UPSC Daily Current Affairs| Prelim Bits 22-01-2025

Breast cancer cases in India

Why in news?

According to a recent study the number of breast cancer cases in India is projected to rise by 50,000 annually this decade, with the economic burden estimated to an average $19.55 billion per year.

- **Breast Cancer** - Breast cancer is one of the most common cancers that affects women and people assigned female at birth (AFAB).
- It happens when cancerous cells in your breasts multiply and become tumors.
- About 80% of breast cancer cases are invasive, meaning a tumor may spread from your breast to other areas of your body.

Common types of breast cancer	Less common breast cancer types
• Invasive (infiltrating) ductal carcinoma (IDC)	• Triple-negative breast cancer (TNBC)
• Lobular breast cancer	• Inflammatory breast cancer (IBC)
• Ductal carcinoma in situ (DCIS)	• Paget's disease of the breast

- **Symptoms –** Lumps, Skin changes, Nipple changes, Nipple discharge, Pain and others.
- **Complications -** The most significant complication is metastatic breast cancer, spreads to other areas of your body, including your brain, bones, liver and lungs.
- **Treatment –** Breast cancer is treated with a combination of surgery, radiation therapy, chemotherapy, hormonal therapy, and targeted therapy.

Study Findings

- **Cancer rate** - Cancer is now reported as the 5th-leading cause of death in India (5.7% of all deaths), as per the Medical Certification of Cause of Death (2018).
- The rise of around 11.5% in cancer incidence is recorded in India, along with a 13.8% increase in cancer-related deaths every year.
- **Breast cancer rate** - Over the past 26 years, the age-standardized incidence rate of breast cancer in females increased by 39.1% from 1990 to 2016, with the increase observed in every State.
- The number of breast cancer cases in India is projected to rise by 50,000 annually this decade.
- **Vulnerable** - Current trends point out that a higher proportion of the disease is occurring at a younger age in Indian women, as compared to the West.
- **Survival rate in India** - The survival rate of patients with breast cancer is poor in India as compared to Western countries.

- It is due to earlier age at onset, late stage of disease at presentation, delayed initiation of definitive management and inadequate/fragmented treatment.
- **Associating factors -** Firstly, breast cancer is associated with lower levels of physical activity, socioeconomic status, utilization of health facilities and health insurance.
- A survey showed that 14.2% of patients discontinued treatment, and only 9% of the patients were covered by any health insurance scheme.
- **Co-morbidity** - Breast cancer is also associated with high co-morbidity, with hypertension and diabetes being the most common co-morbidities, thus contributing to a high economic burden.

Reference

The Hindu | Breast cancer cases in India

Kashmir Chinars

Why in News?

J&K Forest Research Institute (FRI) of J&K Forest Department recently geo-tagged and equipped with QR-code of chinar trees in Kashmir for digital protection and to conserve the rich heritage.

- It is a large deciduous tree with a spreading crown and a long life.
- **Scientific Name -** Platanus orientalis.
- Chinar is also known as Oriental plane tree, maple tree and locally it is called as Boueen.
- **Habitat** - It is a distinctive feature of the Kashmir valley and is found all around it.
- **Origin** - It is believed to have been introduced in Kashmir from Persia.
- **Height** - It can grow up to 30 meters in height and have a girth of 10 to 15 meters at ground level.
- It takes around 150 years for a Chinar to reach its full size.
- **Uniqueness -** One of the unique characteristics of this tree is that its leaves change colors.
- During the summer season, the chinar tree's leaves are deep green. But, as the autumn season sets in, the leaves change color to a beautiful blood-red, amber and yellow.

'Char Chinar' is an island on the Dal Lake in Srinagar, gets its name after the Chinar Tree.

- Kashmir is home to world's oldest Chinar, which is 647 years old and located in central Kashmir's Budgam district.
- **Uses**
    - Ornamentation,
    - Leaves, and bark are used as traditional medicine,
    - Used for creating wood products,
    - Twigs and roots can be used as fabric dye.

Reference

New Indian Express | Kashmir Chinars

Electoral Trusts

Why in News?

Supreme Court struck down electoral bonds last year, shifting political funding to electoral trusts.

- It is a Trust set up by companies with the sole objective to ***distribute the contributions*** received by it from other Companies and individuals to the political parties.
- **Qualification** - Under ***'The Electoral Trusts Scheme, 2013'***, any company registered under Section 25 of the Companies Act, 1956, can form an electoral trust.
- **Governed by -** The Companies Act, 1956, and the Income Tax Act, 1961.
- **Eligibility to donate -** Under Section 17CA of the Income-tax Act, 1961
    - Any citizen of India,
    - A company registered in India, or
    - A firm or Hindu Undivided Family or
    - Association of persons living in India, can donate to an electoral trust.
- It shall not accept contributions from
    - An individual who is not a citizen of India
    - A foreign entity whether incorporated or not
    - Other Electoral Trusts (approved under the Electoral Trusts Scheme)
    - Contributors without PAN
    - NRIs without a passport number
- **Renewal -** The electoral trusts have to apply for renewal ***every 3 financial years***.
- **Distribution of funds -** For administrative expenses, the Electoral Trusts are permitted to set aside a maximum of 5% of the total funds.
- They must donate ***95%*** of contributions received in a financial year to political parties registered under the Representation of the People Act, 1951.
- The contributors' PAN (in case of a resident) or passport number (in case of an NRI) is required at the time of making contributions.
- **Transparency -** Trusts are required to maintain detailed accounts of donors, including PAN details, donation amounts and payment modes.
- Unlike electoral bonds, these contributions are ***partially transparent*** as donor and recipient identities must be disclosed, albeit separately.
- **Reporting -** These records are audited annually, with reports submitted to the commissioner of income tax and the Election Commission (EC).

Among the 18 registered electoral trusts, the Prudent Electoral Trust (PET) stands out as the largest and most influential.

Reference

India Today | Electoral Trusts

One Liners 22-01-2025

History, Art and Culture

Parakram Diwas

• **Parakram Diwas** – To commemorate *Netaji's birth anniversary*.
• **Organized by** – Ministry of Culture.
• **1st Edition in** – *2021*, held at Victoria Memorial, Kolkata.
• **2025 Parakram Diwas** – on 128th birth anniversary, to be held at *Cuttack, Netaji's birthplace*.
• **Recognition** – His house has now been converted to a museum dedicated to him.
• In 2023, a *hologram statue of Netaji* unveiled at India Gate, New Delhi and 21 unnamed islands in Andaman and Nicobar named after 21 Param Vir Chakra Awardees.

Tripura, Manipur and Meghalaya Statehood Day 2025

• **Foundation Day** – *1972*, 21st January.
• **Meghalaya** – Once a part of Assam, Meghalaya gained autonomy through the *Assam Reorganisation (Meghalaya) Act of 1969*.
• The constitutional framework for this significant transition was established by the *North Eastern Areas Reorganisation Act, 1971.*

Geography

Tripura

• **Borders** – Bangladesh (East Bengal) to the north, south, and west, and Assam and Mizoram to the east.
• **Demography** – Majority are the *Hindu Bengali people*, while indigenous communities or *tribes, account for about 30%.*
• **Tribal groups** – Among the 19 recognised tribes, those speaking the *Kokborok language* form the largest group.

Manipur

• **Historical background** – It was under British rule and officially merged with India when Maharaja Budhachandra signed the *Treaty of Accession in 1949*.
• **Capital** - Imphal, also known as *Kangleipak and Sanaleibak*.
• **Bordered by** – Nagaland to the north, Mizoram to the south, Assam to the west, and Myanmar (Burma) to the east.
• **Population demography** – It includes diverse ethnic groups like *Meetei, Kuki, Naga, and Pangal*, who primarily speak *Sino-Tibetan languages*.

Meghalaya

• The term 'meghalaya' meaning '*the abode of clouds*' in Sanskrit.
• **Borders** - Bangladesh to the south & west and Assam to the east.
• **Capital** - Shillong, is nestled in the Khasi Hills.
• **Primary languages** – *Khasi, Pnar, Garo, and English*.
• It is known as the wettest region in India, around 70% of Meghalaya is covered in lush forests.

Polity & Governance

All India Presiding Officers' Conference (AIPOC)

• **AIPOC** – It is the apex body of the Legislatures in India.
• **1st Edition in** – *1921*, has completed its *100 years in 2021.*
• **85th edition** – It *held in Patna*, has adopted 5 resolutions on
- Tributes to founding fathers
- Respect for values in constitution
- Barrier-free and orderly debates
- Celebration of 75th years of constitution
- Use of digital technology

One Nation, One Legislative Platform

• **Vision of** – Indian Prime Minister.
• **Concept** – A unique platform to Indian citizens, enabling them to *access Parliament debates and legislative debates* on any topic through keyword, metadata, and AI-powered search.
• **Current progress** – Parliament debates are being made available online by translating them into *both Hindi and English*.
• State legislatures have also made remarkable progress in digitizing their current and past debates.

Agriculture

Livestock Conclave 2025

• **Theme** – Dialogue for Holistic Development of Livestock Sector in North East India.
• **Held in** – Shillong, Meghalaya.
• **Objectives** – To discuss strategies for the holistic development of the livestock & poultry sector in the *North East Region (NER) states*.
• To assess the present status and challenges, explore opportunities for growth and development through *value chain strengthening, technological interventions* and policy support.

Science

Huntington's Disease

• **Cause due to** – A *fault in HTT gene*, which is responsible for making the huntingtin (Htt) protein.
• **Condition** – Mutated gene creates dysfunctional Htt protein.
• **Symptoms –** It causes *degeneration of neurons* affecting movement, cognition, and memory.
• **Recent findings** - *Modified fruit flies* show mutated human HTT gene effects.

Hypersonic Missiles

• **Speed** – It travel *faster than Mach 5* (over 5,400 km/hr)
• **Capabilities** – Capable of bypass existing Air Defense Systems & can delivering rapid and impactful strikes.

Scramjet Engine Technology

• **Technology** – An air breathing engines that *enable combustion at supersonic speeds.*
• **Mechanism** – Flame stabilization technique maintains continuous flame at high air speeds.
• **Development in India** – *Defense Research & Development Laboratory* (DRDL) has taken the initiative in developing a long-duration Supersonic Combustion Ramjet or Scramjet powered hypersonic technology.
• Advanced Computational Fluid Dynamics (CFD) simulation tools were used for their evaluation & performance prediction.

Defense Research & Development Laboratory (DRDL)

• **Part of** – DRDO.
• **Located in** – Hyderabad.
• **Role** – For the *design and development of state-of-the-art Missile Systems and technologies* required for the deterrence and defence of the country.
• **Technologies deployed on** – Underwater, sea, land as well as air based platforms.
• **R&D** - Aerodynamics and Airframe Design, Computational Fluid Dynamics, Ramjet and Scramjet Propulsion, Precision Fabrication, Systems Analysis, as well as the Command and Control systems for missile based weapon systems.

Index

Readiness Assessment Methodology (RAM)

• **RAM** – It includes a range of *quantitative and qualitative questions* designed to gather information about different dimensions related to a,
  - Country's AI ecosystem.
  - Legal, regulatory, social, cultural, economic, scientific, educational, technological and infrastructural.
• **Purpose** – To support member states in their implementation of the UNESCO recommendation on the *Ethics of AI*.

AI RAM in India

• It marked the *2nd in a series* of 5 consultations to shape India's AI policy.
• **Aim** – To craft an *India-specific AI policy report*, identifying strengths and growth opportunities within India's AI ecosystem.
• **Initiated by**
  - United Nations Educational, Scientific and Cultural Organization (UNESCO).
  - Ministry of Electronics and Information Technology (MeitY).

SHANKAR IAS PARLIAMENT
Information is Empowering