MONTHLY MAGAZINE

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SEPTEMBER 2025

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SCO SUMMIT 2025

CONTEXT

The 25th Shanghai Cooperation Organization (SCO) Summit, hosted in Tianjin, China, unfolded from August 31 to September 1, 2025. Chaired by President Xi Jinping, it marked the largest gathering in the SCO's history—with more than 20 heads of state and leaders of 10 international organizations in attendance.

ABOUT SHANGHAI COOPERATION ORGANIZATION (SCO)

- The Shanghai Cooperation Organization (SCO) was officially established in 2001 by China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan.
- Its origins trace back to 1996, when China, Russia, Kazakhstan, Kyrgyzstan, and Tajikistan formed the "Shanghai Five"—a regional framework aimed at building mutual trust and promoting security cooperation.
- With the inclusion of Uzbekistan in 2001, the group was renamed the SCO, marking the beginning of broader collaboration across security, trade, and regional stability.
- The organization expanded significantly in 2017, when India and Pakistan became full members, bringing new strategic dimensions and diversity to the bloc.
- Iran followed as a full member in July 2023, and Belarus joined in July 2024. In addition to these ten full members, the SCO engages with 16 other countries as observers or dialogue partners.
- Today, the SCO is recognized as the world's largest regional organization by geographical coverage and population.
- The Shanghai Spirit is the core value of the SCO.

- The SCO aims to promote cooperation and mutual support in areas such as trade, investment, energy, transportation, and security.
- It is about mutual trust, mutual benefit, equality, consultation, respect for cultural diversity, and the pursuit of common development among the SCO members.
- The official working language of the SCO Secretariat is Russian and Chinese.
- The main objectives of SCO are:
- Strengthen relations among member states.
- Promote cooperation in political affairs, economics, and trade, scientific-technical, cultural, and educational spheres as well as in energy, transportation, tourism, and environmental protection.
- Safeguard regional peace, security, and stability.
- Create a democratic, equitable international political and economic order.
- SCO spans approximately 24% of the Earth's land area (covering around 65% of Eurasia) and represents close to 42% of the global population.

HIGHLIGHTS OF SCO SUMMIT 2025

- Host Country: China, marking its fifth time hosting the SCO Summit.
- Summit Theme: “Upholding the Shanghai Spirit: SCO on the Move.”
- Major Focus Areas:
- Adoption of a comprehensive 10-year development strategy (2025–2035).
- Reflection on 25 years of SCO accomplishments and progress.
- Regional security and intensified counter-terrorism cooperation.
- Strengthening of trade, energy partnerships, and connectivity initiatives.
- Renewed emphasis on sustainable development and climate action.
- Participation: Over 20 heads of state and 10 leaders of international organizations attended the summit.
- The SCO Summit 2025 witnessed participation from member states including India, China, Russia, Pakistan, and Central Asian countries. Discussions focused on counter-terrorism, trade, climate change, energy security, and the role of technology in shaping the global economy.
- Strengthening regional security
- Boosting trade and connectivity
- Enhancing cooperation in energy and digital technology
- Addressing climate and sustainable development

VRINDAVANI VASTRA

CONTEXT

In a landmark cultural development, the British Museum has agreed to return the Vrindavani Vastra, a 16th-century silk textile masterpiece, to Assam on an 18-month loan for a high-profile exhibition in 2027 .

ABOUT VRINDAVANI VASTRA

- The Vrindavani Vastra is a sacred silk textile woven in Assam during the 16th century.
- It depicts childhood stories and divine pastimes of Lord Krishna in Vrindavan, intricately woven into the fabric using threads.
- The work was created under the guidance of Srimanta Sankardeva, a key figure in the Vaishnavite movement of Assam.
- Originally woven as 15 individual panels, it was later assembled into a single textile measuring 937 cm by 231 cm.
- The tapestry vividly portrays scenes from Lord Krishna's life in Vrindavan, along with various mythological motifs.
- The textile was commissioned by Koch king Nara Narayan, who ruled parts of present-day Assam and West Bengal.
- King Nara Narayan had offered refuge to Sankardeva after the saint faced persecution by the Ahom kingdom, allegedly at the behest of Brahmin priests.
- The Vastra reflects the rich tradition of Assamese weaving and incorporates artistic elements from diverse traditions.
- The textile journeyed from Assam to Tibet, before eventually being acquired by the British Museum in 1904.
- The piece currently held by the British Museum is 9.5 metres long, assembled from multiple silk drapes, and originally featured 15 separate panels.
- Celebrated as a masterpiece of sacred art, the Vrindavani Vastra holds immense religious, cultural, and historical significance, especially within Assamese Vaishnavism.

EDUCATE GIRLS WINS 2025 RAMAN MAGSAYSAY AWARD

CONTEXT

Educate Girls, an Indian NGO working to bring out-of-school girls into classrooms, has won the 2025 Ramon Magsaysay Award.

It is the first Indian organisation (not individual) to be honoured with this award, often called the "Asia's Nobel Prize".

ABOUT RAMAN MAGSAYSAY AWARD

- It is often called "Nobel Prize of Asia".
- It is the continent's most prestigious award, given annually for outstanding courage, integrity, and selfless service to the people.
- It was established in 1957 by the Rockefeller Brothers Fund, in memory of Philippine President Ramon Magsaysay, who died in a plane crash that same year.
- Eligibility: It is open to individuals and organisations across Asia who demonstrate "greatness of spirit" through dedicated and impactful public service.
- The award recognizes and honors individuals and organizations in Asia regardless of race, creed, sex, or nationality, who have achieved distinction in their respective fields and have helped others generously without anticipating public recognition.
- Award Components: Recipients receive a medallion bearing Magsaysay's image, a certificate, and a cash prize.

ABOUT EDUCATE GIRLS NGO:

- Full Name: Foundation to Educate Girls Globally, commonly known as Educate Girls.
- Founded: In 2007 by Safeena Husain, an alumna of the London School of Economics.
- Mission: To end the cycle of illiteracy and poverty by engaging communities and working with governments to promote girls' education in rural and underserved areas.
- Motto: "One girl at a time."

- **Key Initiatives & Activities**
- Community Engagement:
  - Identifies out-of-school girls, ensures their enrolment, and supports their retention in schools.
- Government Collaboration:
  - Works closely with state governments to expand and scale its education initiatives.
- Innovative Financing:
  - In 2015, pioneered the world's first Development Impact Bond (DIB) in education to fund measurable outcomes.
- Pragati Programme:
  - Aimed at young women (ages 15–29), helping them complete their secondary education through open schooling pathways.
- Impact
  - Active in over 30,000 villages
  - Has supported the education of more than 2 million girls
  - Achieved a >90% school retention rate

VIKRAM 32-BIT PROCESSOR

CONTEXT

At Semicon India 2025, the Prime Minister of India unveiled the country's first indigenously developed semiconductor — the 'Vikram' 32-bit processor, marking a significant milestone in India's pursuit of self-reliance in semiconductor technology.

ABOUT VIKRAM 32-BIT PROCESSOR (VIKRAM3201)

- The VIKRAM3201 is a 32-bit processor, proudly recognized as India's first indigenously designed semiconductor chip.
- It is engineered for high-performance applications across space, defence, and other advanced technology sectors.
- Developed By: Created by ISRO's Semiconductor Laboratory (SCL) in Mohali, Punjab, under the framework of the India Semiconductor Mission, launched in 2021.
- Purpose & Objectives
  - Reduce reliance on imported semiconductor components.
  - Strengthen India's strategic and technological self-reliance.
  - Enable indigenous solutions for aerospace, defence, automotive, and high-reliability energy systems

Key Features

- 32-bit architecture suitable for complex, mission-critical applications.
- Built to withstand extreme conditions, such as those experienced in space missions and launch vehicles.
- Designed for use in defence, aerospace, automotive, and industrial electronics.
- Supports next-generation technologies including:
  - mRNA-based medical innovations
  - Immersive technologies
  - Digital security infrastructure
  - (in alignment with broader ISRO and Semiconductor Mission goals)

THE GLOBAL PEACE INDEX 2025

CONTEXT

In the Global Peace Index (GPI) 2025, Iceland retained its position as the most peaceful country, while India ranked 115th out of 163 countries, showing a slight improvement in its overall peace score.

ABOUT GLOBAL PEACE INDEX (GPI)

- An annual ranking that evaluates the peacefulness of nations worldwide.
- It covers 163 countries and territories, accounting for 99.7% of the global population.
- Published By:
  - The Institute for Economics and Peace (IEP) — a global think tank based in Sydney, Australia.
- Assessment Criteria
  - The GPI is based on 23 indicators, grouped into three key domains:
  - Societal Safety and Security
    - Includes factors like crime rates, political stability, and the impact of refugees and displaced persons.
  - Ongoing Domestic and International Conflict
    - Assesses levels of war, terrorism, civil unrest, and other forms of conflict.
  - Militarisation
    - Measures aspects such as military spending, arms trade, and the number of armed forces personnel.

Global Peace Index 2025 – Trends and Rankings

- Most Peaceful Countries:
  - Iceland retained the top spot, followed by Ireland, New Zealand, Finland, Austria, Switzerland, Singapore, Portugal, Denmark, and Slovenia.
- Least Peaceful Nations:
  - Countries at the bottom of the index include Russia, Ukraine, Sudan, the Democratic Republic of the Congo, and Yemen.

Regional Insights

- Europe continues to dominate the upper rankings, with multiple countries in the top 10.
- South America showed notable improvements, particularly in Argentina and Peru.
- Sub-Saharan Africa and the Middle East remain the least peaceful regions globally

India in the Global Peace Index 2025

- Rank & Score:
  - India is ranked 115th out of 163 countries, with a peace score of 2.229.
  - This marks a 0.58% improvement compared to the previous year.
- Positive Developments:
  - Reduction in domestic violence and local disputes
  - Improved societal stability contributed to the overall rise in peacefulness.
- Ongoing Challenges:
  - High levels of militarisation
  - Persistent cross-border tensions
  - Occasional internal unrest and disturbances

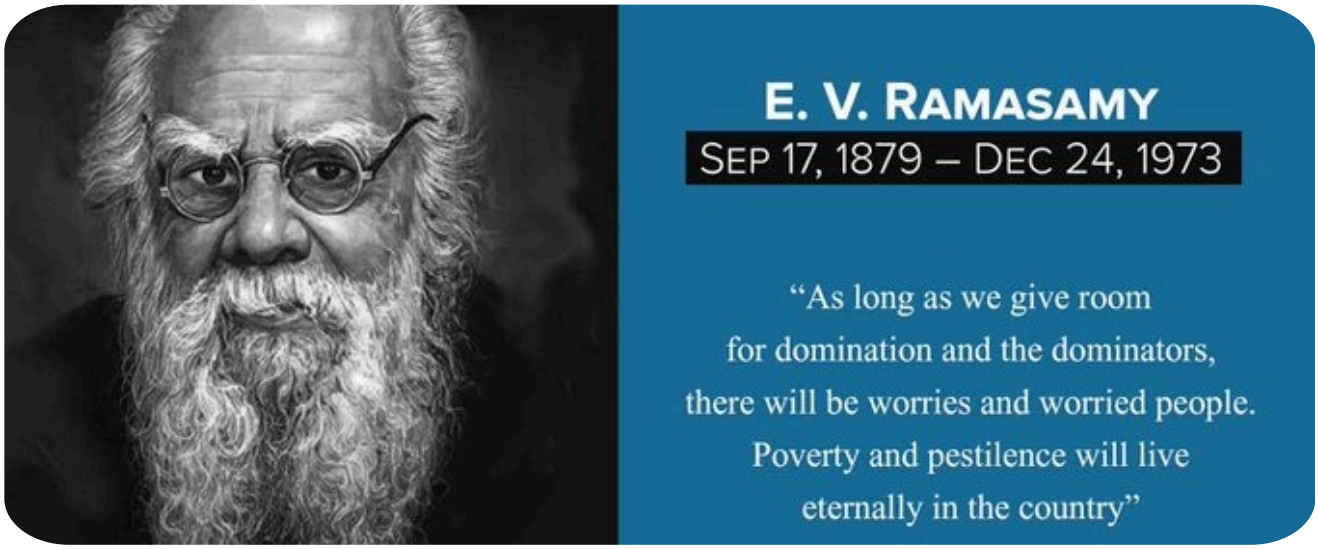
SELF-RESPECT MOVEMENT

CONTEXT

The year 2025 marks the centenary of the Self-Respect Movement, which was launched in 1925 in Tamil Nadu by Periyar E.V. Ramasamy.

ABOUT THE SELF-RESPECT MOVEMENT

- A radical social reform movement that challenged caste-based oppression, patriarchy, and religious orthodoxy.
- It promoted rationalism, individual dignity, and equality, rejecting ritualism and social hierarchy.
- Launched: In 1925 in Tamil Nadu, through the Tamil weekly Kudi Arasu (The Republic).
- Key Leader:
  - E.V. Ramasamy (Periyar) – Founder and primary ideologue.
  - He was influenced by earlier reformers like Iyothee Thass, Jyotirao Phule, and B.R. Ambedkar.
- Political Support & Evolution:
  - Initially supported by the Justice Party, the movement later evolved into the Dravidar Kazhagam, forming the ideological base of the Dravidian movement.
- Objectives
  - Eliminate caste discrimination and Brahmanical dominance
  - Promote self-respect, social equality, and gender justice
  - Shift reform efforts from elite non-Brahmins to the common masses



Key Features

- Advocated self-respect marriages — conducted without priests or caste-based rituals
- Championed women's rights:
  - Widow remarriage
  - Right to divorce
  - Property and abortion rights
- Encouraged inter-caste marriages and gender equality
- Strongly opposed religion, superstition, and patriarchal norms
- Rejected the Congress Party's religion-infused nationalism and Gandhian conservatism
- Emphasised Dravidian identity and rationalist ideology

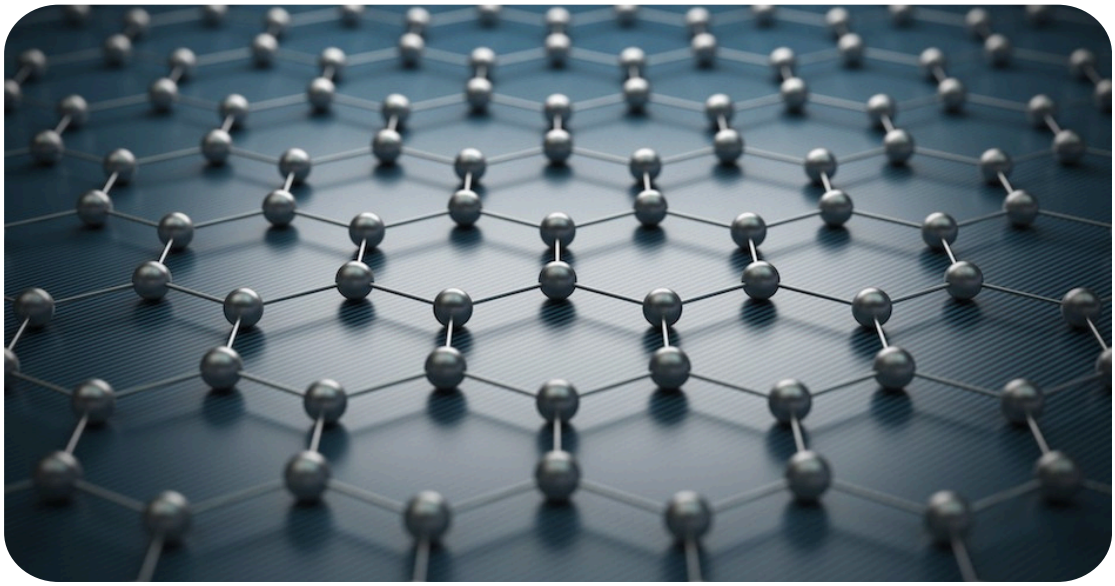
Significance

- Empowered the non-Brahmin masses with dignity, awareness, and political consciousness
- Laid the groundwork for Dravidian politics and welfare-centric governance in Tamil Nadu

2D MATERIALS

CONTEXT

The Frontier Tech Hub of NITI Aayog, in partnership with IISc Bengaluru, has released the 4th edition of its Future Front Quarterly Insights, titled "Introduction to 2D Materials". The report highlights the importance of 2D materials and emphasizes why India should prioritise their development and research.



ABOUT 2D MATERIALS

- 2D materials are ultra-thin substances that are just one atom thick—thinner than anything we typically encounter.
- Examples include graphene, molybdenum disulfide (MoS_2), and tungsten disulfide (WS_2).
- Structure: These materials are flat like a sheet of paper, but at the atomic scale, giving them unique properties not found in conventional 3D materials.
- Discovery: First isolated in 2004, when researchers used adhesive tape to peel graphene from graphite.
- This breakthrough earned the 2010 Nobel Prize in Physics.
- **Types:**
  - Graphene – Pure carbon in a hexagonal lattice
  - TMDCs – Transition Metal Dichalcogenides like MoS_2 and WS_2
  - Hexagonal Boron Nitride (h-BN)
  - Xenes – New 2D forms of elements like silicene, germanene, etc.

How Do They Work?

- Their extreme thinness allows electrons to move with minimal resistance, making devices faster and cooler.
- Sheets are strongly bonded internally, but layers are loosely stacked, making them easy to isolate.
- Their electronic properties (like the band gap) can be tuned, which is essential for making advanced chips.
- Highly sensitive to surroundings, making them ideal for sensors.
- Exhibit quantum phenomena (e.g., spin–valley coupling) — key to future quantum computing.

Key Properties

- Exceptional Conductivity:
  - Graphene conducts electricity better than copper and dissipates heat efficiently.
- Extraordinary Strength:
  - Around 200 times stronger than steel yet flexible and can stretch up to 20%.
- Semiconductor Potential:
  - Can be engineered for next-gen chips beyond traditional silicon.
- Quantum Compatibility:
  - Can host qubits for quantum technologies.
- Flexible & Transparent:
  - Perfect for foldable devices, wearables, and transparent electronics.

Applications:

- Semiconductors:
  - Atom-thin transistors (like MoS_2, WS_2) can outperform silicon, extending Moore's Law into the angstrom scale.
- Neuromorphic Computing:
  - Ultra-thin memristors that replicate brain-like synapses, enabling efficient AI hardware.
- Optoelectronics:
  - Tunable materials for photodetectors, LEDs, and solar cells that are ultra-light and efficient.
- Advanced Materials:
  - Graphene composites used in aerospace, water purification, protective coatings, batteries, and EV supercapacitors.

THE RAJASTHAN COACHING CENTRES(CONTROL & REGULATION) BILL 2025

CONTEXT

The Rajasthan Assembly has passed the Rajasthan Coaching Centres (Control and Regulation) Bill, 2025, aimed at bringing oversight to the state's coaching industry. The move comes in response to increasing student suicides and the intensifying commercialization of coaching centres.

ABOUT THE RAJASHTHAN COACHING CENTRES (CONTROL AND REGULATION) BILL 2025

- A state-level law introduced to regulate coaching centres in Rajasthan through mandatory registration, regular monitoring, and compliance measures.
- The primary aim is to protect student welfare, reduce academic stress, and ensure greater accountability in the coaching sector.

Key Provisions of the Bill

- Regulatory Authority: A dedicated oversight body will be established, comprising government officials, doctors, parents, and police representatives, to monitor coaching institutes.
- Mandatory Registration:
  - Coaching centres with over 100 students must register and comply with minimum operational standards.
- Improved Infrastructure & Teaching:
  - Adequate space per student is required
  - Only qualified teachers may be employed
  - Misleading claims about exam ranks or guaranteed marks are strictly prohibited
- Student Well-being Focus:
  - Classes limited to a maximum of 5 hours per day
  - Weekly holidays mandatory for both students and teachers
  - Access to counselling and mental health support must be provided
- Penalties for Non-Compliance:
  - Fines ranging from ₹50,000 to ₹2 lakh for violations
  - Repeat offenders risk cancellation of registration/license
- Broader Perspective: While prioritising student safety and mental health, the law also acknowledges the economic and employment significance of the coaching sector in the state.

THE APATANIS TRIBE

CONTEXT

The Apatani women of Ziro Valley in Arunachal Pradesh are the last generation to bear the tribe's traditional facial tattoos and wooden nose plugs—a cultural practice that, though banned in the 1970s, is still proudly displayed by the community's elder women.

ABOUT APATANI TRIBE

- The Apatani—also known as Tanw, Apa Tani, or simply Apa—are an indigenous tribal community from Arunachal Pradesh.
- They are renowned for their unique cultural identity, traditional lifestyles, and deep ecological knowledge.
- The Apatanis primarily reside in the scenic Ziro Valley, situated in the Lower Subansiri district of Arunachal Pradesh.
- This picturesque, bowl-shaped valley lies amidst the eastern Himalayan ranges and is known for its natural beauty and rich biodiversity.

APATANI FACIAL TATTOOS AND NOSE PLUGS

Historical Background

- Facial tattoos and wooden nose plugs were traditionally worn by Apatani women as a form of protection and cultural expression.
- The practice originated during a time when raids and abductions by neighboring tribes were common. Over time, it became a powerful symbol of identity and pride within the community.

Reasons Behind the Practice

- Protection from Abduction: The tattoos and large wooden nose plugs were intended to reduce the attractiveness of Apatani women to outsiders, thus safeguarding them from being kidnapped by rival tribes.
- Cultural Identity & Dignity: These markings evolved into emblems of honour, signifying a woman's rightful place and dignity within the tribe.
- Tribal Beauty Standards: Though seen as unconventional by outsiders, the tattoos and nose plugs came to represent traditional beauty among the Apatani.

Custom and Application

- Tattooing Age: Girls were typically tattooed around the age of 10.
- Carried Out By: The process was traditionally performed by elder women of the tribe.
- Tattoo Design (Tippei):
  - A single vertical line ran from the forehead to the tip of the nose.
  - Five horizontal lines were inked onto the chin.
- Nose Plugs (Yaping Hullo):
  - Large wooden plugs were inserted into both sides of the nose.
  - The wood was cleaned thoroughly beforehand to prevent infection.

Cultural Significance

Women who bore the tattoos and nose plugs were held in high regard, seen as proud upholders of tradition and symbols of familial honour.

Decline of the Practice

In the early 1970s, the Indian government banned facial tattooing and nose plugging, citing social stigma and concerns about their impact on women's employment prospects in the modern world.

Today, only the elderly women of the community still carry these physical markers, making them the last living bearers of a once-vibrant tradition.

STATE EMBLEM OF INDIA

CONTEXT

OAround 50 individuals were detained in Srinagar following the vandalism and removal of a plaque featuring the national emblem at the Hazratbal shrine.

ABOUT STATE EMBLEM OF INDIA

- The State Emblem of India is a stylized adaptation of the Lion Capital of Ashoka from Sarnath.
- It was officially adopted on January 26, 1950, the day India became a Republic.
- The emblem stands as a powerful symbol of the nation's sovereignty, authority, and its core values of truth and justice.
- The original Lion Capital was erected by Emperor Ashoka in the 3rd century BCE at Sarnath, the site where Buddha gave his first sermon.
- It was part of Ashoka's series of pillars that promoted Dhamma (righteousness and moral law).
- Rediscovered in 1905, the capital is now housed in the Sarnath Museum, Uttar Pradesh.

Key Features:

- Four Asiatic Lions: Standing back-to-back, these represent power, courage, confidence, and pride.
- Abacus Frieze: Decorated with high-relief carvings of a lion, bull, elephant, and horse, separated by Dharma Chakras (wheels of law).
- Lotus Base: The original sculpture features a bell-shaped lotus base, which is excluded from the official version.

Design of the Adopted Emblem

- Displays three lions (the fourth is hidden from view).
- At the center is a Dharma Chakra (Wheel of Law).
- A bull appears on the right and a galloping horse on the left.
- Outlines of Dharma Chakras are depicted at each end of the base.

Motto

Below the emblem is inscribed the national motto:
"सत्यमेव जयते" (Satyameva Jayate) — meaning "Truth Alone Triumphs" — written in Devanagari script.

RED SEA

CONTEXT

Damage to undersea internet cables in the Red Sea disrupted connectivity across Asia and the Middle East, impacting major submarine systems such as SMW4 and IMEWE, and causing slow internet speeds in India and surrounding areas.

ABOUT RED SEA

- The Red Sea is a narrow, elongated inland sea that forms part of the rift valley system between northeastern Africa and the Arabian Peninsula.
- It holds immense strategic significance as a key international trade and maritime route, connecting the Mediterranean Sea (via the Suez Canal) to the Arabian Sea (through the Bab el-Mandeb Strait).
- Neighbouring Countries :
  - The Red Sea borders Egypt, Sudan, Eritrea, Djibouti, Saudi Arabia, and Yemen.
  - Additionally, Jordan and Israel have coastlines along the Gulf of Aqaba, an extension of the Red Sea.
- Geography
  - Length: Stretches approximately 1,930 km from Suez (Egypt) to Bab el-Mandeb (Yemen).
  - Geological Setting: Located in a tectonic rift zone that remains geologically active, with ongoing volcanic and seismic activity.
- Notable Features
  - Marine Environment: One of the hottest and saltiest seas, the Red Sea supports diverse coral reef ecosystems.
  - Economic Role: Serves as one of the world's busiest maritime corridors, facilitating vital shipping routes between Europe, Asia, and Africa.

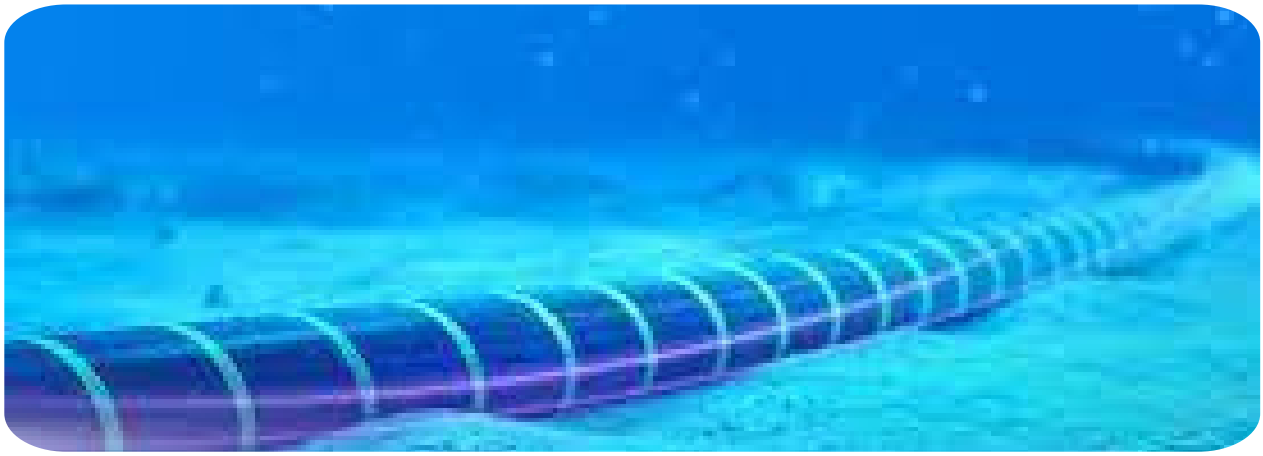
About Undersea (Submarine) Cables:

They are undersea or submarine cables are fiber-optic cables laid on the seabed that carry around 95% of the world's international data traffic.

They form the backbone of global connectivity, enabling the internet, cloud computing, and international communications.

Key Features

- Structure: Made up of bundled glass fibers encased in multiple layers of protective materials. Each fiber transmits data as pulses of light.
- Performance: Offers high-speed, low-latency data transmission across continents.
- Vulnerabilities: Prone to damage from natural disasters, earthquakes, ship anchor drags, or intentional sabotage, leading to potential large-scale disruptions.



VICE PRESIDENT ELECTION – SYSTEM OF PROPORTIONAL REPRESENTATION

CONTEXT

Voting for the Vice-Presidential election commenced on September 9, 2025, after the resignation of Jagdeep Dhankhar.

The Prime Minister of India cast the first vote, with CP Radhakrishnan and Justice B. Sudershan Reddy standing as the candidates for the position.

ABOUT VICE PRESIDENTIAL ELECTION :

- The Vice President of India is elected through a system of proportional representation by means of a single transferable vote (STV).
- This election is conducted by secret ballot and involves an Electoral College made up of members from both Houses of Parliament—Lok Sabha and Rajya Sabha, including both elected and nominated members.

How the Vice Presidential Election Works

Electoral College

- Comprises all MPs from the Lok Sabha and Rajya Sabha, regardless of whether they are elected or nominated.
- State Legislative Assemblies do not participate, unlike in the Presidential election.

Equal Value of Votes

- Every MP's vote carries equal weight (value = 1).
- This ensures a simpler process, unlike the Presidential election where vote values vary based on population and assembly strength.

Ballot Paper & Voting Preferences

- Ballot papers are pink and printed in both Hindi and English.
- The first column lists the names of the candidates; the second column is for MPs to indicate their order of preference.
- MPs mark their preferences by writing 1, 2, 3, etc., next to the candidates' names (using international numerals, Indian scripts, or Roman numerals).
- Writing preferences in words (e.g., "one", "two") or leaving them blank renders the vote invalid.

Quota for Winning

- A candidate must secure a majority of valid votes to win.

The formula for the quota is:
(Total Valid Votes ÷ 2) + 1
Example: If 780 MPs vote, the quota is (780 ÷ 2) + 1 = 391 votes.

Counting & Vote Transfers

1. First Preference Count: Only the "1" marked votes are counted initially.
    - If any candidate reaches the quota, they are declared elected.
2. If No One Reaches the Quota:
    - The candidate with the fewest votes is eliminated.
    - Their ballots are transferred to the next preference (marked "2").

This process continues in rounds until a candidate meets the required quota.

Secret Ballot & No Party Whip

- Voting is entirely confidential, and MPs are not bound by any party whip.
- Since the anti-defection law doesn't apply, MPs can vote freely, allowing for cross-voting—making the results less predictable.

PALLA'S CAT

CONTEXT

A WWF-India survey in Arunachal Pradesh has recorded the first-ever photographic evidence of the Pallas's cat in the state, reinforcing the status of the eastern Himalayas as a global biodiversity hotspot.

ABOUT PALLAS'S CAT:

- Pallas's cat (Otocolobus manul), also known as the manul, is a small wild feline species believed to be one of the oldest surviving cats, having diverged approximately 5.2 million years ago.
- Though similar in size to a domestic cat, it appears more robust due to its thick, dense fur.
- Distribution
  - Native to Central Asia, particularly found in Mongolia, China, and parts of Russia.
  - Recently captured on camera in Arunachal Pradesh, marking an extension of its known range in the eastern Himalayas, previously recorded only in Bhutan and Sikkim.
- Habitat
  - Inhabits high-altitude grasslands, rocky steppes, and cold desert regions.
  - Documented at elevations nearing 5,000 meters in the eastern Himalayan region.
- Physical and Behavioral Features
  - Characterized by short legs, low-set rounded ears, and a thick fur coat that changes seasonally for effective camouflage.
  - An ambush predator, feeding on rodents, pikas, lizards, and small birds.
  - Known for its distinctive yelping call, unlike most other cats, and unique rounded pupils rather than vertical slits.
  - Typically solitary and secretive, with a lifespan of around 8–9 years in the wild. Active mostly during night and twilight hours (nocturnal/crepuscular).
- Significance
  - This rare and elusive species represents a significant breakthrough in Indian wildlife research.
  - Its presence further highlights the eastern Himalayas as a vital biodiversity hotspot, underscoring the region's ecological richness.

EXERCISE ZAPAD 2025

CONTEXT

An Indian Armed Forces contingent has set out for Russia to take part in the multilateral military exercise Zapad 2025, held at the Mulino Training Ground in Nizhniy.

ABOUT EXERCISE ZAPAD 2025:

- Zapad 2025 is a multinational military exercise hosted by Russia, aimed at simulating high-intensity conventional warfare and counter-terrorism operations within a multinational framework.
- While Russia is the primary host, the exercise includes India and several other partner countries.
- The Zapad series (meaning "West" in Russian) has its origins in the Soviet era. The modern version has been conducted every four years since 2009. India also took part in the 2021 edition.
- Objectives
  - Strengthen defence cooperation and build strategic trust among participating countries.
  - Improve interoperability through joint tactical exercises and coordinated planning.
  - Enhance capabilities for counter-terrorism and conventional warfare scenarios.
  - Provide experience in multinational combat environments and familiarize forces with emerging military technologies
- Key Features
  - Location: Mulino Training Ground, Nizhniy, Russia.
  - Participants: Indian Army, Indian Air Force, and Indian Navy.
  - Focus Areas: Company-level joint operations in open terrain, tactical maneuvers, weapons proficiency, and special operations training.
- Expected Outcomes
  - Enhanced operational coordination among forces.
  - Shared military knowledge and best practices.
  - Strengthened defence relations between India and Russia.

GRAND ETHIOPIAN RENAISSANCE DAM (GERD)

CONTEXT

Ethiopia has officially inaugurated the Grand Ethiopian Renaissance Dam (GERD), the largest hydroelectric project in Africa, celebrating it as a "major national achievement." Meanwhile, Egypt filed a protest with the United Nations, describing the dam as an existential threat to its water security.

ABOUT GRAND ETHIOPIAN RENAISSANCE DAM (GERD)

- The Grand Ethiopian Renaissance Dam (GERD) is Africa's largest hydroelectric project, designed primarily for power generation and promoting regional energy cooperation.
- It serves as a symbol of national pride and development for Ethiopia but remains at the center of regional geopolitical tensions.
- Location & River
  - Situated on the Blue Nile River in Guba, Ethiopia, approximately 30 km upstream from Sudan.
  - The Blue Nile contributes around 85% of the Nile's total flow, making the dam a highly sensitive geopolitical issue, especially for downstream countries like Sudan and Egypt.
- Project Background
  - Launched by Ethiopia in 2011, the dam is seen as a project of self-reliance, economic progress, and regional influence.
- Key Features
  - Height: Approximately 170 meters
  - Length: Around 2 kilometers
  - Reservoir Capacity: Holds about 74 billion cubic metres of water, flooding an area of roughly 1,874 km²
  - Power Generation: Estimated capacity ranges between 5,150 MW and 6,450 MW, making it the largest hydroelectric power source in Africa
  - Sediment Management: Designed to trap up to 100 years' worth of sediment, though actual collection may exceed expectations

ABOUT BLUE NILE RIVER:

- The Blue Nile, known in Ethiopia as the Abay River, is one of the two primary tributaries of the Nile. It supplies nearly 70% of the Nile's floodwaters at its confluence with the White Nile in Khartoum, Sudan.
- Length & Origin
  - Total Length: Approximately 1,460 km (907 miles)
  - Source: Emerges from a spring near Lake Tana in northwestern Ethiopia, at an elevation of about 1,800 meters (6,000 feet).
  - The river flows into and out of Lake Tana, then carves through dramatic gorges and rapids in the Ethiopian highlands.
- Path Through Nations
  - Ethiopia: Flows through deep canyons and circles the Choke Mountains.
  - Sudan: Continues northwest until merging with the White Nile at Khartoum, forming the main Nile River.
- Major Tributaries
  - Dinder River
  - Rahad River
  - Both originate in the Ethiopian highlands and significantly boost the Blue Nile's volume.

LANKHONG PUJA

CONTEXT

The Tiwa tribe of Assam recently observed their traditional Lankhong Puja, a socio-religious festival dedicated to offering prayers for a bountiful harvest in the upcoming Rabi season.

ABOUT LANKHONG PUJA:

- Lankhong Puja is a traditional socio-religious festival celebrated by the Tiwa (Lalung) tribe of Assam.
- The festival is observed to seek divine blessings for a successful Rabi crop season and to ensure a good agricultural harvest.
- Key Features
  - Community members come together to offer ritual prayers and offerings to their deities.
  - The celebration is accompanied by folk music, dance, and various cultural performances.
  - The festival reinforces the agrarian roots, community unity, and the continuity of cultural heritage among the Tiwa people.

ABOUT TIWA TRIBE:

- The Tiwa tribe, formerly referred to as Lalung, is a significant indigenous community of Assam, belonging to the Mongoloid ethnic group.
  - They speak a language from the Tibeto-Burman family and share close ethnolinguistic ties with Bodo-Naga tribes

Habitat

- Tiwa populations are concentrated in districts like Nagaon, Morigaon, Dhemaji, Dibrugarh, Jorhat, and Titabor in Assam. They also reside in parts of Meghalaya and Tripura.
- The community is divided into two groups:
- Hill Tiwas – residing in hilly regions, often with distinct customs and practices.
- Plains Tiwas – settled in river valleys, influenced by neighboring Assamese communities.

Notable Features

- Physical Traits: Display Mongoloid characteristics; the name Tiwa translates to Ti = water, Wa = superior.
- Cultural Life:
  - Rich in oral traditions, folk dances, and music.
  - Mentioned in historical texts like Assam Buranji, Jayanta Buranji, and Kachari Buranji.
- Religious Practices: Centered around sacred spaces such as Borghar, Thaan Ghar, and Naamghar.
- Social Structure:
  - Youth bodies like Chamadi are active in community service and maintaining social responsibilities.
  - Their festivals and rituals reflect the agricultural cycle and emphasize collective life and cooperation.

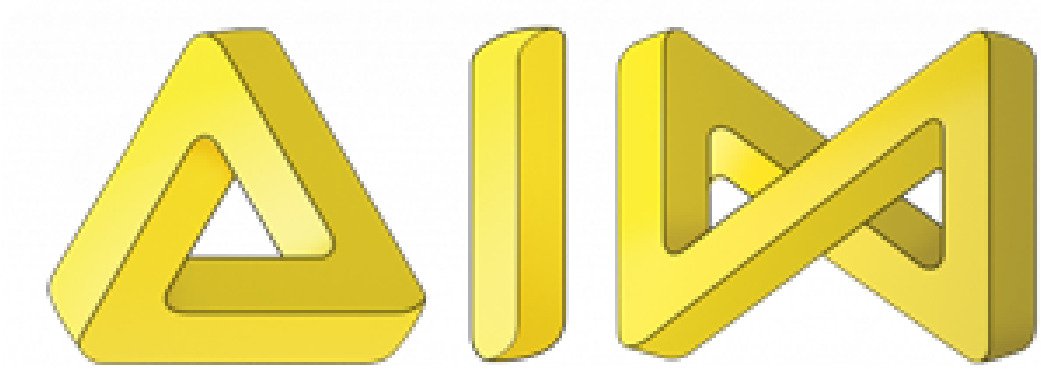
FIRST OVERSEAS ATAL INNOVATION CENTRE

CONTEXT

During his visit to the UAE, the Union Education Minister of India inaugurated the country's first overseas Atal Innovation Centre at the IIT Delhi–Abu Dhabi campus.

ABOUT FIRST OVERSEAS ATAL INNOVATION CENTRE

- India's first international Atal Innovation Centre has been established at the IIT Delhi–Abu Dhabi campus, marking a major milestone under the Atal Innovation Mission (AIM).
- It was launched September 2025, during the Union Education Minister's visit to the UAE.
- Objectives:
  - Foster innovation, research, and entrepreneurship among students and young professionals.
  - Strengthen India–UAE cooperation in areas such as education, sustainability, and technology-driven development.
- Core Functions:
  - Incubate start-ups and offer mentorship to emerging innovators.
  - Provide state-of-the-art infrastructure and laboratories for advanced research.
  - Promote student and faculty exchange, teacher training, and skill development programs.
  - Serve as a global hub for knowledge sharing, collaborative innovation, and cross-border partnerships.



ABOUT ATAL INNOVATION MISSION (AIM):

- AIM is a flagship initiative by the Government of India, implemented by NITI Aayog, to foster a culture of innovation and entrepreneurship across the country.
- It was launched as a part of the national strategy to build an innovation-driven ecosystem spanning schools, universities, and industries.
- Key Initiatives Under AIM:
  - Atal Tinkering Labs (ATLs):
    - Set up in schools (Classes 6–12) to promote hands-on learning in robotics, IoT, 3D printing, and electronics.
    - Over 10,000 labs operational across India.
  - Atal Incubation Centres (AICs):
    - Located in universities and corporate institutions.
    - Support start-ups through mentorship, funding, networking, and workspace.
    - 72 AICs currently active, supporting over 3,500 start-ups and generating 32,000+ jobs.
  - Entrepreneurial Focus Areas:
    - Covers key sectors such as HealthTech, FinTech, AgriTech, EdTech, Food Processing, Drone & Space Technology, and AR/VR.
    - Actively supports over 1,000 women-led start-ups, promoting inclusivity in innovation.

ACHARYA VINOBA BHAVE

CONTEXT

Prime Minister of India paid homage to Acharya Vinoba Bhave on his birth anniversary (11 September 2025).

ABOUT ACHARYA VINOBA BHAVE

- Acharya Vinoba Bhave was a revered spiritual leader, philosopher, and social reformer, widely regarded as the National Teacher of India and the spiritual heir to Mahatma Gandhi.
- He was a prominent proponent of Sarvodaya (the welfare of all) and is best known for initiating the Bhoodan Movement (Land Gift Movement).
- Born on 11 September 1895 in Gagode village, Maharashtra.
- Spiritually inclined from a young age, with a deep attachment to the Bhagavad Gita and a desire for an ascetic life.
- After reading a speech by Mahatma Gandhi at Banaras Hindu University, he abandoned formal studies and joined Gandhi at Kochrab Ashram in 1916, committing himself to the Gandhian way of life.

- **Role in India's Freedom Struggle**
  - In 1940, at Gandhi's request, Vinoba became the first Individual Satyagrahi, representing the power of personal, nonviolent resistance.
  - He was actively engaged in the Quit India Movement (1942) and various constructive programmes, including Khadi promotion, Nai Talim (basic education), and rural self-sufficiency.
  - Lived at Sabarmati Ashram in a hut known as "Vinoba Kutir", where he delivered his famous talks on the Gita, later published and translated into multiple languag

- **Social and Spiritual Contributions**
  - **Bhoodan Movement (1951):**
    - Launched a nationwide campaign to encourage landlords to voluntarily donate land to landless peasants. He successfully collected over 4 million acres.
  - **Gramdan Movement (1954):**
    - Took the idea further by advocating for the donation of entire villages for community ownership and collective welfare.
  - Championed values of non-violence, rural development, sanitation, and self-reliance.
  - A polyglot and prolific writer, Vinoba translated the Bhagavad Gita into Marathi (as Geetai), and wrote insightful commentaries on the Bible, Quran, and Dnyaneshwari

- Legacy and Significance
  - Vinoba Bhave's work bridged the gap between spirituality and socio-economic reform.
  - His movements laid the foundation for land reforms, rural reconstruction, and the trusteeship model of economy.
  - He remains a symbol of peaceful activism, moral leadership, and transformative social change rooted in compassion and justice.

MANKI - MUNDA SYSTEM

CONTEXT

Tribal communities in Jharkhand's Kolhan region staged protests, alleging interference in their traditional Manki-Munda self-governance system following the removal of some Mundas.

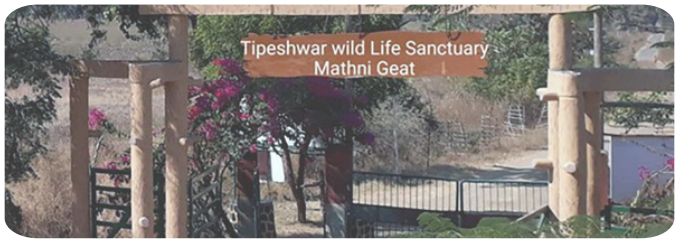
ABOUT MANKI-MUNDA SYSTEM

- It is a traditional, decentralised self-governance model followed by the Ho tribe of Jharkhand's Kolhan region.
- It revolves around village heads (Mundas) and pidh heads (Mankis) who collectively resolve disputes and maintain order.
- Origin & History: Pre-British era: Functioned as a community-driven governance system with no concept of land tax or external sovereign control.
- British Era Recognition:
  - After early Ho and Kol revolts, the British realised direct control was unsustainable.
  - In 1833, Captain Thomas Wilkinson codified the system in 31 rules (Wilkinson's Rules), later implemented in Kolhan Government Estate (KGE) in 1837.
  - Mankis and Mundas were made intermediaries between colonial administration and the community, integrating Kolhan into British India while preserving autonomy.
- HOW IT WORKS?
  - Munda: Head of a single village, resolves socio-political disputes locally.
  - Manki: Head of a pidh (cluster of 8–15 villages), hears appeals when Munda-level resolution fails.
  - System relies on customary law, not formal legislation, and continues in use even after Independence.
- **KEY FEATURES**
  - Hereditary Leadership: Roles are passed from father to son.
  - Decentralised & Community-based: Gram Sabha–like participation in dispute resolution.
  - Cultural Autonomy: Protects Ho identity, traditions, and land rights.
  - Legal Continuity: Though challenged, courts have allowed Wilkinson's Rules to continue due to lack of alternatives.

TIPESHWAR WILDLIFE SANCTUARY (TWS)

CONTEXT

- Five individuals were arrested for poaching an Indian Pangolin in Tipeshwar Wildlife Sanctuary (TWS), Yavatmal, Maharashtra.



ABOUT TIPESHWAR WILDLIFE SANCTUARY (TWS)

- Tipeshwar Wildlife Sanctuary is a protected forest area and emerging tiger reserve located in Maharashtra.
- Renowned for its high tiger density and rich biodiversity, it offers a peaceful, less-crowded alternative to the popular Tadoba reserve, making it ideal for wildlife enthusiasts seeking a more intimate safari experience.
- Location:
  - Situated in the Pandarkawada region of Yavatmal district, the sanctuary spans 148.63 square kilometers.
  - It is named after Goddess Tipai, whose temple is located in the nearby Tipeshwar village
- It was designated a Wildlife Sanctuary under the Wildlife (Protection) Act of 1972, Tipeshwar rose to national prominence as the habitat of Tigress Avni, the inspiration behind Vidya Balan's film Sherni.
- Since 2010, focused conservation initiatives have led to a significant rise in tiger numbers—from just 3 to around 20 individuals.
- Key Features:
- Flora: Dominated by teak forests (covering about 60% of the area) and red sandalwood (around 15%), the sanctuary also hosts diverse plant species including mahua, achar, lendia, tiwas, and nearly 250 varieties of bamboo.
- Fauna: The sanctuary shelters a wide range of wildlife including tigers, leopards, sloth bears, hyenas, jackals, chital, sambar, wild boars, and the elusive Indian pangolin. It also supports 26 reptile species and rare mammals such as the Rusty Spotted Cat and False Vampire Bat.
- Avifauna: A haven for birdwatchers, TWS is home to 256 species of birds — resident, migratory, and rare. Notable species include the Painted Francolin, Rain Quail, Lesser Whistling Duck, and Eurasian Wryneck.
- Butterfly Diversity: With 97 recorded butterfly species, including rare ones like the Black Rajah and Peacock Royal, the sanctuary adds to its ecological richness.
- Tipeshwar offers jeep safaris, nature trails, and rural tourism experiences, helping promote sustainable tourism and providing livelihood opportunities to local communities.

SARNATH

CONTEXT

- India has officially nominated Sarnath for the UNESCO World Heritage List in the 2025–26 cycle, potentially ending its 27-year wait on the tentative list.
- Additionally, the ASI will install a new plaque acknowledging Babu Jagat Singh (1787–88) for uncovering Sarnath's archaeological significance, correcting earlier credit given to the British.

ABOUT SARNATH:

- It is located about 10 km northeast of Varanasi in Uttar Pradesh, is one of the four most sacred Buddhist pilgrimage sites, alongside Lumbini, Bodh Gaya, and Kushinagar.
- It is venerated as the place where Gautama Buddha delivered his first sermon—the Dhammachakkappavattana Sutta—signifying the foundation of the Buddhist Sangha.
- **Origin & Early History:**
  - Referred to as Mrigadava or Rishipatana in ancient Buddhist texts, Sarnath's spiritual significance was firmly established during the reign of Emperor Ashoka (268–232 BCE), who erected the iconic Lion Capital Pillar (now India's National Emblem) and commissioned several stupas and monasteries.
  - The Dhamek Stupa marks the exact spot of the Buddha's first sermon, while ruins of viharas reflect the presence of an early monastic community.

- **Growth Under Royal Patronage:**
  - Ashokan Period: Ashoka's patronage transformed Sarnath into a key pilgrimage destination.
  - Kushana & Gupta Dynasties (1st–6th CE): These eras witnessed major structural expansion, restoration of earlier monuments, and the construction of new monasteries, turning Sarnath into a flourishing center of Buddhist learning and practice.
  - Sarnath continued to thrive as a major monastic complex until the 12th century CE.
- **Decline and Ruin:**
  - In the 12th century, Sarnath faced large-scale destruction. While some historians link this to Qutb-ud-din Aibak's invasion in 1193 CE, others point to earlier conflicts involving Brahmanical forces followed by Islamic raids.
  - The monastic population was dispersed, and the site lay abandoned and overgrown for nearly 700 years.
- **Modern Rediscovery:**
  - 1787–88: Laborers working for local official Babu Jagat Singh accidentally discovered Buddha statues while excavating soil.
  - 1799: British official Jonathan Duncan documented the findings, sparking colonial interest.
  - 1835–36: Alexander Cunningham definitively identified the site as the location of Buddha's first sermon.
  - 1904–05: Archaeologist Friedrich Oertel conducted systematic excavations, unearthing 476 artefacts and 41 inscriptions.
- **Key Features Today:**
  - Dhamek Stupa: A massive cylindrical structure marking the site of the first sermon.
  - Ashokan Pillar & Lion Capital: The original pillar stood here; its Lion Capital now serves as India's national emblem.
  - Archaeological Museum: Displays numerous important artefacts, including sculptures, inscriptions, and a famous seated Buddha in Dharmachakra Mudra.

CENTRAL INFRORMATION COMMISSION

CONTEXT

- The Central Information Commission (CIC) has become headless for the seventh time in 11 years following the retirement of Chief Information Commissioner Heeralal Samariya.

ABOUT CENTRAL INFORMATION COMMISSION:

- The Central Information Commission is the highest appellate authority under the Right to Information (RTI) Act, 2005.
- It handles second appeals and complaints related to access to public information from central government bodies.

- **Establishment:**
  - Formed on 12 October 2005 through a Central Government notification under Section 12 of the RTI Act.
  - Headquarters: New Delhi, India.

- **Structure:**
  - Headed by a Chief Information Commissioner (CIC).
  - Supported by up to 10 Information Commissioners (ICs).
  - Appointments are made by a committee consisting of:
  - The Prime Minister (Chairperson),
  - The Leader of the Opposition in the Lok Sabha,
  - A Union Cabinet Minister nominated by the Prime Minister.

Objective:

- To promote transparency and accountability in government functioning.
- To empower citizens by ensuring their right to access public information.
- To help curb corruption and strengthen participatory democracy.

Key Functions & Powers:

- Adjudication: Hears second appeals against decisions made by Central Public Information Officers (CPIOs).
- Complaint Resolution: Investigates complaints regarding delays, denials, or excessive fees related to RTI applications (Section 18).
- Monitoring Compliance: Oversees proactive disclosures by public authorities as required under Section 4 of the RTI Act.
- Penalties: Can impose fines on officials for non-compliance or obstruction under Section 20.
- Annual Reporting: Submits a report to Parliament detailing the implementation of the RTI Act (Section 25).

- **Quasi-Judicial Powers:**
  - The CIC functions like a civil court and has the authority to:
  - Summon and examine witnesses under oath,
  - Enforce attendance,
  - Require production of public records,
  - Issue directives to improve transparency and record-keeping practices

JUNGLE WARFARE SCHOOL

CONTEXT

- The government plans to establish a new Jungle Warfare School at Karreguta Hills in Bijapur, Chhattisgarh — once a Maoist stronghold — to train personnel from the CRPF, DRG, CoBRA, and state police forces..

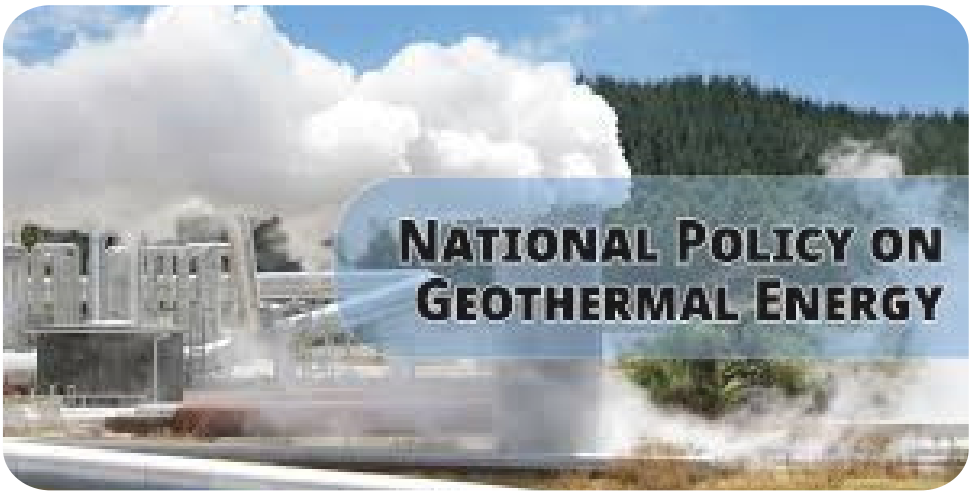
ABOUT JUNGLE WARFARE SCHOOL:

- Jungle Warfare Schools are specialized training institutions for military and police forces, focused on equipping personnel with the skills needed for combat, mobility, and survival in dense forests and rugged, hilly terrain.
- They emphasize counter-insurgency and counter-terrorism tactics, particularly suited for asymmetric warfare in jungle environments.
- Objective:
  - To strengthen the operational readiness of security forces deployed in Left-Wing Extremism (LWE)-affected areas.
  - To train personnel in terrain-specific tactics such as ambush handling, guerrilla warfare, cave operations, and counter-strategies used by insurgents.
- Key Features:
  - Realistic Operational Setting: Located in challenging terrain like Karreguta Hills, with natural caves, dense forests, waterfalls, and narrow valleys to simulate real combat conditions.
  - Integrated Training: Personnel from various forces — including CRPF, CoBRA, STF, DRG, and state police — train side by side for enhanced coordination.
  - Comprehensive Modules: Training covers:
  - Jungle navigation and survival skills
  - Counter-ambush tactics
  - Cave-clearing and close-quarter battle techniques
  - Night operations
  - Intelligence gathering
  - Detection and disposal of IEDs

NATIONAL POLICY ON GEOTHERMAL ENERGY 2025

CONTEXT

- The Ministry of New and Renewable Energy (MNRE) has launched the National Policy on Geothermal Energy (2025) to fast-track the exploration and development of geothermal energy resources across the country.



ABOUT NATIONAL POLICY ON GEOTHERMAL ENERGY 2025

- The National Policy on Geothermal Energy 2025, launched by the Ministry of New and Renewable Energy (MNRE), is a strategic framework aimed at tapping into India's estimated 10 GW geothermal energy potential.
- The policy focuses on integrating geothermal energy into the national renewable energy mix and fostering a robust public-private ecosystem for its sustainable development.
- **Key Objectives:**
  - Research & Innovation:
    - Enhance exploration, drilling, reservoir management, and cost-effective power generation, along with direct-use technologies.
  - Collaborative Approach:
    - Foster partnerships with other ministries, research institutions, international geothermal organizations, and the oil & gas sector.
  - Decarbonization Goals:
    - Promote geothermal energy use in space heating/cooling, industrial processes, agriculture, and tourism to aid climate goals.
  - Infrastructure Reuse:
    - Encourage the use of abandoned oil and gas wells for geothermal production to lower costs and reduce environmental impact.

Key Features:

- **Vision & Strategic Goals:**
  - Establish geothermal energy as a core component of India's renewable energy strategy.
  - Strengthen energy security and contribute to achieving Net Zero emissions by 2070.

- **Geothermal Resource Potential:**
  - Over 381 hot springs identified by the Geological Survey of India (GSI) across 10 geothermal provinces, including:
  - Himalayas, Cambay Graben, Godavari Basin, and Aravalli Belt.
  - High-potential sites: Puga (Ladakh), Manikaran (Himachal Pradesh), Tattapani (Chhattisgarh

- **Scope of Applications:**
  - Encompasses power generation, district heating/cooling, cold storage, greenhouse and aquaculture heating, desalination, and eco-tourism.
  - Encourages development of hybrid systems (e.g., geothermal + solar).
  - Supports mineral extraction (like lithium and boron) to boost commercial viability.

- **Development & Investment Model:**
  - 100% FDI allowed in the geothermal sector.
  - Promotes risk-sharing mechanisms, joint ventures with oil & gas companies, and single-window state clearances.
  - Offers a range of fiscal incentives, including:
  - GST and import duty exemptions
  - Tax holidays
  - Accelerated depreciation
  - Viability Gap Funding (VGF)

- **Implementation Mechanism:**
  - MNRE designated as the nodal agency, ensuring coordination across ministries.
  - Establishment of Geothermal Centres of Excellence for R&D and pilot projects.
  - Policy rollout guided by standard operating procedures (SOPs) and regular progress monitoring.

MACHU PICCHU

CONTEXT

- Peru evacuated 1,600 tourists from Machu Picchu after protests disrupted train services, with demonstrators demanding to be included in the bidding process for selecting a new bus operator.

ABOUT MACHU PICCHU:

- Machu Picchu is a 15th-century Inca citadel and one of the New Seven Wonders of the World. Designated a UNESCO World Heritage Site in 1983, it is Peru's most famous archaeological site, drawing approximately 4,500 visitors daily.
- The site is renowned for its exceptional preservation, advanced engineering, and blend of ceremonial, residential, and agricultural zones.
- Location:
  - Located about 80 km northwest of Cusco, in the Cordillera de Vilcabamba range of the Andes Mountains, Peru.
  - It sits at an altitude of 2,350 meters (7,710 feet) above sea level, overlooking the Urubamba River Valley.
  - Nestled between two iconic peaks: Machu Picchu ("Old Peak") and Huayna Picchu ("New Peak").
- Historical Background:
  - Believed to have been built during the reign of Pachacuti Inca Yupanqui (c. 1438–1471) as a royal retreat or estate.
  - Abandoned in the mid-16th century, likely due to the Spanish conquest and water scarcity.
  - Rediscovered in 1911 by Yale historian Hiram Bingham, with the help of local guide Melchor Arteaga.

Architectural Highlights:

- Urban Design:
  - Organized into ceremonial, residential, and agricultural sectors, linked by thousands of precisely carved stone steps.
- Agricultural Terraces:
  - Ingeniously constructed with an aqueduct system for effective irrigation and erosion control.
- Notable Structures:
  - Temple of the Sun: Used for religious ceremonies.
  - Temple of the Three Windows: Exhibits classic Inca trapezoidal architecture.
  - Intihuatana Stone: A carved sundial believed to have astronomical and ceremonial purposes.
  - Royal Tombs & Palaces: Indicate elite and royal usage.

- **Getting There:**
  - Access is primarily via train to Aguas Calientes, followed by a bus ride to the site.
  - Alternatively, adventurous travelers can hike the Inca Trail, a 3–6 day trek through the mountains.

- **Cultural & Economic Significance:**
  - Cultural Legacy: A powerful symbol of the Inca Empire's architectural genius and cultural achievements.
  - Tourism Hub: Peru's most economically significant tourist attraction, contributing substantially to foreign revenue and local employment.

WORLD TRADE REPORT 2025

CONTEXT

- The World Trade Organization (WTO), in its World Trade Report 2025, stated that Artificial Intelligence (AI) has the potential to boost global trade by 34–37% and increase GDP by 12–13% by 2040—provided that digital divides are addressed and inclusive policy frameworks are implemented.

ABOUT WORLD TRADE REPORT 2025

- The World Trade Report is the WTO's annual flagship publication, analyzing global trade trends, policies, and the future of the multilateral trading system.
- The 2025 edition, titled "Making Trade and AI Work Together to the Benefit of All," explores the transformative impact of Artificial Intelligence (AI) on global trade and inclusive economic growth.

- **Major Highlights:**
  - AI as a Catalyst for Trade
    - AI could increase global trade in goods and services by up to 40% by 2040, primarily by lowering trade costs and boosting productivity.
  - Economic Impact
    - If digital divides are addressed and AI is adopted widely, global GDP could grow by 12–13% by 2040.
  - AI-Related Trade Expansion
    - In 2023, trade in AI-enabling goods (semiconductors, chips, servers) reached USD 2.3 trillion, and is expected to grow with open trade policies.

KEY OPPORTUNITIES IDENTIFIED:

- Lower Trade Costs:
  - AI enhances supply chain efficiency by reducing logistics expenses and streamlining processes such as customs clearance through automation.
- New Service Exports:
  - AI enables the expansion of globally tradable services, including telemedicine, data analytics, and remote diagnostics, opening new export avenues.
- Innovation and Knowledge Sharing:
  - Increased digital trade fosters global innovation — a 10% rise in digital trade correlates with a 2.6% increase in AI patent citations, indicating broader diffusion of technological advancements.
- Inclusive Development:
  - With inclusive implementation, AI can help reduce wage disparities and create new employment opportunities, particularly in data annotation, cloud-based services, and localization of AI applications in developing economies.

CHALLENGES AHEAD

- Digital Divide:
  - Many low- and middle-income countries lack essential infrastructure, digital skills, and computing resources, limiting their ability to benefit from AI-driven trade growth.
- Regulatory Fragmentation:
  - The rise in quantitative restrictions on AI-related goods — from 130 in 2012 to 500 in 2024 — threatens to hinder innovation, raise trade costs, and disrupt global supply chains.
- Concentration of AI Capabilities:
  - The dominance of a few countries and large tech firms in AI development raises concerns about monopolistic control and limited access to critical AI technologies for others.
- Labour Market Disruption:
  - AI may displace routine cognitive jobs such as translation and transcription, potentially widening income inequality if reskilling measures are not implemented.
- Environmental Impact:
  - Data centers, which power much of AI infrastructure, already consume around 1.5% of global electricity, highlighting the urgent need for sustainable and energy-efficient AI systems.

WTO's STRATEGIC RECOMMENDATIONS:

1. Close the Digital Infrastructure Gap
   - Invest in broadband, cloud services, and computing capacity in low- and middle-income countries to support AI adoption.
2. Promote Inclusive Skilling
   - Launch global initiatives to reskill workers for AI-enabled roles and avoid job polarization.
3. Ensure Open & Predictable Trade Policies
   - Reduce tariffs and non-tariff barriers on AI-enabling goods.
   - Encourage interoperable AI standards and discourage protectionism.
4. Advance Global AI Governance
   - Develop international frameworks for data sharing, algorithmic transparency, and ethical AI use to foster trust and accountability.
5. Align AI with Sustainability Goals
   - Support the development of energy-efficient AI solutions and carbon-neutral cloud infrastructure.

CONCLUSION:

- The report positions AI as a game-changing force in global trade and economic growth. However, realizing its full potential requires:
- Bridging the digital divide
- Avoiding regulatory fragmentation
- Ensuring AI becomes a driver of inclusive prosperity rather than increased inequality
- With the right mix of trade, technology, and social policy, AI can serve as a powerful tool for equitable global development.

YELLOW-CRESTED COCKATOOS

CONTEXT

- In Hong Kong, critically endangered yellow-crested cockatoos are struggling to find natural nesting sites due to tree loss and aggressive urban pruning. In response, conservationists are installing artificial nest boxes to help sustain the species and support their reproduction.

ABOUT YELLOW-CRESTED COCKATOOS:

- The Yellow-crested Cockatoo (Cacatua sulphurea) is a medium-sized parrot known for its striking yellow crest, snow-white plumage, and loud, social nature.
- Renowned for their vocalizations and strong social bonds, they are often seen in active, noisy flocks.
- Native Range:
  - Native to Indonesia and Timor-Leste, where they were once widespread across regions like Nusa Tenggara, Sulawesi, and the Masalembu Islands.
  - Today, their populations are fragmented and limited to small groups on islands such as Komodo, Flores, Sumbawa, Timor, and parts of Sulawesi.
- Habitat:
  - Naturally inhabit tropical dry forests, woodlands, and tree hollows, which are essential for nesting.
  - In urban areas, they've adapted to living in parks and tall trees, coexisting with human activity but still dependent on suitable nesting cavities.
- Conservation Status:
  - Classified as Critically Endangered on the IUCN Red List, primarily due to habitat loss, illegal trapping, and the pet trade.

KEY CHARACTERISTICS:

- Physical Traits:
  - Medium-sized with white feathers and a vibrant yellow crest that fans out when the bird is excited or alarmed.
  - Equipped with a strong, curved black beak designed for cracking seeds and nuts.
  - Smaller in size compared to the more common sulphur-crested cockatoo.

- Social Behavior:
  - Extremely gregarious and vocal, they are often seen in flocks, calling to each other with loud squawks.
  - Exhibit lifelong monogamous pair bonding and strong cooperative behavior within groups.

- Breeding Biology:
  - Nest in natural tree cavities, laying 2–3 eggs per breeding cycle.
  - Both parents share responsibilities for incubation and chick rearing, displaying high parental care until fledging.

- Movement Patterns:
  - Generally a sedentary species, remaining within a fixed home range throughout the year.
  - May move locally in response to habitat disturbances or in search of food, water, or secure nesting sites

L-1 VISA

CONTEXT

- The U.S. administration under Donald Trump announced a $100,000 increase in fees for new H 1B visa applications, prompting discussions on whether the L-1 visa could serve as a viable alternative for Indian professionals.

ABOUT H-1B VISA:

- A non-immigrant visa that allows U.S. companies to employ foreign workers in specialty occupations. Typically used in fields such as IT, engineering, finance, healthcare, and science.
- Eligibility Requirements:
  - Applicant must have at least a bachelor's degree (or equivalent) in the relevant field.
  - The job must qualify as a specialty occupation requiring specialized knowledge.
  - The employer must sponsor the visa and submit a Labor Condition Application (LCA).
- Visa Duration:
  - Initially granted for 3 years, extendable up to a maximum of 6 years.
  - Extensions beyond 6 years are possible in limited situations (e.g. pending Green Card application).
- Annual Cap:
  - 65,000 regular cap visas issued annually.
  - Additional 20,000 visas available for those with a U.S. master's degree or higher.
  - Exemptions apply to jobs at universities, non-profits, and government research organizations.
- Lottery System : Due to high demand, USCIS uses a random lottery system to select applications each year. Registration usually opens in March.

- Work and Employer Conditions :
  - H-1B holders can only work for the sponsoring employer.
  - A new petition is required for job changes or employer transfers.
- Dependents (H-4 Visa) Spouses and unmarried children under 21 can apply for H-4 dependent visas.
- H-4 spouses may be eligible for work authorization (EAD) if the H-1B holder is on the path to a Green Card.

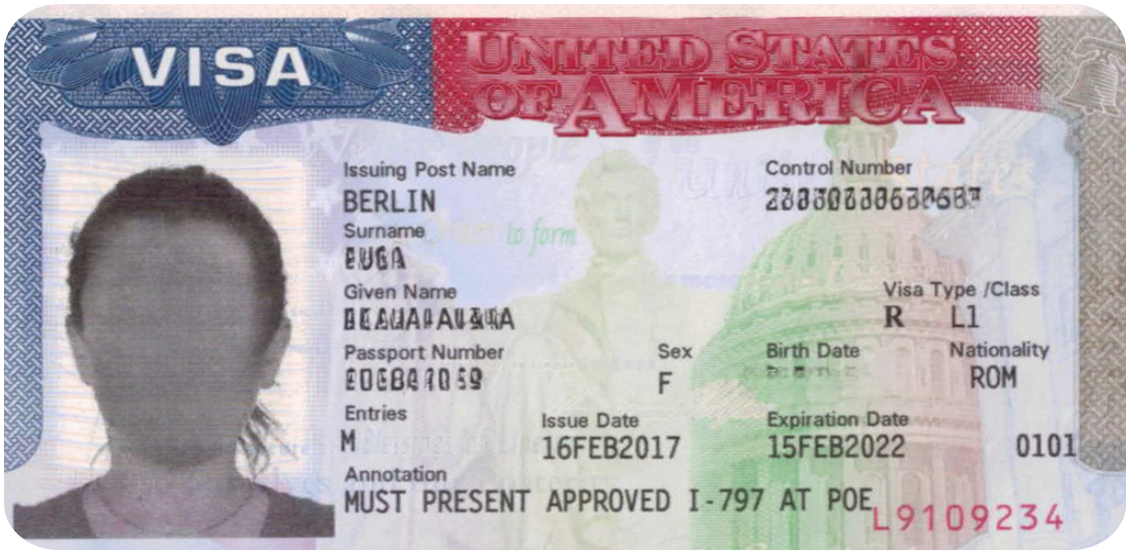
- Path to Permanent Residency
  - Often used as a stepping stone to a Green Card (employment-based permanent residency).
  - Employers can sponsor H-1B workers for a Green Card through the PERM labor certification process.
- Portability H-1B workers can switch employers if the new employer files a valid H-1B petition.
- The worker can start at the new job as soon as USCIS receives the new petition.

ABOUT L-1 VISA:

- The L-1 visa is a non-immigrant work visa for intra-company transfers.
- It comes in two categories:
  - L-1A: For executives and managers.
  - L-1B: For employees with specialized knowledge.
- It enables multinational companies to transfer employees from their overseas offices to a U.S. branch, subsidiary, or affiliate.

- Origin:
  - Established under the Immigration and Nationality Act of 1965.
  - Intended to support the global operations of multinational corporations by easing cross border movement of personnel.

- Purpose:
  - To facilitate the internal transfer of skilled employees within the same company across international borders.
  - Helps strengthen U.S. operations of global firms without relying on local labor markets.



Key Features:

- No Annual Cap or Lottery: Unlike the H-1B, the L-1 is not subject to numerical limits or random selection.
- Dual Intent Permitted: L-1 holders can apply for a green card without jeopardizing their visa status.
- Spousal Work Rights: L-2 dependents (spouses) can work in the U.S. without restrictions.
- Stay Duration:
  - L-1A: Up to 7 years
  - L-1B: Up to 5 years.
- Blanket Petitions: Eligible companies can use blanket approvals for quicker processing of multiple employees.

Limitations:

- Strict Eligibility: The employee must have worked for the overseas entity of the same company for at least 1 continuous year within the past 3 years.
- Increased Scrutiny: Especially for Indian applicants, due to the vague definition of "specialized knowledge," L-1B applications often face high rejection rates.
- Fixed Duration: The visa has a maximum stay limit and cannot be extended indefinitely, even if the green card process is pending.
- No Portability: L-1 visa holders cannot switch employers in the U.S.; the visa is tied to the sponsoring company.

STAMPEDE IN INDIA

CONTEXT

- The recent stampede in Karur, Tamil Nadu, during a political rally led by actor-turned-politician Vijay, resulting in multiple tragic deaths, has once again exposed India's persistent vulnerability to stampede-related disasters.

ABOUT STAMPEDE IN INDIA:

- CONSTITUTIONAL AND LEGAL DIMENSIONS
  - Article 21 – Right to Life: The Indian Constitution guarantees every citizen the right to life, placing a clear responsibility on the State to ensure safety during large public gatherings.
  - Disaster Management Act, 2005: Categorizes stampedes as "man-made disasters," mandating proactive planning, prevention, and mitigation.
  - Supreme Court Ruling (2009) – Destruction of Public & Private Properties v. State of A.P.: The Court emphasized the accountability of authorities in managing mass events and preventing public harm.

ROOT CAUSES OF STAMPEDES IN INDIA

1. Overcrowding Beyond Safe Limits

- Poor crowd estimates and inadequate planning for large turnouts at religious, political, or sports events often lead to unsafe densities.
- Example: Kumbh Mela, Prayagraj (2013), RCB IPL win stampede (2024)

2. Trigger Events and Panic
- Small incidents like a fall, rumor, or structural collapse can rapidly escalate panic and lead to fatal surges.
- Example: Karur rally (2025) – people falling from trees triggered chaos, Kumbh direct train incident

3. Inadequate Infrastructure and Bottlenecks
- Narrow entry/exit points, poor barricading, and lack of escape routes often trap crowds.
- Example: New Delhi Railway Station FOB stampede (Feb 2025)

4. Administrative Failures
- Absence of early warning systems, poor inter-agency coordination, and lack of risk assessments compromise crowd safety.
- Example: RCB IPL victory parade, Bengaluru (2025)

5. Sociocultural Factors
- Emotionally charged gatherings like pilgrimages, yatras, and rallies are deeply rooted in tradition, making regulation more difficult.

- **Consequences of Stampedes**
  - Human Tragedy: Stampedes result in devastating loss of life, severe injuries, and long-term psychological trauma.
  - Governance Failures: Repeated incidents point to administrative inefficiency and erode public trust in the State's capacity to ensure safety.
  - Economic Costs: Relief, medical treatment, and compensation create financial strain on public resources.
  - Global Perception: Frequent crowd disasters damage India's image as a capable and responsible emerging power.

- **Key Challenges in Prevention**
  - Unpredictable Crowd Sizes: Massive turnouts at religious or political events often overwhelm planning efforts.
  - Poor Safety Compliance: NDMA's 2014 guidelines on crowd control are seldom enforced rigorously.
  - Coordination Gaps: Fragmented roles among police, civic bodies, and organisers result in mismanagement.
  - Underutilisation of Technology: Tools like AI-based crowd analytics, real-time surveillance, and drones remain largely untapped.
  - Risky Crowd Behaviour: Ignoring advisories, panic responses, and rushing towards exits often turn dense crowds deadly.

WAY FORWARD:

1. Scientific Crowd Management
- Deploy AI tools, density sensors, and drones for real-time monitoring.
- Create specialised Crowd Management Units within state police forces.

2. Infrastructure Improvements
- Design wider entry/exit points, install crash barriers, and ensure clear evacuation routes.
- Implement overhead crowd monitoring systems.

3. Strengthened Accountability
- Enforce penal action under the Disaster Management Act for negligence.
- Mandate real-time preparedness audits for high-risk events.

4. Public Awareness
- Conduct nationwide campaigns on crowd safety.
- Train local volunteers in first aid, emergency response, and evacuation protocols.

5. Technology Integration
- Use mobile apps for crowd density alerts, geo-fencing, and SMS advisories.
- Example: Kumbh Mela (2019) effectively employed GIS mapping for crowd dispersal.

6. Adopting Global Best Practices
- Implement "one-way flow" crowd design, inspired by Hajj pilgrimage safety protocols.
- Introduce real-time digital ticketing to avoid oversubscription at major events.

Stampedes are not inevitable — they are the tragic outcome of poor planning, inadequate infrastructure, and unregulated crowd behavior. As mass gatherings remain central to India's cultural and political life, a shift towards proactive, tech-enabled, and accountable crowd management is essential.

In India's journey towards Viksit Bharat 2047, ensuring public safety must be treated as a core component of the right to life and a benchmark of effective governance..