1. **Panchayat Advancement Index (PAI):** Recently, the Ministry of Panchayati Raj has launched the Panchayat Advancement Index (PAI).
   - **About:** It is a multi-domain and multi-sectoral index that gauges the holistic development, performance, and progress of Panchayats using various socio-economic indicators.
   - **Aim:** To assess and measure the progress made by grassroots-level institutions in achieving localized SDGs, contributing to the attainment of SDG 2030.
   - **Objective:** To **identify development gaps** across various LSDG themes and **enable evidence-based planning** at the grassroots level.
   - **PAI 2022–23 Highlights:**
     - Performance Grading of Panchayats based on PAI Scores: Achiever → Front Runner → Performer → Aspirant → Beginner
     - State-wise Front Runners: **Gujarat & Telangana**
     - States with high number of Performers: **Gujarat, Maharashtra, Telangana, Madhya Pradesh & Uttar Pradesh**
     - States with significant share of Aspirants: **Bihar, Chhattisgarh & Andhra Pradesh**
   - **Indicator Framework used for PAI Score Calculation 2022-23:** Poverty-Free and Enhanced Livelihoods Panchayat → Healthy Panchayat → Child-Friendly Panchayat → Water-Sufficient Panchayat → Clean and Green Panchayat → Self-Sufficient Infrastructure in Panchayat → Socially Just and Socially Secured Panchayat → Panchayat with Good Governance → Women-Friendly Panchayat
2. **Arctic Boreal Zone (ABZ):** As wildfires become more frequent and intense across the globe — from the U.S. and Japan to India — they are not only causing destruction to lives and property but also disrupting the earth's carbon balance.
   - Recent studies show that the **Arctic Boreal Zone (ABZ)**, once a major carbon sink, is now increasingly **releasing more carbon than it absorbs**, raising concerns about a dangerous **climate feedback loop**.
   - **About:** The Arctic Boreal Zone (ABZ) is a major carbon sink with tundra, coniferous forests, and wetlands that absorb carbon and sequester it in permafrost.
     - Its coniferous forest is the world's largest land-based biome.

- **Key Findings from the Study in Nature Climate Change:** Over 30% of ABZ has stopped capturing carbon and is now releasing it due to increasing wildfires.
- Alaska accounts for 44% of the new emissions, northern Europe for 25%, and Siberia for 13%.

- **Reasons for Increased Carbon Release: Thawing tundra** permafrost due to global warming has dried out the soil, changed plant types, raised soil temperature, and caused organic decomposition, releasing CO_2.
- **Consequences:** Intense wildfires burn through natural carbon reservoirs → more carbon released into atmosphere → further global warming → more wildfires.
  - The 2024 Arctic Report Card by NOAA confirmed this trend: Arctic tundra is turning into a carbon source, absorbing more pollution due to fossil fuel burning.
  - Arctic's vital signs are consistently showing record-high or record-low values, indicating long-term persistent changes, not short-term variability, per NOAA scientist Gerald Frost.

3. **Wildlife Crime Control Bureau (WCCB):** A recent elephant poaching case in Pennagaram taluk, Dharmapuri district, Tamil Nadu, has raised fresh concerns about the illegal trade in wildlife products, the WCCB recently highlighted.

- **About:** Wildlife Crime Control Bureau is a **statutory body** established by the Government of India to combat organized wildlife crime.
  - Constituted through an amendment to the **Wild Life (Protection) Act, 1972.**
  - **Mandate under Wild Life (Protection) Act, 1972:** Collect and disseminate intelligence on organized wildlife crime to enforcement agencies.
  - Assist foreign authorities and international organizations for coordinated global action against wildlife crime.
  - Build capacity of wildlife crime enforcement agencies for scientific and professional investigation.
  - Assist State Governments in ensuring successful prosecutions in wildlife crime cases.
  - Advise Government of India on national/international wildlife crime issues, laws, and policies.
  - Assist Customs authorities in inspection of consignments of flora and fauna under Wild Life Act, CITES, and EXIM Policy.

- **Technological Initiative:** Developed an online Wildlife Crime Database Management System for real-time data, crime trend analysis, and preventive action.
  - Enabled successful operations like Operation SAVE KURMA, THUNDERBIRD, WILDNET, LESKNOW, BIRBIL, THUNDERSTORM, LESKNOW-II.
- **Nodal Ministry:** Ministry of Environment, Forest and Climate Change

4. **Repo Rate:** Recently, the Reserve Bank of India's (RBI's) Monetary Policy Committee (MPC) decided to cut the repo rate by 25 basis points to 6%.
   - The policy stance was changed from "neutral" to "accommodative", signaling possible future rate cuts.
   - **About:** The repo rate is the interest rate that the RBI charges commercial banks when they borrow money from it.
     - The reverse repo rate is the interest rate the RBI pays to commercial banks when they park excess cash with it.
   - **Why Repo Rate Matters:** Repo and reverse repo rates act as the "benchmark" interest rates in the economy. The RBI uses them to set the tone for all other interest rates in the banking system.
   - When RBI **reduces the repo rate**: Banks lower their lending and deposit rates → People are encouraged to spend (savings earn less interest) → Businesses are encouraged to invest (loans become cheaper).
   - When RBI **increases the repo rate**: Banks pay more to borrow and hence charge higher interest to customers → Borrowing and spending reduce, which helps control inflation.
5. **Command Area Development and Water Management (M-CADWM):** Recently the Union Cabinet chaired by PM approved M-CADWM as a sub-scheme of PMKSY for 2025–2026.
   - **About Command Area Development and Water Management (M-CADWM):**
     - **Objective:** Aims to modernize irrigation water supply network in designated clusters.
     - **Infrastructure Support:** Ensures backend infrastructure for micro-irrigation up to 1 hectare using underground pressurized piped irrigation.
     - **Technology Integration:** Use of SCADA and IoT for water accounting and management.
     - **Efficiency:** Aims to improve Water Use Efficiency (WUE) at farm level.

- **Agricultural Impact:** Increases agricultural production and productivity.
- **Income Generation:** Contributes to higher farmer income.
- **Sustainability:** Promotes Irrigation Management Transfer (IMT) to Water User Societies (WUS).
- **Support to WUS:** Provides handholding support for 5 years, linking WUS with FPOs or PACS.
- **Youth Engagement:** Encourages youth participation in farming through modern irrigation.
- **Pilot Projects:** Scheme to begin with pilot projects across agroclimatic zones via challenge funding to states.

6. **Technical Committee of ISO and IEC:** Bureau of Indian Standards (BIS) recently hosted the 15th plenary meeting of the Technical Committee of the **International Organisation for Standardisation (ISO) and International Electrotechnical Commission (IEC)** for developing international standards on Artificial Intelligence.

- **About ISO:** It is an international nongovernmental organization comprising national standards bodies. It develops and publishes a wide range of proprietary, industrial, and commercial standards.
  - **Founded in 1947** and **headquartered** in **Geneva, Switzerland.**
  - Besides standards, ISO publishes technical reports, technical specifications, publicly available specifications, technical corrigenda, and guides.
  - ISO facilitates world trade by providing common standards across countries. It standards cover all fields, including healthcare, technology, manufacturing, security, and the environment.
- **About IEC:** It is an international standard-setting body for electrical, electronic, and related technologies—collectively termed **"electrotechnology".**
  - It is a global, **not-for-profit** membership organization with **173 member countries** and coordinates the work of 20,000 experts worldwide.
  - **Founded in London,** the IEC held its first meeting on 26–27 June 1906.
  - IEC Standards offer instructions, guidelines, rules, or definitions used in the design, manufacture, installation, testing, certification, maintenance, and repair of electrical and electronic systems.

7. **Periodic Labour Force Survey (PLFS):** Recently, the Periodic Labour Force Survey (PLFS) Annual Report for January–December 2024 has been released, presenting key employment-unemployment indicators across rural and urban areas in both Usual Status (ps+ss) and Current Weekly Status (CWS).
   - **About PLFS:** Launchedby the National Statistics Office (NSO) on April 2017.
     - **Objective:** Estimate key indicators (LFPR, WPR, UR) in a short time interval of 3 months for urban areas using Current Weekly Status (CWS).
     - Estimate employment and unemployment indicators in both rural and urban areas annually in Usual Status (ps+ss) and CWS.
   - **Key Indicators – Definitions:**
     - Labour Force Participation Rate (LFPR): % of persons in labour force in the population.
     - Worker Population Ratio (WPR): % of employed persons in the population.
     - Unemployment Rate (UR): % of unemployed persons among labour force.
8. **High-Altitude Climate Research Station:** The India's first-ever High-Altitude Climate Research Station at Nathatop, Jammu & Kashmir was recently inaugurated, coinciding with the launch of the Indo-Swiss Joint Research Project ICE-CRUNCH.
   - **About High-Altitude Climate Research Station:** The high-altitude location allows more accurate atmospheric and climate measurements under free tropospheric conditions.
   - **Purpose:** Climate forecast and research in the North-Western Himalayas.
   - **Collaboration:** Joint initiative of the Ministry of Earth Sciences, J&K Forest Department, & Central University of Jammu.
   - **About Project ICE-CRUNCH (**Ice nucleating particles and cloud condensation nuclei properties in the North-Western Himalayas):
   - **Collaboration:** Indo-Swiss joint research project with scientists from ETH Zürich, Switzerland.
   - **Objective:** To study ice-nucleating particles and cloud condensation nuclei in the region.
   - **Importance:** These studies are crucial in understanding aerosols in cloud microphysics, their impact on climate systems and precipitation in the Himalayas.
   - **Broader Missions:** Cited as complementing **Aroma Mission** and **Floriculture Mission** for Himalayan potential and economic value.