chapter to its growth journey by achieving an all-time high export level of Rs.38,424 crore in the financial year 2025–26. A 62.66% increase compared to last year's Rs.23,622 crore indicates that India is moving beyond its traditional image as a "defence importer" and is establishing a strong presence on the global stage as an emerging "defence exporter."

Background: Journey from Importer to Exporter:

- For a long time after independence, India depended on foreign countries such as Russia, United States, France and Israel for its defence needs. Limited domestic production, lack of high technology, and insufficient research sustained this dependency.
- However, the situation has changed rapidly over the past decade. Initiatives such as Make in India and Aatmanirbhar Bharat have accelerated indigenisation in the defence sector. Through these efforts, the government has promoted domestic industry, attracted foreign investment, and prioritized technological development.
- Today, India exports defence equipment to more than 80 countries, and the number of exporters has increased from 128 to 145, clearly indicating growing competitiveness and capacity in the sector.



Key Data and Trends:

- The data for the financial year 2025–26 clearly reflects structural transformation in India's defence sector. During this period, total defence exports reached Rs.38,424 crore, marking a significant growth of 62.66% compared to the previous year. This growth indicates improvement not only in quantity but also in quality and diversification.
- Defence Public Sector Undertakings (DPSUs) contributed Rs.21,071 crore (54.84%), while the private sector contributed Rs.17,353 crore (45.16%). Notably, the 151% growth

rate of DPSUs suggests that traditional government institutions are becoming more competitive, efficient, and export-oriented. Meanwhile, the private sector is rapidly strengthening its role through innovation, technological efficiency, and cost-effectiveness.

- India now exports defence equipment to over 80 countries, reflecting its growing global trust and strategic outreach. Overall, these trends indicate that India's defence exports are moving in a balanced, competitive, and future-oriented direction.
- Both public and private sectors are contributing significantly. The high growth rate of DPSUs shows that traditional institutions are becoming export-driven, while the private sector is emerging rapidly through innovation and efficiency.

Key Drivers of Growth:

▪ **Policy Reforms:**

- » Government reforms in the defence sector form the backbone of this success. In particular, the Defence Acquisition Procedure 2020 (DAP 2020) has enhanced transparency, efficiency, and indigenisation.
 - Simplification of export permission processes
 - Introduction of an online export portal
 - Import restrictions through the "Negative Import List"
- » These reforms have provided both confidence and opportunities to domestic industries.

▪ **Policy of Self-Reliance:**

- » Under the policy of self-reliance, the government has prioritized indigenisation in defence production. As a result:
 - Dependence on imports has reduced
 - Domestic production capacity has increased
 - Technological development has accelerated

» Today, approximately 65% of defence equipment is manufactured within India, which is a significant achievement.

▪ **Participation of the Private Sector:**

- » Earlier, the defence sector was largely limited to public enterprises. However, active participation by private companies, startups, and MSMEs has infused new energy into the sector.
 - Partnerships between DPSUs and private companies
 - Entry of innovation-driven startups
 - Improvement in competition and quality
- » This transformation is leading India toward a "dynamic defence ecosystem."

Major Export Products:

- India is no longer limited to exporting small equipment but is now exporting a wide range of high-technology defence products:
 - » Advanced torpedoes such as Varunastra demonstrate India's naval combat capability and indigenous research strength.
 - » AEW&C (Airborne Early Warning & Control) systems provide advanced surveillance and command-and-control capabilities, essential for modern air forces.
 - » Export of components for T-90 tanks shows India's role not only in full platforms but also in support and maintenance ecosystems.
 - » Defence electronics and subsystems such as radars, communication equipment, and electronic warfare systems reflect high technological expertise and innovation capacity.
- The export of these diverse products clearly indicates that India is emerging as a "value-added" and technologically capable supplier in the global defence market. It also reflects growing self-reliance in research and development (R&D).

Expansion in Indigenous Defence

Production:

Currently, around 65% of defence equipment in India is produced domestically:

- **Aerospace Platforms:**
 - » Tejas fighter aircraft
 - » Dhruv helicopter
 - » Light Utility Helicopter (LUH)
 - » Dornier-228
- **Missiles and Defence Systems:**
 - » Akash missile
 - » Agni-V
 - » BrahMos
 - » Nag ATGM
- **Naval and Land Platforms:**
 - » INS Vikrant
 - » INS Arihant
 - » Arjun tank
 - » Pinaka rocket system
- **Defence Electronics and Emerging Technologies:**
 - » Swati radar
 - » Software-defined radio
 - » Electronic warfare systems
 - » UCAV and AVIRAL drones
- The success of these products shows that India is emerging not just as a “low-end” producer but as a “high-tech defence manufacturer.”

Strategic and Economic Significance:

- **Strategic Empowerment:**
 - » Defence exports strengthen India’s global position. They have become an important tool of “defence diplomacy,” enabling India to deepen relations with other countries.
 - Strategic partnerships with friendly nations
 - Increased regional influence
 - Strengthened geopolitical position
- **Economic Benefits:**
 - » The defence industry is a high-technology, capital-intensive sector that significantly contributes to the economy:
 - Employment generation
 - Foreign exchange earnings

- Industrial development
 - » It also promotes other industries through a “multiplier effect.”
- **Self-Reliance:**
 - » Indigenous production reduces import dependence, thereby:
 - Enhancing strategic autonomy
 - Reducing foreign pressure
 - Ensuring supply during crises
- **Role in Global Supply Chains:**
 - » India is emerging as a reliable partner in global defence supply chains. This not only increases exports but also attracts foreign investment and technological collaboration.

Major Challenges:

Despite significant progress, several structural and strategic challenges may affect the pace of growth:

- **Limitations in Research and Development (R&D):** India is not yet fully self-reliant in high-tech areas such as advanced semiconductors, engine technology, cyber warfare systems, and AI-based defence equipment. Investment in indigenous R&D remains relatively low, leading to continued dependence on foreign technology or collaboration, increasing costs and limiting technological sovereignty.
- **Global Competition:** Countries like the United States, Russia, and China are well-established players in defence exports with advanced technology, extensive market networks, and strong diplomatic support. Competing with them in new markets while maintaining competitive pricing and quality is a major challenge.
- **Quality and Certification:** Entering the international defence market requires adherence to stringent quality standards and certification processes. Maintaining global standards (such as NATO standards), ensuring timely delivery, and establishing reliability remain key challenges.
- **Political Uncertainty:** Defence exports are highly dependent on geopolitical conditions.

International conflicts, sanctions, or changes in governments can affect export contracts, creating uncertainty and complicating long-term planning.

Way Forward:

- To sustain growth in defence exports, India must focus on high-technology and high-value products. Increasing investment in research and development (R&D) is essential to develop cutting-edge and competitive products.
- Encouraging participation from the private sector, startups, and MSMEs is crucial to building a robust defence ecosystem. Expanding into new global markets is also necessary.

- Additionally, ensuring a simple, transparent, and stable policy framework, along with promoting international collaboration and technological partnerships, will further strengthen India's position.

Conclusion:

The record defence export performance in the financial year 2025–26 is not merely an economic achievement but a sign of strategic transformation. If India continues to focus on innovation, quality, and global cooperation, it can establish a lasting position among the world's leading defence exporters in the near future.

Short Issues

INS Aridhaman: India's Nuclear Submarine and Second-Strike Power

Context:

Recently, INS Aridhaman was commissioned into the Indian Navy. It is the third indigenously-built nuclear-powered ballistic missile submarine (SSBN). This strengthens India's "second-strike" capability, significantly enhancing the country's nuclear deterrence against China and Pakistan in the Indian Ocean.

Key Features of INS Aridhaman:

- INS Aridhaman is more advanced and powerful compared to its predecessors (INS Arihant and INS Arighat):
 - » **Displacement and Size:** With a displacement of approximately 7,000 tons, it is larger than the previous Arihant-class submarines.
 - » **Strike Capability:** It has 8 Vertical Launch Tubes (VLS), double that of previous submarines (4 tubes). It can

carry either 24 K-15 (Sagarika) missiles with a range of 750 km or 8 K-4 missiles with a range of 3,500 km.

- » **Indigenous Technology:** Built under the "Advanced Technology Vessel" (ATV) project, it incorporates an indigenously developed sonar system and advanced stealth technology.
- » **Propulsion:** Powered by an 83-megawatt pressurized light-water reactor (PWR), allowing it to stay submerged for weeks.

Strategic Significance:

- **Credible Second-Strike Capability:** India's nuclear doctrine is based on No First Use. In the event of a nuclear attack, a nuclear submarine hidden deep in the sea offers the safest and most lethal retaliatory option. INS Aridhaman ensures India's second-strike capability.
- **Strengthening the Nuclear Triad:** The nuclear triad refers to the ability to launch nuclear attacks from land, air, and sea. With INS Aridhaman, India's maritime component becomes more effective, tilting the power

balance in the Indian Ocean region (IOR) in India's favor.

- **Countering China-Pakistan Threats:** Amid China's growing presence in the Indian Ocean and Pakistan's naval modernization, Aridhaman will serve as a powerful deterrent.
- **"Atmanirbhar Bharat" and Indigenous Defense:** The successful commissioning of INS Aridhaman reflects the success of India's "Make in India" initiative. It showcases India's growing engineering and scientific expertise in building complex defense platforms. This not only reduces foreign dependence but also enhances strategic autonomy.

integrating K-5 missiles with a 5,000+ km range is essential to remain globally competitive.

- » **SSN Project:** Alongside SSBNs, India must accelerate the development of SSNs (nuclear-powered attack submarines) to protect aircraft carriers and maintain dominance at sea.

Conclusion:

The commissioning of INS Aridhaman is not just about adding a warship to the fleet; it symbolizes India's confidence as an emerging global power. It solidifies India's role as the "Net Security Provider" in the Indian Ocean and contributes to maintaining regional stability.

INS ARIDHAMAN
INDIA'S THIRD INDIGENOUS NUCLEAR-POWERED BALLISTIC MISSILE SUBMARINE (SSBN)

A powerful leap in India's nuclear deterrence, strengthening the nation's second-strike capability from the depths of the Indian Ocean.

COMMISSIONED INTO THE INDIAN NAVY

KEY FEATURES

- DISPLACEMENT & SIZE:** ~7,000 TONS. Larger than previous Aridhant-class submarines.
- STRIKE CAPABILITY:** 8 VERTICAL LAUNCH TUBES (VLS). CAN CARRY 24 x K-15 (Sagurika) MISSILES (Range 750 km) and 8 x K-4 MISSILES (Range 3,500 km).
- INDIGENOUS TECHNOLOGY:** Built under the "Advanced Technology Vessel" (ATV) project. Features indigenously developed sonar system and advanced stealth technology.
- PROPULSION:** Powered by an 83-MW pressurized light water reactor (PWR). Enables weeks of continuous submerged operations.
- STEALTH & SURVIVABILITY:** Advanced quieting features and sonar systems for superior stealth and survivability.

STRATEGIC SIGNIFICANCE

- CREDIBLE SECOND-STRIKE CAPABILITY:** Hidden deep in the sea, INS Aridhaman ensures a safe and lethal retaliatory option in the event of a nuclear attack.
- STRENGTHENING THE NUCLEAR TRIAD:** Enhances India's sea-based nuclear leg, tilting the power balance in the Indian Ocean Region (IOR) in India's favor.
- COUNTERING CHINA-PAKISTAN THREATS:** A strong deterrent amid China's growing IOR presence and Pakistan's naval modernization.
- "ATMANIRBHAR BHARAT" AND INDIGENOUS DEFENSE:** Showcases India's growing expertise in building complex defense platforms, reducing foreign dependence and boosting strategic autonomy.

INS Taragiri Commissioned: India's Indigenous Stealth Frigate

Context:

The Indian Navy recently commissioned INS Taragiri, an advanced indigenous stealth frigate, at Visakhapatnam, Andhra Pradesh. This milestone underscores India's commitment to naval modernisation and defence self-reliance, enhancing operational readiness in an increasingly complex maritime domain.

About INS Taragiri:

- INS Taragiri is part of the Nilgiri-class stealth frigates developed under Project 17A, designed by the Warship Design Bureau and built domestically.
- It evolves from the Shivalik-class frigates, integrating advanced stealth, weapons, sensors, and combat management systems.
- Seven frigates under Project 17A are under construction by Mazagon Dock Shipbuilders Limited (MDL) in Mumbai and Garden Reach Shipbuilders & Engineers (GRSE) in Kolkata, showcasing India's growing defence industrial ecosystem.

Technical and Operational Capabilities:

Challenges:

- Despite being a major achievement, India still faces some challenges:
 - » **Numerical Gap:** India needs to increase the number of SSBNs to match China's vast navy.
 - » **Missile Range:** While the K-4 missile has a range of 3,500 km, testing and

- Displacing 6,670 tonnes, INS Taragiri (Pennant F41) is a multi-mission frigate with over 75% indigenous content, involving 200+ MSMEs and thousands of jobs. Key features include:
 - » **Stealth and Survivability:** Low-observable design reduces detectability.
 - » **Propulsion and Endurance:** Combined Diesel or Gas (CODOG) propulsion allows efficient cruising and rapid manoeuvres.
 - » **Advanced Combat Systems:** Modern radars, sonars, EW suites, and Combat Management Systems enable coordinated responses across surface, air, and subsurface threats.
 - » **Weapon Suite:** BrahMos supersonic missiles, medium-range SAMs, torpedoes, anti-submarine rockets, and decoys provide robust offensive and defensive capabilities.

deterrence.

- » **Maritime Security:** Secures EEZs, SLOCs, and conducts anti-piracy patrols.
- » **Humanitarian Assistance and Disaster Relief (HADR):** Facilitates relief operations in the Indo-Pacific region.

Strategic Implications:

- **Indigenous Defence and Self-Reliance:** Aligns with the “Aatmanirbhar Bharat” vision, reducing dependency on foreign imports.
- **Enhanced Maritime Posture:** Strengthens India’s presence in the Indian Ocean and Indo-Pacific security environment.
- **Regional Signaling:** Demonstrates India’s role as a net security provider, supporting cooperative security and freedom of navigation.

Conclusion:

INS Taragiri represents a convergence of technology, domestic capability, and strategic foresight. Beyond adding naval tonnage, it reinforces India’s deterrence, cooperative security role, and credibility as a responsible maritime power in the Indo-Pacific region.

Expansion of Indian Navy’s Maritime Power: ASW SWC ‘Malvan’

Context:

Recently, the second vessel ‘Malvan’ of the eight Anti-Submarine Warfare Shallow Water Craft (ASW SWC) series, built by Cochin Shipyard Limited (CSL), has been officially delivered to the Indian Navy. This marks a significant achievement in the field of indigenous defence manufacturing.

Background:

- The first vessel of this class, ‘Mahe’, was delivered to the Navy in October 2025. These ships will replace the ageing ‘Abhay’-class corvettes.

INS TARAGIRI
COMMISSIONED
A NEW SHIELD. A STRONGER INDIA.

The Indian Navy has commissioned INS Taragiri, an advanced indigenous stealth frigate, marking a major leap in India's naval modernisation, self-reliance, and maritime strength.

ABOUT INS TARAGIRI

- Part of the Nilgiri-class stealth frigates under Project 17A
- Designed by the Warship Design Bureau
- Built in India by MDL (Mumbai) & GRSE (Kolkata)
- Evolution of the Shivalik-class frigates with advanced stealth, weapons, sensors & combat systems.

DISPLACEMENT 6,670 TONNES

PENNANT F41

INDIGENOUS CONTENT OVER 75%

MSMEs INVOLVED 200+ Creating thousands of jobs

7 FRIGATES UNDER PROJECT 17A (Under Construction)

TECHNICAL & OPERATIONAL CAPABILITIES

- STEALTH & SURVIVABILITY:** Low-observable design reduces detectability.
- PROPULSION & ENDURANCE:** Combined Diesel or Gas (CODOG) for efficient cruising & rapid manoeuvres.
- ADVANCED COMBAT SYSTEMS:** Modern radars, sonars, EW suites & Combat Management Systems for coordinated response.
- WEAPON SUITE:** BrahMos Supersonic Missiles, Medium-Range SAMs, Torpedoes, Anti-Submarine Rockets, Decoys.

OPERATIONAL ROLES

- WARFIGHTING & DETERRENCE:** Enhance India's maritime power projection and deterrence.
- MARITIME SECURITY:** Secures EEZs, SLOCs, and conducts anti-piracy patrols.
- HUMANITARIAN ASSISTANCE & DISASTER RELIEF (HADR):** Facilitates relief operations in the Indo-Pacific region.

Operational Roles:

- INS Taragiri supports multiple roles:
 - » **Warfighting and Deterrence:** Enhances India’s maritime power projection and

- 'Malvan' has been named after the historic coastal town of Malvan in Maharashtra, which symbolizes the maritime legacy of the Maratha Navy and Chhatrapati Shivaji Maharaj. This is the second vessel to bear this name; earlier, 'INS Malvan' served in the Navy as a minesweeper until 2003.

ASW SWC 'MALVAN'
Strengthening India's Coastal Defence Shield

Delivered to Indian Navy

At a Glance

- ASW Shallow Water Craft
- Built by CSL
- 80%+ Indigenous
- ~ 80 Metres
- ~1,100 Tonnes

Why is 'Malvan' in the News?

NEWS

- Second vessel of 8-ship ASW SWC series
- Delivered to the Indian Navy
- Boost to 'Make in India' & 'Atmanirbhar Bharat'

Background

October 2025: First 'Mahe' Delivered | 2026: 'Malvan' Delivered | Replacing Abhay-Class Corvettes

Legacy Behind the Name

- Named after Malvan, Maharashtra
- Maratha Navy Heritage
- Linked to Chhatrapati Shivaji Maharaj
- INS Malvan - Minesweeper till 2003

Mission Roles of 'Malvan'

- Anti-Submarine Warfare
- Surveillance
- LIMO Operations
- Mine Warfare
- Weapon Systems

'Malvan' - A Symbol of India's Maritime Strength & Indigenous Innovation
Indian Navy | Maritime Security | Atmanirbhar Bharat

Technical Specifications:

- **Construction:** It has been built by Cochin Shipyard Limited (CSL).
- **Indigenous Content:** Under the 'Atmanirbhar Bharat' initiative, more than 80% of its equipment is indigenous.
- **Size and Displacement:** It has an approximate length of 80 meters and a displacement of around 1,100 tonnes.
- **Propulsion:** The vessel is equipped with a highly agile waterjet propulsion system, enabling high speed and superior maneuverability in shallow coastal waters.

Objectives:

'Malvan' has been specifically designed for the following roles:

- **Anti-Submarine Warfare (ASW):** Detecting and neutralizing enemy submarines in coastal waters.
- **Surveillance:** Continuous subsurface monitoring of the sea.
- **LIMO (Low Intensity Maritime Operations):** Conducting low-intensity maritime operations.
- **Mine Warfare:** Capability to lay and neutralize naval mines.
- **Weapon Systems:** Equipped with lightweight torpedoes, anti-submarine rockets, and advanced sensors.

Strategic Significance:

- In the context of India's long coastline and growing geopolitical challenges in the Indian Ocean Region (IOR), the role of ASW SWC vessels becomes highly significant:
 - » **Coastal Security:** India has a coastline of over 7,500 kilometers. Ships like 'Malvan' strengthen security in shallow water zones, where detecting large submarines is challenging.
 - » **Balance in the Indian Ocean:** With increasing presence of foreign submarines in the Indian Ocean, these 'silent hunters' enhance India's defensive capabilities.
 - » **Self-Reliance:** Reducing dependence on foreign defence manufacturing is essential for India's strategic autonomy.

Conclusion:

The delivery of 'Malvan' reflects the success of India's 'Make in India' and 'Atmanirbhar Bharat' vision. It not only enhances the operational capability of the Indian Navy but also strengthens India's preparedness for future maritime warfare.

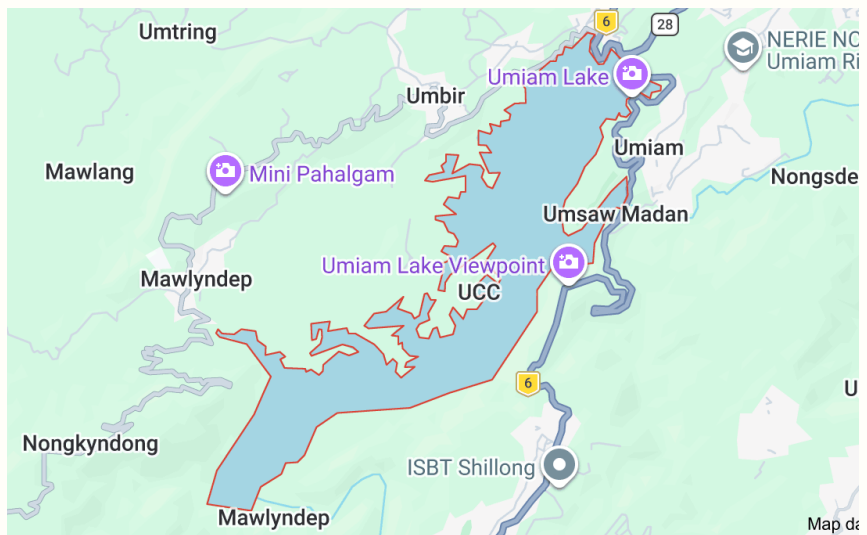
Place in News

Umiam Lake

The Meghalaya government recently decided to exclude Lumpongden Island from the proposed Taj luxury resort project on Umiam Lake following protests by environmental groups and local communities over possible ecological damage.

About Umiam Lake:

- Umiam Lake, popularly known as Barapani and locally called Dam Sait, is a scenic man-made reservoir located about 15 km north of Shillong in Meghalaya.
- It was created in the early 1960s by damming the Umiam River under the Umiam Umtru Hydroelectric Power Project.
- The project was developed by the Assam State Electricity Board for hydroelectric power generation.
- The Umiam Stage-I powerhouse (4×9 MW) was commissioned in 1965, becoming the first reservoir-based hydel project in Northeast India.
- Surrounded by the East Khasi Hills along the Guwahati–Shillong route, the lake has emerged as a major tourism and water sports destination.
- Detailed Project Reports (DPRs) are being prepared for developing Inland Water Transport (IWT) infrastructure on Umiam Lake and the Umngot River under National Waterway-106, which would become Meghalaya’s first National Waterways.



Falkland Islands

Recently, the United Kingdom reaffirmed that sovereignty over the Falkland Islands rests with it amid reports of a possible review of the U.S. stance on the issue. The UK stressed the principle of self-determination, highlighting that the islanders overwhelmingly support remaining a British Overseas Territory, while Argentina renewed its claim over the islands and called for bilateral negotiations.

About Falkland Islands:

- The Falkland Islands, also known as Malvinas, are a self-governing British Overseas Territory located in the South Atlantic Ocean, about 300 miles east of the southern coast of South America.

- The territory comprises two main islands, East Falkland and West Falkland along with several hundred smaller islands and islets.
- The islands have remained under British control since 1833, except during the brief Argentine occupation in the 1982 Falklands War.
- Argentina continues to dispute British sovereignty over the islands.
- In a 2013 referendum, an overwhelming majority of islanders voted to remain a British Overseas Territory, reinforcing the UK's argument based on self-determination.



Tuti Island

Tuti Island, once known as a peaceful agricultural settlement in Sudan, has emerged as a significant hotspot in the ongoing civil war between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF) due to its strategic location and prolonged blockade, highlighting the use of urban siege tactics and humanitarian crises in modern warfare.

About Tuti Island:

- Tuti Island is a crescent-shaped island of about 8 sq. km located at the confluence of the White Nile and Blue Nile in Khartoum, where the two rivers meet to form the main Nile.
- It lies at the geographic centre of Sudan's tri-city metropolitan region:
 - » K h a r t o u m (political capital)
 - » O m d u r m a n (largest city)
 - » Khartoum North/ Bahri (industrial hub)
- The island is formed entirely by alluvial deposits from Nile flooding cycles, making its soil highly fertile.
- It has traditionally been called "Khartoum's garden" due to its role in supplying fresh vegetables and produce to the capital.



- Inhabited mainly by the Mahas tribe since the 15th century, the community has preserved traditional farming practices and flood-warning systems known as the al-Taya system.
- During the conflict, the HEART project (Heritage Empowered Action for Risk in Tuti) was initiated to preserve this indigenous knowledge system, which is now under threat due to displacement and war impacts.

Ghadames Basin

Oil India Limited has reported a fresh oil and gas discovery in Libya's onshore Area 95/96 block in the Ghadames Basin, marking its continued expansion in overseas hydrocarbon assets. The discovery, declared by Libya's National Oil Corporation (NOC), is the fifth hydrocarbon find in the block, highlighting strong resource potential and renewed exploration activity after the lifting of force majeure in 2023.

About Libya and the Ghadames Basin:

- **Libya:**
 - » Libya is a North African country located along the Mediterranean Sea, sharing borders with Egypt, Sudan, Chad, Niger, Algeria, and Tunisia.
 - » It holds the largest proven oil reserves in Africa, making it a key player in global energy markets.
 - » The country has faced prolonged political instability, which has frequently disrupted oil exploration and production activities.
- **Ghadames Basin:**
 - » The Ghadames Basin is a major hydrocarbon-rich sedimentary basin in western Libya.
 - » It is one of the most important oil and gas-producing regions in North Africa.
 - » The basin has experienced intermittent exploration due to security challenges and force majeure conditions in several oil blocks.



Power Packed News

Reconstitution of NITI Aayog

- Recently, the Central Government has reconstituted NITI Aayog, India's premier public policy think tank. Eminent economist and former Chief Economic Adviser Ashok Kumar Lahiri has been appointed as the new Vice Chairman. He will replace Suman K. Bery.
- The government has appointed five new full-time members:
 - » **Rajiv Gauba:** Former Cabinet Secretary.
 - » **K. V. Raju:** Economist and agricultural policy expert.
 - » **Gobardhan Das:** Renowned molecular scientist.
 - » **Abhay Karandikar:** Secretary, Department of Science and Technology, Government of India.
 - » **M. Srinivas:** Director of AIIMS Delhi.
- With the selection of the new members, policy-making is expected to accord greater priority to science, technology, innovation, and healthcare sectors. The Commission will focus on improving the "Ease of Living" of citizens through better coordination between the Centre and the States.
- NITI Aayog was established on 1 January 2015 in place of the Planning Commission, and the Prime Minister of India serves as its ex-officio Chairperson.



River Basin Management Scheme Extended Till 2031

- Recently, the Ministry of Jal Shakti extended the River Basin Management (RBM) Scheme till 2031 with an enhanced allocation of Rs.2,183 crore. The objective of the scheme is to strengthen basin-level planning for the sustainable use, conservation, and development of surface and groundwater resources in India.
- The River Basin Management (RBM) Scheme is a Central Sector Scheme under the Ministry of Jal Shakti, focusing on integrated planning of river basins to ensure scientific and sustainable management of water resources. It promotes the coordinated development of surface water, groundwater, irrigation systems, hydropower potential, and flood management, thereby ensuring holistic and balanced management of water resources.
- The extended RBM Scheme (2026–2031) has a total financial outlay of Rs.2,183 crore, higher than the Rs.1,276 crore allocated during the first phase (2021–26). The scheme adopts a basin-level integrated water resources management approach.
- It extensively uses modern technologies such as Geographic Information System (GIS), Remote Sensing, LiDAR (Light Detection and Ranging), and drone-based surveys, which enhance data accuracy and enable better planning and implementation of water projects.
- The scheme places special emphasis on strategically and environmentally significant river basins, including the Brahmaputra, Barak, Teesta, and Indus basins.
- These basins are extremely important due to their ecological sensitivity, flood vulnerability, and geopolitical significance. Therefore, their sustainable and effective management is essential for long-term water security and regional stability.

Banking License of Paytm Payments Bank Cancelled

- The Reserve Bank of India (RBI) has cancelled the banking license of Paytm Payments Bank Limited (PPBL) under Section 22(4) of the Banking Regulation Act, 1949, on 24 April 2026. Following this action, PPBL has been completely prohibited from carrying out banking business.
- According to the RBI, the functioning of the bank was detrimental to the interests of depositors, and the bank was found guilty of “persistent non-compliance” and management-related deficiencies.
- The RBI has decided to initiate the winding-up process of the bank by filing an application before the High Court. The central bank clarified that PPBL possesses sufficient liquidity to repay all depositors, and therefore, customers’ money remains safe.
- This action follows the restrictions imposed in March 2022 on onboarding new customers and the January 2024 restrictions on accepting deposits. The move will not affect the main One97 Communications Paytm app. Paytm’s UPI, QR, and Soundbox services will continue to function smoothly through other partner banks.
- This decision underlines the importance of regulatory compliance in India’s fintech sector.

India Included in ‘Category A’ Doping List

- Recently, in April, the Athletics Integrity Unit (AIU) placed India in the ‘Category A’ list of countries with an “extremely high risk” of doping. Effective from 20 April 2026, this decision was taken due to the rising number of doping cases and weak anti-doping monitoring in India.
- India has now joined countries such as Russia, Kenya, and Ethiopia in this list. India ranked first globally in Anti-Doping Rule Violations (ADRVs) in 2024 (71 cases) and 2025 (30 cases so far).
- As a consequence of being placed in ‘Category A’, any Indian athlete participating in major international competitions such as the World Championships or the Olympics must now undergo at least three no-notice out-of-competition tests. These tests are mandatory during the 10-month period preceding the competition.
- According to AIU President David Howman, India’s domestic anti-doping programme has failed to address the growing risks effectively. This status not only affects the global reputation of Indian athletics but also increases the burden of stringent testing on athletes.

Goldman Environmental Prize 2026

- In April 2026, the winners of the prestigious Goldman Environmental Prize 2026 were announced during a ceremony held in San Francisco, United States. This year’s edition became historic because, for the first time in the 37-year history of the award, all six winners are women.
 - » **Theonila Roka Matbob (Papua New Guinea):** Held mining company Rio Tinto accountable for decades-old environmental damage.
 - » **Borim Kim (South Korea):** Won Asia’s first youth-led constitutional climate lawsuit, compelling the government to adopt stricter emission targets.
 - » **Iroro Tanshi (Nigeria):** Built a community protection network to save endangered short-tailed bats and rainforests.
 - » **Sarah Finch (United Kingdom):** Secured a landmark legal victory in the Supreme Court against fossil fuel projects.

- » **Alannah Hurley (United States):** Led an Indigenous movement to stop the proposed Pebble Mine, the world's largest proposed gold mine, in Alaska.
- » **Yuvelis Morales Blanco (Colombia):** Led a successful campaign to end the practice of fracking in Colombia and protect water bodies.
- The Goldman Prize was established in 1989 by Richard Goldman and Rhoda Goldman. It is the world's largest honor awarded to grassroots environmental activists. Winners receive a cash prize of \$200,000. The award is often referred to as the "Green Nobel."

Google AI Data Hub in Visakhapatnam

- Recently, N. Chandrababu Naidu, the Chief Minister of Andhra Pradesh, laid the foundation stone for Google's proposed \$15 billion AI data center hub near Visakhapatnam. This project is being considered one of the largest foreign investments in India's digital infrastructure sector.
- The AI hub will establish gigawatt-scale hyperscale data centers, which will strengthen Artificial Intelligence (AI)-based services and cloud computing. The hub is expected to provide India with a significant position in the global AI ecosystem. Additionally, the project will generate employment, promote digital innovation, and enhance data processing capacity.
- The Google AI Data Hub represents a transformative step in India's digital journey, integrating large-scale infrastructure with advanced AI capabilities.

Demise of Legendary Basketball Player Oscar Schmidt

- One of the greatest players in world basketball, Oscar Schmidt of Brazil, passed away on 17 April 2026 at the age of 68. He had been battling a brain tumor for the past 15 years. He was popularly known in the basketball world as "Holy Hand" (Mão Santa).
- Schmidt is remembered as one of the greatest scorers in basketball history. During his 29-year-long career, he scored a total of 49,737 points, which remained a world record for decades. He represented Brazil in five consecutive Olympic Games (1980–1996). He holds the record for the highest number of points scored in Olympic history, with 1,093 points.
- Despite being drafted by the New Jersey Nets in 1984, Oscar Schmidt refused to play in the NBA because, under the rules of that time, NBA players were not allowed to represent their national teams. He placed the national jersey above his professional career. He was inducted into the FIBA Hall of Fame in 2010 and the Naismith Memorial Basketball Hall of Fame in 2013.



9th Prof. M.S. Swaminathan Award

- Renowned agricultural scientist C. Srinivasa Rao has been honored with the prestigious 9th Prof. M.S. Swaminathan Award (2024–25) in the field of Indian agriculture. Currently serving as the Director and Vice-Chancellor of the Indian Agricultural Research Institute (IARI), Dr. Rao received this award at a grand ceremony held in Hyderabad.
- The award was presented by former Vice President M. Venkaiah Naidu and Telangana Agriculture Minister Tummala Nageswara Rao. The award carries a cash prize of



Rs.2 lakh, a medal, and a citation certificate.

- Dr. Rao was specially selected for his revolutionary contributions to climate-resilient agriculture and soil health management. Under his leadership, “Contingency Plans for Rainfed Areas” have been implemented in more than 650 districts across India, helping millions of farmers combat the threats posed by climate change.
- The Prof. M.S. Swaminathan Award was instituted in 2004 by the Retired ICAR Employees Association (RICAREA). It is one of the country’s highest agricultural honors, awarded biennially to scientists for outstanding contributions to agricultural research and development.

Khasi and Garo Declared Official Languages of Meghalaya

- In April 2026, the Meghalaya Government granted full official language status to the Khasi and Garo languages in order to strengthen the state’s linguistic identity.
- Following the assent of Governor Chandrashekhar H. Vijayashankar, the “Meghalaya Official Language Ordinance, 2026” was implemented. It repealed the earlier 2005 Act. Until now, English was the sole official language of the state, while Khasi and Garo were recognized only as “associate” languages. Both languages will now function on an equal footing with English.
- In Khasi and Jaintia Hills, Khasi along with English, and in Garo Hills, Garo along with English, will now be mandatorily used for administrative purposes. According to Chief Minister Conrad Sangma, this step will provide a legal foundation for efforts to include these languages in the Eighth Schedule of the Indian Constitution.
- The state government will also amend the 1980 Act to allow legislators to debate in these languages in the Assembly. This decision will not only preserve Meghalaya’s tribal heritage but also enable ordinary citizens to use their mother tongue in government procedures.

Philippines Joins the ‘Pax Silica’ Initiative

- On 16 April 2026, the Philippines officially became part of the US-led Pax Silica initiative. The objective of this agreement is to secure and strengthen the global supply chain of semiconductors, Artificial Intelligence (AI), and critical minerals. The Philippines has become the 13th country to join this important strategic alliance. India has been a founding member of the initiative.
- At the center of the agreement is the development of a massive industrial hub spread across 4,000 acres on the Philippines’ Luzon Island. It will be designed as a special “Economic Security Zone.”
- Through its vast reserves of nickel, cobalt, and copper, the Philippines will ensure the availability of raw materials essential for AI hardware and chip manufacturing. This move is part of the United States’ efforts to reduce dependence on China in the technology sector and establish an alternative and secure digital infrastructure in the Indo-Pacific region.

ITC Receives Farm Sustainability Assessment 3.0 Certification

- In April 2026, ITC Limited became the first Indian company to receive the prestigious Farm Sustainability Assessment (FSA) 3.0 certification for wheat and paddy (rice). This global recognition marks a significant achievement for Indian agriculture in the field of sustainable farming and responsible sourcing. The FSA is managed by the Sustainable Agriculture Initiative (SAI) Platform, which is regarded as a global benchmark for sustainable farming practices.

- ITC achieved the Silver Benchmark under the FSA 3.0 framework managed by the Sustainable Agriculture Initiative (SAI) Platform. The certification covers more than 22,000 acres across Uttar Pradesh and Bihar, involving nearly 3,500 farmers through more than 70 Farmer Producer Organizations (FPOs). ITC's "ITCMAARS" super app played a significant role in this achievement by ensuring geofencing of farms and end-to-end traceability.
- This certification will enhance the credibility of Indian agricultural products in international markets such as the European Union, where compliance with stringent environmental and labor standards is mandatory. It is based on more than 30 standards related to soil health, water conservation, biodiversity, and reduction in carbon emissions.
- Under this initiative, farmers are trained in modern techniques such as Direct Seeded Rice (DSR) and Zero Tillage, which help reduce cultivation costs and increase farmers' income.

Dowry Givers Are Victims, Not Criminals: Supreme Court

- Recently, the Supreme Court of India presented an important interpretation of Section 7(3) of the Dowry Prohibition Act, 1961. The Court clarified that the party filing a complaint regarding dowry harassment (often the bride's family) cannot be prosecuted for giving dowry. This interpretation by the Supreme Court reduces legal complications and strengthens the rights of victims.
 - » **Protection under Section 7(3):** The Court stated that if a person files a complaint against a dowry demand, the statements made by that individual cannot be used against them for prosecuting the offence of "giving dowry." This gives victims the confidence to file complaints without fear.
 - » **Social Compulsion versus Crime:** The Court acknowledged that in Indian society, the bride's family is often compelled to give dowry due to social pressure or circumstances. In such situations, they should be treated as "victims" rather than "criminals."
 - » **Directions to States:** The Court directed all States and Union Territories to appoint dedicated "Dowry Prohibition Officers" to ensure effective implementation of the law at the grassroots level.
 - » **Control on Misuse:** The Court also reiterated that Section 498A of the IPC (dowry harassment) should not be misused to harass innocent relatives.

India Ranked Third in the Global Billionaires List 2026

- Recently, the 2026 Global Billionaires List released by Forbes assessed the number of billionaires country-wise. In 2026, a total of 3,428 billionaires were recorded worldwide across 80 countries. Nearly 51% of these billionaires are concentrated in just three countries, the United States, China, and India.
- The United States continues to hold the first position with 989 billionaires, while China ranks second with 539 billionaires. India stands third with 229 billionaires, reflecting the country's growing economic strength. The total wealth of Indian billionaires has crossed \$1 trillion for the first time, indicating the expansion of capital markets and economic growth.
- Elon Musk remains the world's richest person with a net worth of \$839 billion. He is the first person to surpass the \$800 billion mark. Mukesh Ambani, with a net worth of \$99.7 billion, continues to be among the richest individuals in both Asia and India.
- The addition of 400 new individuals to the list compared to last year indicates that wealth creation is occurring at an unprecedented pace. This growth has mainly been attributed to the

rapid expansion of Artificial Intelligence (AI), surging stock markets, and favorable financial policies.

‘SARAL AI’

- Union Minister of State for Science and Technology Jitendra Singh recently announced “SARAL AI,” which is being developed by the Anusandhan National Research Foundation (ANRF). This Artificial Intelligence-based platform will present complex scientific research in simple and accessible language. The platform will translate complex research papers into 18 Indian languages, thereby eliminating language barriers in the dissemination of scientific knowledge.
- “SARAL AI” will convert heavy technical research publications into easily understandable social media content, such as short summaries and infographics. Its objective is to deliver research in their mother tongue to students, farmers, and the general public, thereby promoting a culture of innovation in the country.
- The “SARAL AI” initiative aligns with the vision of “Viksit Bharat 2047,” which aims to simplify the research ecosystem and make science more inclusive. This step will not only promote scientific temper in the country but also ensure that the benefits of research conducted in India’s laboratories reach every section of society.

Samrat Choudhary Becomes Bihar’s First BJP Chief Minister

- On 15 April 2026, senior Bharatiya Janata Party leader Samrat Choudhary took oath as the 24th Chief Minister of Bihar. He is the first politician from the BJP to assume the office of Chief Minister in Bihar. Incumbent Chief Minister Nitish Kumar resigned from his post on 14 April 2026 after being elected to the Rajya Sabha. Subsequently, the NDA Legislature Party elected Samrat Choudhary as its leader.
- At a ceremony held at Lok Bhavan in Patna, Governor Syed Ata Hasnain administered the oath of office and secrecy to him. Along with him, Vijay Kumar Choudhary of the JDU and Bijendra Prasad Yadav also took oath as ministers.
- Samrat Choudhary currently represents the Tarapur Assembly constituency. Before becoming Chief Minister, he held important positions such as Deputy Chief Minister of Bihar and BJP State President.
- After nearly two decades of leadership under Nitish Kumar in Bihar politics, this development signals a major political transition. Upon assuming office, Samrat Choudhary stated that development and law and order would be his top priorities in the state.



Appointment of Australia’s First Female Army Chief

- Recently, in April 2026, the Australia Government made a historic decision by appointing Lieutenant General Susan Coyle as the country’s first female Chief of Army. This is the first time in the 125-year history of the Australian Army that a woman has been selected for this highest command position.
- General Susan Coyle will assume her new responsibilities in July 2026. She will replace the current Army Chief, Lieutenant General Simon Stuart. General Coyle has a military career spanning nearly 40 years. She has held important leadership roles in conflict zones such as

Afghanistan and the Middle East. Currently, she is serving as the Chief of Joint Capabilities.

- This appointment is part of a broader leadership transition within the Australian Defence Force (ADF). Under the same reshuffle, Vice Admiral Mark Hammond has been appointed as the new Chief of the Defence Force of the ADF.
- This decision marks a significant step not only for Australia but also globally towards achieving gender equality in military leadership.

Release of the Sindhi Language Version of the Indian Constitution

- Recently, Vice President C. P. Radhakrishnan released the latest edition of the Sindhi translation of the Indian Constitution at the Vice President's Enclave in New Delhi on the occasion of "Sindhi Language Day" (10 April 2026). This initiative marks a significant step towards preserving India's linguistic heritage and promoting constitutional values.
- For the first time, the Constitution has been made available simultaneously in two scripts of the Sindhi language — Devanagari and Persian. Since Independence, this is the first occasion on which the Sindhi version of the Constitution has been published in the Devanagari script.
- Sindhi is one of the 22 official languages included in the Eighth Schedule of the Indian Constitution. It was added in 1967 through the 21st Constitutional Amendment.
- The objective of publishing the Indian Constitution in the Sindhi language is to familiarize the Sindhi-speaking community, especially the youth, with the country's fundamental laws and rights in their mother tongue.
- On this occasion, the Vice President described Sindhi as a confluence of the "Vedanta and Sufi" traditions. Union Law Minister Arjun Ram Meghwal and Vasudev Devnani, Speaker of the Rajasthan Legislative Assembly, were also present at the event.

Joint Military Exercise 'DUSTLIK'

- The 7th edition of the joint military exercise "DUSTLIK" between India and Uzbekistan was conducted from 12 to 25 April 2026 at the Gurumsaray Field Training Area in Namangan, Uzbekistan.
- It is an annual exercise conducted alternately in both countries, with the objective of enhancing interoperability for counter-terrorism operations in semi-mountainous terrains.
- Infantry contingents from both India and Uzbekistan participated in the exercise. The 14-day programme included physical training, tactical drills, and joint operations. Exercises such as "Cordon and Search" operations and disaster relief activities were also practised.
- "DUSTLIK" also reflects the shared commitment between India and Uzbekistan to address security challenges in the Central Asian region.

Demise of Legendary Playback Singer Asha Bhosle

- India's legendary playback singer Asha Bhosle passed away on 12 April 2026 at the age of 92 at Breach Candy Hospital in Mumbai. She had been admitted to the hospital following complaints of chest infection and fatigue, where she breathed her last. Her last rites were performed with full state honours at Shivaji Park in Mumbai.
- Born on 8 September 1933, Asha Bhosle had a career spanning more than eight decades, which began in 1943 with the Marathi film "Majha



Bal.” She belonged to the renowned “Mangeshkar family.” Her father, Deenanath Mangeshkar, was a classical singer. Her four sisters (Lata Mangeshkar, Meena, Usha) and one brother (Hridaynath) were also associated with the field of music. She recorded more than 12,000 songs in over 20 Indian and foreign languages. She was widely known for her cabaret, classical, ghazal, and pop songs.

- In 2008, the Government of India honored Asha Bhosle with the country’s second-highest civilian award, the Padma Vibhushan. Additionally, she was conferred with Indian cinema’s highest honour, the Dadasaheb Phalke Award, in 2000. In 2011, she was officially recognized as the singer with the highest number of recorded songs in music history.

Vibhor Jain Appointed as New CEO of ONDC

- Open Network for Digital Commerce (ONDC) has officially appointed Vibhor Jain as its new Managing Director (MD) and Chief Executive Officer (CEO). He assumed office on 7 April 2026.
- Vibhor Jain replaced T Koshy, who completed his tenure in April 2025. Before the permanent appointment, he was serving as the “Acting CEO” and “Chief Operating Officer” (COO) at ONDC. Vibhor Jain possesses extensive experience in digital commerce and operations. Under his leadership, ONDC has expanded its technological and business capabilities.
- Along with Vibhor Jain, ONDC has strengthened its core team by appointing Rohit Lohia as Chief Business Officer (CBO) and Manoj Thakur as Chief Technology Officer (CTO).
- The Open Network for Digital Commerce (ONDC) is an initiative of the Government of India aimed at democratizing the e-commerce market. Under the leadership of Vibhor Jain, the network aims to provide equal opportunities on digital platforms to small sellers, local kirana stores, and farmers, while further expanding the network’s reach.



Telangana Declared Naxal-Free State

- Recently, after the surrender of 42 Maoists (Naxalites) before the Telangana Police, Director General of Police B. Shivdhar Reddy declared Telangana completely free from armed Maoist activities in April 2026. This surrender marked the last major Maoist unit operating in the South Bastar region.
- A total of 42 cadres, including notorious PLGA (People’s Liberation Guerrilla Army) commander Sodi Malla, surrendered. The surrendered Maoists were found in possession of 5 AK-47 rifles, 4 SLR rifles, 2 country-made grenades, more than 1,000 cartridges, and 800 grams of gold.
- Between 2024 and 2026, as many as 761 Maoists surrendered along with 302 weapons, which ultimately led to the end of Naxalism in the state. With the assistance of surrendered Maoists, the police are removing IEDs (explosives) planted in affected areas. A reward amount of Rs.1.93 crore has been granted to the 42 surrendered cadres.

Arunachal Pradesh’s Kalai-II Hydropower Project Approved

- The Cabinet Committee on Economic Affairs (CCEA), chaired by Prime Minister Narendra Modi, has approved an investment of Rs.14,105.83 crore for the Kalai-II Hydropower Project located in Anjaw district of Arunachal Pradesh.

- The project will be constructed on the Lohit River, a tributary of the Brahmaputra River. It will have a total generation capacity of 1200 Megawatts (MW). The project will be implemented through a joint venture between THDC India Limited and the Government of Arunachal Pradesh.
- Upon completion, the project is expected to generate approximately 4,852.95 million units of clean energy annually. The target completion period for the project has been fixed at 78 months (six and a half years).
- As the Kalai-II Hydropower Project is located close to the Line of Actual Control (LAC), it will strengthen border infrastructure. It will also contribute to India's "Net Zero" emission targets and its commitment to expanding renewable energy capacity.
- Under the project, Arunachal Pradesh will receive 12% free electricity. Additionally, the Central Government will provide Rs.750 crore for the state's equity share and Rs.599.88 crore as additional support for infrastructure development such as roads and bridges. The construction work is expected to generate thousands of employment opportunities in the region and accelerate the local economy.

Historic Achievement of Uttar Pradesh in GeM Procurement

- Uttar Pradesh secured the first position in the country by making record procurement worth Rs.22,337 crore through the Government e-Marketplace (GeM) portal during the financial year 2023–24.
- The state saved nearly Rs.9,700 crore through the "Reverse Auction" method. This is considered a significant step toward Uttar Pradesh's goal of becoming a \$1 trillion economy.
- The initiative has reduced human intervention in government procurement, thereby curbing corruption.
- The participation of MSMEs, women entrepreneurs, and startups has increased significantly in total procurement. More than Rs.12,000 crore worth of procurement has been made directly from local MSMEs.
- The Central Government has declared Uttar Pradesh's "GeM Procurement Policy" as a model framework and advised other states to adopt it as well.
- Government e-Marketplace (GeM) is an online public procurement portal launched in 2016 by the Ministry of Commerce and Industry. It aims to make procurement of goods and services for government departments "paperless" and "cashless."

Joint Exercise 'Cyclone-IV'

- Joint Exercise "Cyclone-IV" is an important military exercise aimed at strengthening defence cooperation between the special forces of India and Egypt. The fourth edition of the exercise was conducted from 9 to 17 April 2026 at Anshas in Egypt.
- A contingent of 25 personnel from the Indian Army Special Forces participated in training alongside their Egyptian counterparts. The exercise focused on counter-terrorism operations in urban and semi-urban environments, as well as tactics, techniques, and procedures (TTPs) for special operations.
- Its primary objective is to enhance interoperability, joint mission planning, and the sharing of best military practices between the two armies. The exercise emphasized counter-terrorism operations, surgical strikes, and sniper operations in "desert and semi-desert" terrains.
- Exercise Cyclone was initiated in 2023 and is conducted alternately in both countries on a

rotational basis. The exercise forms a major component of India's expanding defence diplomacy in the West Asia and North Africa (WANA) region.

India's First 'Openly Queer' MP: Menaka Guruswamy

- In April 2026, renowned senior advocate Menaka Guruswamy took oath as a Rajya Sabha Member of Parliament from Trinamool Congress (TMC) representing West Bengal. She has become India's first openly queer Member of Parliament, marking a new chapter of inclusivity in Indian parliamentary history.
- Menaka Guruswamy played a leading role in the Supreme Court of India in significant constitutional cases such as the striking down of Section 377 (Navtej Singh Johar case) and same-sex marriage. Her presence in Parliament provides a strong platform for legislative representation and advocacy for the rights of the LGBTQ+ community. This reflects the evolving character of Indian democracy.
- In 2019, TIME magazine included her among the world's 100 most influential people. She has been educated at prestigious institutions such as Oxford University (as a Rhodes Scholar) and Harvard University. The selection of Menaka Guruswamy is considered an outstanding example of "Constitutional Morality" and the political empowerment of marginalized sections of society.

National Household Survey 2024

- According to the "Market for Textile and Clothing: National Household Survey 2024" recently released by the Ministry of Textiles, India's domestic textile market has expanded from Rs.4.89 lakh crore in 2010 to Rs.14.95 lakh crore in 2024, reflecting a compound annual growth rate (CAGR) of 8.3%.
- Per capita expenditure on textiles has increased from Rs.2,119 in 2010 to Rs.6,066 in 2024, symbolizing rising incomes and changing lifestyles. The share of Man-Made Fibre (MMF) and blended fibres has increased to 52.2%, surpassing traditional cotton (41.2%). Domestic consumption contributes Rs.8.77 lakh crore to the total market.
- Demand for products such as masks, sanitary napkins, and automobile seat covers has witnessed increasing dominance in rural areas, which account for a 58% share. The market for "Sustainable Textiles" has reached Rs.37,000 crore.
- Global competition from countries such as Vietnam and Bangladesh, fragmented supply chains, and the high cost of raw materials remain major challenges for the sector. Through initiatives such as PM MITRA Parks and the PLI Scheme, India aims to expand this market to \$350 billion by 2030.

India's Digital Payment Revolution

- According to the annual report (2025) released recently by Worldline, India's Unified Payments Interface (UPI) surpassed the historic milestone of 228.5 billion transactions in 2025, reflecting a growth of 33% compared to the previous year.
- During 2025, the total transaction value stood at Rs.299.74 trillion (approximately Rs.300 lakh crore). The Average Ticket Size (ATS) of UPI declined by 9%, indicating that digital payments are increasingly being preferred over cash even for small daily expenses (micro-transactions).
- India currently accounts for nearly 49% of the world's total real-time digital payments. UPI is

now accepted in countries such as Singapore, United Arab Emirates, France, Mauritius, and Qatar.

- In Budget 2025–26, Rs.10,000 crore has been allocated for UPI infrastructure, with the objective of ensuring more than 200 billion annual transactions by 2026.
- UPI is no longer merely a payment option but has emerged as a global symbol of India’s “Digital Public Infrastructure” (DPI) success. It is playing a decisive role in strengthening the formal economy and ensuring financial transparency.

11 Years of the Pradhan Mantri Mudra Yojana Completed

- Recently, on 8 April 2026, the Pradhan Mantri Mudra Yojana (PMMY) completed 11 years, marking a significant achievement in promoting financial inclusion and entrepreneurship in India. Launched in 2015, the scheme provides collateral-free loans to micro and small enterprises, thereby supporting businesses that had limited access to the formal banking system.
- The scheme has encouraged grassroots entrepreneurship by simplifying the loan process. So far, nearly 58 crore loans have been sanctioned, with a total value exceeding Rs.40 lakh crore. Around two-thirds of the beneficiaries are women, reflecting the scheme’s contribution to women empowerment as well.
- The loans are categorized into Shishu, Kishor, Tarun, and Tarun Plus categories, catering to different stages of business growth. Nearly one-fifth of the beneficiaries are first-time entrepreneurs starting their own businesses. The scheme provides collateral-free loans of up to Rs.20 lakh.

Min Aung Hlaing

- Senior General Min Aung Hlaing has recently assumed office as the President of Myanmar. He has been the de facto ruler of Myanmar since the military coup of 1 February 2021. In April 2026, he was elected President by the military-backed Parliament, a move that the international community has described as a violation of democratic processes.
- Under Myanmar’s 2008 Constitution, the military enjoys special powers, which Hlaing has used to maintain control over the government. His elevation to the presidency is being viewed as an attempt to provide civilian legitimacy to military rule.
- General Min Aung Hlaing faces serious allegations of “crimes against humanity” during the Rohingya crisis and the ongoing civil war. The International Criminal Court (ICC) has initiated proceedings to issue a warrant against him.
- **Strategic Importance for India:**
 - » Myanmar’s cooperation is essential for controlling insurgency in Northeast India.
 - » Projects such as the Kaladan Multi-Modal Project and the India-Myanmar-Thailand Trilateral Highway are important for India’s “Act East” policy.
 - » The ongoing civil war in Myanmar has intensified the refugee crisis in Mizoram and Manipur.
- For India, the restoration of stability and democracy in Myanmar is essential for regional security and economic interests.

Record Growth in Coal Production

- India achieved a significant milestone in the energy sector by recording 210.46 million tonnes of coal production during the financial year 2025–26. This reflects a growth of 10.22% compared to the previous year. During the same period, coal supply also increased by 7.35%, reaching 204.61 million tonnes. The primary reasons behind this progress include improved operational efficiency, better logistics, and expansion of mining capacity.
- During FY 2025–26, 12 new captive and commercial coal blocks were operationalized, adding an additional annual production capacity of 86 million tonnes. Faster project implementation and simplified approval procedures have accelerated this growth.
- This achievement aligns with the “Atmanirbhar Bharat” initiative, which aims to reduce import dependence and strengthen domestic energy security. Overall, the coal sector has become more capable of meeting the country’s growing energy demands.

‘Kar Saathi’ Portal and Tax Reforms

- The Income Tax Department has launched a new website named “Kar Saathi” with the objective of making tax procedures simpler and more transparent. This platform provides all information related to direct taxes at a single location, thereby making the filing process easier for taxpayers. Along with this, an AI-powered assistant named “Kar Saathi” has also been launched, which will remain available 24×7 to guide users regarding tax-related queries and procedures.
- This initiative is part of the modernization of tax administration and the promotion of technology-driven services. Chairman of the Central Board of Direct Taxes, Ravi Agrawal, shared details of these reforms under the “Prarambh” programme. The programme focuses on ensuring a smooth transition to the Income Tax Act, 2025. Under these reforms, the significant reduction in the number of rules and forms will make tax compliance simpler and more effective.

Nyam-Osoryn Uchral Becomes Mongolia’s 33rd Prime Minister

- Recently, Nyam-Osoryn Uchral took oath as the 33rd Prime Minister of Mongolia. He is the Chairman of the ruling Mongolian People’s Party (MPP) and is leading a coalition government.
- Before entering politics, Uchral was a popular hip-hop artist known as “Timon.” Prior to becoming Prime Minister, he served as the Minister of Digital Development and Communications as well as the Speaker of Parliament.
- He is regarded as the architect of Mongolia’s “Digital Revolution.” Through the “e-Mongolia” platform, he played a significant role in reducing corruption by bringing transparency to government services.
- Uchral’s government is a broad coalition aimed at ensuring economic stability and reforming the mining sector, particularly copper and coal industries.
- **India–Mongolia Relations:**
 - » Mongolia, being a landlocked country situated between Russia and China, considers India its “third neighbour” and “spiritual neighbour.”
 - » India is constructing the first oil refinery in Mongolia. Under Uchral’s leadership, bilateral relations are expected to strengthen further in areas such as digital cooperation and cybersecurity.
 - » “Nomadic Elephant” is an annual bilateral military exercise between India and Mongolia, conducted alternately in both countries since 2006.

INS Malvan

- Recently, the Indian Navy inducted its second Anti-Submarine Warfare Shallow Water Craft (ASW SWC), “INS Malvan,” built by Cochin Shipyard Limited (CSL). It is the second vessel in the series of eight “Mahe” class ships.
- Constructed under the “Atmanirbhar Bharat” campaign, the vessel uses more than 80% indigenous content. It is approximately 78 metres long with a displacement of 900 tonnes. The vessel can attain a maximum speed of 25 knots. It is equipped with advanced sonar systems, torpedoes, anti-submarine rockets, and state-of-the-art radar systems.
- It has been specially designed for anti-submarine operations in coastal waters, low-intensity maritime operations, and mine-laying activities. It will replace the older “Abhay” class ships, thereby enhancing India’s surveillance capability in the Indian Ocean Region (IOR). The vessel has been named after the historic coastal town of Malvan in Maharashtra, which symbolizes the maritime legacy of Chhatrapati Shivaji Maharaj.
- The induction of INS Malvan marks a major step towards strengthening India’s technological self-reliance in maritime security and reinforcing its strategic presence in the Indian Ocean.

Release of the Book “Tides of Time”

- Recently, Vice President C. P. Radhakrishnan released the book Tides of Time: India’s History Through the Eyes of Parliament Murals written by Sudha Murty at the Constitution Hall in New Delhi.
- Published by the Lok Sabha Secretariat, the book presents India’s 5,000-year civilizational journey through the historical murals painted on the walls of the Parliament House.
- The book depicts the chronological evolution of India from the Indus Valley Civilization to the freedom struggle of 1947, helping readers understand the interrelationship between art and history. The 75 murals featured in the book serve as vibrant testimonies to Indian painting and architectural traditions. The book also highlights India’s ancient democratic traditions, such as the Sabha and Samiti, portraying India as the “Mother of Democracy.”

National Awards 2025 for Panchayats of Tripura

- Recently, in the Deen Dayal Upadhyay and Nanaji Deshmukh Panchayat Sustainable Development Awards 2025 announced by the Ministry of Panchayati Raj, three Panchayats from Tripura secured top positions across the country.
- Sepahijala District Panchayat was selected as the Best District Panchayat in India (First Position). Kanchanbari Gram Panchayat secured the first position nationwide in the “Healthy Panchayat” category. Baikunthpur Gram Panchayat achieved the third position across the country in the “Women-Friendly Panchayat” category.
- These awards are based on nine local themes aimed at achieving the Sustainable Development Goals (SDGs) by 2030. Tripura’s success demonstrates that goals such as health (SDG 3) and gender equality (SDG 5) are being effectively implemented at the grassroots level.
- The financial incentives associated with the awards (Rs.5 crore for Sepahijala, Rs.1 crore for Kanchanbari, and Rs.50 lakh for Baikunthpur) represent a step toward making Panchayati Raj Institutions self-reliant. Such national awards also promote healthy competition among states and their Panchayats for improved performance.

MCQs Based on Current Affairs

1. Consider the following statements with reference to the Census in India:

1. The Census is a statutory process.
2. It is conducted every 10 years.
3. It is conducted by State Governments.

Choose the correct answer:

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

2. Consider the following statements:

1. Exercise 'Dweep Shakti' is a tri-service military exercise.
2. It includes amphibious operations.

Choose the correct answer:

- A: Both statements are correct
B: Only statement 1 is correct
C: Only statement 2 is correct
D: Both statements are incorrect

3. Consider the following Statement (A) and Reason (R):

Statement (A): The Nagoya Protocol plays an important role in biodiversity conservation.

Reason (R): It ensures fair and equitable sharing of benefits arising from the use of genetic resources.

Choose the correct answer:

- A: Both A and R are correct, and R is the correct explanation of A
B: Both A and R are correct, but R is not the correct explanation of A
C: A is correct, but R is incorrect
D: A is incorrect, but R is correct

4. Consider the following statement and reason:

Statement (A): Recently, the Supreme Court, while permitting abortion for a 31-week pregnant minor, stated that forcing her to continue the pregnancy would violate her right to life and personal liberty.

Reason (R): Under the Indian Constitution, the right to life under Article 21 also includes reproductive autonomy and bodily freedom. Choose the correct answer using the code

given below:

- A: Both A and R are correct and R correctly explains A
B: Both A and R are correct, but R does not correctly explain A
C: A is correct, but R is incorrect
D: A is incorrect, but R is correct

5. Consider the following statements:

1. Jannik Sinner won the Miami Open 2026.
2. He defeated Jiri Lehecka in the final.
3. He won this tournament on a clay court.

Choose the correct answer:

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

6. With reference to Article 161 of the Constitution of India, consider the following statements:

1. The Governor can grant pardon, reprieve, respite, remission, suspension, or commutation of sentences.
2. The Governor can pardon a death sentence.
3. The Governor's power extends to offences under laws within the State's executive domain.

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. INS Taragiri, recently commissioned, belongs to which class of warships?

- A: Kolkata-class destroyers
B: Shivalik-class frigates
C: Project 17A Nilgiri-class frigates
D: Talwar-class frigates

8. Consider the following statements regarding INS Taragiri:

1. It has more than 75% indigenous content.
2. It is powered by a nuclear propulsion system.
3. It is capable of multi-domain operations

(surface, air, subsurface).

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

9. Consider the following statements regarding INS Aridhaman:

1. It has 8 Vertical Launch Tubes (VLS).
2. It can carry K-4 ballistic missiles.
3. It is powered by a gas turbine engine.

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

10. With reference to wetlands in India, consider the following statements:

1. Construction of permanent structures in notified wetlands is prohibited under Wetlands (Conservation and Management) Rules, 2017.
2. Wetlands are legally protected under the Environment (Protection) Act, 1986.
3. All wetlands in India are directly managed by the Central Government.

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

11. Consider the following statements:

1. Bangladesh is India's largest trading partner in South Asia.
2. India has extended 8 billion Lines of Credit (LoC) to Bangladesh.

Which of the statements given above is/are correct?

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

12. With reference to tar balls, consider the following statements:

1. They are formed due to weathering of crude oil in seawater.
2. They consist mainly of light hydrocarbons.
3. They can combine with sand and marine debris to form solid lumps.

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

13. With reference to the MITRA Mission, consider the following statements:

1. It is a satellite-based mission launched to map space debris.
2. It studies human behaviour and teamwork in simulated space conditions.
3. It is being conducted in Leh, Ladakh.

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

14. With reference to the Gaganyaan Mission, consider the following statements:

1. It aims to send three astronauts into low Earth orbit.
2. The mission duration is planned for about three days.
3. It will use the PSLV launch vehicle.

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

15. With reference to the Prototype Fast Breeder Reactor (PFBR), consider the following statements:

1. It is located at Kalpakkam, Tamil Nadu.
2. It uses enriched uranium as fuel.

3. It uses liquid sodium as coolant.
Which of the statements given above is/are correct?

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

16. Which of the following correctly represents the current policy rate structure?

1. Repo Rate – 5.25%
2. Reverse Repo Rate (SDF) – 5.00%
3. Bank Rate – 6.00%
4. CRR – 3.00%

Select the correct answer:

- A: 1 and 2 only
B: 1,2 and 4 only
C: 1, 2 and 3 only
D: 1, 2, 3 and 4

17. With reference to the Monetary Policy Committee (MPC), consider the following:

1. It was constituted in 2016.
2. It consists of 5 members.
3. The Governor has a casting vote in case of a tie.

Which of the statements given above is/are correct?

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

18. With reference to the Sixteenth Finance Commission, consider the following statements:

1. It was constituted under Article 280 of the Constitution.
2. It is chaired by Dr. Arvind Panagariya.
3. It recommends financial distribution for a 10-year 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 recently notified

Designated Repositories, consider the following statements:

1. They are notified under Section 39 of the Biological Diversity Act, 2002.
2. They are responsible for preserving biological resources and associated data.
3. Only private institutions can be designated as repositories.

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

20. With reference to the recent report by the World Inequality Lab, consider the following statements:

1. The top 10% of rural households own more than 40% of total land.
2. The top 1% owns less than 10% of total land.
3. Nearly half of rural households in India are landless.

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. With reference to the Nari Shakti Vandan Act, consider the following statements:

1. It provides 33% reservation for women in the Lok Sabha and State Legislative Assemblies.
2. The reservation includes seats reserved for Scheduled Castes (SCs) and Scheduled Tribes (STs).

Which of the statements given above is/are correct?

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

22. With reference to delimitation in India, consider the following statements:

1. It refers to the redrawing of boundaries of electoral constituencies.
2. It is carried out by the Election Commission of India independently.
3. It affects the distribution of seats among states.

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

23. Consider the following statements regarding India's National Quantum Mission (NQM):

1. It was approved in 2023 with the Department of Space as the implementing agency.
2. One of its key objectives is to develop quantum computers with up to 1,000 qubits.
3. It includes development of quantum communication networks based on Quantum Key Distribution (QKD).

Which of the above statements is/are correct?

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

24. Consider the following statements regarding India's renewable energy position (2026):

1. India has become the third-largest country in the world in installed renewable energy capacity.
2. India's total non-fossil fuel capacity exceeds 300 GW when nuclear and large hydro are included.
3. India has overtaken USA to reach the third position globally.

Which of the above statements is/are correct?

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

25. Consider the following statements regarding

India's phased ban on Hydrofluorocarbons (HFCs):

1. The Ministry of Environment, Forest and Climate Change (MoEFCC) has prohibited new Environmental Clearance (EC) for HFC production after December 31, 2027.
2. India's HFC freeze year under the Kigali Amendment is 2028.
3. India is part of Group 1 countries under the Kigali Amendment.

Which of the above statements is/are correct?

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

26. With reference to the Three-Language Formula in India, consider the following statements:

1. It was first introduced in the National Education Policy of 1986.
2. It mandates that all three languages must be Indian languages.
3. It aims to promote multilingualism and national integration.

Which of the statements given above is/are correct?

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

27. Consider the following statements regarding language provisions in the Indian Constitution:

1. Article 343 declares Hindi as the official language of the Union.
2. Article 351 directs the Union to promote the spread of Hindi.
3. States have no authority over education policy as it is in the Union List.

Which of the statements given above is/are correct?

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

28. Consider the following statements about the

Kigali Amendment:

1. It was adopted in 2016 in Rwanda.
2. It is legally binding on all signatory countries.
3. It aims to completely eliminate HFCs by 2030.

Which of the statements given above is/are correct?

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

29. With reference to the recent protests against bauxite mining in the Sijimali hills of Odisha, consider the following statements regarding tribal rights and mining governance in India:

1. Under the Fifth Schedule of the Constitution, the Governor of the state has special powers to restrict the transfer of land from tribal to non-tribal entities.
2. The Provisions of the Panchayats (Extension to the Scheduled Areas) Act (PESA), 1996, makes the recommendation of the Gram Sabha mandatory for granting mining leases for minor minerals in Scheduled Areas.
3. The Forest Rights Act (FRA), 2006, recognizes community forest rights, allowing tribes to prevent the destruction of their customary habitats.

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

30. Consider the following statements regarding the water crisis in India as reported by the Central Water Commission (CWC) in 2026:

1. The water storage in 166 major reservoirs monitored by the CWC has fallen below 50% of their total live storage capacity.
2. The situation is most critical in North India, where reservoir storage has dropped to around 33% of capacity.
3. Bihar's Chandan Dam has completely dried up, recording zero storage.

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

31. Consider the following statements regarding the Petersberg Climate Dialogue 2026:

1. The Petersberg Climate Dialogue is an international ministerial-level platform aimed at preparing for UN Climate Conferences (COP).
2. In the 17th edition held in 2026, representatives from around 40 countries participated.
3. The main objective of this dialogue is only to enhance climate cooperation among developed countries.
4. This platform discusses measures for international cooperation to limit global temperature rise to 1.5°C.

Which of the above statements are correct?

- A: Only 1, 2 and 4
 B: Only 2 and 3
 C: Only 1 and 3
 D: 1, 2, 3 and 4

32. With reference to the patent ecosystem in India, consider the following statements:

1. The Indian patent system is governed by the Patents Act of 1970, which was amended in 2005 to align with the TRIPS Agreement.
2. The "Start-up Intellectual Property Protection (SIPP)" scheme provides up to 80% fee exemption for startups, MSMEs, and women entrepreneurs for patent filing.
3. India currently ranks among the top 10 patent-filing nations globally.

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

33. With reference to the Ganges River Dolphin (*Platanista gangetica*), consider the following statements:

1. It is the official National Aquatic Animal of India and the State Aquatic Animal of Assam.
 2. It is a strictly freshwater species that is functionally blind and relies entirely on ultrasonic echolocation for navigation and hunting.
 3. Its natural habitat is restricted exclusively to the Ganges and Brahmaputra river systems in India.
 4. Under the Wildlife Protection Act, 1972, it is listed under Schedule I, providing it the highest level of legal protection.
- Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1,3 and 4 only
 C: 1, 2 and 4 only
 D: 1, 2, 3 and 4

34. With reference to the contributions and movements led by Dr. B.R. Ambedkar, consider the following statements:

1. The Mahad Satyagraha of 1927 was organized to ensure the access of marginalized communities to public water resources.
 2. Dr. Ambedkar founded the Independent Labour Party (ILP) in 1936 to exclusively represent the political interests of the Dalit community.
 3. The Poona Pact of 1932 was an agreement between Dr. Ambedkar and Mahatma Gandhi that replaced the demand for separate electorates with reserved seats for depressed classes.
 4. Mooknayak was the first journal started by Dr. Ambedkar in 1920 to raise awareness about the rights of the depressed classes.
- Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1,3 and 4 only
 C: 1, 2 and 3 only
 D: 1, 2, 3 and 4

35. With reference to the appointment of the United

Nations Secretary-General (UNSG), consider the following statements:

1. The Secretary-General is appointed by the General Assembly upon the recommendation of the Security Council.
 2. A recommendation for the post requires at least 9 votes in the Security Council, including the concurring votes of all five permanent members.
 3. The UN Charter explicitly mandates a practice of geographical rotation among regional groups for the selection of the Secretary-General.
- 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. Consider the following statements regarding the role and significance of the Secretary-General of the United Nations:

1. The Secretary-General is described as the Chief Administrative Officer under the UN Charter.
 2. The Secretary-General has the authority to directly impose sanctions on member states.
 3. The Secretary-General can bring matters threatening international peace and security to the Security Council.
 4. The Secretary-General often acts as a global spokesperson on issues like climate change and inequality.
- Which of the statements given above are correct?

- A: 1 and 2 only
 B: 1,3 and 4 only
 C: 2,3 and 4 only
 D: 1, 2, 3 and 4

37. With reference to India's First Green Methanol Plant at Kandla, consider the following statements:

1. It is the first plant in India to produce methanol using *Prosopis juliflora*, an invasive shrub, as a feedstock.
2. The technology involves converting biomass

into syngas through a process that sits between combustion and pyrolysis.

3. The project is a joint initiative of the Deendayal Port Authority and Assam Petrochemicals Limited.

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 Green Methanol:

1. It is a low-carbon liquid fuel that can be produced from either biomass or green hydrogen combined with captured CO_2 .
2. It can reduce CO_2 emissions by up to 95% compared to conventional fuels.
3. It has a high acid content, making it difficult to store, unlike fossil methanol.

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. With reference to the IMF's April 2026 World Economic Outlook report, consider the following statements regarding the Indian economy:

1. The IMF raised India's GDP growth forecast for FY2026–27 (FY27) to 6.5%.
2. The upward revision was primarily driven by a significant reduction in US tariffs on Indian goods, dropping from a peak of 50% to roughly 10-18%.
3. The IMF's growth projection for India (6.5% in FY27) is higher than those of the Asian Development Bank (ADB) and the Reserve Bank of India (RBI).

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

40. Consider the following statements regarding the UNDP:

1. It is a specialized agency of the United Nations.
2. It is funded entirely by assessed contributions from UN Member States.
3. It publishes the annual Human Development Report (HDR) since 1990.
4. Its headquarters is located in Geneva, Switzerland.

Which of the statements given above is/are correct?

- A: 1 and 2 only
 B: 3 only
 C: 2, 3 and 4 only
 D: 1, 2, 3 and 4

41. With reference to the National Backward Classes Finance and Development Corporation (NBCFDC), consider the following statements:

1. It is a statutory body established under the National Commission for Backward Classes Act, 1993.
2. It operates as a not-for-profit company under the administrative control of the Ministry of Social Justice and Empowerment.
3. Its mandate extends to providing concessional finance to Other Backward Classes (OBCs), Economically Backward Classes (EBCs), and De-notified Tribes.

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

42. With reference to India's external trade in FY 2025–26, consider the following statements:

1. China emerged as India's largest trading partner, displacing the United States after a gap of four years.
2. While India maintained a trade surplus with the US, the surplus amount declined compared to the previous fiscal year.
3. India's trade deficit with China reached a

record high, exceeding USD 100 billion.

4. Services exports played a critical role in narrowing India's overall trade deficit by generating a surplus of over USD 200 billion. Which of the statements given above are correct?

A: 1 and 2 only
 B: 1,3 and 4 only
 C: 1, 2 and 3 only
 D: 1, 2, 3 and 4

43. With reference to the Wholesale Price Index (WPI) in India, consider the following statements:

1. The WPI measures the average change in prices of both goods and services at the first point of bulk sale.
2. The 'Manufactured Products' group holds the highest weightage in the index basket, accounting for over 60%.
3. It is compiled and released on a monthly basis by the National Statistical Office (NSO) under the Ministry of Statistics and Programme Implementation.
4. A significant rise in WPI can lead to "cost-push" inflation in the Consumer Price Index (CPI) over time.

Which of the statements given above are correct?

A: 2 and 4 only
 B: 1,2 and 4 only
 C: 1, 2 and 3 only
 D: 1, 2, 3 and 4

44. With reference to the "Universal Kill Switch" proposal by the Reserve Bank of India (RBI) in 2026, consider the following statements:

1. It is designed to allow customers to instantly freeze only UPI-based transactions in case of suspected fraud.
2. Once activated, the kill switch overrides all existing transaction configurations set by the account holder.
3. Re-activation of services after enabling the kill switch requires a physical visit to a bank branch only, with no digital option available.

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

45. With reference to the proposed G20 Satellite Mission, recently announced by ISRO, consider the following statements:

1. The satellite is scheduled to be launched in 2027 under the leadership of India.
2. Its primary objective is to facilitate real-time military surveillance among G20 nations.
3. The mission aims to support climate change monitoring, pollution tracking, and improved weather forecasting.

Which of the statements given above is/are correct?

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

46. With reference to India's first Petroglyph Conservation Park, consider the following statements:

1. It is being established in Leh, Ladakh.
2. It is located on the banks of the Zaskar River.
3. It aims to conserve ancient rock carvings from multiple sites.

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

47. The term "petroglyph" refers to:

- A: Paintings made using natural dyes on cave walls
 B: Carvings or engravings made on rock surfaces
 C: Fossilized remains of plants and animals
 D: Ancient manuscripts written on stone tablets

48. With reference to the River Basin Management

Scheme, consider the following statements:

1. It is a centrally sponsored scheme implemented jointly with states.
2. It focuses on integrated planning of both surface and groundwater resources.
3. It is implemented under the Ministry of Jal Shakti.

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

49. The Garo Hills, recently in the news for the discovery of a new reptilian species, is characterized by which of the following ecological features?

1. It forms a part of the Indo-Burma Biodiversity Hotspot.
2. It consists primarily of dense tropical and subtropical forests.
3. It is known for a high diversity of herpetofauna (reptiles and amphibians).

Select the correct answer using the code

given below:

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

50. With reference to the “designer rice” developed by CSIR–National Institute for Interdisciplinary Science and Technology, consider the following statements:

1. It has been developed using genetic modification to enhance protein content.
2. It involves restructuring rice by reducing starch and incorporating protein and micronutrients.
3. The technology utilizes broken rice as a raw material, promoting a circular economy.

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

ANSWER

1	A
2	A
3	A
4	A
5	A
6	B
7	C
8	B
9	A
10	A

11	C
12	B
13	C
14	A
15	C
16	B
17	C
18	A
19	A
20	B

21	C
22	B
23	C
24	A
25	A
26	B
27	A
28	A
29	D
30	B

31	A
32	D
33	C
34	B
35	A
36	B
37	A
38	A
39	A
40	B

41	C
42	D
43	A
44	B
45	C
46	B
47	B
48	C
49	D
50	C



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