

ABHYAS

COMPLETE COVERAGE OF MONTHLY CURRENT AFFAIRS

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Context

- The inclusion of Maratha Military Landscapes in the UNESCO World Heritage List highlights an effort to shift the historical narrative away from a colonial perspective and toward India's civilizational identity.

Decolonising Discourse

- For decades, colonial narratives glorified invaders while sidelining native rulers and revolutionaries. Post-Independence, little was done to revise this.

Policy Gaps

- Examples of this include monuments of "no patriotic or cultural relevance" being listed, while sites like the samadhi of Maharani Tarabai Bhonsle and the birthplace of Adi Shankaracharya are neglected. Historically significant sites like the Kali Paltan Agharnath temple in Meerut have also been denied recognition. There is also a notable neglect of Dalit and Tribal heritage, with no monument linked to Dr. B.R. Ambedkar or the Mangarh massacre site being listed.

International Chess Federation (FIDE) Chess Championship

Art and Culture

Context

- Divya Deshmukh became the first Indian woman to win the FIDE Women's World Cup title after defeating fellow Indian Koneru Humpy in the final, in Batumi, Georgia.

Additional Information:

- With this achievement Divya joins Koneru Humpy, Dronavalli Harika, and R Vaishali as the fourth Indian woman to become a Grandmaster.
- Divya automatically qualifies for the 2026 Candidates Tournament.

Other recent achievements in Chess by Indian players:

- In 2024, GM Gukesh Dommaraju became the youngest (at the age of 18) undisputed World Chess Champion, defeating Ding Liren.
- In 2024, Indian Men's and Women's Chess Teams made history by both winning gold medals at the 45th FIDE Chess Olympiad in Budapest, Hungary.
- In 2023, GM Praggnanandhaa Rameshbabu became the world's youngest (at the age of 18) chess player to reach the World Cup final, and only the second Indian after Viswanathan Anand to achieve the feat.

About FIDE World Championship Cycle:

- FIDE World Cup is one of FIDE's most important events and determines three players who make it to FIDE Women's Candidates Tournament.
- Candidates Tournament is the final event in the World Championship cycle before the World Championship match.
- Winner of the Candidates Tournament plays the reigning world champion in the championship match.
- Candidates' tournament is an eight-player, double round-robin event.
- Methods for Qualification in Candidates tournament include:
 - The runner-up in the previous World Championship match;
 - the top three finishers of the FIDE World Cup,
 - the top two finishers of the FIDE Grand Swiss tournament,
 - the winner of the FIDE Circuit, which tracks tournament results from January to December of the year before the Candidates Tournament, and the player with the highest FIDE rating on January of the year of the Candidates Tournament.
- World Chess Championship match is played between the reigning World Champion and winner of the Candidates tournament.

About International Chess Federation (FIDE)

- It is the governing body of the sport of chess, and it regulates all international chess competitions.
- Genesis:** Constituted as a non-governmental institution in Paris in 1924, it was recognized by the International Olympic Committee as a Global Sporting Organization in 1999.

- **Headquarters:** Lausanne, Switzerland.
- **Members:** Encompasses 201 countries as affiliate members, in the form of National Chess Federations.

Maratha Military Landscapes in the UNESCO World Heritage List

Art and Culture

Context

- Maratha Military Landscapes of India added to the UNESCO World Heritage List as the 44th site from India.

Additional Information:

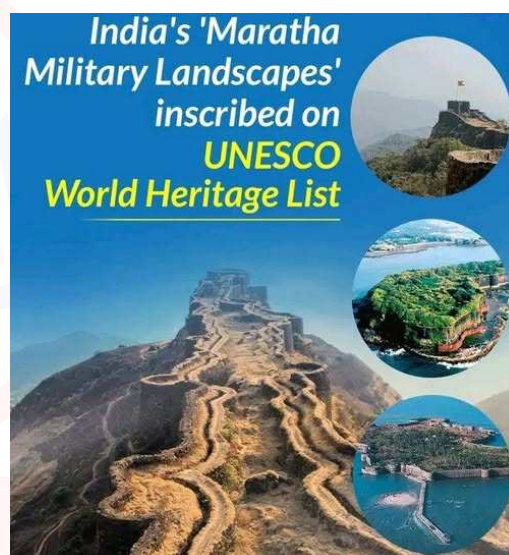
- It was placed on the Tentative List of World Heritage Sites in 2021.
- **Geographical Spread:** States of Maharashtra and Tamil Nadu.
- **Diverse and Strategic Locations:** Situated across varied terrains, from coastal fortifications to hilltop strongholds, including the Sahyadri mountain ranges, the Konkan Coast, the Deccan Plateau, and the Eastern Ghats.
- **Evolution:** 17th century during the reign of the Maratha King Chhatrapati Shivaji Maharaj and continued through subsequent rules until Peshwas in 19th centuries as strategic military vision and architectural ingenuity of the Maratha Empire.
- **Details:** The nomination includes 12 forts: 11 in Maharashtra and the Gingee Fort in Tamil Nadu. These forts, spanning from the 17th to 19th centuries, demonstrate the strategic military vision and architectural ingenuity of the Maratha Empire.

Key Forts:

- **Raigad Fort:** Location of Shivaji's coronation, where he adopted the title "Chhatrapati".
- **Rajgad Fort:** The first capital of the Maratha Empire before it was shifted to Raigad.
- **Shivneri Fort:** The birthplace of Chhatrapati Shivaji Maharaj.
- **Sindhudurg Fort:** Built by Chhatrapati Shivaji Maharaj in 1668 to strengthen naval power.

About Maratha Empire:

- **Foundation:** With the rise of Chhatrapati Shivaji in 1674.
- Carved out an independent Maratha kingdom from various Deccan states in the 17th century. It dominated a large portion of India during the 17th and 18th century.
- **Capitals:** Raigad Fort, Gingee, Satara, and Pune.
- **Reigned:** At its peak, the Maratha Empire extended from Peshawar in the north to Thanjavur in the south.
- **Administration:** Known as 'Ashtapradhan' was formed by Shivaji. It consisted of a council of eight ministers.
- The eight ministers were Peshwa (Prime Minister), Amatya (Finance Minister), Sachiv (Secretary), Mantri (Interior Minister), Senapati (Commander-in-Chief), Sumant (Foreign Minister), Nyayadhyaksh (Chief Justice), and Panditrao (High Priest).



Revenue Policy:

- **Sardeshmukhi:** 10% tax imposed upon the revenues of the entire Maratha kingdom.
- **Chauth:** 1/4th of the total revenue from the neighbouring chieftains whose territories did not form part of the Maratha Empire.
- **Decline:** With the defeat of third Battle of Panipat (with Ahmad Shah Abdali, 1761).
- India shows a strong commitment to preserving its rich cultural and natural heritage, with 44 UNESCO World Heritage Sites and an active Tentative List of 62 properties for future recognition.

About UNESCO World Heritage Sites (WHS)

- It is any of the areas or objects inscribed on the UNESCO World Heritage List, designated as having outstanding universal value under the World Heritage Convention of 1972.
- These sites are selected under three categories: Cultural, Natural, and Mixed.
- **India's position:** 6th globally and 2nd in the Asia-Pacific Region, in terms of the number of World Heritage Sites.
- India has a total of 44 WHS (36 cultural, 7 natural, and 1 mixed).

Context

- The Salkhan Fossil Park is a geo-heritage site that aligns with IUCN and UNESCO guidelines. It is also known as Sonbhadra Fossils Park and is located in Uttar Pradesh, near the Kaimur Range.

Details

- The park hosts some of the world's oldest and best-preserved fossils, dating back approximately 1.4 billion years. The fossils include Stromatolites, which were formed by Cyanobacteria and provide evidence of early life on Earth. These microbial structures record the Great Oxidation Event, when oxygen first began accumulating in the atmosphere.

Chola Gangam Lake

Art and Culture

Context:

- Tamil Nadu government announced to develop 1000-year-old Chola Gangam Lake in Gangaikonda Cholapuram.

Additional Information:

- The announcement was made during Aadi Thiruvathirai Festival to mark birth anniversary of Rajendra Chola I.
- Aadi Thiruvathirai Festival commemorates 1,000 years of Rajendra Chola's maritime expedition to South East Asia and construction of Gangaikonda Cholapuram temple.
- It honours Tamil Shaiva Bhakti traditions, 63 Nayanmars, saint-poets supported by the Chola dynasty and highlights Shaiva Siddhanta philosophy.

About Chola Gangam Lake:

- Chola Gangam Lake, also known as Ponneri Lake, is recognized as the largest ancient man-made lake in India.
- Location: Situated within the vicinity of Gangaikonda Cholapuram in the Ariyalur District of Tamil Nadu, India.
- Construction**
 - By Rajendra Chola I.
- Rajendra Chola I (1014 to 1044 CE) was son of the Rajaraja I, the most powerful Chola ruler.
- He conquered the Ganga valley earning the title Gangaikonda Cholan ("The Chola who conquered the Ganges").
- Gangaikondacholapuram was created as the capital by Rajendra Chola I to celebrate his Gangetic expedition (victory over several kings including the Kalinga ruler and the Pala ruler Mahipala of Bengal) mentioned in Tiruvalangadu Copper Plates.

History:

- The holy water was brought from Ganges and poured into the lake and was named Chola Gangam.
- The lake was the liquid pillar of victory established by the king.
- The lake was called as Ponneri during the Vijayanagara period.
- Water Source:** A canal connects lake to Kollidam River, tributary of Kaveri River.
- Structure:** Its bunds, strengthened with laterite stones, were built in an elliptical shape.
- Purpose:** To supply drinking water to Gangaikonda Cholapuram and irrigation.

About Imperial Chola Dynasty (9th Century – 13th Century):

- Beginnings:** Started as minor chiefs in Uraiyur under Pallava, the Cholas rose to power in the 9th century under Vijayalaya Chola.
- Key Inscriptions:** Uttaramerur inscriptions detail the Chola administrative system and elections.
- Administration:** The kingdom was divided into a number of provinces known as mandalams. The mandalams in turn were divided into valanadu and nadus. The next administrative sub divisions were kurrums and kottams.
- Local Self-Governance:** Village assembly known as the ur or the sabha whose members were elected by lot, known as kudavolai system.
- Tax System:** Vetti (forced labour), and Kadamai (land revenue).

Maritime:

- **Powerful Navy:** Rajaraja Chola established a powerful navy further strengthened by Rajendra Chola (Most prominent example: Naval expedition against the Srivijaya Empire in Southeast Asia in 1025 CE).
- Diplomatic and trade relations with Sri Lanka, China, Maldives, and Southeast Asia. (Refer Map)
- **Famous Ports:** Mahabalipuram, Kaverippumpattinam (also known as Poompuhar), and Korkai.

Cultural Marvels:

- **Splendid Temples:** The Great Living Chola Temples (Gangaikonda Cholapuram, Airavatesvara, and Brihadeeswara) are UNESCO World Heritage Sites.
- **Sculptures:** Known for exquisite bronze sculptures, especially the iconic Nataraja.
- The Chola Gangam Lake and the temples of the Chola period together stand as enduring symbols of the Cholas engineering brilliance, maritime might, cultural patronage, and administrative foresight. The Cholas seamlessly blended utility, artistry, and spirituality. Their legacy seen in water management systems, architectural marvels, maritime expeditions, and promotion of Shaiva traditions continues to inspire Indian cultural pride.

Kashmiri Pashmina Shawl

Art and Culture

Context

- Indian Prime Minister during his Ghana visit gifted handcrafted artefacts such as Kashmiri Pashmina shawl to the country's top leaders.

Kashmiri Pashmina shawl:

- It is woven from the fine undercoat of the Changthangi goat.
- Changthangi goat, also known as the Pashmina goat, is a breed raised in the high-altitude regions of Ladakh, India.
- Celebrated for its softness and warmth, Other Handicrafts
- **Bidriware vases (Bidar, Karnataka):** The vases feature a zinc-copper alloy base with a distinctive black finish and fine silver inlay.
- These are engraved with floral motifs, they symbolise beauty, prosperity and harmony.
- **Silver filigree purse (Cuttack, Odisha):** It is known for its Tarakasi work.
- The purse combines intricate floral and vine designs with modern style.
- **Miniature Ambawari elephant (West Bengal):** It is handcrafted from polished synthetic ivory — an ethical alternative to natural ivory.
- All the listed handicrafts, except the Miniature Ambawari Elephant, have been granted a **Geographical Indication (GI)** tag.



Dalai Lama

Art and Culture

Context:

- The 90th birthday of the Dalai Lama has revived the debate over succession and spiritual continuity.

About:

- The Dalai Lama is traditionally regarded as the spiritual and political leader of Tibetan Buddhists. The current Dalai Lama, Tenzin Gyatso, is the 14th in the lineage. He is considered the human incarnation of Avalokiteshvara, the Bodhisattva of Compassion.
- **Succession:** The selection process follows the tulku system of rebirth. China maintains that the selection must comply with Chinese laws, which gives China authority over all reincarnations.

Piprahwa Relics

Art and Culture

Context:

- India witnessed the return of Lord Buddha's sacred Piprahwa Relics.

About Piprahwa Relics

- Discovery:** 1898 by British civil engineer William Claxton Peppé in Piprahwa, Siddharthnagar (ancient Kapilavastu), Uttar Pradesh.
- Significance:** Associated with the mortal remains (Body relics) of Buddha.
- Key Features:** Include bone fragments, soapstone and crystal caskets, a sandstone coffer, and offerings like gold ornaments, etc.
- Enshrined Around:** 3rd century BCE.
- A Brahmi script inscription on one of the caskets confirms them as Buddha relics, deposited by the Sakya clan.
- Current Status:** Classified as 'AA' antiquities under Indian law, prohibiting their removal or sale.



Keezhadi (or Keeladi) Excavation

Art and Culture

Context

- Recent excavations at Keezhadi in Tamil Nadu revealed an advanced urban settlement, possibly dating back to the 5th–8th century BCE. The findings challenge the earlier belief that a flourishing civilisation during the Sangam Age was limited to the Ganges plains.
- Key Findings:** Artefacts include graffiti-marked pottery, brick structures, industrial furnaces, and a drainage system. The presence of carnelian beads and crystal quartz weights indicates early trade activities in the region.



Kheer Bhawani festival

Art and Culture

Context

- The Kheer Bhawani festival, also known as Mela Kheer Bhawani, is an annual religious and cultural event of immense significance for the Kashmiri Hindu community.

The key details about the festival:

Location and Deity

- Temple:** The festival's main site is the Mata Kheer Bhawani Temple in the village of Tulmulla, in the Ganderbal district of Jammu and Kashmir. There are also smaller, related temples in other parts of the region that are visited during the festival.
- Deity:** The temple is dedicated to Goddess Ragnya Devi, a form of Goddess Durga and the patron deity (Kuladevi) of many Kashmiri Pandits. The name "Kheer Bhawani" comes from the offering of kheer (milk-rice pudding) to the sacred spring at the temple.



Date and Significance

- Date:** The festival is celebrated on the eighth day of the full moon in the Hindu month of Jyeshtha, known as Jyeshtha Ashtami. This typically falls in May or June.
- Significance:** It is one of the largest gatherings of Kashmiri Hindus in the Kashmir Valley after the Amarnath Yatra. The festival is a powerful symbol of the community's spiritual connection to their homeland and a testament to their resilience, particularly for those who were displaced from the region. It also promotes communal harmony, as local Muslim communities often assist in the arrangements for the devotees.

Rituals and Beliefs

- **Offerings:** Devotees offer milk and kheer to a sacred spring that flows beneath the temple.
- **Changing Color of the Spring:** A unique belief associated with the festival is that the water of the sacred spring changes color, which is considered a divine sign. A clear or light-colored water is seen as a good omen, while a black or dark-colored water is believed to foretell a time of disaster or hardship. The spring reportedly turned black before the mass migration of Kashmiri Pandits in 1990.

Krishnagiri Stone Inscription

Art and Culture

Context:

- A 13th-century stone inscription was discovered in the Krishnagiri District of Tamil Nadu, which records an endowment to a Buddhist monastery.
- **Details:** The inscription mentions a trader who endowed revenue to a Buddha Vihar and refers to "Buddha Devan". It also depicts two Buddhist symbols, the Chakra and the Stupa. This is the first inscription of its kind mentioning a Buddhist monastery discovered in Tamil Nadu.

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Polyandry in Scheduled Tribes in India

Indian Society & History

Context

- A recent Jodidaran marriage in the Hatti tribe has revived the legal debate over the validity of polyandry under Scheduled Tribe exemptions.

About

- The Hatti community is a close-knit, agrarian group in Himachal Pradesh and Uttarakhand. Jodidaran is a form of fraternal polyandry where a woman marries multiple brothers to prevent land division and strengthen social bonds.

Legal Status

- Polyandry is criminalised in India under the Hindu Marriage Act (HMA), 1955, but the HMA includes a provision (Section 2(2)) that excludes Scheduled Tribes unless the government notifies otherwise.

Sexual Harassment in Supposed Safe Spaces

Indian Society & History

Context

- The suicide of a student in Odisha after her sexual harassment complaints were ignored has reignited concerns about violence in educational institutions.

Issues

- The systemic failures include a lack of awareness and functioning Internal Complaint Committees (ICCs) as mandated by the 2013 POSH Act, a culture of apathy, and institutional non-compliance.

Way Forward

- The government should ensure the compulsory formation of ICCs, increase data transparency on sexual violence, and mandate penalties for institutional heads who fail to comply with POSH norms.

Upholding Linguistic Secularism

Indian Society & History

Context

- Recent language-based violence in Maharashtra has highlighted the need to protect India's linguistic pluralism, which is central to its secular identity.

About

- Indian secularism, unlike the Western model, is a model of equal respect for all religions and communities (Sarva Dharma Sambhava). India does not have a national language; Article 343 designates Hindi as the official language of the Union.

Challenges

- The recent violence against non-Marathi speakers in Maharashtra and historical resistance to Hindi imposition in Southern states show the challenges to linguistic secularism.

India Among World's Most Equal Societies

Indian Society & History

Context

- According to the World Bank's Spring 2025 Poverty and Equity Brief, India is one of the world's most equitable societies.

Key Findings

- India's Gini Index stands at 25.5, making it the 4th most equal country in the world. This shows that the country has made steady progress in combining economic growth with greater social equity. Extreme poverty in India declined sharply from 16.2% in 2011-12 to just 2.3% in 2022-23.

- **Gini Index:** This index measures the distribution of income, wealth, or consumption across a population, with a score of 0 representing perfect equality and 100 representing absolute inequality.

100 Years of Dialogue between Sree Narayana Guru & Mahatma Gandhi

Indian Society & History

Context

- The Prime Minister addressed the centenary celebration of the historic conversation between Sree Narayana Guru and Mahatma Gandhi that took place at the Sivagiri Mutt on March 12, 1925.

About Sree Narayana Guru

- He was a social reformer and philosopher from Kerala who championed social equality and spiritual unity. His message of "One Caste, One Religion, One God for Mankind" symbolised his vision. He consecrated a Siva idol at Aruvippuram, opened temples to all castes, and founded the Sree Narayana Dharma Paripalana (SNDP) Yogam to uplift backward classes.

170 Years of Santhal Revolt

Indian Society & History

Context

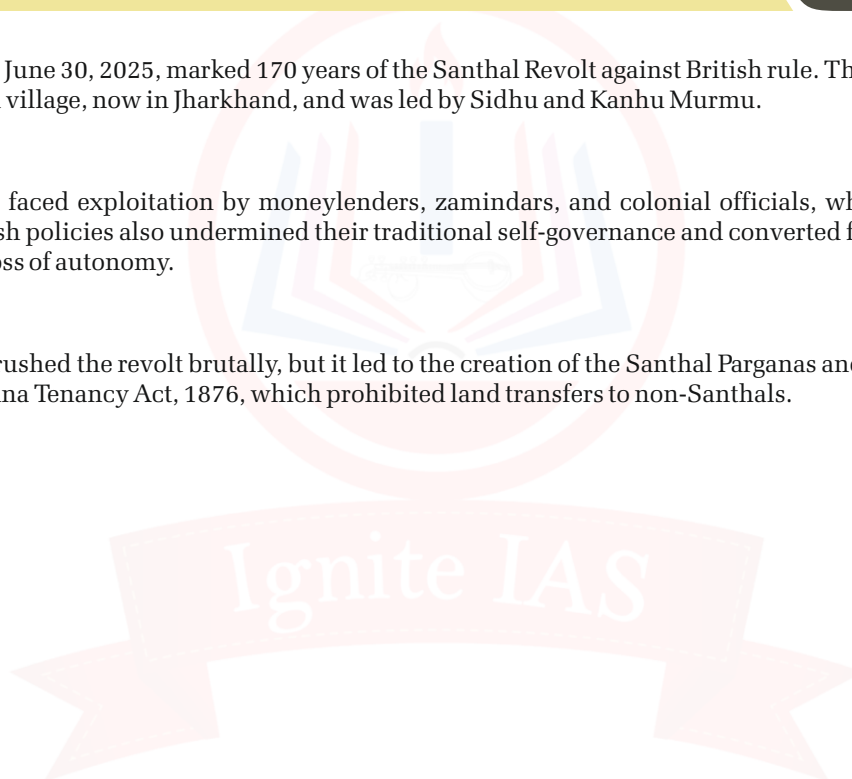
- Hul Diwas on June 30, 2025, marked 170 years of the Santhal Revolt against British rule. The revolt began in 1855 in Bhognadih village, now in Jharkhand, and was led by Sidhu and Kanhu Murmu.

Causes

- The Santhals faced exploitation by moneylenders, zamindars, and colonial officials, who were referred to as "Dikus". British policies also undermined their traditional self-governance and converted forests into farmlands, leading to a loss of autonomy.

Aftermath

- The British crushed the revolt brutally, but it led to the creation of the Santhal Parganas and the enactment of the Santhal Pargana Tenancy Act, 1876, which prohibited land transfers to non-Santhals.



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11

India Reconsiders EV Push After China's RE Magnet Clampdown

Geography

Context

- India is re-evaluating its Electric Vehicle (EV) policy due to China's recent export curbs on rare earth magnets. This highlights India's overdependence on China for EV battery components.

Key Concerns

- Over-reliance on China for minerals like lithium and cobalt makes India vulnerable to supply disruptions. The current subsidy structure is skewed toward middle- and upper-middle-class buyers, and the country has a weak charging infrastructure. Additionally, India's coal-heavy electricity grid offsets some of the climate benefits of EVs.

Way Forward

- The government should diversify its technology mix to include Hybrid EVs and Hydrogen Fuel Cell EVs, and prioritize investments in charging infrastructure over direct purchase subsidies.

Expanded Coastline of India

Geography

Context

- India's coastline was revised in 2023–24, increasing from 7,516.6 km to 11,098.81 km, an increase of 47.7%. The revision was led by the Survey of India and the National Hydrographic Office, using advanced geospatial tools and a higher resolution scale.

Key Findings

- Gujarat ranks first among states in coastline length (2,340.62 km). Tamil Nadu has overtaken Andhra Pradesh to become the second-longest coastal state. The Andaman & Nicobar Islands have the longest coastline among all Indian entities (3,083.50 km).

Coastline Paradox

- This is a phenomenon where the measured length of a coastline increases as the measurement scale becomes finer, with no fixed value.

Atlantic Meridional Overturning Circulation (AMOC)

Geography

Context

- The collapse of the AMOC could cause unprecedented low winter temperatures across Northern Europe. The weakening of AMOC is being driven by human-induced climate change, particularly the melting of the Greenland ice sheet, which adds freshwater to the North Atlantic.

About:

- AMOC is a system of ocean currents that acts as a "conveyor belt," transporting warm water from the tropics to the North Atlantic and carrying cold water back south. It is a potential climate tipping point whose collapse could trigger rapid and irreversible climate changes.

Polar Anticyclone

Geography

Context

- A strong polar anticyclone caused an unusually cold winter in South America, leading to snowfall in Chile's Atacama Desert for the first time in over a decade.

About

- A polar anticyclone is a high-pressure system that forms over polar regions from sinking cold air. It is a cold-core high with maximum strength close to the surface. While India lies beyond its direct reach, it is seasonally influenced by Central Asian highs, which can trigger cold waves in northern India during winter.

Roll Clouds

Geography

Context

- Amid an intense heatwave, Portugal witnessed a rare atmospheric phenomenon known as a roll cloud.

About

- Roll clouds are horizontal, cylindrical clouds that appear to "roll" along the sky like a tube. They are a type of arcus cloud and form when warm, dry air collides with cooler, humid air. While the clouds themselves are not dangerous, they can be accompanied by sudden, strong gusts of wind.

India's Water Crisis

Geography

Context

- India is facing a severe water crisis due to high demand, depleting groundwater, and climate change. The country ranks 13th among the world's most water-stressed nations, and an estimated 600 million Indians face high to extreme water stress.

Causes

- Mismanagement and excessive groundwater extraction for crops, pollution from industrial waste, and outdated infrastructure are major contributing factors.

Government Initiatives

- Schemes like Jal Shakti Abhiyan, Atal Bhujal Yojana, and Amrit Sarovar Scheme are in place to promote rainwater harvesting and groundwater recharge.

Mud Volcano

Geography

Context:

- The Wandan mud volcano recently erupted in Taiwan.

About

- Mud volcanoes are landforms created by the eruption of mud, water, and gases, rather than molten rock. They do not involve lava or magma, and their eruptions are generally cool. They emit gases like methane and carbon dioxide.

Cloud Seeding Trials in Delhi

Environment

Context

- The Directorate General of Civil Aviation has approved cloud seeding trials to address air pollution in Delhi.

About

- Cloud seeding is an artificial weather modification method used to induce rainfall from existing clouds. It involves using chemicals like silver iodide or sodium chloride to promote condensation and raindrop formation. The artificial rain then washes pollutants out of the air.

Decarbonisation of Global Shipping

Environment

Context

- Global shipping, which is responsible for nearly 3% of global GHG emissions, is moving toward decarbonisation to align with climate goals. The International Maritime Organisation (IMO) has set targets for a 20% emission cut by 2030 and net-zero by 2050.

Strategies

- Strategies include shifting to alternative fuels like green ammonia and methanol, adopting energy-efficient technologies, and operational changes like slow steaming.

Climate Finance in India

Environment

Context

- India requires \$1.5 trillion by 2030 to achieve its climate and energy targets.

About

- The UNFCCC defines climate finance as public and private funding that supports mitigation and adaptation to climate change. A key principle is Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC).
- Challenges:** Globally, only a small portion of climate finance supports adaptation, and most of it is debt-based, which can exacerbate fiscal burdens for developing nations.

India Leads Push on Climate Finance Commitments

Environment

Context

- At recent climate negotiations in Bonn, Germany, India emerged as a key voice for the Global South, reviving international attention on the unmet climate finance obligations of developed nations.

Pushback

- India, backed by the G77, called for a dedicated agenda item to discuss Article 9.1 of the Paris Agreement, which mandates that developed countries "shall provide financial resources" to assist developing countries.

World Bank Report on Urban Climate Resilience

Environment

Context

- A World Bank report, "Towards Resilient and Prosperous Cities in India," highlights the need for urgent urban climate resilience in India.

Key Findings

- The report notes that India's urban population may double by 2050 and that an estimated \$2.4 trillion is needed by 2050 for climate-resilient infrastructure. It also highlights governance and institutional gaps in Urban Local Bodies (ULBs).



Context

- In 2025, the CITES treaty marks 50 years since it entered into force in 1975, becoming the first global legal framework to regulate the international wildlife trade.

About

- CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) is a multilateral treaty that regulates trade in endangered species to ensure it does not threaten their survival. India ratified it in 1976.



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Context

- The Election Commission of India (ECI) informed the Supreme Court that Aadhaar and ration cards cannot serve as valid proof of voter eligibility.

Rationale

- The ECI stated that these documents do not meet the eligibility criteria under Article 326, which requires a voter to be an Indian citizen above 18 years of age. The ECI clarified that Aadhaar serves as proof of identity but not citizenship.

Digital Colonialism

Polity & Governance

Context

- Former Indian Vice President raised concerns of digital colonialism stating dependence on foreign digital infrastructure and not invasion as the prime threat to sovereignty.

About Digital Colonialism

- Meaning:** It is a theoretical framework that establishes the primacy in digital technologies by Big tech companies that extract, analyse and own user data for their own profit and market influence.
- It includes the decentralised capture and management of data from individuals, with or without their explicit consent, threatening state and individual autonomy.

Key Pillars of Dominance characterising Digital Colonialism:

- Economic domination:** Big corporations seize the resources of foreign countries by creating technological dependencies.
 - E.g., monopoly over search engines (Google); desktop operating systems (Microsoft Windows); social networking platforms (Facebook, Twitter); etc.
- Imperial Control of Architecture:** Proprietary software and non-free licensing regime restrict modification/access for other nations, locking them out of digital self-sufficiency.
 - E.g., App Store policies (Apple/Google) exercise unilateral decisions over what apps and features are allowed.
- Global Surveillance Capitalism:** Advanced data science and machine learning enable corporations to track user behaviour and make favourable business decisions based on global surveillance.
 - E.g., Facebook enabled mass data harvesting by third parties like Cambridge Analytica, influencing elections.
- Tech hegemony:** Few big tech firms steer the narrative around how technology should expand and define the economic ramifications of such an expansion.
 - E.g., Amazon (AWS), Microsoft (Azure), and Google Cloud control a vast majority of worldwide cloud service, giving them unparalleled power over global data storage, processing, and analytics.
- Cultural Imperialism:** Depicted in the homogeneity and superiority of technologies owned by few and underpinning values, language, and culture of others.
 - E.g., Content curation and algorithmic bias on social platforms prioritize content that aligns with dominant cultural values.
- Discourse of 'benevolence':** Framing digital technologies as evidently good, connectivity as progress and human rights.
 - E.g., Facebook's "Free Basics" rollout in Africa positioned as philanthropy was criticized for potentially serving as a tool to expand market share and acquire user data.

Key Issues with Digital Colonialism:

- Rising North-South Disparity:** Rapid digitalization, fuelled by data monetization practices, has exacerbated significant disparities as most technology giants are stationed in the North.
- National Security:** Inadequate local infrastructure exposes critical sectors to vulnerabilities and foreign manipulation.
- Privacy & Digital Rights:** Reliance on foreign digital platforms risks violations of privacy and digital rights, including threat of targeted state surveillance.

- **Existential Threat to Local Business:** Dominance by global platforms undermines competition in online ads, transport, retail, and news, risking indigenous enterprise survival.
- **Economic losses:** Digital tech giants use Base Erosion and Profit Shifting (BEPS) to move profits to low or no-tax countries with little real business there, reducing taxes in countries like India.
- **Difficulty in Regulation:** Existing legal instruments are incapable of regulating cyberspace due to its transboundary nature.
- **Network Effect:** Once platforms reach critical mass, exponential growth locks in users—stifling local competition.

Registered Unrecognised Political Parties (RUPPs)

Polity & Governance

Context

- The Election Commission of India (ECI) is delisting 345 Registered Unrecognised Political Parties (RUPPs) to uphold electoral transparency.

About

- RUPPs are political entities registered under Section 29A of the Representation of the People Act, 1951, that have failed to meet electoral performance criteria to be recognized as State or National parties. Concerns include low electoral participation, misuse of tax exemptions, and compliance failures.

National Cooperative Policy 2025

Polity & Governance

Context

- Recently, the Union Minister of Cooperatives unveiled the National Cooperative Policy 2025.

Additional Information:

- This is only the second such policy for the cooperative sector, after the first in 2002.

Vision

- To make cooperatives key drivers for Viksit Bharat 2047 through Sahkar-se-Samridhi.

Objectives

- Bring 50 crore citizens, who are either not members or are inactive in the cooperative sector, into active participation.
- Policy envisions six strategic mission pillars (Infographic).

Other key features of policy include:

- **Legislative and Institutional Reforms:** Encourage States to amend cooperative laws to enhance transparency, autonomy and the ease of doing business.
- **Financial Empowerment:** Bring down cooperative taxes and make cooperatives eligible for sector-specific finance incentives available to corporates.
- **Business Ecosystem Development:** Encourage States/UTs to develop at least one model cooperative village, support branding under the 'Bharat' brand, etc.
- **Future-Readiness & Technology:** Develop a national 'Cooperative Stack' integrating with Agri-stack and databases.
- **New Sectors:** Consider expanding cooperatives into new sectors, including clean energy, waste management, and technology.
- **Inclusivity:** Promotes inclusive participation of women, youth, SC/STs.
- **Other:** Tripling the cooperative sector's GDP contribution by 2034, increasing the number of cooperative societies by 30%, etc.
 - **Implementation:** By the 'Implementation Cell' under the Ministry of Cooperation.
 - **Monitoring:** By the 'National Steering Committee on Cooperation Policy', chaired by the Union Minister of Cooperation.

- **Constitutional Status:** The 97th Amendment, 2011, granted constitutional status to the Cooperative Societies with the following provisions
- **Fundamental Right:** Added "cooperative societies" in Article 19(1)(c).
- **Directive Principle:** Inserted Article 43B to promote cooperatives.
- **New Part IXB:** Added Articles 243ZH to 243ZT for cooperative governance.

• **Governance Structure:**

- **Multi-State Cooperatives:** Falls under the Union List of the Constitution. Governed by the Multi-State Cooperative Societies Act, 2002.
- **State Cooperatives:** Falls under the State List of the Constitution. Governed by respective State Cooperative Societies Acts.

Significance of cooperatives:

- **Uplifting the rural economies:** By fostering financial inclusion e.g., About 1/3rd of India's rural population is directly connected to cooperatives.
- **Boost farmers' income:** By allowing pooling of resources, enhanced bargaining power, e.g., Amul model of Gujarat.

Societal Impact:

- **Empowering Women:** E.g., Sewa Cooperative Bank enable microfinance leading to women's employment and gender equality.
- **Sustainable growth:** E.g., Uthungal Labour Contract Cooperative Society's (ULCCS) of Kerala, implementation of green practices in the development of infrastructure development
- **Strengthened community ties:** Cooperatives foster a sense of community, which leads to building social capital.
- **Instilling Values –**
 - Equality: The "one-person-one-vote" system ensures equality.
 - Leadership: Cooperatives elect leaders democratically, helping develop leadership skills (e.g., in Maharashtra many legislators are associated with the cooperative movement).

Challenges for Cooperatives:

- **Limited capacity and resources:** Especially in emerging or rural economies, cooperatives may lack the necessary infrastructure, training, and technical expertise to function effectively
- **Political Intervention:** Interference by political parties and leaders often affects transparency and leads to inefficiency.
- **Complex Regulatory requirements:** leading to bureaucratic hurdles and slow development of cooperatives in India.
- **Lack of Familiarity with Digital Tools:** The data indicates that only 45% of cooperative members are familiar with digital tools.
- **Regional imbalance:** The top 5 states (Maharashtra, Gujarat, Telangana, Madhya Pradesh, and Karnataka) have 57% of all cooperatives.
- **Other challenges -** Skilled Workforce Shortage, lack of cooperation among the cooperative Limited membership and resources etc

Special Intensive Revision of Electoral Roll in Bihar

Polity & Governance

Context

- The Supreme Court has permitted the Election Commission of India (ECI) to proceed with the Special Intensive Revision (SIR) of the electoral roll in Bihar.

About

- An electoral roll is a list of registered electors in a constituency. A Special Intensive Revision is undertaken in exceptional cases, such as large-scale errors, where the ECI directs a fresh preparation of the rolls through a house-to-house enumeration.



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Context

- The Delhi and Madras High Courts recently delivered divergent judgments on the legality of phone-tapping. The Madras High Court quashed an interception order, ruling that the term "public emergency" must be construed narrowly and cannot be expanded to include cases like tax evasion.

Safeguards

- The Supreme Court, in the landmark *People's Union of Civil Liberties vs Union of India* (1997) case, established procedural safeguards, including the requirement that a phone-tapping order can be issued only by the Home Secretary of the state and central governments.

Online Content Regulation

Polity & Governance

Context

- Ministry of Information and Broadcasting (I&B) has banned public access to several OTT platforms, for streaming obscene content.

Additional Information:

- They were banned under the Information Technology Act, 2000, and the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.
- The Supreme Court in *Ranjit D. Udeshi v. State of Maharashtra* (1965) defined obscenity as a reasonable restriction to free speech (Article 19)

Need for content regulation:

- Societal Reach and Influence:** With more than 950 million people having access to internet, unregulated content can influence diverse section of society.
- Curbing violence and violent behaviour:** E.g., A 2010 study analysed pornography videos and found almost 90 per cent of scenes contained physical aggression.

Protecting Vulnerable Groups

- Children:** Early exposure to explicit content distorts children's understanding of healthy relationships and sexuality.
- Women:** Such content often objectifies women, perpetuating gender inequality and normalising violence against women.
- Minority:** E.g., online hate speeches can fuel societal divisions endangering minority.
- Ethical imperative:** Uncontrolled dissemination of degrading material can alter social norms, values, institution of family, etc.
- Harm to society:** E.g., the 2021 "Bulli Bai" app incident, where images of women were auctioned online JS Mill's Harm Principle permits limiting individual liberty when it causes harm to others or degrades societal well-being.
- Humans as means:** Content that reduces people to objects of sexual interest violates the principle of categorical imperative of Kant which dictates against using humanity as a means to an end.
- Unequal impact:** According to Indian Policy Foundation, low-income people with poor digital literacy are more exposed to obscene content.

Protection of Civil Rights Act, 1955 & Persistence of Untouchability

Polity & Governance

Context

- Criminal cases related to untouchability under the Protection of Civil Rights Act, 1955, have decreased, but court pendency remains high.

About

- The PCR Act, 1955, is the central law enacted to enforce Article 17 of the Constitution, which abolishes untouchability. The act penalises untouchability practices and requires states and UTs to submit annual implementation reports.

Supreme Court Upholds Dignity Over Free Speech

Polity & Governance

- The Supreme Court, in a landmark judicial intervention, took sumotu cognisance of a case against social media influencers for allegedly mocking persons with disabilities.

Observations

- The Court asserted that Article 21 (Right to Dignity) takes precedence over Article 19(1)(a) (Freedom of Speech) in a conflict. It directed the Attorney General to draft regulations for digital content to ensure a balance between expression and constitutional values.

Regulatory Framework for Regulation of Obscene Content

Polity & Governance

The IT Act 2000:

- The Section 67 and Section 67A: Deal with publication and transmission of obscene content in electronic form
- Section 69A: Empowers the Central Government to direct blocking of public access to information in specific grounds.
- Section 79: Grants "safe harbour" protection to intermediaries (including OTT platforms) from liability for third-party content.
- However, they could lose the protection if they fail to remove unlawful content upon receiving notification from the government.
 - IT rules 2021 under IT Act, 2000 issued by Ministry of Electronics and Information Technology (Meity): It places digital news media and OTT platforms under Ministry of information and broadcasting ministry (MIB).
- Section 294 of the Bhartiya Nyaya Sanhita (BNS) 2023: Defines the term obscene, criminalizes the dissemination of material including those in electronic form.

Challenges in regulating content

- **Regulatory challenges**
 - Regulatory Overlap: The division of responsibilities between MeitY (which frames IT Rules) and the MIB (which oversees content) creates coordination challenges.
 - Subjectivity in definitions: Eg, obscenity can be interpreted differently and can lead to arbitrary actions by the government.
- **Technological challenges:**
 - The end-to-end encryption and privacy features allow the spread of illegal content without scrutiny.
 - Social media algorithms trap users in a feedback loop, i.e. accidental exposure to suggestive content triggers more such recommendations.
 - Virtual private networks (VPN) enable users to bypass regulatory oversight, allowing access to prohibited websites and content.
 - Creative Freedom: Bans and strict regulation can stifle creative freedom and infringe on the constitutional right to freedom of speech and expression under Article 19(1)(a)
 - Eg, ban on films such as Fire (about homosexuality).

Appointment of Governor

Polity & Governance

Context

- The President recently appointed new Governors for Ladakh, Haryana, and Goa.

About

- The Governor is the nominal executive head of the state under Article 154 and is appointed by the President under Article 155. The Governor holds office "during the pleasure of the President" under Article 156.

Recommendation

- Commissions like the Sarkaria Commission (1988) and the Punchhi Commission (2010) have recommended reforms to promote transparency and maintain federal balance in Governor appointments.

Context

- The Ravi and Beas Waters Tribunal, formed in 1986, has got an extension of another year to resolve water sharing issues between Punjab, Haryana and Rajasthan.

Additional Information:

- Also, Centre will constitute a high-level technical committee to examine concerns around the Polavaram Banakacherla Link Project (PBLP) and other pending inter-state water issues between Telangana and Andhra Pradesh.
- Additionally, Odisha and Chhattisgarh expressed willingness to resolve Mahanadi water dispute 'amicably'.
- Inter-State water dispute in India can be traced back to the British colonial period with Cauvery water dispute between British-controlled Madras Presidency and Princely State of Mysore.

Reasons for ISWD:

- Asymmetric access to river water resources
 - Geographical factors:** When rivers flow across state boundaries, upper riparian states have advantageous access to river water.
 - State Reorganisation:** Post-independence reorganisation of boundaries of states have emphasised less on the river basin-based boundary distribution.
 - Increasing Demand:** Rapid population growth, agricultural expansion, urbanisation, and economic development have significantly increased the demand for water.
 - Development Projects:** Disputes often arise when one state develops major water resource projects like dams (e.g., Narmada, Cauvery River basin disputes).
 - Fragmented water governance approach
- Union Government:** Lack of structure for the governance of interstate water disputes.
- State Government:** Divergent perspective and reductionist water management strategy.
- Unscientific Approach:** Lack of integrated river basin-based management.
 - Lack of proper data: Non-uniformity in data collection of river water related to flow, volume etc.

Legal and Constitutional Framework to resolve dispute:

- Article 262:** Provides for the adjudication of inter-state water disputes
 - Parliament by law can provide for the adjudication of any inter-state water dispute (Article 262(1))
 - Parliament may also provide that neither Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint (Article 262(2))
- Exercising its power under the Article 262 of the Constitution Parliament has enacted two laws
 - The River Boards Act, 1956:** This empowers Union Government to establish River Boards for the regulation of inter-state rivers and river valleys in consultation with State Governments.
 - Inter-State River Water Disputes Act, 1956:** Union Government can establish a tribunal for the adjudication of inter-state river water dispute if requested by the state.

Seventh schedule:

- Entry 56 of the Union List:** Regulation and development of inter-state rivers.
- Entry 17 of the State List:** Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of entry 56 of List I.

Challenges in resolving ISWD

- Delays:** Extreme delays are a major issue, occurring in three main areas
- Constituting Tribunals:** e.g. Cauvery Tribunal formed in 1990 after decades of pending requests.
- Tribunal Award Delivery:** e.g., Narmada: 9 years, Krishna: 4 years, Godavari: 10 years.
- Award Notification and Enforcement:** Delays in publishing tribunal orders in the Official Gazette (e.g., Krishna: 3 years, Godavari: 1 year) lead to uncertainty in enforcement.
- ISRWD Act, 1956 specifies that a Tribunal's decision, once published in the Official Gazette, "shall have the same force as an order or decree of the Supreme Court."

- **Politicisation:** Water disputes are frequently dealt with more politically than scientifically, disregarding environmental, social, and cultural aspects.
- **Lack of Stakeholder Participation:** Traditional approaches often ignore the interests and concerns of state governments, local communities, indigenous populations, and other stakeholders.
- **Intervention of Supreme Court:** States taking the issues to Supreme Court results in making the award of tribunals practically ineffective.
- While the Supreme Court cannot adjudicate the original dispute, it can interpret the decisions of a tribunal, and may direct parties back to the tribunal for further clarification if needed.
 - For e.g. The Cauvery Water Disputes Tribunal has submitted its reports and decision in 2007. Further, the party states have filed SLPs in the Supreme Court against Cauvery tribunals report. Consequently, Supreme Court gave a final verdict on this dispute on water distribution, including a slight change in water allocation.

Other measures taken to resolve ISWD:

- Inter-State River Water Disputes (Amendment) Bill, 2019
- Disputes Resolution Committee to resolve inter-state disputes amicably.
- Establishment of single Inter-State River Water Disputes Tribunal with multiple benches.
- Strict time line for completion of award.
- Data bank at the central level for each river basin

Draft River Basin Management Bill, 2018:

- **Objective**
 - The bill proposes principled approach of participation, cooperation, equitable and sustainable use of water, integrated river-basin management etc.
 - Creating River Basin Master Plan
 - Establishment of River Basin Authority
- **National River Linking Project:** It aims to transfer water from surplus region to deficit region potentially reducing inter-state water disputes.

Cost of Politics in India

Polity & Governance

Context

- The Observer Research Foundation (ORF) supported by the Westminster Foundation for Democracy (WFD) conducted a case study on India's "Cost of Politics" focusing on spending by candidates contesting political office.

Additional Information:

- **Escalating Campaign Costs:** Major party Lok Sabha candidates spend ₹5–10 crore, higher in competitive or wealthy states (TN, Telangana, AP, Maharashtra).
- **Rising Routine Political Expenditure:** It includes attending community events, supporting constituents, sustaining party activities etc.
- **Social Media Spending:** Requires funds for tech experts, influencers, profile upkeep, and ads but is still cheaper than rallies, transport, food, and worker payments.
- **Increasing Vote Buying:** Cash handouts before polls have surged, even unwilling candidates feel pressured to join in.
- **Drivers of cost of politics:** Pre-election outreach, campaign logistics, media expenses, election patronage (rewards for supporters, network upkeep).

Source of Funds:

- **Primary sources:** Personal wealth; contributions from family, friends, peers, supporters.
- **Other sources:** Borrowing from friends/business groups, crowd funding, selling assets, loans.
- Most parties expect candidates to self-fund, barring a few major ones.
- It favours wealthy/dynastic candidates, and disadvantages marginalised groups.

Implications of high costs of elections:

- **Implications for Governance**
 - Growing Business-Politics Nexus: High corporate funding can skew policies toward financiers' interests (e.g., tax cuts, deregulation) that widen social inequality.
 - Wealthy mining, coal, and real estate barons now contest directly, using money to secure party nominations or run as independents
- **Fundraising focus:** Elected leaders prioritise raising funds, recovering campaign costs, and repaying financiers over legislative duties.
- **Corruption Risks:** Black money in campaigns fosters electoral corruption.
- India ranked 96 in Transparency International's 2024 Corruption Perceptions Index.

Impact on Democratic Integrity:

- **Erosion of Public Trust:** Lack of transparency reduces voter faith, discouraging participation in democracy.
- **Power capture:** Big parties dominate funding, enabling large-scale vote buying and cross-media campaigns.
- **Smaller/regional parties lack resources,** limiting voter choice and political competition.
- **Barrier for underprivileged:** High costs deter women, youth, and non-elite candidates from contesting.

Conclusion:

- **Enforce spending limits:** Strengthen ECI oversight, resources, and judicial support tact against violators.
- For instance, UK enforces strict expenditure caps and audits at all political levels.
- **Constitutional status for parties:** Bring political parties under formal regulatory and institutional scrutiny.
- State funding based on vote share to reduce corporate influence, empower smaller parties (Canada & Germany models).

State funding was also supported by:

- Indrajit Gupta Committee on State Funding of Elections (1998)
- Law Commission Report on Reform of the Electoral Laws (1999)
- National Commission to Review the Working of the Constitution (2001)
- Second Administrative Reforms Commission (2008)

Voter sensitisation

- Prioritise awareness campaigns via civil society, media, and ECI to curb money power in elections.

Lowering of Age for Voting

Polity & Governance

Context

- Globally, several countries, including Germany, Austria, Malta, Estonia, Argentina, Nicaragua, have lowered their voting age from 18 to 16 years.

Additional Information:

- Recently United Kingdom also announced plans to reduce the voting age from 18 to 16.
- In India, a Constitution (Amendment) Bill, 2020 was proposed to amend Article 326 to reduce the voting age from 18 to 17 years. It was a private member's bill.

Constitutional provisions related to voting age in India:

- Article 326 provides for universal adult suffrage for every citizen who is not less than 18 years of age.
- India reduced the voting age from 21 to 18 years through 61st Constitutional Amendment in 1988.
- Right to Vote is a statutory right that can be amended by ordinary law of the Parliament.

Context

- In the 17th Lok Sabha session, Lok Sabha functioned for 88% of its scheduled time, while Rajya Sabha worked for 73 per cent.
- In the 1950s, the Indian Parliament met for 120-140 days every year, now the number ranges between 60 to 70 days.

Issues with Parliamentary Disruptions:

- **Weakening Democratic Accountability:** Parliamentary debates let elected leaders question the government, but disruptions hinder this key part of democracy.
- **Monetary cost:** The cost of running Parliament is around Rs 2.5 lakh per minute.
- **Eroding Public Trust in Parliament:** Frequent disruptions shift MPs' focus from solving important issues to stalling proceedings.

Measures that can be adopted to address parliament disruption:

- **Ensuring dedicated time for Opposition:** For e.g., the British Parliament sets aside 20 days each year for the opposition to decide the agenda.
- **Strengthen ethics committees:** To monitor and report disruptions, ensuring accountability.
- **Annual Parliamentary Calendar:** Calendar of sittings should be announced at the beginning of each year for limited flexibility.

Removal of Judges in Higher Judiciary

Polity & Governance

Context

- Member of Parliaments across party lines submit motion in Parliament to remove Justice Yashwant Varma.
- A total of 145 Lok Sabha members have signed a motion against Justice Verma under Articles 124, 217, and 218 of the Constitution.
- Also, the Rajya Sabha Chairman received a motion for the removal signed by more than 50 members of Rajya Sabha.

Constitutional provisions regarding removal of judges:

- **Article 124(4):** It deals with removal of judges of the Supreme Court.
- **Grounds for Removal:** Proven misbehaviour and incapacity.
- **Article 124(5):** It deals with the power of parliament to regulate the procedure for the presentation of an address and for the investigation and proof of the misbehaviour or incapacity of a Judge under clause (4)
- Procedure is regulated by Judges Enquiry Act (1968). (enacted under article 124(5)).
- **Article 217(1)(b):** It deals with removal of a Judge of a High Court.
- It states that a High Court Judge may be removed from his office by the President in the manner provided in clause (4) of article 124 for the removal of a Judge of the Supreme Court.
- **Article 218:** It extends the Applicability of clause (4) and clause (5) of article 124 to High courts.

Steps in removal process

- **Initiation:** A removal motion signed by 100 members (Lok Sabha) or 50 members (Rajya Sabha) is given to the Speaker/Chairman.
- **Committee formation and Investigation:** If admitted, a three-member committee constituted to investigate the charges. The three-member committee comprises a Supreme Court judge, chief justice of a high court and a distinguished jurist. If the committee finds the judge guilty of misbehaviour or incapacity, the House considers the motion.
- **Parliamentary Approval:** The originating House passes the motion with special majority, then sends it to the second House, which must also pass it with special majority. (Majority of the total membership of that House and by a majority of not less than two-third of the members of the House present and voting).
- **Presidential order:** After passage, an address is presented to the President for removal. (It has to be presented to the President in the same session.). The President then issues the removal order.

Context

- Recently, NSCSTI 2.0 framework was launched by the Minister of State for Personnel, Public Grievances and Pensions.

Additional Information

- Developed by: Capacity Building Commission (CBC) under Mission Karmayogi.
- Mission Karmayogi aims to create a competent and future-ready civil service working towards effective public service delivery and an Atmanirbhar Bharat.
- The primary objectives of NSCSTI are to establish a baseline of capacities within Central Training Institutes, provide a structured tool to enhance the management of these institutes, and standardise capacity building by setting clear procedures for civil service training institutes.

The NSCSTI 2.0 framework introduces:

- hybrid and AI-driven learning models,
- incorporates an inclusive design suitable for all levels of government training institutes, and
- fosters the adoption of best practices by removing barriers between the public and private sectors.



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10 Years of 'Digital India' Programme

Policies & Schemes

Context

- The government's flagship 'Digital India' program completed ten years on July 1, 2025. The mission, launched in 2015, aims to transform India into a digitally empowered society and knowledge economy.

Key Pillars

- The initiative is built on nine pillars, including Broadband Highways, Universal Access to Mobile Connectivity, and E-Governance.

Achievements

- The number of internet connections has grown by over 285% since 2014, and over 142 crore Aadhaar IDs have been generated as of April 2025. The Direct Benefits Transfer (DBT) system has saved the government over Rs 3.48 lakh crore by eliminating fake beneficiaries.

Revised Guidelines for Biomass Programme

Policies & Schemes

Context

- The Ministry of New and Renewable Energy (MNRE) released revised guidelines for the Biomass Programme under Phase I of the National Bioenergy Programme.

About

- The Biomass Programme is a sub-scheme of the National Bioenergy Programme, which promotes the generation of clean energy from agro-residues and biomass. The revised guidelines aim to simplify the approval process, promote IoT-based monitoring, and offer performance-based Central Financial Assistance (CFA).

One District One Product (ODOP) Awards 2024

Policies & Schemes

Context

- The 2nd edition of the One District One Product (ODOP) Awards was announced by the Department for Promotion of Industry and Internal Trade (DPIIT).

About

- The ODOP scheme is a centrally sponsored scheme under the DPIIT that aims to foster balanced regional development by helping districts reach their full potential.

First-ever E-truck Incentive Scheme

Policies & Schemes

Context

- India has introduced its first e-truck incentive scheme under the PM E-Drive initiative. E-trucks were previously excluded from the FAME scheme.

Details

- The scheme is a Central Sector Scheme by the Ministry of Heavy Industries and aims to promote electric vehicles in underserved segments like medium and heavy-duty trucks. The financial incentive offers a price reduction of up to ₹9.6 lakh per vehicle and requires the disposal of old diesel trucks for eligibility.

10 Years of AMRUT

Policies & Schemes

Context

- The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) completed 10 years in 2025.

About AMRUT

- Launched in 2015, the mission aimed to provide universal access to water and sewerage, improve green urban spaces, and reduce pollution. It was a Centrally Sponsored Scheme implemented by the Ministry of Housing and Urban Affairs (MoHUA). AMRUT 2.0 was launched in 2021 with the objective of providing universal water and sewerage coverage and promoting a circular economy of water.



Context

- The RBI has proposed constructing a daily Financial Conditions Index (FCI) to monitor real-time market conditions. The index measures the overall financial tightness or ease of the economy and includes indicators from money markets, G-secs, corporate bonds, equities, and forex.

Prime Minister Dhan-dhaanya Krishi Yojana (PMDDKY)

Context

- In pursuance of the Union Budget 2025–26 announcement, PMDDKY was approved for a period of six years.
- Additional Information: Inspired by NITI Aayog's Aspirational District Programme, the scheme focuses exclusively on agriculture and allied sectors.
- It focuses on 100 low-performing districts facing issues such as low yields, water scarcity, and limited resource access.

Salient Features of the scheme:

- Budgetary Allocation:** Rs 24,000 crore annually for a period of six years starting FY 2025–26.
- Implementation:** The scheme is implemented by the Ministry of Agriculture and Farmers' Welfare and monitored through a three-tier structure:
 - National-level oversight bodies
 - State-level nodal committees, and
 - District Dhan Dhaanya Samitis chaired by District Collectors.
- These Samitis will prepare a District Agriculture & Allied Activities Plan through Extensive stakeholder consultations.
- NITI Ayog will also review and guide the district plans and Central Nodal Officers appointed for each district will review the scheme on a regular basis.
 - Saturation-based convergence:** Consolidates 36 existing agricultural schemes across 11 ministries (PM-KISAN, PMFBY etc.), other State schemes and local partnerships with the private sector.
 - Progress tracking:** Of each Dhan-Dhaanya district using 117 Key Performance Indicators (KPIs)
 - Transparency and Accountability:** Through a digital dashboard, farmer app, and district ranking system
 - Criteria and Selection of Districts:** NITI Aayog will finalize 100 districts based on:
 - Low Crop Productivity:** Yields below national averages.
 - Moderate Cropping Intensity:** Below national average (155%).
 - Low Credit Access:** Limited penetration of bank loans or Kisan Credit Cards.
 - Geographic Representation:** At least one district per state and Union Territory.
- The PMDDKY is a flagship initiative to revitalise Indian agriculture, benefiting 1.7 crore farmers across 100 underperforming districts. Through irrigation, storage, credit, training, market access, and modern technology, it empowers small farmers, women, and youth, fostering sustainable and profitable farming.

Public Debt in India

Context

- The Reserve Bank of India (RBI) in its Biannual Financial Stability Report (FSR) 2025 found rising public debt in the Indian economy.

Additional Information

- FSR presents the Sub-Committee of the Financial Stability and Development Council's (FSDC) assessment of the strength of India's financial system and risks to its stability.
- FSDC, established in 2010, is chaired by Finance Minister and includes heads of regulators like RBI, SEBI, PFRDA, and IRDA. It is responsible for ensuring financial stability and coordination among regulators.

Key highlights of the report:

- India still driver of Global Growth
- **Resilience of Indian Economy:** India's real GDP is projected to grow at 6.5% in 2025–26, driven by strong domestic demand and an uptick in investment activity.
- **Strong Financial Institutions:** E.g., gross non-performing asset ratio (GNPA) ratio and Net NPA (NNPA) of Scheduled Commercial Banks (SCBs) declined to multi-decadal lows of 2.3% and 0.5% respectively.
- **Strong corporate sector performance:** Large borrower cohort's GNPA ratio declined from 3.8% in September 2023 to 1.9% in March 2025.

Inflation Trends:

- **Domestic inflation:** CPI inflation dropped to a 6-year low of 2.8% in May 2025.
- **Imported Inflation:** Slower global growth may ease commodity and oil prices, though tensions in the Middle East add some uncertainty.
- **Rising Public debt:** India's Public Debt as a percentage of GDP in 2024 have remained relatively on higher side (More than 80%) compared to peer Emerging Market Economies (EMEs).
- According to IMF, global public debt is projected to reach above 95% in 2025 and 100 % by the end of 2030.

About Public Debt in India:

- Public debt, also known as 'national debt', is the accumulated amounts of borrowing that government, and other public sector bodies, owe to the private sector and foreign governments.
- It includes debt of Central Government and State Governments, excluding inter-Governmental liabilities.
- The Public debt can be internal (borrowed within India) and external (borrowed from foreign sources).
- The Internal debt is 96.59% and external debt is 3.41% of total public debt of 18,174,284 crore (Union Budget 2025-2026).
- **Potential impact of High Public debt:** Increased interest costs, limited fiscal space, potential inflationary pressures, crowding out of private investment and impact growth and intergenerational equity.

Reasons of high Public Debt in India:

- **Persistent Fiscal Deficits:** Central Government gross fiscal deficit stood at ₹15.77 lakh crore for FY 2024-25, against revised estimates of ₹ 15.69 lakh crore (Controller General of Accounts)
- **High Revenue Expenditure:** Total expenditure stood at ₹46.56 lakh crore, with revenue expenditure recorded at Rs 36.04 lakh crore.
- Large outgo on subsidies (food, fertilizer, fuel), Salary and pension obligations etc.
- **External Debt Growth:** India's external debt rose 10% to \$736.3 billion at the end of March 2025 from \$668.8 billion a year earlier. (RBI)
- **Pandemic-Era Spending:** Central government debt rose driven by Covid-related healthcare and welfare spending.

Way Forward to manage and reduce Public Debt in India:

- **Shift towards "debt-GDP ratio" as the fiscal anchor:** Beginning 2026-27 financial year, central government has targeted a declining debt-GDP ratio to $50 \pm 1\%$ by March 31, 2031.
- **Active Debt Management via Bond Switching:** A bond switch is a mechanism through which the government replaces existing shorter duration sovereign bonds with long-duration papers.
- The weighted average maturity of outstanding stock of central government market borrowings has risen from 10.4 years in 2018-19 to 13.2 years in 2024-25.
- **Subsidy Rationalization & Tax Reforms:** E.g., Over 4 Crore duplicate LPG Connections deactivated to Curb Misuse under PAHAL scheme; GST compliance drives (e-invoicing, AI-based analytics etc.) etc.
- **Establish Public Debt Management Authority:** It would enable RBI to focus on its core function of monetary policy (flexible inflation-targeting) and regulating banks.

Legal framework for management of public debt in India:

- **Fiscal Responsibility and Budget Management (FRBM) Act, 2003:** It provides a legislative framework for reduction of deficit and thereby debt, of Central Government to a sustainable level over a medium term.
- It sets a target of containing Central Government Debt to 40% and **General Government debt to 60% of GDP by 2024-25.**
- **RBI Act, 1934:** Under Section 20 of the act, RBI was obliged to manage the Central Government public debt.
- **Government Securities Act, 2006:** It amends the law relating to Government securities and its management by RBI, with this the Public Debt Act, 1944 ceased to apply to the government securities.

Context

- A recent survey by NSSO revealed that over two-thirds of Indians using digital devices are unable to carry out basic digital financial transactions, highlighting a significant gap between access and ability.
- **Statistics:** While India leads with 50% of global real-time digital transactions, only 31.7% of device users can perform digital banking. There is also a persistent gap between rural and urban users, and men and women.

Employability and Skilling in India

Context

- Recently the Union Cabinet approved the Employment Linked Incentive (ELI) Scheme which is expected to enhance youth employability, nurture skills and facilitate job retention in private sector.

About Employment Linked Incentive (ELI) Scheme:

- **Background:** Announced in the Union Budget 2024-25 as part of PM's package of five schemes to facilitate employment, and skilling opportunities for youth.
- **Nodal Ministry:** Ministry of Labour & Employment
- **Purpose:** Promote job creation, enhance employability, and expand social security across sectors, specifically manufacturing
- **Target:** 3.5 crore jobs (including first-time employees).

About Employability and Skilling In India

- **According to the India Skills Report 2025:**
 - **Employability:** Over 50% of graduates (53.47% for Male and 46.53% for Female) are employable in 2024, up from 33% a decade ago (17% rise).
 - **Drivers:** Growth driven by focus on emerging technologies like AI, cloud computing, and automation.

Challenges Existing In India's Employability and Skilling Landscape:

- India is expected to add 10 million workers annually over the next decade. However, in FY 2023-24 only, 4.67 crore jobs were created. To fully reap the benefits of the demographic dividend, the key challenges are as follows
- **Mismatch Between Education and Industry Needs:** Universities focus more on theory than practical skills. Graduates often lack hands-on experience and technical competencies leading to lower employability in technical fields.
- **Threat from Automation:** Graduates are significantly less prepared for technical roles, even in high-demand fields like AI and data science. 69% of jobs in India face automation risk (World Bank)
- **Limited Emphasis on Soft Skills Development:** The growing importance of soft skills such as communication, teamwork, and critical thinking remains undervalued in many university programs.
- This oversight contributes to graduates who are not only technically unprepared but also lack the interpersonal skills necessary for success in the workplace.

Key Initiatives Taken for Employability and Skilling:

- **Skill India Mission (SIM):** Launched by Ministry of Skill Development and Entrepreneurship. The restructured Scheme constitute PM Kaushal Vikas Yojana (PMKVY) 4.0, National Apprenticeship Promotion Scheme (NAPS), and Jan Shikshan Sansthan (JSS).
- **PMKVY 4.0:** the focus is to empower trained candidates to choose their varied career path and they are suitably oriented for the same.
- **NAPS:** Promotes apprenticeship by offering financial support for apprentice stipends. Training includes both basic and on-the-job/practical training in industries.
- **JSS:** Vocational training for non-literates, dropouts, and disadvantaged groups (ages 15–45). Trained 26+ lakh people since 2018–19.
- **Skill India Digital Hub (SIDH) platform:** Launched to integrate skilling, education, employment, and entrepreneurship ecosystems.
- **India Skills Accelerator:** A public-private collaboration platform launched by Ministry of Skill Development

and Entrepreneurship (MSDE), in collaboration with the World Economic Forum (WEF)

- Skill Impact Bond: Led by the National Skill Development Corporation (NSDC) it is the first development impact bond in India dedicated to skills training and job placement.

The Future of Work

Economy

Context

- Tata Consultancy Services (TCS) recent announcement to lay off 12,000 employees has raised implications on the Future of Work.

Additional Information:

- Many experts have alleged that the "future of work" is currently marked by significant job displacement due to automation and AI, leading to increased layoffs across various sectors.
- Other than TCS, many Multinational corporations (Meta, Amazon etc) have let go more than 1,05,000 positions worldwide this year (Layoffs Landscape study).
- 20% of them were in India and some 45% of the layoffs were in HR, support, content and coding.
- Although TCS has clarified that this decision is based on skills mismatch and not AI, it raises concerns on the future of work and unemployment of our youth currently and in the years to come.

How these drivers impact the Future of Work:

- **Economic Impact**
 - **Shift in job types:** 170 million new jobs are projected. The movement from routine, manual jobs to high-skill, knowledge-based and service-oriented roles. E.g. Big Data Specialists, Fintech Engineers etc.
 - **Vulnerable Jobs:** Microsoft researchers argue that jobs involving writing, research, and communication, such as translators, journalists, and historians, may be replaceable by AI tools.
 - **Productivity boost:** Generative AI could boost productivity adding an estimated \$2.6–\$4.4 trillion to the economy each year. (McKinsey Report)
 - **Sectoral shifts:** ILO estimates 54 million green jobs will be created between 2021 and 2030.
- **Workforce & Skills Impact**
 - **Reskilling & up skilling:** The future-ready skills such as Analytical thinking, creative thinking, resilience needed for workers.
 - **Skill Instability:** According to WEF, 39% workers' core skills will change by 2030.
- **Social Impact**
 - **Inequality concerns:** Wage and opportunity gaps may widen between high-skilled and low-skilled workers. E.g. Difference between Software developer and data entry operator.
 - **Gender inequality may widen:** ILO study estimated average Gender pay gap of 34% for India in comparison to global average of 20%.
 - Tribal growth and development will be impacted. E.g. The literacy rate of Scheduled tribes is 13 percent lower than that of the average literacy rate of India hence affecting skill development.
- **Ethical**
 - **Social Responsibility:** IT firms have a social responsibility to ensure fair and humane workforce management practices, especially given the substantial investment in employee development.
 - **Worker rights:** Striking a balance between business efficiency and employee well-being is crucial in the era of hire and fire.
 - **Psychological impact:** Work life Balance, anxiety, stress, and other mental health issues among the workforce.

Initiatives taken by Government for Future of Work:

- **Skilling, Upskilling and Reskilling**
 - Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Scheme for imparting skill development training through Short-Term Training (STT) and Up-skilling and Re-skilling through Recognition of Prior Learning (RPL).
 - Future Skills Prime is a digital skilling initiative by NASSCOM & MEITY, aimed at making India a Digital Talent Nation.



- **For adoption of New & Emerging Technologies**
 - AI for India 2030 initiative: By the Ministry of Electronics and Information Technology.
 - National Mission on Interdisciplinary Cyber Physical System (NM-ICPS): By Department of Science & Technology, to enhance start-ups, Human Resource and skill-sets in emerging areas.
- **For Health and Well-being**
 - National Tele Mental Health Programme to improve access to mental health counselling and care services.
- There is a need to strike a balance between business competitiveness and workforce well-being. Sustained investment in skill development, social safety nets, and ethical corporate practices will be crucial to ensuring that the future of work remains inclusive, resilient, and equitable.

Research Development and Innovation (RDI) Scheme

Economy

Context

- The Union Cabinet recently approved RDI Scheme with a corpus of ₹1 lakh Crore.

About RDI Scheme

- Nodal Department: Department of Science and Technology.

Key objective of the scheme:

- Encourage the private sector to scale up research, development, and innovation (RDI) in sunrise domains and in other sectors relevant for economic security, strategic purpose, and self-reliance;
- Finance transformative projects at higher levels of Technology Readiness Levels (TRL)
- Support acquisition of technologies which are critical or of high strategic importance;
- Facilitate setting up of a Deep-Tech Fund of Funds.

Funding and Financial Support

- Total Budget: Rs 1 lakh crore
- **Modes of Financing:**
 - Long-term loan at low or nil interest rates.
 - Equity infusion, especially in case of startups.
 - Contributions to Deep-Tech Fund of Funds
 - Exclusions: Grants and short-term loans are not supported
- **Coverage:**
 - Financing can cover up to 50% of assessed project cost for transformative RDI projects at TRLs 4 and above;
 - Exceptions may be approved by the Empowered Group of Secretaries (EGoS)
- **Implementation Structure:**
 - **Special Purpose Fund:** Being set up under the Anusandhan National Research Foundation (ANRF) to serve as the first-level custodian.
 - The governing board of ANRF also provides strategic direction to RDI Scheme.
 - **Second-Level Fund Managers:** May include Alternate Investment Funds (AIFs), Development Finance Institutions (DFIs), Non-Banking Financial Companies (NBFCs), or Focused Research Organizations (FROs) such as Technology Development Board (TDB), IIT Research Parks, or similar entities

Significance of the Scheme

- **Recognize Private sector role in R&D:** It directly addresses and overcomes critical funding constraints and challenges faced by the private sector, by providing growth & risk capital.
- **Catalyst for Private Sector Investment:** The RDI scheme, in partnership with ANRF, aims to boost private sector investment in R&D.
- Public R&D expenditure can have a "leverage" effect on catalyzing private R&D activity.
- **Driving Commercialization:** Unlike public R&D, industrial R&D primarily focuses on marketable, profitable products, essential for real-world economic impact.
- **Fostering Self-Reliance:** It supports technologies where indigenisation is essential for strategic or economic reasons, aligning with the vision of Atmanirbharta.

- Creates and maintains jobs: Incentivizing R&D will create more opportunities, especially for graduates.

Challenges in Research and Development in India:

- **Low R&D Investment and Diversification:** India's R&D expenditure stands at only 0.6–0.7% of GDP over the past two decades, significantly lower than global leaders like South Korea (4.8%) and Israel (5.6%).
- **Moreover,** in FY 2021–22, the private sector contributed just 36.4% of GERD (Gross Expenditure on Research and Development), compared to over 70% in countries like the US and China.
- **Limited State-level R&D funding:** During 2020–21, States accounted for only 6.7% of national R&D spending.
- **Limited Collaboration between Industry and Academia:** The "Triple Helix" model (seen in the US) remains underdeveloped, hindering commercialization and innovation.
- **Underutilization of Funds:** Departments such as DBT and DST utilized only 72% and 61% of their budgets in 2022–23, reflecting systemic inefficiencies.
- **Insufficient Recognition of Scientific Talent:** Although India produces over 40,000 PhDs annually, systemic issues like bureaucracy and lack of incentives deter innovation despite available human capital.

Conclusion:

- **Increase and Diversify R&D Funding:** Raise Gross Expenditure on R&D (GERD) to at least 2% of GDP by 2030 in line with National STI Policy targets.
- Incentivise private sector investment through tax rebates, innovation-linked funding, and credit guarantees.
- **State-Specific S&T Need Mapping:** Establish State Science, Technology & Innovation Councils to design localized R&D roadmaps.
- Promote regional innovation hubs like Kerala's Startup Mission or Bengaluru's biotech cluster.
- **Strengthen Institutional Structures:** Implement research cluster models like CSIR innovation hubs to pool expertise and avoid duplication.
- **Foster Industry–Academia Collaboration:** Set up joint R&D centres funded by industry and government (e.g., Semiconductor Mission partnerships).
- Use models like ISRO–industry partnerships in satellite manufacturing for other sectors.
- **Efficient Resource Utilisation:** Adopt output-based funding, linking budget allocations to research publications, patents, and societal impact.
- **Recognise and Retain Scientific Talent:** Expand fellowships like Prime Minister's Research Fellowship (PMRF) and introduce global talent repatriation schemes.

Government initiatives to boost R&D in India:

- **Anusandhan National Research Foundation (ANRF)** - Launched under the ANRF Act, 2023, it aims to increase R&D funding and promote partnerships between researchers, industries, and universities.
- **National AI Mission** - It focuses on advancing Artificial Intelligence. It applies AI in healthcare, agriculture, education, and governance for better innovation and services.
- **Atal Innovation Mission (AIM)** - It promotes innovation and startups. Also sets up **Atal Tinkering Labs (ATLs)** in schools and **incubation centers** for young entrepreneurs.
- **National Quantum Mission (NQM)** - Under this mission, **four Thematic Hubs (T-Hubs)** have been established in key technology verticals of **Quantum Computing, Quantum Communication, Quantum Sensing & Metrology and Quantum Materials & Devices.**

India's First Maritime NBFC

Economy

Context

- India launched the Sagarmala Finance Corporation Ltd (SMFCL) as the first dedicated maritime Non-Banking Financial Company (NBFC) to finance blue economy sectors.

About

- The SMFCL, which is under the Ministry of Ports, Shipping and Waterways, was reorganised from the former Sagarmala Development Company Ltd. Its role is to provide funding for ports, shipping, and other maritime infrastructure projects.

Context

- The U.S. has passed the GENIUS Act, which allows banks and tech giants to issue stablecoins, a move that positions them as a strategic tool of monetary diplomacy.

India's Opportunity

- India's robust digital platforms like UPI and Aadhaar provide an ecosystem for stablecoin integration. A regulated environment would reduce dependence on foreign digital currencies and safeguard India's fiscal and monetary autonomy.

Context

- The RBI Financial Inclusion Index (FI-Index) has risen to 67 in 2025, up by 24.3% since 2021

Additional Information:

- FI-Index captures financial inclusion across the country while representing different sectors such as banking, investment, insurance, pension etc.
- With boost in the index, the growth was witnessed across all three sub-indices of index i.e. Access, Usage and Quality.
- Improvement in the FI-Index in FY2025 is a reflection of enhancement in usage and quality dimensions, which indicates strengthening of financial inclusion and financial literacy initiatives.

Understanding Financial Inclusion Index:

- RBI's FI-Index is designed to provide a comprehensive measure of financial inclusion in India.
- Planning Commission (2009) viewed financial inclusion as "universal access to a wide range of financial services at a reasonable cost," including banking, insurance, and equity products.
- **Score of Index:** It operates on a scale from 0 to 100. 0 signifies complete financial exclusion and 100 represents full financial inclusion.
- **No base year:** Released annually since 2021 and reflects cumulative progress of all stakeholders over the years towards financial inclusion.
- **Structure of Index:** Comprises three broad parameters (sub-indices), each with assigned weights and numerous indicators:

Key Driving Factors of Financial Inclusion in India

- Government Initiatives
 - **Pradhan Mantri Jan Dhan Yojana (PMJDY) (2014):** Facilitating the opening of over 56 crore bank accounts.
 - **National Strategy for Financial Inclusion (NSFI 2019-2024):** Provides a roadmap for universal access to financial services.
 - **Aadhaar:** Simplified KYC processes, significantly aiding account opening and direct benefit transfers. Boosted Direct Benefit Transfer (DBT) efficiency.
 - **Digital India:** Expanded access to digital financial services.

Transformative Role of Technology:

- **Unified Payments Interface (UPI):** UPI has become the most preferred transaction mode for nearly 38% of individuals in rural and semi-urban India, especially those aged 18-35.
- **JAM Trinity (Jan Dhan-Aadhaar-Mobile):** This framework has provided the necessary digital public goods infrastructure to leverage increasing mobile penetration, forming the backbone of digital financial inclusion.
- **Artificial Intelligence (AI) and Machine Learning (ML):** AI is revolutionizing financial services by Inclusive Credit Scoring, Chatbots and Voice Assistants, Fraud Detection etc.

Role of Financial Institutions:

- **Microfinance Institutions (MFIs):** India holds the position of having the second-largest global outreach in microfinance (after China), with over 140 million clients.
- **Self-Help Groups (SHGs):** Over 13.4 million SHGs, with 84.25% comprising women, impact 160 million households (2023).
- They provide platforms for savings and credit, fostering financial literacy, and significantly reducing reliance on high-cost informal credit.
- "Bank Sakhis" (women business correspondents) are key for last-mile service delivery.
- **Commercial Banks:** RBI mandates Priority Sector Lending (PSL) to critical sectors like agriculture and MSMEs.

Challenges to Financial Inclusion:

- **Account Inactivity:** Approximately 35% of accounts (2021) in India remain inactive due to lack of trust in banks, physical distance, insufficient funds, and discomfort in using accounts independently.
- **Gender Disparities:** In digital payments, a notable gender gap persists i.e. 45% of men have made or received digital payments, whereas only 32% of women have done so.
- **Rural and Geographical Barriers:** Remote areas lack access to basic banking services due to limited physical infrastructure and low digital device penetration. E.g. Rural smartphone penetration remains low at 28%.
- **Financial Illiteracy:** Financial literacy levels among women are lower than men, highlighting the need for targeted education.
- **Digital Divide:** Technological barriers, including lack of internet-enabled smartphones and low digital literacy, prevent certain segments from accessing digital financial services.
- Smartphone ownership stands at 82% in rural areas and 91% in urban areas.
- **Other Challenges:** Limited access to credit due to lack of knowledge, High Transaction Costs, Quality of Services, Lack of Trust and Documentation, Inadequate Risk Protection etc.

Way Forward:

- To achieve universal and meaningful financial inclusion, India needs a multi-pronged, collaborative approach:
- **Focus on Under-banked and Unbanked Segments:** The immediate goal for under-banked individuals is to subscribe to more financial products, while for the unbanked; it is to open a bank account by ease of application and reduced costs.
- **Develop a Tech-Driven Financial Ecosystem:** Leveraging AI and advanced automation to provide personalized, accessible, and secure financial services in rural and remote areas.
 - E.g. Successful case studies include use of Robot investment assistants (RIAs) and central bank digital currency Yuan (e-CNY) in China.
- **Promote Open Systems:** Advocate for and adopt interoperable open banking systems like Open Network for Digital Commerce (ONDC) and Open Credit Enablement Network (OCEN) to foster innovation and inclusion.
- **Consumer Protection:** Strengthen data privacy laws and cyber security measures to protect individuals' financial information.
- **Targeted Policies:** Encourage banks to provide affordable and accessible credit to women, small and marginal farmers, microenterprises, and the informal sector.
- Financial institutions can offer tailored financial products suited to the needs of low-income groups, such as microinsurance and pension schemes.
- **Public-Private Partnerships:** Collaborations between governments, financial institutions, and telecom companies can accelerate financial inclusion.
- Public policies should encourage private sector involvement in providing mobile money services and digital payment platforms.

National Statistics Day

Economy

Context

- National Statistics Day is celebrated on June 29 to mark the birth anniversary of P.C. Mahalanobis, who is considered the "Father of Indian Statistics". The theme for 2025 is "75 Years of National Sample Survey (NSS)".
- **P.C. Mahalanobis:** He founded the Indian Statistical Institute (ISI) in 1931 and helped create the NSSO and CSO. He was a key advisor for the Second Five-Year Plan.

Context

- India is celebrated 10th years of the Digital India Mission launched in 2015.

Additional Information:

- Nodal Implementing Ministry:** Ministry of Electronics and Information Technology (MeiTY)
- Purpose:** To transform India into a digitally empowered society and knowledge economy
- Nature:** Umbrella programme that clubs together various e-governance initiatives across Ministries and Departments
- Leveraging private sector:** Public Private Partnerships (PPP) are preferred wherever feasible to implement e-Governance projects.

Objectives:

- To transform India into a digitally empowered society and knowledge economy.
- To ensure digital access, digital inclusion, digital empowerment and bridge the digital divide.
- To ensure that Government services are available to citizens electronically.

Vision is centred on three key areas:

- Digital Infrastructure as a Utility to Every Citizen
- Governance & Services on Demand
- Digital Empowerment of Citizens.

Key Achievements of Digital India Mission:

- Digital Economy:** India now ranks third globally in terms of digital economy size (State of India's Digital Economy Report 2024) and is expected to contribute nearly 20% of GDP by 2030.
- Rising internet penetration:** Internet connections grew 285% (2014–2024) while data costs dropped from Rs 308/GB to Rs 9.34/GB, making it more affordable.
- Financial Inclusion:** India leads globally in real-time payments (49% of global transactions in 2023). DBT transferred Rs 44 lakh crore till May 2025, removing ineligible beneficiaries for targeted delivery.
- Inclusivity & Language Access:** Initiatives like BHASHINI are breaking language barriers by supporting over 30 Indian languages with different AI models.
- It is integrated into platforms like IRCTC ticketing, NPCI payment systems, and police documentation.

Challenges that Hinder Harnessing Full Potential of Digital India Mission:

- Digital Literacy Gap:** Only 38% of households are digitally literate.
- Internet usage is uneven, 31% in rural areas compared to 67% in urban areas (Oxfam 2022).
- Poor Connectivity & Broadband Quality:** Access is often unreliable due to outages, call drops, and weak signals.
- Outdated broadband definition (2 Mbps) compared to the global standard (25 Mbps+).
- Cybersecurity Risks:** India's cyber regulatory framework is inadequate, leaving systems vulnerable to hacking and DDoS attacks.
- Average data breach cost rose 13% to ₹220 million in 2025 (IBM).
- Healthcare Digitization Gaps:** Projects like NDHM and e-Sanjeevani are hampered by weak infrastructure and low literacy.
- CoWIN vaccination drive excluded many without smartphones or digital skills.

Way Ahead to Reap the Full Potential of Digital India Mission:

- Universal Broadband & Connectivity:** The Bharat Net Phase-II project should be fast-tracked through state-led, private sector, and CPSU models.
- Radio and satellite technologies can bridge gaps in remote Gram Panchayats.
- Improve Quality of Service:** Adequate contiguous spectrum must be allocated, with a push towards advanced technologies.
- Encourage private investment in network upgrades. Keep devices and data affordable to ensure inclusivity.

- **Expand & Standardize e-Services:** The National e-Governance Division of MeitY must periodically audit state compliance to improve delivery standards.
- **Strengthen Cybersecurity:** Develop a comprehensive framework for data security and complaint redressal. Strengthen national and cross-border cybercrime response teams.
- Increase research and development for secure IT networks.

Intellectual Property Rights in India

Economy

Context

- India's Intellectual Property (IP) filings rose by 44% in last 5 years, led by a 380% surge in Geographical Indications.

Reasons for Increase in IP Boom:

- Legal & Procedural Simplification of IP laws & rules E.g. Patent examination timeline reduced from 48 months to 31 months and mandatory e-submission for patent documents.
- **Modernization of IP Offices:** IP offices have been digitized with a comprehensive e-filing system, leading to over 95% of applications being filed online.
- **International standards:** E.g. adoption of international classification under Locarno Agreement for Industrial Designs.
- Locarno agreement is an international agreement under the World Intellectual Property Organization (WIPO) signed in 1968.
- **Awareness & Capacity Building** E.g. SPRIHA Scheme aims to integrate IPR education into higher learning institutions across the country
- **National Intellectual Property (IP) Awards:** To recognize and reward the top achievers for their IP creations and commercialization.
- **Other:** Fee Concessions (10% fee reduction for online filings), Digital initiatives (IP Sarthi Chatbot for applicant support and IP Dashboard to provide real-time IP data) and use of AI and Machine Learning, etc.

Intellectual Property Rights (IPR):

- **Definition:** IPRs are the rights given to persons over the creations of their minds. They usually grant the creator an exclusive right to use their creation for a certain period of time.
- **8 types of IPR are covered under IPR Policy Management (IPRPM) framework:** (i) Patents, (ii) Trade mark, (iii) Industrial Designs, (iv) Copyrights, (v) Geographical Indications, (vi) Semiconductor Integrated Circuit Layout Design, (vii) Trade Secrets, and (viii) Plant Varieties.
- **Administered by:** Controller General of Patents, Designs and Trademarks, which is under the control of the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry.
- The Act on Layout-Design of Integrated Circuits is administered by the Ministry of Electronics and Information Technology (MeitY).
- The Ministry of Agriculture administers the Act on Plant Variety.

Challenges related to IPR in India:

- **Low Research and Development (R&D) Spending:** India spends a mere 0.7% of its GDP on R&D, significantly lower than countries like China (2.1%) and Brazil (1.3%).
- **Patent Disputes and Evergreening:** The pharmaceutical sector often faces issues related to patent evergreening, where companies make minor modifications to existing drugs to extend their patent life.
- Section 3(d) of the Patents Act, 1970, prevents this, leading to disputes with multinational corporations.
- **Compulsory Licensing Concerns:** In the pharmaceutical sector, the government can allow the production of patented products (e.g., medicines) without the patent holder's consent.
- While this ensures access to essential medicines, it has led to tensions with global pharmaceutical companies.
- **IP Financing in Nascent Stage:** Due to lack of awareness, complexities in IP valuation, reliance on traditional tangible assets, and vulnerability of IP as collateral.
- IP financing is the use of IP assets (trade marks, design rights, patents and copyright) to gain access to credit.
- **Ambiguity of "Patent Pending" Status:** Unlike countries like the USA, India lacks a clear provision for marking products as "patent pending," which could deter competitors and act as a marketing tool.

- **Other:** Delays in IPR Granting and Backlog, Weak Enforcement of IPR Laws, Commercialisation Gap (High filings don't guarantee successful market-ready products) etc.

Way Forward

- **Holistic Review of National IPR Policy:** To address new and emerging trends in innovation, identify implementation gaps, and incorporate changes for expanding innovation ecosystem and IP financing.
- **Strengthen State Government Participation:** To formulate and implement their own IPR policies, focusing on awareness, innovation in educational institutions, establishing State-level Innovation Councils, and curbing IP crimes.
- **Strengthening Enforcement Mechanisms:** Improve coordination between law enforcement, customs, and IP offices & provide specialized IPR training. Establish more specialized IPR courts with technically trained judges.
- **Create IP Fund:** Establish a dedicated IP fund to support initiatives fostering IP culture in remote and traditional knowledge-rich regions, such as tribal belts, hilly, and North-East states.
- Enhancing International Collaboration e.g. Cooperate with global IP bodies (e.g., WIPO) and adopt best practices.
- Ensuring that trade agreement's IP provisions balance innovation, public health, and national interest.
- **Other:** Promoting Innovation & Research through R&D incentives (tax breaks, grants), Strengthening Cyber security & Digital IPR Protection to combat online piracy, enhance IP awareness through educational initiatives etc.

10 Years of Skill India Mission

Economy

Context

- The 'Kaushal ka Dashak' campaign was launched on World Youth Skills Day 2025 to celebrate 10 years of the Skill India Mission. The mission, launched in 2015, is implemented by the Ministry of Skill Development and Entrepreneurship (MSDE) and aims to unify India's fragmented skilling ecosystem.

Flagship Schemes

- Key schemes include the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and the Pradhan Mantri National Apprenticeship Promotion Scheme (PM-NAPS).

Alternative Investment Fund

Economy

Context

- The RBI has issued revised guidelines capping investment by Regulated Entities at 20% of the corpus of an AIF scheme.

About Alternative Investment Fund (AIF)

- Any fund established or incorporated in India which is a privately pooled investment vehicle which collects funds from sophisticated investors, whether Indian or foreign, for investing it in accordance with a defined investment policy for the benefit of its investors.
- AIFs are regulated by the SEBI, as per the SEBI (Alternative Investment Funds) Regulations, 2012.

Categories of AIFs:

- **Category I AIF:** Invest in start-ups, early-stage ventures or sectors considered socially or economically beneficial.
 - E.g. Venture Capital Funds, Angel funds, SME Funds, Infrastructure Funds
- **Category II AIF:** They do not use leverage or debts other than to cover their day-to-day operational expenses.
 - E.g. Private Equity Funds, Debt Funds, Real Estate Funds.
- **Category III AIF:** It may use leverage including through investment in listed or unlisted derivatives.
 - E.g. Hedge Funds, Private investment in public equity (PIPE).

Context

- The Indian digital payment landscape has witnessed over 65,000 crore digital transactions amounting to more than Rs. 12,000 lakh crores in the last 6 Financial years.

About DPI

- RBI has developed the DPI (published Semi-annually) to measure the extent of digital payment adoption across India.
- DPI comprises these broad parameters: Payment Enablers; Payment Infrastructure – Demand-side factors & Supply-side-factors; Payment Performance; Consumer Centricity.
- The latest RBI-DPI indicates over fourfold growth in digital payment penetration since 2018.

Context

- A study of RBI has proposed the construction of a FCI for India to track market trends with daily frequency.

About Financial Conditions Index (FCI)

- It assesses the degree of relatively tight or easy financial market conditions with reference to its historical average since 2012.
- The chosen indicators represent five market segments: money market, G-sec market, corporate bond market, forex market, and equity market.
- A higher positive value of the FCI indicates tighter financial conditions.

Centre Allows Bike Taxis

- Context: The Union government has, for the first time, permitted the use of bike taxis through aggregators, subject to state government approval. This is significant for the gig economy, which consists of workers who perform work outside of traditional employer-employee relationships.
- Growth Drivers: The growth of the gig economy is driven by technological advancements, the expansion of gig platforms, and the emergence of a startup culture.

Ignite IAS

Black-Headed Caterpillar Disease

Agriculture

Context

- Coconut plantations across Karnataka are experiencing a widespread infestation of Black-Headed Caterpillar Disease. The pest, *Opisina arenosella*, is a leaf-eating caterpillar that reduces a plant's photosynthetic ability, and in severe cases, can reduce the yield by as much as 80%.

11th India Maize Summit

Agriculture

Context

- The 11th India Maize Summit was recently held in New Delhi. Maize, known as the "Queen of Cereals," is cultivated for food, livestock feed, ethanol, and industrial uses. India ranks 5th in global maize production, but its average yield is below the global average.

Deadly Fungus Threatens Endangered Western Ghats Tree

Agriculture

Context

- A newly detected fungal disease is attacking *Dipterocarpus bourdillonii*, a critically endangered tree endemic to the Western Ghats. The disease is caused by *Corynespora cassiicola*, a widespread phytopathogen that thrives in warm, humid climates and disrupts photosynthesis.

India's DAP Shortage Amid China's Export Restrictions

Agriculture

Context

- India is facing a shortage of Di-ammonium Phosphate (DAP) due to China's export restrictions. DAP is a vital fertiliser that contains 46% phosphorus and 18% nitrogen. India imports over 50% of its DAP requirement, and China was a major supplier.

Amendments to the Plant Treaty

Agriculture

Context

- Indian farmers and activists are opposing proposed amendments to the International Treaty on Plant Genetic Resources for Food and Agriculture (also known as the Plant Treaty).
- About:** The Plant Treaty is a binding agreement administered by the FAO that encourages the preservation and sharing of plant genetic resources. India is a member and its nodal agency for treaty-related coordination is the ICAR-NBPGR.

Doubling Farmers' Income

Agriculture

Context

- The Doubling Farmers' Income (DFI) mission, announced in the Union Budget 2016-17, aimed to double real farm income by FY 2024-25. It was guided by the Ashok Dalwai Committee (2018).

Seven Pillars

- The committee outlined seven key areas: improving crop and livestock productivity, enhancing resource efficiency, providing remunerative prices, increasing cropping intensity, promoting diversification, and shifting non-farm labor.

Pradhan Mantri Dhan-Dhaanya Krishi Yojana (PMDDKY)

Agriculture

Context

- The Union Cabinet approved the PMDDKY, a landmark umbrella initiative designed to boost agricultural productivity by integrating 36 central schemes across 11 departments.
- Features:** It is a Central Sector Scheme with 100% Central funding, modelled after the Aspirational Districts Programme. It aims to enhance productivity and self-reliance by targeting 100 underperforming districts.

Draft Petroleum and Natural Gas Rules, 2025

Infrastructure

Context

- The Ministry of Petroleum and Natural Gas released draft rules to boost domestic exploration, production efficiency, and ease of doing business.

Rules

- The rules aim to establish a framework that aligns with energy transition goals. They include a stabilisation clause to protect lessees, a framework for carbon capture and storage (CCS), and a restoration fund for decommissioning and post-closure monitoring.

Electricity Futures

Infrastructure

Context

- The National Stock Exchange (NSE) is set to launch "Electricity Futures," a new security that allows buyers and sellers to secure the price of electricity for a future date. This is a type of hedging, which is a risk management strategy to protect against potential losses from price movements.

India Energy Stack

Infrastructure

Context

- The Ministry of Power has initiated the India Energy Stack (IES) to build a secure, unified digital infrastructure for the power sector.

About

- The IES is a digital backbone for the power sector, inspired by Aadhaar and UPI. It aims to unify digital systems across the electricity value chain, from generation to consumption.

Natural Gas Pipeline Tariff Regulations, 2025

Infrastructure

Context

- The Petroleum and Natural Gas Regulatory Board (PNGRB) approved the Second Amendment to the Natural Gas Pipeline Tariff Regulations, 2025.

Reforms

- The reforms include a reduction in the number of Unified Tariff Zones from three to two and the nationwide extension of the Unified Zonal Tariff to CNG and PNG domestic segments.

Modernisation of Indian Railways

Infrastructure

Context

- Indian Railways has decided to install CCTV cameras in all coaches to enhance passenger security.

Initiatives

- Modernisation efforts include a budgetary boost, the indigenous anti-collision system KAVACH, the deployment of Vande Bharat trains, and the redevelopment of stations under the Amrit Bharat Station Scheme.

Context

- India and the UK signed the Comprehensive Economic and Trade Agreement (CETA), marking a major milestone in their partnership.

Additional Information:

- Major developments apart from CETA:**
 - India-UK Vision 2035 was adopted to guide cooperation for the next decade in the economy, technology, defence, climate, health, and education.
 - Defence Industrial Roadmap adopted for co-design, co-development, and co-production of defence products.

Key Highlights of the Comprehensive Economic and Trade Agreement:

- Comprehensive Tariff Elimination and Market Access
- Tariff Elimination:** Over 99% of tariff lines will be eliminated, covering almost India's entire trade basket.
- Meanwhile, India has opened 89.5% of its tariff lines, covering 91% of UK exports.
- Sensitive Sector Safeguards:** India has safeguarded sensitive sectors like dairy, cereal, millets, gold, jewellery, lab-grown diamonds, etc.
- Bilateral Safeguards:** Measures to control sudden import surges that could hurt domestic industries.

Services

- Deep Market Access:** Wider entry for Indian IT, finance, education, and healthcare services.
- Comprehensive Commitments:** India has secured wide-ranging commitments from the UK, covering all 12 major service sectors.

Mutual Recognition and Professional Mobility

- Mutual Recognition Agreement:** Both countries will recognise professional qualifications in areas like nursing, accountancy, and architecture within a year, easing mobility and reducing barriers.
- Temporary Entry for Professionals:** UK allows Indian business visitors, intra-corporate transferees, service suppliers, independent professionals, and investors to stay from 90 days to 3 years, with possible extensions.
- Double Contribution Convention (DCC):** It exempts Indian workers and their employers from social security contributions in the UK for up to three years when on temporary assignments.
- Simplified Rules of Origin:** Exporters can self-certify product origin, small consignments under £1,000 need no documents, and Product Specific Rules of Origin (PSRs) align with India's current supply chains for key sectors such as textiles, machinery, pharmaceuticals, and processed food.

Significance of CETA for India:

- Export growth:** Expected 20-40 per cent rise in exports in key sectors such as textiles, jewelry, machinery, etc.
- Geographical Indication protection:** Protection for Indian Geographical Indication (GI) products like feni, toddy, and Nashik wine.
- Market Access:** The agreement opens the UK's \$37.5 billion agricultural import market to Indian producers, with over 95% of agricultural and processed food items gaining duty-free access.
- Worker Benefits:** CETA upholds labour rights, ensuring awareness, access to fair tribunals, & transparent enforcement.
- Women workers will gain from provisions on non-discrimination and gender equality in the workplace.
- MSME and regional growth:** Trade boost will benefit key hubs like Tiruppur (textiles), Kolkata (leather), and Surat-Bharuch (chemicals).

Significance of India-UK Relations:

- Economic Cooperation:** Bilateral trade stands at USD 56 billion, with the goal of doubling it by 2030.
- Investment:** The UK is the 6th largest inward investor in India, with a cumulative equity investment of US \$ 35 billion till September 2024.
- Geo-Political:** Cooperation in multilateral forums such as the UN, UNSC, G20, Commonwealth, and the Indo-Pacific enhances mutual interests.

- The UK supports India's bid for a permanent seat in the UN Security Council.
- Defence Cooperation: India and the UK hold regular military exercises, including Konkan (naval), Cobra Warrior (air), and Ajeya Warrior (army).
- Indian Diaspora: The UK has a large Indian diaspora of 1.864 million as per the 2021 UK Census.
- Education cooperation: Several UK universities plan to open campuses in India, with the University of Southampton's Gurugram campus being the first under the New Education Policy.
- Around 170,000 Indian students are currently studying in the UK.
- Health Cooperation: E.g., The joint research and development of the COVID-19 vaccine, under a licensing agreement between UK-based AstraZeneca and Serum Institute of India.
- India-UK Framework agreement for collaboration on health care workforce supports recruitment and training of Nurses, Allied Health Professionals, etc.

Concerns in India-UK Relations:

- Divergent Foreign Policy Positions: For example, their stances on the Russia-Ukraine conflict are different.
- UK's Domestic Politics: UK political debates over Kashmir and comments on India's internal matters have occasionally created friction, influencing diaspora relations.
- Khalistan Separatism: India is concerned over the activities of pro-Khalistan elements in the UK, which it sees as a threat to its sovereignty.
- Extradition hurdles: Despite an extradition treaty, legal delays keep high-profile fugitives like Vijay Mallya in the UK, straining bilateral trust.

Conclusion

- The CETA, anchored within the India-UK Vision 2035, marks a pivotal milestone in bilateral ties, expanding cooperation in trade, technology, defence, climate, and education. With the UK's global influence as a P5, G7, and Five Eyes member, and India's position as the fastest-growing major economy, both nations stand at a strategic inflection point. By leveraging synergies in a volatile global order and advancing joint initiatives under Vision 2035, India and the UK are poised to elevate their partnership to unprecedented levels while addressing long-standing challenges.

PM's Visit to Ghana

International Relations

Context:

- The Prime Minister's recent visit to Ghana signals India's strategic effort to reposition itself as a development partner in Africa.

Key Outcomes

- The visit elevated India-Ghana ties to a "Comprehensive Partnership". Both nations signed four MoUs in areas such as traditional medicine and cultural exchange. Ghana became one of the first countries to incorporate India's UPI payment system.

India-Argentina Relations

International Relations

Context

- The Indian Prime Minister visited Argentina as part of a five-nation tour of the 'Global South'.

About Argentina:

- The capital is Buenos Aires. Argentina holds the world's third-largest lithium reserves and is the fourth-largest producer.

Relations

- The ties date back to 1848, with cultural links established through Rabindranath Tagore's visit in 1924. Both nations elevated their political relations to a "Strategic partnership" in 2019.



PM's Visit to Namibia

International Relations

Context

- The Prime Minister's visit to Namibia after 30 years reflects India's strategic outreach to the Global South, with a focus on energy security and critical minerals.

About Namibia

- Namibia is located on the southwestern coast of Africa. It is the world's third-largest uranium producer and a significant source of lithium, zinc, and rare earth elements.

Relations

- India supported Namibia's freedom struggle. The successful intercontinental cheetah translocation from Namibia to India in 2024 was a key highlight of their relationship.

China-Pakistan Collusion: India's New Strategic Challenge

International Relations

Context

- A recent report confirmed China's active support to Pakistan during Operation Sindoor, turning the theoretical "two-front war" into a "one-front reinforced war" with China's assets backing Pakistan.
- **"One-Front Reinforced" Threat:** This new challenge involves China's technological, logistical, and intelligence support to a Pakistan-led conflict, but without direct Chinese troop involvement. Key elements include the use of Chinese-origin military platforms like J-10C fighters and real-time ISR support.
- **Strategic Implications:** This complicates India's deterrence framework, necessitating a shift in battlefield doctrine to counter hybrid threats.

Hyper-Nationalism in India's Foreign Policy

International Relations

Context:

- Hyper-nationalism, defined as an excessive form of nationalism, is constraining India's strategic options and undermining its 'Neighbourhood First' policy goals.

Challenges

- It can lead to diplomatic rigidity, as seen in India's cautious stance on Ukraine and its refusal to engage with Pakistan. The "#BoycottMaldives" campaign demonstrated how hyper-nationalist sentiment can strain diplomatic ties with a neighbouring state.

Way Forward

- India should retain diplomatic flexibility, rebuild regional trust, and adopt a strategic realism that balances its interests without ideological overreach.

India and BRICS: Between Multipolar Aspirations

International Relations

Context

- India is balancing its aspirations for global leadership with the constraints of China-dominated forums like BRICS.

Aspirations

- India sees BRICS as a platform to create a multipolar world order, amplify the voice of the Global South, and access infrastructure financing through the New Development Bank (NDB).

Limitations

- China's economic dominance gives it disproportionate influence over the BRICS agenda, and the group's joint declarations often reflect China's preferences, sometimes undermining India's core diplomatic positions.

Context

- The Prime Minister's visit to Ghana, Trinidad & Tobago, and Argentina reaffirms India's strategic focus on the Global South.

About

- The Global South refers to economically developing countries in Asia, Africa, and Latin America. They share common challenges and are pushing for fairer climate finance and multilateral reforms.

India's Role

- India is positioning itself as a leader in the Global South by promoting multilateral reform, extending development cooperation through the ITEC Scheme, and offering digital solutions.

India Refuses to Sign SCO Draft Statement

International Relations

Context

- India's Defence Minister refused to sign the Shanghai Cooperation Organisation (SCO) draft statement during a meeting in China. The statement excluded any reference to the Pahalgam terror attack while highlighting a train hijacking in Pakistan, prompting India's refusal to endorse it.

About SCO

- The SCO is a Eurasian political, economic, and security alliance formed in 2001. Its key function is counter-terrorism, which it addresses through its Regional Anti-Terrorist Structure (RATS).

India-Maldives Relations

International Relations

Context

- Recently, Indian Prime Minister paid an official visit to Maldives marking 60 years of diplomatic ties.

Key outcomes of the visits:

- Extension of Line of Credit (LoC) of INR 4,850 crores to Maldives and reduction of annual debt repayment obligations of Maldives on Government of India-funded LoCs.
- Launch of India-Maldives Free Trade Agreement (IMFTA) negotiations and mutual agreement on its Terms of Reference.
- Agreement between NPCI International Payment Limited and Maldives Monetary Authority for launching UPI in Maldives.
- Various MoUs and agreements in field of Fisheries & Aquaculture, Digital Solution and recognition of Indian Pharmacopoeia were also signed.

Areas of Cooperation:

- India and Maldives share ethnic, linguistic, cultural, religious and commercial links. India was among the first to recognize Maldives after its independence in 1965 and to establish diplomatic relations with the country.
- **Strategic Location and Proximity:** Maldives is geographically positioned like a 'toll gate' between the western Indian Ocean (Gulf of Aden and Strait of Hormuz) and eastern Indian Ocean (Strait of Malacca).
- Maldives' proximity to India's west coast and its location at the hub of key Indian Ocean sea-lanes give it significant strategic importance for India.
- **Net Security Provider:** India is seen as a net security provider to the Maldives. It has been affirmed as Maldives holds a special place in India's "Neighbourhood First" policy, contributing to India's Vision MAHASAGAR (Mutual and Holistic Advancement for Security and Growth Across Regions) for the Indian Ocean Region (IOR).
- **Defence Cooperation and Security:** A comprehensive Action Plan for Defence (2016) has been signed to consolidate defence partnership. Joint exercises include Ekuverin, Ekatha, etc.
- Maldives has also joined Colombo Security Conclave as a founding member.

- **Economic Integration:** Bilateral trade crossed USD 548.97 million (2023), with India emerging as Maldives largest trading partner in 2023.
- **Humanitarian Diplomacy and "First Responder"** during crises: India has consistently been the "first responder" to Maldives during times of distress. It includes prompt assistance during coup attempt (1988), Tsunami (2004), Male water crisis (2014), Covid-19 pandemic etc.
- **Extensive P2P Linkages:** India has become a top tourist market for Maldives, with over 2.09 lakh Indian tourist arrivals in 2023.

Recent Irritants in the bilateral relations:

- **Domestic Politics of Maldives:** Maldives' internal political environment is largely polarized to 'Anti or Pro- India or China'.
- **Strategic Realignment under President Muizzu:**
 - Elected on a nationalist mandate of "India out Campaign", it fuelled anti-India public sentiments. It led to cancellation of hydrographical surveys, withdrawal of Indian Military personnel, etc.
 - Maldives changed its policy from "India first policy" to a "Maldives first" policy which aimed to diversify the Maldives' foreign policy.
 - **China Factor:** Maldives joined China's Belt and Road Initiative (BRI) in 2014 and China has made several large infrastructure investments. E.g., China-Maldives Friendship Bridge.
 - **Economic instability:** With high fiscal deficits and moderation in GDP growth, public debt of Maldives is projected to rise to 135.7% of GDP in 2027. (World Bank).
 - **Radicalization:** USA in 2023 designated financial facilitators and operatives of ISIS and Al Qaeda in the Maldives.

China's Hydropower Project on the Brahmaputra River

International Relations

Context

- China started construction of its Medog mega dam project on the Yarlung Zangbo (Brahmaputra in India) River in Tibet.

Additional Information:

- Beyond power generation, the project supports Beijing's goal of industrialising Tibet.
- China presents the Medog (Motuo) Dam project as both a renewable energy initiative and an economic boost for Tibet, supporting its goal of carbon neutrality by 2060.

About the Medog Hydropower Project:

- **Scale and Capacity:** Once completed, it will surpass the Three Gorges Dam as the world's largest, potentially generating three times more energy.
- **Location:** Situated at the Great Bend of the Yarlung Tsangpo River in Tibet, near the Arunachal Pradesh border.
- **Project design:** Marketed as a run-of-the river project, it will feature five cascade hydropower plants, reservoir-like structures, diverting up to half of the river's flow.

Key Concerns of the Project:

- **Geopolitical Concerns:**
 - **Disruption Concerns:** Disruption in water flow will affect Agriculture, Food security, and hydro projects in Northeast India.
 - E.g. Siang River disaster (2000).
 - **Security Risks:** Seen as a potential water bomb in times of tension.
 - **Water Resource Competition:** The Brahmaputra basin faces India-China-Bangladesh competition, driven by dams and diversion plans, posing risks to human security and regional stability.
- **Environmental Impact:**
 - Disruption of sediment flow vital for the Ganges-Brahmaputra Delta.
 - Threat to 218 fish species, including Hilsa and Mahseer, jeopardising two million livelihoods.



- **Disaster Vulnerability:**
 - Located in Seismic Zone V, prone to earthquakes and landslides.
 - A 7.5-magnitude quake in Tibet in December 2024 underscored the risk of catastrophic dam failure.

Way Forward

India's Potential Response:

- **Strategic countermeasures:** India plans the Siang Upper Multipurpose Project in Arunachal Pradesh as a hydropower response to China's upstream advantage on the Brahmaputra.
- Niti Aayog proposed a multipurpose project in the Siang region in 2017.
- **Transparency Demands:** Seek full disclosure of technical details, environmental studies and seismic safety plans, and press for suspension until these are addressed.
 - **Regional Coalition:** Unite downstream nations to demand legally binding water sharing accords under the 1997 UN Water Convention with hydrological data sharing, joint environmental assessments, etc.
 - **Transboundary Cooperation:** Push for mechanisms similar to China's agreements with Kazakhstan on shared rivers to safeguard India's co-riparian rights.
 - **Water Security Framework:** Explore a South Asia Water NATO for Brahmaputra, Indus and Ganges states modelled on collective security to ensure data transparency, dispute resolution, disaster readiness etc.
- Best Practices and lessons from the Nile Basin Initiative and the Mekong River Commission can be adopted.
- The Yarlung Tsangpo project underscores the need for urgent, cooperative water governance. Without transparency and equitable sharing through mechanisms like a middle riparian coalition or a South Asia Water NATO, it risks triggering ecological damage, economic loss, and regional instability.

India-Africa Relations

International Relations

Context

- Prime Minister of India completed his recent visit to African nations of Ghana and Namibia and he reiterated that "Africa's goals are India's priority".

Additional Information

- Prime Minister also addressed a special session of the Parliament of Ghana and was conferred the national honour of Ghana - Officer of the Order of the Star of Ghana - by the President of Ghana.
- He also welcomed the establishment of the Ghana-India Parliamentary Friendship Society which indicates a commitment to fostering closer ties at the legislative level.
- Both sides also agreed to elevate ties to a Comprehensive Partnership.
- India's Africa policy builds on old ties and focuses on present needs. It follows a consultative, demand-driven approach, working as equal partners under the Kampala Principles (refer infographic) highlighted by the Prime Minister of India in 2018.

Strategic significance of Africa for India

- **Strategic and Geopolitical:** Africa is natural partner of India in voicing the concerns of global south, advocating for reforms in multilateral institutions like UN and WTO, and promoting peace and security.
 - E.g., African Union's (AU) G20 membership, representing voice of global south, and Asia-Africa Growth Corridor (AAGC).
- AAGC was established in 2017 by India and Japan to foster sustainable and inclusive development in Africa through enhanced connectivity and cooperation between Asia and Africa.
- **Defence:** India and African countries are increasing their engagement through regional organizations like Indian Ocean Rim Association (IORA) and Indian Ocean Commission (IOC) and partaking in multinational maritime exercises like MILAN and Cutlass Express.
- Indian Navy recently launched a large-scale multilateral maritime engagement exercise with African Countries, titled as Africa India Key Maritime Engagement (AIKEYME).
- **Economic:** Africa offers a young, rapidly urbanising market and critical minerals (cobalt, manganese, rare earths) vital for India's manufacturing and green transition.
- Africa accounts for 48.1 per cent of cobalt and 47.7 per cent of manganese.
- India is Africa's third-largest trading partner (after EU and China).

- **Trade Basket:** Mainly includes mineral fuels, food products, pharmaceuticals, and so on from the Indian side and crude oil, diamonds, copper, etc., from the African side to India.
- **Market Access:** India is the first developing country to provide non-reciprocal duty-free market access to Least Developed Countries (LDCs) through its Duty-Free Tariff Preference (DFTP) scheme.
- **India's Soft Power Diplomacy:** Indian Technical and Economic Cooperation and Indian Council for Cultural Relations (ICCR) scholarships, along with the e-VidyaBharati & e-ArogyaBharati (e-VBAB) tele-education/telemedicine network, are signature capacity-building platforms spanning dozens of African countries.
- **Technology:** Digital connectivity is emerging as a new pillar with sharing of India Stack technologies with the African Nations such as the launch of UPI/ RuPay in Mauritius.
- **Energy Security:** Africa has significant potential in renewable energy with 10 TW of solar capacity, 100 GW of wind capacity, and 15 GW of geothermal energy.
- International Solar Alliance co-founded by India targets mini-grids and distributed solar in Africa through pilot projects and financing mechanisms (e.g., Global Solar Facility, STAR-C Initiative, Virtual Green Hydrogen Innovation Centre, etc.)

Concerns in India-Africa relations:

- **Delays in project execution and delivery:** Multiple India-funded infrastructure and capacity-building projects have faced delays due to procedural bottlenecks, funding disbursement issues, and logistical challenges in remote African regions.
- **Underrepresentation in Global Governance:** African nations continue to lack permanent representation in the UN Security Council and other global decision-making forums.
- **Strategic competition from other partners:** India's focus on capacity-building and concessional LoCs, while appreciated, sometimes struggles to match the speed, scale, and deep-pockets of China.
- **Security and political instability:** Political unrest, conflict, and terrorism in parts of Africa, especially the Sahel and Horn of Africa, raises safety concerns for Indian workers and investments.
- Traditionally, the African continent has played a central role in India's foreign policy with India having important stakes in the Africa. By focusing on capacity-building, local ownership, and partnership, and increasing goodwill via moral diplomacy, India hopes to create a long-term, sustainable, post-colonial model of South-South cooperation, with less dependency and more dependability.

INDIA-BRAZIL

International Relations

Context

- Indian PM was conferred with Brazil's highest civilian award, the Grand Collar of the National Order of the Southern Cross.

Key Agreements signed during visit:

- Agreement on Cooperation in Combating International Terrorism and Transnational Organized Crime.
- Memorandum on the exchange of large-scale digital solutions to support digital transformation.
- Exchange and mutual protection of classified information.
- MoU on renewable energy, agricultural research and intellectual property
- Establishment of a ministerial-level mechanism to monitor trade, commerce, and investment.
- Priority Pillars for the Next Decade: Defence and Security, food and nutritional security, energy transition and climate change, etc.

Brics Rio De Janeiro Declaration

International Relations

Context

- At the 17th BRICS Summit, BRICS leaders signed the Rio de Janeiro Declaration entitled "Strengthening Global South Cooperation for More Inclusive and Sustainable Governance".

Key Highlights of the BRICS Summit

- **Participation:** First summit to bring together 11 full member states and 10 partner countries, along with eight invited nations and numerous representatives from international organizations.

- Welcomed Indonesia as a BRICS member, as well as Belarus, Bolivia, Kazakhstan, Cuba, Nigeria, Malaysia, Thailand, Vietnam, Uganda and Uzbekistan as BRICS Partner countries.
- Launch of the Partnership for Elimination of Socially Determined Diseases (SDDs): To strengthen cooperation, mobilize resources, and advance collective efforts to eliminate SDDs in an integrated manner particularly in the Global South.
- SDDs are closely linked to poverty, inequality, and inadequate living conditions, presenting a major obstacle to sustainable development, economic stability, and global well-being.
- BRICS Leaders' Framework Declaration on Climate Finance: It charts a roadmap for the next five years to transform BRICS capacity to raise resources for fighting climate change.
- BRICS Leaders' Declaration on Global Governance of AI: It principles on digital sovereignty, UN-anchored multilateralism, responsible development, fair competition, equitable data governance, open & resource-efficient foundational models, environmental sustainability, and trustworthy/ethical AI.

BRICS and Global South Cooperation:

- The Rio de Janeiro Declaration underscores BRICS' collective resolve to champion the interests of the Global South.
 - **Strengthen Global Governance:** Declaration calls for the increased participation of developing countries in global decision-making processes and structures.
- It calls for transparent, inclusive selection of UN executive heads with equitable geographical and gender representation.
- Declaration calls for a comprehensive reform of the United Nations, including its Security Council, with support for the aspirations of Brazil and India to play a greater role.
 - **Multipolarity and Role of Global South:** Declaration emphasises the importance of the Global South as a driver of positive change, especially amid significant challenges including escalating geopolitical tensions, economic slowdown, accelerated technological transformation, protectionist measures, etc.
 - **Reform of Bretton Woods Institutions (BWIs):** It urges reforms in their governance structures, calls for merit-based, inclusive selection procedures and increasing diversity.
 - **Trading System:** Raised concerns about the rise of unilateral tariff and non-tariff measures and reiterate support for the rules-based, open, transparent, fair, inclusive, equitable, non-discriminatory, consensus-based multilateral trading system with the World Trade Organization (WTO) at its core.
 - **International Economic Cooperation:** Declaration stresses conclusion of a Strategy for BRICS Economic Partnership 2030 and launches discussions on a BRICS Multilateral Guarantees (BMG) pilot within the NDB to derisk investment.

Geelong Treaty under AUKUS

International Relations

Context

- Recently, Australia and United Kingdom (UK) signed a bilateral defence cooperation agreement also known as Geelong treaty, under AUKUS Pillar I for the next 50 years.

About Geelong Treaty:

- Also known as Nuclear-Powered Submarine Partnership and Collaboration Treaty, it aims to support stability and security in the Euro-Atlantic and the Indo-Pacific.

Objective

- Enable comprehensive cooperation on the design, build, operation, sustainment, and disposal of SSNAUKUS submarines and enable development of resilient trilateral supply chains.
- It is in line with international nuclear non-proliferation obligations and trilateral AUKUS Naval Nuclear Propulsion Agreement (ANNPA).

About AUKUS

- Established in 2021, it is a security partnership between Australia, the UK, and the US.
- It has two pillars:-
 - **Pillar 1:** Focuses on developing shipbuilding capacities of the three nations, which includes Australia's acquisition of its first SSNs (Nuclear-powered Attack Submarines).



- **Pillar 2:** Focuses on joint development of eight advanced military capability areas such as autonomy, artificial intelligence (AI), electromagnetic warfare, modelling, and simulation.
- The partnership would see the US sell submarines to Australia starting in the 2030s and the UK jointly produce new submarines with Australia that would enter into service in the early 2040s.

Strategic Significance of AUKUS:

- Strengthens US-led alliance system in Indo-Pacific: It is crucial to counter China's growing influence in the region and also signals US commitment to defend its allies and interests in the region.
- Enhances US access and presence in the region: It becomes true especially in Southeast Asia, where the US has sought to expand its military footprint.
- Boosts to US defence industry: It creates new opportunities for arms sales and technology transfers to Australia and the UK.

Girmitiya Community

International Relations

Context

- On his Trinidad and Tobago visit, the Prime Minister said India is working to create a Girmitiya community database and to regularly host World Girmitiya Conferences.

Additional Information:

- Extension of OCI cards to the sixth generation of the Indian diaspora in Trinidad and Tobago was also announced.
- Additionally, Trinidad and Tobago have become the first country in the region to adopt India's Unified Payments Interface (UPI).

About Girmitiyas:

- "Girmitiyas" were Indian indentured labourers who left India in the mid to late 19th century to work in British colonies especially after enforcement of British Slavery Abolition Act 1833, causing labour shortage.
- The term "Girmit" is a mispronunciation of "Agreement," referring to the contract under which they migrated.
- They went to work on sugar plantations, tea gardens etc. in the colonies, and many eventually settled there.
- **Distribution:** Mauritius, Fiji, West Indies, Mauritius, South Africa, Caribbean (mostly Trinidad and Tobago, Guyana, Suriname, and Jamaica).
- **Source Regions:** Mostly from the eastern United Provinces and Bihar.
- The economic challenges they faced back home, poverty, unemployment, unfavorable agricultural conditions, and prospect of greater pay and living conditions in the colonies were the main motivators for many Girmitiyas.
- However, after reaching the colonies, the workers continued to live in poverty as they had no access to resources, living wages, or even food and potable water.
- **Note-** Tamils from Madras, Negapatam and Thondi went to Ceylon, Burma and Malaysia.

Significance of Girmitiyas for India:

- **Deep cultural ties:** They became the majority group in countries like Mauritius, Guyana, Trinidad and Tobago, and Suriname, driving significant cultural assimilation of Indian traditions into local cultures.
- Songs, music, traditions similar to India
- **Festivals:** Celebration of Diwali, Ramleela in Fiji, Hosay festival in Trinidad and Tobago.
- **Folk Songs:** In Fiji and Surinam, North Indian folk songs Kaharva, Birha, Lorik, Faruahi etc. are popular.
- Use of musical instruments like Dhanatal with dholak, harmonium, Dandatal (eastern Uttar Pradesh).
- **Language:** Hindi, Bhojpuri, Awadhi are widely spoken in Mauritius, Fiji and Surinam.

Political:

- **Soft Power Diplomacy:** Support at multilateral forums like the UN, WTO etc.
- Hold highest state and government positions in the Girmitiya countries. For eg. Prime Ministers of Mauritius (Navinchandra Ramgoolam), Trinidad and Tobago (Kamla Persad-Bissessar).
- **Economic:** Source of philanthropy, information exchanges, investments in innovation, and support for development projects. For e.g. Mauritius (17% of total FDI FY 2024–25).

Group of Friends (GOF)

International Relations

Context

- India has reiterated its commitment to ensuring justice for crimes committed against UN peacekeepers at the meeting of the Group of Friends (GOF).

About GOF:

- It is Indian-led initiative and seeks to facilitate the promotion of accountability for all acts of violence against UN peacekeepers.
- Launched in 2022.
- The Group is a driving force of United Nations Alliance of Civilizations (UNAOC) and plays a vital role in UNAOC's strategic planning and implementation process.

International Criminal Court (ICC)

International Relations

Context

- International Criminal Court welcomed Ukraine as 125th State Party to the Rome Statute.

About the ICC:

- It is the first international permanent court to investigate and prosecute individuals accused of serious international crimes: genocide, war crimes, crimes against humanity and the crime of aggression.
- Established under the Rome Statute (adopted in 1998 entered into force in 2002).
- India is not party to the Rome Statute.
- Hq: The Hague, Netherlands.

E3 COUNTRIES

International Relations

Context

- Iran was recently threatened of snapback sanctions by E3 countries amidst the derailed U.S.-Iran nuclear talks.
- Snapback sanctions (under 2015 Joint Comprehensive Plan of Action (JCPOA)) - are provisions that allow reimposition of sanctions against Iran if it violates its nuclear commitments.

About E3 countries:

- About:** E3 is an informal foreign and security cooperation arrangement between the UK, Germany and France.
- Origin:** The E3 met for the first time after the US attacked Iraq in 2003 to identify a trilateral strategy towards Iraq, and manage nuclear risks coming from Iran.

Kaladan Multimodal Transit Transport Project (KMTTP)

International Relations

Context

- Union Minister said that KMTTP will be Operational by 2027.
- Jointly identified by India and Myanmar, it offers multimodal transportation of cargo from Eastern Ports of India to Myanmar and to India's North-Eastern Region (NER) through Myanmar.

About KMTTP

- Framework Agreement:** Signed in 2008.
- Nodal Ministry:** Ministry of External Affairs.
- Project Development Consultant (PDC):** Inland Waterways Authority of India (IWAI).
- Transit Components**
- Waterway Component:** On Kaladan River from Sittwe Port (Rakhine, Myanmar) to Paletwa in Myanmar.
- Road Component:** From Paletwa to Zorinpui on India-Myanmar border in Mizoram.

Significance of KMTTP for India:

- **End Geographic Isolation of NER:** Region is connected with rest of India through the "Chicken's Neck" (narrow corridor of just 21 km) and is surrounded by international borders.
- **Aligns with India's Act East Policy (AEP):** Announced in 2014, focuses on India's connectivity with the neighbourhood.
- **Logistics Cost and Time:** Cost and time for transportation of goods from Kolkata to Aizwal would drop by more than 50%.
- **Develop NER as a business hub:** Boost trade, establish export-oriented industries, particularly in sectors like manufacturing and agro-processing.

Other Connectivity Projects for NER:

- **India-Myanmar-Thailand Trilateral Highway Project:** Connects Moreh (Manipur, India) to Mae Sot (Thailand) via Myanmar.
- **Protocol on Inland Water Transit and Trade (PIWT&T):** Between India and Bangladesh allowing inland vessels/cruises of one country to ply on the designated waterway routes of another.
- **Others: Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicle Agreement;** MoU for the use of Chattogram and Mongla Ports of Bangladesh.

Global Peace Index, 2025

International Relations

Context

- The 19th edition of the Global Peace Index (GPI) has been released by the Institute for Economics and Peace (IEP).

About Global Peace Index (GPI)

- It included 163 independent state and territories.
- It uses 23 qualitative and quantitative indicators across three domains:
- Level of Societal Safety and Security.
- Extent of Ongoing Domestic and International Conflict.
- Degree of Militarisation.

Key Findings:

- Average level of global peacefulness deteriorated.
- South Asia, the second least peaceful region globally, experienced the largest regional decline in peacefulness.
- **Ranking:** Iceland has been placed at first place.
- India's rank is 115th.
- Russia (163 Rank) is the least peaceful country.

Henley Passport Index 2025

International Relations

Context

- India's ranking in Henley Passport Index jumps from 85 (2024) to 77 (2025). Indian citizens can now travel to 59 destinations without needing to secure a visa beforehand.

About Henley Passport Index

- It is the original, authoritative ranking of all the world's passports according to the number of destinations their holders can access without a prior visa.
- It is based on exclusive data from the International Air Transport Association (IATA).
- Singapore holds the top spot in the Index.

M23 Rebels

International Relations

Context

- Democratic Republic of Congo (DRC) and Rwanda-backed M23 rebels have committed to a permanent ceasefire in eastern Congo.

About M23 rebels

- M23, or March 23 Movement primarily consists of ethnic Tutsis is a major armed group fighting Congolese forces in mineral-rich eastern DRC.
- It is named after date in 2009 of the signing of an accord between CNDP, a Tutsi-led rebel group, and the Congolese government to end a revolt led by the Tutsi people.
- The CNDP members formed the M23 movement in 2012 to protest the failed implementation of the 2009 accord, for protecting minorities and distributing resources evenly.

New Caledonia

International Relations

Context

- France announces an agreement to give New Caledonia more autonomy.
- The agreement would create the "State of New Caledonia" within the French Republic, that would give the semiautonomous Pacific territory more freedoms but stops short of granting it independence.

New Caledonia

- Location:** French overseas territory in the Pacific Ocean.
- History:** During the 1840s, Islanders were kidnapped by European traders as slaves or for forced labour in sugarcane plantations, later in 1853 annexed by France.
- Present Demand:** Deep divisions between its indigenous Kanak population and Europeans, over its independence.

Red Sea

International Relations

Context

- Red Sea cargo ships face new attacks as Houthis (Yemen) claim to have sunk vessel.

Red Sea

- The Red Sea marginal sea in the north-west of the Indian Ocean.
- It is connected to the Gulf of Aden via Strait of Bab El Mandeb and to the Mediterranean Sea via Suez Canal.
- Bordering Nations:** Egypt, Sudan and Eritrea (West), Israel & Jordan (North East) via the gulf of Aqaba and Saudi Arabia & Yemen (East).
- Northern Split:** Red Sea in its northern part splits into two parts, the Gulf of Suez (Northwest) and Gulf of Aqaba (Northeast).
- It contains one of the world's most saline seawater.
- The Red Sea receives very little precipitation in any form, and no water enters the Red Sea from rivers.



Context

- Denmark has proposed a Copyright Amendment Bill to prevent deepfakes by granting individuals copyright over their face, voice, and appearance.

About

- Deepfakes are AI-generated synthetic media that imitate real people. The Danish bill introduces imitation and performance protection, requires prior consent, and establishes platform liability for hosting deepfake content.

NISAR (NASA-ISRO Synthetic Aperture Radar) Satellite

Science & Technology

Context

- The NISAR satellite was successfully launched from Satish Dhawan Space Centre, Srihari Kota.

About NISAR satellite

- NISAR is an L and S-band, global, microwave imaging mission, with capability to acquire fully polarimetric and interferometric data.
- Developed jointly by ISRO and the American space agency NASA
- NASA provided the L-band radar, GPS receiver, high-rate telecom system, Solid-State Recorder, and the 12-meter deployable antenna.
- ISRO contributed the S-band radar, the spacecraft bus, the GSLV-F16 launch vehicle, and associated systems and services.
- In terms of total investment, NASA has contributed about \$1.16 billion, while ISRO has pitched in with \$90 million.
- Weight: 2,392 kg
- Launch Vehicle: ISRO's Geosynchronous Satellite Launch Vehicle (GSLV)-F16.
- Orbit: Sun Synchronous Polar Orbit
- It is the first time a GSLV rocket was used to place a satellite into a 743 km Sun-Synchronous orbit (SSO).
- GSLV is typically used for placement in Geosynchronous Transfer Orbit/GTO (35 786 km).
- SSO is a polar orbit where satellites are in sync with Sun, matching earth's rotation around sun and appearing to be in the same position relative to sun.
- Mission Life: 5 years.

Technical Features

- SweepSAR (Swept Synthetic Aperture Radar): It is a technique used in radar imaging to produce high-resolution, wide-swath images across a broad range of terrain.
- Repeat Cycle: The NISAR mission will provide high-resolution data every 12 days to monitor land changes across Earth.
- Dual-band Synthetic Aperture Radar (SAR):
- L-band SAR operates at 24 cm wavelength and can penetrate forest canopy, ice, and soil, useful for biomass and deformation studies.
- S-band SAR operates at 12 cm wavelength and will excel at quantifying changes such as tree canopy height and melting snowpack.
- It is world's first Earth observation satellite to integrate both L-band and S-band SAR on a single platform.
- Antenna and Resolution The satellite features a large, 12-metre diameter common unfurlable reflector antenna.
- The NISAR is a powerful tool for sustainable development, disaster preparedness, and climate resilience. For India, it marks a leap in Earth observation capability, ensuring better planning, policy-making, and fulfilment of developmental goals.

Context

- An international network of gravitational wave observatories has recently detected the merger of two exceptionally massive black holes.

Additional Information:

- Two black holes, one of them 140 times more massive than the Sun, and the other 100 times bigger, merged to result a black hole estimated to be about 225 times the size of the Sun.
- This event actually occurred billions of years ago.
- This is the biggest black hole merger ever observed.
- The detection of the gravitational waves from this event was made by the LVK network of observatories, involving the LIGO detector in the United States, Virgo in Italy and KAGRA in Japan.
- The latest discovery, given the name GW231123 (The assigned name of the gravitational wave).
- Refine Astrophysical and Cosmological Models:** The detection has the potential to refine the current understanding of black hole formation, the evolution of stars, and, possibly, the current models of the universe itself.
- It opens up new directions in theories of gravity, astrophysics, cosmology, particle physics, or cosmic strings.
- Challenges the current understanding of black hole formation: This merger surpasses all previous detections in mass, resetting our understanding of black hole extremes.
- In addition to being extremely massive, they were also spinning incredibly fast, making this a uniquely challenging signal to interpret and suggesting the possibility of a complex formation history.
- Insight into Hierarchical Mergers:** One proposed possibility for the formation of such massive intermediate-mass black holes (like those detected in GW231123) is through a "hierarchy of mergers" of smaller black holes.
- Such a hierarchical process might be responsible for the formation of supermassive black holes, which are the "engine" of any spiral galaxy.
- Gravitational Waves as a New Tool:** Advancing the Study of Gravitational Waves is particularly crucial for studying dark matter and dark energy, which do not interact with electromagnetic waves and are therefore 'invisible' to conventional methods.
- Gravitational Waves are 'ripples' in space-time caused by some of most violent and energetic processes in the Universe.
- Albert Einstein (in his General Theory of Relativity) predicted their existence in 1915.

Black Hole:

- A black hole is a place in space **where gravity pulls so much that even light cannot get out**. The gravity is so strong because matter has been squeezed into a tiny space.
- Black holes don't emit or reflect light, making them effectively invisible to telescopes. However, **scientists can see how the strong gravity affects the stars and gas around the black hole**.
 - Scientists can study stars to find out if they are flying around, or orbiting, a black hole.
- Formation of Black Hole:** Most of black holes are formed from the remnants of a large star that dies in a supernova explosion.
 - When stars are especially large, the core collapses into a black hole. Otherwise, the core becomes an ultra dense neutron star.
- Types of Black Hole:** Stellar, super massive, intermediate and primordial.

India's AI-Driven Ayush Revolution

Context

- A WHO technical brief highlighted India's efforts in integrating AI with traditional medicine systems, especially AYUSH.

Initiatives

- India's efforts include Ayurgenomics, which integrates Ayurveda and genomics with AI to personalise disease prediction. The country has also created a Traditional Digital Knowledge Library and platforms like Ayush Grid, SAHI Portal, and NAMASTE Portal.

Context

- Twitter Co-Founder shared details of Bluetooth Messaging App, Bitchat.
- Bitchat is a new peer-to-peer messaging app that communicates without a centralised server or phone network.
- Bitchat relies on Bluetooth Low Energy Mesh Networking to enable communication.

What is Bluetooth Mesh Networking?

- It relies on Bluetooth clusters or Mesh network created by devices in a range.
- Mesh network, also known as "multi-hop network", is a networking topology.
- In it, data can travel from any device to all others, achieving many-to-many communication.
- Even if one device fails, the network keeps working.
- Messages are broadcast and relayed by nodes until they reach the intended destination.
- When a Bluetooth device joins a Mesh network, it becomes a node.

Potential Benefits of Bluetooth Mesh Networking

- No central database: the messages are stored entirely on users' devices and are deleted after a short period.
- This design is created to prioritise users' privacy.
- Also, Messages are end-to-end encrypted and do not leave the network.
- No registration required: Users are not required to create accounts using their email or phone number, making the communication anonymous.
- **Other:** Low Power Consumption, etc.
- **Key Limitations:** high latency, Complex network management, low data transfer rates, etc.

Ai Alliance Network (AIANET)

Context

- The Digital India Foundation (DIF), a founding member of the AIANET, has objected to the membership application of Pakistan's AI Technology Centre (AITeC) to AIANET.
- Digital India Foundation (DIF) is a not-for-profit think-tank aiming to foster digital inclusion and adoption, and the use of the Internet and related technologies for the developmental process.

About AIANET

- **About:** It is an informal voluntary network and community for its members to exchange views, share information and expertise.
- **Aim:** Accelerate the development and deployment of AI technologies to enhance sustainable long-term prosperity, social and economic development
- **Members:** 17 including India.
- Administered by: AI Alliance Russia.

Mitochondrial Donation Treatment (MDT)

Context

- At least eight babies have been born in the United Kingdom using Mitochondrial Donation Treatment (MDT) to prevent the inheritance of mitochondrial diseases.

About

- MDT is an advanced fertility technique that replaces the faulty mitochondria in a mother's egg with healthy mitochondria from a donor. It is also known as a "three-parent baby" technique.

Context

- The Initiative aims to raise prices of any or all of three unhealthy products tobacco, alcohol, and sugary drinks by at least 50% through health taxes by 2035.
- Launched initiative can mobilize an additional US\$ 1 trillion in public revenue globally over next decade.
- This Initiative functions as a collaborative alliance with coordinate efforts from coalition of development partners, civil society, academic institutions, and national governments.

What is Health Tax?

- Levied on products that have a negative public health impact e.g. Tobacco, Alcohol etc.
- WHO recommends taxation as one of the most cost-effective tools for addressing population levels of obesity and other related non-communicable diseases (NCDs).

Need for Health Tax:

- **Health Impact:** Consumption of tobacco, alcohol, and sugary drinks fuels the NCD epidemic which accounts for over 75% of global deaths.
- **Economic Impact:** These products create negative externalities (costs to others) and internalities (hidden costs to consumers).
- Tobacco use alone costed the global economy US\$ 1.4 trillion in 2012.
- **Revenue Generation:** 50% tax can generate up to US\$ 3.7 trillion in new revenue globally within five years, or an average of US\$ 740 billion per year – equivalent to 0.75% of global GDP.
- **Promote Equity:** As NCDs impact lower-income populations disproportionately.

Steps taken in India for curbing consumption of Unhealthy Products:

- Aerated beverages in India are taxed at 28% GST and an additional 12% Compensation cess.
- High-fat sugar Salt (HFSS) foods in India are taxed at a 12% GST rate.
- FSSAI limits Trans fatty acids (TFA) in food products to 2% by mass of total oils and fats.

WHO/UNICEF Data on Immunization

Science & Technology

Context

- The WHO/UNICEF 2024 Estimates show significant progress on Immunization in India.
- The data provides the world's largest and most comprehensive dataset on immunization trends for vaccinations against 14 diseases.

Key Findings:

- **Global:** In 2024, 89% of infants globally received at least one dose of the diphtheria, tetanus and pertussis (DTP) containing vaccine.
- **India:** It reduced its number of zero-dose children by 43% in 2024 (from 1.6 million in 2023 to 0.9 million in 2024).
- The Zero-dose children are those who have not received a single vaccine.

Universal Immunization Programme (UIP) of India:

- **Genesis:** Initially launched in 1978 as the Expanded Programme on Immunization, it was rebranded as the UIP in 1985.
- **Coverage:** Provides free immunization against 12 diseases:
- **Nationwide (9):** Diphtheria, Pertussis, Tetanus, Polio, Measles, Rubella, Childhood Tuberculosis, Hepatitis B and Meningitis & Pneumonia.
- **Region-specific (3):** Rotavirus diarrhoea, Pneumococcal Pneumonia, and Japanese Encephalitis.
- Under the National Rural Health Mission, the UIP has become a central component of India's public health efforts.
- Under this, a child is considered fully immunized after receiving all vaccinations as per the national schedule within the first year of life.

- Achievements: Polio-Free India (2014), Neonatal tetanus elimination (2015).
- Key Initiatives: Intensified Mission Indradhanush 5.0 (IMI 5.0) campaign with special focus on improvement of Measles and Rubella vaccination coverage, U-WIN Portal etc.

Phenome India National Biobank

Science & Technology

Context

- The National Biobank inaugurated at the CSIR-Institute of Genomics and Integrative Biology (IGIB). The newly launched facility marks a significant stride towards building India's own longitudinal health database. It will enhance India's capabilities in precision medicine and biomedical research.

About National Biobank

- **Launched under:** Phenome India Project
- It is based on the UK Biobank model, but customized for Indian diversity.
- **Purpose:** It will aid in early diagnosis, improve therapeutic targeting, and bolster the fight against complex diseases such as diabetes, cancer, cardiovascular ailments, and rare genetic disorders.
- It will generate high-resolution data that can power AI-driven diagnostics and gene-guided therapies.
- **Coverage:** It will collect comprehensive genomic, lifestyle, and clinical data from 10,000 individuals.

About Phenome India Project

- It is officially called as Phenome India-CSIR Health Cohort Knowledgebase (PI-CheCK).
- **Launched by:** Council of Scientific and Industrial Research (CSIR) in 2023.
- **Objective:** It is designed to be a long-term, data-rich study tracking the health trajectories of individuals over several years.

What is Phenome?

- Phenome is the entire set of phenotypes in a cell, tissue, organ, organism or species.
- Phenotype refers to the observable physical characteristics of an organism.
- These include the organism's appearance, development, and behaviour.
- An organism's phenotype is determined by its genotype (set of genes the organism carries) as well as by environmental influences upon these genes.

Supreme Court Issues Directions on Handling DNA Evidence

Science & Technology

Context

- In a landmark judgment, the Supreme Court acquitted a death row convict in a murder and rape case, highlighting severe lapses in the handling of DNA evidence.

Directions

- The court issued nationwide, binding directions on DNA evidence handling, including a standardised protocol for sample collection, timely transportation, and documentation.

Financial Fraud Risk Indicator (FRI)

Internal Security

Context

- The RBI has advised banks to use the Financial Fraud Risk Indicator (FRI) to combat cyber threats.

About

- The FRI is a risk-classification tool developed by the DoT's Digital Intelligence Unit (DIU) that identifies mobile numbers associated with financial fraud. It leverages data from platforms like the I4C's National Cybercrime Reporting Portal (NCRP) and the DoT's Chakshu platform.

Quantum Cyber Readiness

Internal Security

Context

- MeitY, CERT-In, and cybersecurity firm SISA jointly launched a whitepaper titled "Transitioning to Quantum Cyber Readiness" to prepare for disruptive potential of quantum technologies, especially in cybersecurity.

Additional Information:

- The whitepaper warned that Quantum computers pose a serious threat to current encryption algorithms by breaking asymmetric cryptographic protocols such as Rivest-Shamir-Adleman (RSA).
- Quantum computers can solve complex, intractable mathematical problems - and perform tasks in machine learning, optimization, and logistics - orders of magnitude faster than conventional computers.
- As per the paper, any data requiring protection beyond 2030 should be considered at immediate risk. Cyber Threats related to Quantum Technology
- Harvest Now, Decrypt Later (HNDL) Attacks: These attacks involve adversaries collecting and storing encrypted data today with the intention of decrypting it once quantum computers become capable of breaking current cryptographic systems.
- Secure channel decryption: Quantum computing can break encrypted network communications and "listen in" on sensitive conversations like defence communications.
- Signature impersonation: Quantum computing can enable attackers to forge digital certificates, enabling malware distribution and targeted phishing.
- New "Zero-Day" vulnerabilities: This includes the potential for yet unknown quantum algorithms to break existing cryptographic systems and challenges associated with transitioning to quantum-resistant cryptography.

Operation Mahadev

Internal Security

About Operation Mahadev

- A joint counter terror mission of Indian Army, CRPF & J&K Police.

Objective

- Eliminate foreign terrorists who have infiltrated into Kashmir valley with support from Pakistan-based groups like LeT.

Operation- Med Max

Internal Security

Context

- It was an operation conducted by Narcotics Control Bureau (NCB) for cracking down on illegal pharmaceutical drug trade.
- Under it, NCB dismantled a transnational drug trafficking syndicate that smuggled controlled medicines across four continents.
- The syndicate used encrypted digital platforms, drop shipping models, and cryptocurrency to smuggle the controlled substances.
- The network showcases the growing convergence of digital platforms, cryptocurrency, and transnational logistics in modern illicit trade.



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PROJECT 17A

Internal Security

Context

- INS Udaygiri, the second ship of Project 17A's stealth frigates, was delivered to the Indian Navy.

Project 17A

- The Project is follow-on of the Shivalik class (Project 17) frigates active in service.
- Frigate is a multi-role vessel utilized for fleet surface ship protection against surface combatants or incoming aerial threats.
- P-17A ships have enhanced stealth features and fitted with 'State of the Art' weapons and sensors, a significant upgrade from the P17 class.
- These multi-mission frigates are capable of operating in a 'Blue Water' environment dealing with both conventional and non-conventional threats in the area of India's Maritime Interests.

Extended Range Anti-submarine Rocket

Internal Security

Context

- India has tested the indigenous anti-submarine rocket systems.

About ERASR

- ERASR is a totally indigenous anti-submarine rocket used to combat submarines and fired from onboard of Indian Naval Ships.
- It has twin-rocket motor configuration to meet a wide spectrum of range requirements with high accuracy and consistency.
- It uses an indigenously developed Electronic Time Fuze.
- Designed and developed by DRDO's Armament Research & Development Establishment (ARDE), Pune.

Astra Missile

Internal Security

Context

- DRDO & Indian Air Force (IAF) successfully conducted the flight-test of 'Astra' equipped with indigenous Radio Frequency (RF) Seeker from Su-30 Mk-I platform.

About Astra Missile

- It is Indigenous Beyond Visual Range Air-to-Air missile (BVRAAM).
- The missile is designed to engage and destroy highly manoeuvring supersonic aircraft.
- Developed by Defence Research and Development Organisation (DRDO).
- The missile has all weather day and night capability.
- Its range exceeds 100 kms and is equipped with state-of-the art guidance and navigation systems.

Pralay Missile

Internal Security

Context

- DRDO conducted two consecutive successful flight tests of the Pralay missile at Odisha coast.

About Pralay missile:

- A surface-to-surface short range solid propellant quasi-ballistic missile which can fly at hypersonic speed (Above Mach 5).
- Quasi ballistic missiles are a class of missiles that have low trajectory and take ballistic trajectory but can change course and make manoeuvres during the flight if required.
- Developed indigenously by: Hyderabad-based DRDO facility Research Centre Imarat in collaboration with other facilities.
- Strike Range: From 150 to 500 km.

Context

- Following Operation Sindoor, India saw a sharp increase in demand for its defence systems, including hypersonic missiles and stealth jets.

Reasons

- The boom is attributed to combat validation of Indian platforms, increased global trust in Indian systems, and strategic signalling of India's power projection doctrine. Defence exports rose from Rs 686 crore in 2013-14 to ₹23,622 crore in 2024-25.

Urban Maoism

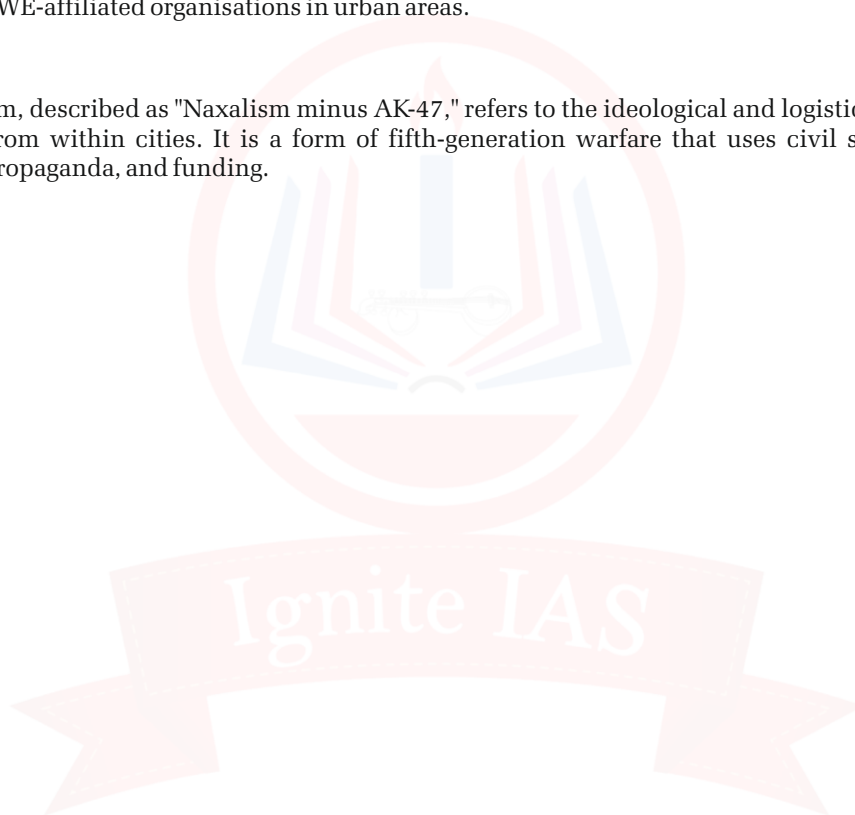
Internal Security

Context

- The Maharashtra Legislative Assembly passed the Special Public Security Bill 2024 to curb the unlawful activities of LWE-affiliated organisations in urban areas.

About

- Urban Maoism, described as "Naxalism minus AK-47," refers to the ideological and logistical support for Maoist insurgency from within cities. It is a form of fifth-generation warfare that uses civil society as a cover for leadership, propaganda, and funding.



Context

- The Justice Hema Committee was an advisory committee constituted by the Government of Kerala in 2017 to investigate the issues faced by women in the Malayalam film industry. The committee's formation followed a high-profile sexual assault case against an actress and a subsequent petition from the Women in Cinema Collective (WCC), an organization formed by women professionals in the industry.

**Mandate and Members**

- The committee was tasked with studying and reporting on the problems faced by women in Malayalam cinema, including gender inequality, discrimination, and sexual harassment. The three-member panel was led by Justice K. Hema, a retired judge of the Kerala High Court. The other members were veteran actress Sarada and retired IAS officer K.B. Valsala Kumari.

Key Findings and Recommendations

- After two years of extensive investigation, the committee submitted its report in 2019. The report, which was made public in August 2024 after a protracted legal battle, contained shocking revelations about the industry. The key findings include:
 - Rampant Sexual Exploitation:** The report detailed widespread sexual abuse and the prevalence of the "casting couch," where women were coerced into sexual favors for work opportunities. The report even noted that minors were not spared from this exploitation.
 - A "Power Group":** The committee identified the existence of a male-dominated "power group" of about 15 individuals—including producers, directors, and actors—who allegedly controlled the industry and were responsible for blacklisting those who did not comply.
 - Inhumane Working Conditions:** The report highlighted the lack of basic facilities, such as toilets and dressing rooms, on film sets, as well as the absence of written contracts, leading to wage disparity and delayed payments, especially for junior artists.
 - Criminal Influence:** The report also indicated the presence of criminal elements and substance abuse within the industry.
- To address these issues, the committee made several recommendations, including:
 - Mandating the establishment of Internal Complaints Committees (ICCs) in line with the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (POSH Act).

Making written contracts mandatory for all film employees.

- The formation of a tribunal to handle harassment and discrimination cases, with in-camera proceedings to protect the privacy of survivors.

Aftermath

- The release of the report sparked a renewed #MeToo movement in the Malayalam film industry. It prompted several women to come forward with their own stories of harassment, leading to the resignations of some prominent figures from their positions in industry bodies. The Kerala High Court has since directed film production houses to form ICCs, treating each film unit as an independent establishment.

Context

- DIGIPIN, or Digital Postal Index Number, is a unique 10-character alphanumeric code that assigns a precise, geo-coded address to every 4m x 4m grid area across India. It was developed by the Department of Posts in collaboration with IIT Hyderabad and the National Remote Sensing Centre (NRSC) of ISRO.
- Unlike the traditional 6-digit Postal Index Number (PIN code), which identifies a broad postal area, a DIGIPIN provides a highly specific location, making it a "digital address" for any location, whether a home, office, or a point in a remote rural area.

Key Features and Benefits

- **Precision:** DIGIPIN is based on the exact latitude and longitude of a location, allowing for pinpoint accuracy. This is a significant improvement over traditional addresses, which can be vague or unstructured, especially in rural or new urban areas.
- **Open-Source and Offline Capability:** The system is open-source, allowing private companies, state governments, and service providers to integrate it into their systems. It is also designed to work offline; once a code is generated, it can be shared and used without an internet connection.
- **Wide-Ranging Applications:** While developed by India Post, DIGIPIN is intended for use across various sectors. Its applications include:
 - **E-commerce and Logistics:** It helps in efficient last-mile delivery, reducing delays and failed deliveries due to unclear addresses.
 - **Emergency Services:** Fire, ambulance, and disaster-relief teams can use a DIGIPIN to quickly and accurately navigate to an exact location, potentially saving lives.
 - **Government Services:** It can be used for the precise delivery of government welfare schemes and for urban planning.
 - **Banking and Authentication:** It can be used for location-based authentication and service delivery.
- **Complements, Not Replaces, PIN Codes:** DIGIPIN is not intended to replace the existing PIN code system. It acts as an additional layer of precision and a digital complement to the traditional postal address.
- **Privacy-Focused:** The system is designed to be secure and privacy-centric. A DIGIPIN code only represents a location's geographic coordinates; no personal data is associated with it.
- **Citizens can find their DIGIPIN** through the "Know Your DIGIPIN" portal on the India Post website by sharing their GPS coordinates or by manually placing a pin on a map.

CROPIC

Issues and Persons

Context

- CROPIC stands for Collection of Real Time Observations & Photo of Crops. It is a major digital initiative by the Ministry of Agriculture and Farmers Welfare, Government of India, aimed at revolutionizing crop monitoring and loss assessment. The program leverages artificial intelligence (AI) and crowdsourced data to enhance the efficiency and transparency of the Pradhan Mantri Fasal Bima Yojana (PMFBY), a key crop insurance scheme.

How CROPIC Works

- **Crowdsourced Data Collection:** The initiative uses a dedicated mobile application where farmers and field officials can upload geo-tagged and time-stamped photographs of their crops at different stages of their growth cycle (typically 4-5 times per season).
- **AI-Powered Analysis:** The collected images are uploaded to a cloud-based platform where AI and machine-learning algorithms analyze them to determine:
 - The type of crop.
 - Its current growth stages.
 - Its health status.
 - The extent of any visible damage from pests, diseases, or natural calamities.
- **Real-time Monitoring:** The analyzed data is displayed on a centralized web dashboard, providing real-time information to government officials, insurance companies, and other stakeholders for informed decision-making.

Key Objectives and Significance

- **Automating Crop Loss Assessment:** The primary goal of CROPIC is to automate and streamline the process of assessing crop damage. By using verifiable photographic evidence, it reduces the need for manual, subjective surveys, which can be time-consuming and prone to errors.
- **Faster Insurance Claim Settlements:** By providing a transparent and evidence-based system for verifying crop losses, CROPIC aims to significantly reduce the time taken to process and disburse insurance claims to farmers under PMFBY, thereby strengthening their financial resilience.
- **Data-Driven Policymaking:** The initiative will help build a rich digital repository of crop-related data and images, which can be used for future research, yield forecasting, and developing more effective agricultural policies.
- CROPIC is part of the government's broader vision for digital agriculture and is currently being implemented as a pilot study in select districts for the Kharif and Rabi seasons of 2025-26, with a nationwide rollout planned for 2026.



Context

- India's Polar Research Vehicle is being designed and built in a collaboration between Garden Reach Shipbuilders and Engineers Ltd. (GRSE) of India and the Norwegian firm Kongsberg. This project is a significant step towards the "Make in India" initiative, showcasing India's growing indigenous shipbuilding capabilities. The PRV is expected to be delivered within five years at an estimated cost of Rs 2,600 crore.

Purpose and Capabilities

- The PRV will serve as a floating research laboratory, equipped with advanced scientific instruments to conduct a wide range of studies, including:
 - Glaciology:** Studying the dynamics of ice sheets and glaciers.
 - Marine Biodiversity:** Exploring polar ecosystems and marine life.
 - Climate Science:** Investigating climate change impacts, sea-level rise, and carbon cycles.
 - Oceanography:** Conducting deep-sea exploration and ocean floor mapping.
- The vessel will be a "polar-class" ship, specifically engineered to navigate through sea ice and withstand the extreme weather conditions of the polar regions.



Current Research Vehicles

- Currently,** India's polar missions rely on a combination of chartered vessels and specialized land vehicles at its research stations.
- Ships:** India primarily charts ice-class cargo vessels, such as the Russian vessel MV Vasilii Golovnin, for transporting personnel and cargo to its Antarctic and Arctic bases.
- Land Vehicles:** At its permanent research stations—Maitri and Bharati in Antarctica, and Himadri in the Arctic—India uses specialized snow vehicles like Pisten Bully, snow scooters, and customized Toyota trucks to facilitate research and logistics on land.

Operation Rising Lion

Issues and Persons

Context

- "Operation Rising Lion" is the codename for a major military operation carried out by Israel against Iran. The strikes, which took place in June 2025, marked a significant escalation in the long-standing tensions between the two countries.

The key aspects of the operation:

- Objectives**
 - Targeting Iran's Nuclear Program:** The primary goal was to degrade or neutralize Iran's nuclear infrastructure and halt its uranium enrichment capabilities, which Israel views as an existential threat. Key nuclear facilities, such as those at Natanz and Fordow, were targeted.
 - Degrading Missile Capabilities:** The operation also aimed to disrupt Iran's ballistic missile and drone programs by striking production sites and launch facilities.
 - Strategic Decapitation:** The Israeli military targeted and eliminated key Iranian military leaders and senior nuclear scientists involved in the country's weapons programs.
- Tactics**
 - The operation was described as a new form of warfare, combining conventional airstrikes with advanced technology and psychological operations.
 - AI-Augmented Warfare:** The strikes reportedly used artificial intelligence, drone swarms, and cyber-deception to overwhelm Iran's air defense systems.



- **Psychological Impact:** The operation aimed to demoralize the Iranian regime and its military by demonstrating Israel's intelligence capabilities and its willingness to act unilaterally to protect its security.
- **Use of Precision Munitions:** The Israeli Air Force reportedly used over 200 aircraft, including F-35 stealth fighters, to conduct long-range strikes with precision-guided bombs and cruise missiles.

International Reactions

- The operation drew mixed reactions from the international community.
- **Iran:** Iran condemned the attack as a violation of international law and responded with its own drone and missile attacks on Israeli targets.
- **United States:** While officially uninvolved in the operation, the U.S. reportedly used its veto power to block a UN Security Council resolution condemning Israel, signaling strategic support.
- **India:** India abstained from a UN vote to censure Israel and launched Operation Nirbhik-II to evacuate over 2,300 of its citizens from Iran. The conflict was seen as an instructive case study for India's own security establishment.

Operation Sindhu

Issues and Persons

Context

- "Operation Sindhu" is a humanitarian evacuation mission launched by the Government of India in June 2025 to repatriate Indian nationals from Iran and Israel. The operation was initiated in response to the escalating conflict between the two countries, which posed a significant threat to the safety of Indian citizens, particularly students and professionals.



Purpose and Execution

- **Primary Objective:** To ensure the safety and swift return of thousands of Indian nationals, with a special focus on students, who were stranded in conflict-affected regions.
- **Coordination:** The mission was spearheaded by India's Ministry of External Affairs (MEA), with crucial support from Indian embassies in Tehran and Tel Aviv, as well as in transit countries like Armenia and Turkmenistan.
- **Evacuation Process:** Due to airspace restrictions over the conflict zones, a multi-modal approach was used. Evacuees were first transported by road to safer neighboring countries, from where special flights were arranged to bring them back to India.
- **Scope:** The operation successfully evacuated over 4,400 individuals, including Indian nationals and even citizens from neighboring countries like Nepal and Sri Lanka, showcasing India's commitment to its "Neighbourhood First" policy.
- Operation Sindhu is part of a series of large-scale humanitarian missions undertaken by India to protect its diaspora abroad, following in the footsteps of operations like Operation Ganga (Ukraine, 2022) and Operation Kaveri (Sudan, 2023). It underscored India's growing capacity and diplomatic readiness to respond to international crises.

Nomadic Elephant Exercise

Issues and Persons

Context

- "Nomadic Elephant" is a joint military exercise conducted between the armies of India and Mongolia. It is a key component of the defense cooperation and strategic partnership between the two nations.

Key Facts about the Exercise

- **Participants:** The Indian Army and the Mongolian Armed Forces.
- **Purpose:** The primary objective is to enhance interoperability and joint military capabilities in a "semi-conventional" setting, focusing on counter-insurgency and counter-terrorism operations.
- **United Nations Mandate:** The training drills are often conducted under a United Nations mandate, preparing troops for future peacekeeping and humanitarian operations.
- **Alternate Location:** The exercise is an annual event that is held alternately in India and Mongolia.
- **Training Focus:** The drills typically involve:

- Tactical manoeuvres in semi-urban and mountainous terrain.
- Joint command post establishment.
- Intelligence and surveillance operations.
- Cordon and search operations.
- Cyber warfare and drone-related tactics.
- The most recent editions of the exercise were held in Umroi, Meghalaya (16th edition in July 2024), and Ulaanbaatar, Mongolia (17th edition in May-June 2025). The exercise strengthens the bond of friendship and trust between the armed forces of both countries and contributes to regional peace and stability.

Greater Flamingo Sanctuary

Issues and Persons

Context

- The Greater Flamingo Sanctuary is a newly notified wildlife sanctuary located in Dhanushkodi, within the Ramanathapuram district of Tamil Nadu. The sanctuary was officially declared by the Tamil Nadu government on World Environment Day, June 5, 2025.

Key Features

- **Location:** The sanctuary is situated in the ecologically sensitive Gulf of Mannar Biosphere Reserve, a region known for its rich marine biodiversity.
- **Significance:** It serves as a crucial stopover point for migratory wetland birds, especially the greater flamingo, along the Central Asian Flyway. This is a major migratory route for birds traveling between Eurasia and the Indian subcontinent.
- **Ecosystems:** The sanctuary spans over 500 hectares and includes diverse habitats such as mangroves, mudflats, sand dunes, and marshes, which are vital for a variety of flora and fauna.
- **Biodiversity:** The area is a habitat for over 10,700 wetland birds belonging to 128 species, including both greater and lesser flamingos, herons, sandpipers, and egrets. It also provides a nesting site for sea turtles and supports a range of marine life.
- The establishment of this sanctuary is a major step in the state's conservation efforts, aimed at protecting these critical habitats, promoting ecotourism, and raising awareness about the importance of wetland conservation.

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