INDIAN CYBERCRIME COORDINATION CENTRE (I4C)

- I4C has been established under the **Ministry of Home Affairs (MHA)** to act as a **nodal point at the National level** in the **fight against cybercrime.**
- It is designed to **provide a framework and ecosystem for law enforcement agencies (LEAs) to deal with cybercrime** in a coordinated and comprehensive manner.
- I4C **brings together academia, industry, public, and government** in the prevention, detection, investigation, and prosecution of cybercrimes.
- **Headquarters: New Delhi**
- **Objectives**:
  - To act as a nodal point to curb Cybercrime in the country.
  - To strengthen the fight against Cybercrime committed against women and children.
  - Facilitate **easy filing of cybercrime related complaints** and **identifying cybercrime trends and patterns.**
  - To **act as an early warning system for LEAs** for proactive cybercrime prevention and detection.
  - **Awareness creation** among the public about preventing cybercrime.
  - **Assist States/UTs in capacity building** of Police Officers, Public Prosecutors and Judicial Officers in the area of cyber forensic, investigation, cyber hygiene, cyber-criminology, etc.
  - **Identify the research problems** and **needs of LEAs and take up R&D activities** in **developing new technologies** and **forensic tools** in collaboration with academia/research institutes within India and abroad.
  - **Suggest amendments,** if required, **in cyber laws** to keep pace with fast-changing technologies and international cooperation.

Components of I4C:

- o **National Cybercrime Threat Analytics Unit (TAU):** For reporting threats pertaining to cybercrimes at regular intervals.
- o **National Cybercrime Reporting Portal (NCRP):** To report various cybercrime complaints by citizens at all India levels on a common platform on a 24x7 basis from "anywhere, anytime".
- o **National Cybercrime Training Centre (NCTC):** To impart training to government officials, especially state law enforcement agencies.
- o **National Cybercrime Research and Innovation Centre:** To carry out research for the development of indigenous tools for the prevention of cybercrimes.
- o **Platform for Joint Cyber Crime Coordination Team:** For coordination, sharing of modus operandi of cybercrimes, data/information among states/UTs.
- o **Cybercrime Ecosystem Management Unit:** For creating mass awareness in cyber hygiene for prevention of cybercrimes.
- o **National Cybercrime Forensic Laboratory (Investigation) Ecosystem:** For helping LEAs in cyber forensics investigation.

- **Other Initiatives:**
  - o **Citizen Financial Cyber Fraud Reporting and Management System**: For immediate reporting of financial cyber frauds and preventing the siphoning of funds by cyber criminals on a near-real-time basis.
  - o **National Toll-Free Helpline number '1930'** has been operationalized to provide citizen assistance in lodging online cyber complaints.
  - o **The social media handle "CyberDost",** which provides cyber safety tips at regular intervals.
  - o I4C has envisaged the **Cyber Crime Volunteers Program** to bring together citizens with a passion to serve the nation on a single platform and contribute to the fight against cybercrime in the country.

CORPORATE SOCIAL RESPONSIBILITY (CSR) SPENDING IN INDIA SEES 16% GROWTH IN FY24: HDFC BANK, RELIANCE LEAD THE CHARGE

- CSR has become a central pillar of India's corporate governance framework.
- Enacted through the Companies Act, 2013 and enforced from April 2014, CSR mandates eligible companies to spend at least **2% of their average net profits** over the preceding three years on socially impactful initiatives.
- Companies with a **net worth of ₹500 crore or more**, **turnover of ₹1,000 crore or more**, or **net profit of ₹5 crore** or more are obligated to undertake CSR activities.
- **The intent behind the CSR mandate is twofold**:
    o   to ensure that businesses contribute meaningfully to society, and
    o   to embed social responsibility as an integral part of corporate strategy.
- Over the years, CSR in India has expanded to include areas like education, healthcare, rural development, environmental sustainability, and cultural heritage.
- While compliance levels have consistently improved, recent trends suggest an evolving landscape where corporates are increasingly aligning their CSR strategies with sustainable development goals and national priorities.

Rise in CSR Spending in FY24

- In the financial year 2023-24, India witnessed a **16% surge in CSR spending**, with listed companies investing a total of **₹17,967 crore**, up from ₹15,524 crore in FY23.
- This significant rise mirrors the **18% increase in average three-year net profits**, which grew to ₹9.62 lakh crore from ₹8.14 lakh crore.
- As per the CSR mandate, companies were required to spend ₹18,309 crore.
- The slight shortfall between required and actual spending was due to **₹2,329 crore** being transferred to **Unspent CSR Accounts** for future utilization.
- This increase in spending came after three years of relatively flat growth, signalling a strong corporate commitment towards social welfare, driven by regulatory push and profit expansion.

IMPROVEMENTS IN MONSOON FORECASTING IN INDIA

- **Launch of the Monsoon Mission Coupled Forecasting System (MMCFS) - 2012**
  - The introduction of the MMCFS in 2012 marked a significant advancement in monsoon prediction. This coupled dynamic model combined data from the ocean, atmosphere, and land to provide more accurate forecasts.
  - The IMD used MMCFS alongside the SEFS for improved predictions.

- **Multi-Model Ensemble (MME) Approach - 2021**
  - In 2021, the IMD further enhanced its forecasting accuracy with the introduction of an MME system.
  - This approach incorporated coupled global climate models (CGCMs) from various global climate prediction and research centers, including India's own MMCFS. The MME system has significantly improved the accuracy of monsoon predictions.

- **Notable Improvements in Forecast Accuracy**
  - Since the introduction of SEFS in 2007 and MME in 2021, the IMD's operational forecasts have shown marked improvement.
  - The absolute forecast error in India's seasonal rainfall has decreased by about 21% between 2007 and 2024 compared to 1989-2006.
  - IMD's April forecasts have also become more precise, with deviations of only 2.27 percentage points in the actual rainfall from 2021-2024, well within the forecast range of 4%.

- **Scope for Further Improvement**
  - Despite these advancements, there is still room for further refinement.
  - Experts have suggested that the IMD should improve its dynamical models by addressing systematic errors and biases, as well as enhancing teleconnectivity with global climate modes such as the ENSO.
  - This could further enhance the precision of the IMD's monsoon forecasts.

SUPREME COURT SUGGESTS VOTE THRESHOLD FOR UNOPPOSED ELECTION WINS

- The petition was filed in August 2024.
- It argues that if an election is not held when there is only one candidate, voters lose the chance to choose the "None of the Above" (NOTA) option.
- This, the petition says, violates the fundamental rights of voters.

Uncontested Elections in Lok Sabha

- The petition states that between 1951 and 2024, candidates were elected uncontested in 26 Lok Sabha constituencies, based on Election Commission of India reports.
- As a result, over 82 lakh voters were deprived of their right to vote.
- **Breakup of Uncontested Elections**
    - According to the petition, uncontested elections occurred as follows: seven in 1957, five each in 1951 and 1967, three in 1962, two in 1977, and one each in 1971, 1980, 1989, and 2024.
- **Recent Example**
    - In 2024, BJP candidate was declared elected unopposed from Surat after all other candidates withdrew or had their nominations rejected.
- **Uncontested Elections in State Assemblies**
    - The petition also points out that uncontested elections are more frequent in state Assembly elections.

Response of the Election Commission of India (ECI)

- The ECI, in its counter affidavit, noted that uncontested elections occurred in only nine out of 20 Lok Sabha elections held between 1951 and 2024.
- Since 1989, only one MP has been elected uncontested, highlighting that such instances have become extremely rare with the growth of political participation and voter awareness.

- **Argument Against the Petition**
    - The Commission argued that with democracy evolving and more parties contesting, the likelihood of uncontested elections is now minimal.
    - Therefore, the Supreme Court should not entertain the petition.

- **Position on NOTA**
    - The ECI emphasized that the "None of the Above" (NOTA) option is available only when polling takes place.
    - NOTA is not to be treated as a competing candidate in uncontested elections.

- **Need for Legislative Change**
    - The Commission stated that recognizing NOTA as a mandatory contesting option would require amendments to the RPA, 1951, and the Conduct of Elections Rules, 1961, as the current law does not provide for this.

View of the Supreme Court

- **Suggestion for Minimum Vote Requirement**
    - SC suggested that when only one candidate remains, they should be required to secure a minimum percentage of votes — such as 10% or 15% — to be declared elected, rather than winning automatically.

- **Democracy and Majority Principle**
    - It emphasized that democracy is founded on majority support, and even in uncontested situations, a candidate should have at least some voters' approval to uphold democratic principles.

- **Advice to the Government**
    - SC urged the government to consider introducing a provision to address such scenarios in the future, stressing that Parliament could decide the specifics.
    - It questioned the idea of allowing someone to enter Parliament "by default" without even minimal voter support.

EXERCISE BALIKATAN 2025

As many as 17,000 personnel are participating in the annual "Balikatan" exercises, which this year will simulate a "full-scale battle scenario" as the treaty allies seek to deter China's ambitions in the waterway.

- It is the **largest bilateral exercise** conducted b**etween the Armed Forces of** the **Philippines and the United States.**
- "Balikatan," a Tagalog phrase that means "shoulder-to-shoulder," characterizes the spirit of the exercise and represents the alliance between the Philippines and the United States.
- **Held annually**, Exercise Balikatan is designed to **enhance military interoperability** and readiness **in support of the Mutual Defense Treaty between** the **United States and the Philippines.**

The 2025 edition is the **40th iteration** of the exercise.
- o Distinguishing itself from past iterations, Balikatan 25 will feature a **Full Battle Test** that incorporates real-world forces and events into a virtual and constructive exercise scenario.
- o The exercise will span all domains—air, land, sea, space, and cyber—testing the interoperability between U.S. and Philippine forces to simulate the defense of Philippine sovereignty.
- o The exercise will consist of four primary components: a Combined Joint Logistics Over-the-Shore (CJLOTS) operation, humanitarian civic assistance (HCA) activities, a command-and-control exercise (C2X), and a Multilateral Maritime Exercise (MME).
- o Each component will encompass several training events and engagement throughout the Philippines.

RNA-BASED ANTIVIRAL FOR AGRICULTURAL VIRUS

- Every year, farmers across India and the world face a relentless and invisible enemy: plant viruses. In India, the **Cucumber Mosaic Virus (CMV)** alone causes **25–30% yield losses** in banana plantations and infects up to **70% of pumpkin, cucumber and melon crops.**

- In the absence of effective traditional treatments, scientists have turned to **RNA-based technologies to bolster plant defenses**. This innovative approach mimics the way the human immune system combats viruses. **RNA-based solutions work by silencing specific genes** in viruses or by enhancing the plant's natural immune responses, offering a promising method of protecting crops without heavy reliance on chemical pesticides.

RNA-Based Defence Mechanism

- **RNA Silencing**: A **natural defence system** in plants against viral attacks.
    - **Double-stranded RNA (dsRNA)** from the virus triggers the plant's immune response.
    - **Dicer-like enzymes (DCLs)** slice the dsRNA into **small interfering RNAs (siRNAs)**.
    - **siRNAs** then guide the system to **destroy viral RNA**, stopping virus replication.

Types of RNA-Based Techniques

- **Host-Induced Gene Silencing (HIGS)**: Plants are **genetically modified** to produce **virus-targeting dsRNA** internally for **continuous protection**. However, **high costs**, **regulatory hurdles**, and risk of **viral resistance** limit its use.

- **Spray-Induced Gene Silencing (SIGS)**: **RNA sprays** are applied to plant leaves, **activating natural immunity** without altering plant DNA. **Cost-effective** and **environmentally friendly**, but **traditional dsRNA** often generates a **random mix of siRNAs**, reducing efficiency.

CRITICAL TIGER HABITAT (CTH)

- **Critical Tiger Habitat (CTH),** also known as **core areas of tiger reserve**s, are **identified under the Wild Life Protection Act (WLPA), 1972.**

- These are **based on scientific evidence** that "such areas are required to be **kept as inviolate** for the purpose of tiger conservation, **without affecting the rights of the Scheduled Tribes** or such **other forest dwellers".**

- The **notification** of CTH is **done by the state government in consultation with the expert committe**e constituted for the purpose.

- **Inviolate Status:** These areas are kept inviolate (**free from human activities**) for the purpose of tiger conservation.

- The **forests peripheral to CTH** are **notified as buffer areas,** which act as a transition between CTH and non-tiger reserves.

Key Facts about Central Empowered Committee (CEC):

- It was s**et up in 2002** (reconstituted in 2008) **by the Supreme Court.**

- It served as a **watchdog for issues pertaining to environmental conservation** and compliance.

- **In 2023, the Supreme Court transferred the CEC, to the Ministry of Environment**, Forest, and Climate Change.

- According to the Union Environment Ministry's notification, the central empowered committee will now be **institutionalised as a permanent statutory** body, moving away from its earlier ad hoc status.