

# VETRI IAS STUDY CIRCLE

## Current Affairs

(A book for TNPSC Examination)

**DECEMBER 2024**



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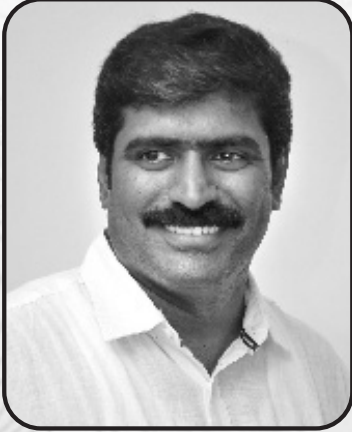
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# ***Preface***



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My Dear Aspirants,

Greetings to all of you! "What we think we become" Gautama Buddha. We all have dreams. To make dreams come into reality it takes a lot of determination, dedication, self discipline and continuous effort.

We at VETRII IAS Study Circle are committed to provide the right guidance, quality coaching and help every aspirants to achieve his or her life's cherished goal of becoming a civil servant.

The class room coaching at VETRII IAS Study Circle is meticulously planned to equip the aspirants with all the relevant facts and fundamentals of the subjects. Further the VETRII IAS Study Circle Study materials aim to support the candidate by providing the most relevant study material in a comprehensive manner.

We also thank other family members of Vetrii for making this effort a reality.

We wish the aspirants ALL THE VERY BEST  
for their journey in Civil Services !

Published by:

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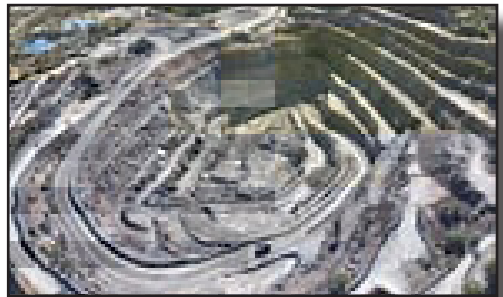


## NATIONAL-DIARY OF EVENT **27**



## **41** INTERNATIONAL AFFAIRS

## TAMILNADU AFFAIRS **43**



# 1. HISTORY



## 1.1 IMPORTANT DAYS

Date	Day	Theme / Remark
<b>December 1</b>	<b>World AIDS Day</b>	<ul style="list-style-type: none"><li>▪ <b>Established:</b> 1988 by WHO.</li><li>▪ <b>Purpose:</b> Raise awareness about HIV/AIDS and honor victims.</li><li>▪ <b>Theme:</b> "Take the rights path: My health, my right!"</li></ul>
<b>December 2</b>	<b>National Pollution Control Day</b>	<ul style="list-style-type: none"><li>▪ <b>Purpose:</b> Honor Bhopal Gas Tragedy victims and raise pollution awareness.</li><li>▪ <b>Impact:</b> 7 million deaths annually due to air pollution.</li><li>▪ <b>Theme:</b> "Clean Air, Green Earth: A Step Towards Sustainable Living."</li></ul>
<b>December 4</b>	<b>Indian Navy Day</b>	<ul style="list-style-type: none"><li>▪ <b>Purpose:</b> Celebrate the Indian Navy's achievements.</li><li>▪ <b>Commemoration:</b> Marks Operation Trident (1971 Indo-Pak War).</li><li>▪ <b>Event:</b> Operational Demonstration at Blue Flag Beach, Odisha.</li></ul>
<b>December 4</b>	<b>World Wildlife Conservation Day</b>	<ul style="list-style-type: none"><li>▪ <b>Purpose:</b> Raise awareness about endangered species and conservation.</li><li>▪ <b>Theme:</b> "Connecting the People and Planet: Exploring Digital Innovation in Wildlife Conservation."</li></ul>
<b>December 4</b>	<b>International Cheetah Day</b>	<ul style="list-style-type: none"><li>▪ <b>Purpose:</b> Raise awareness about cheetah conservation.</li><li>▪ <b>Focus:</b> Protect cheetahs from extinction, with fewer than 8,000 remaining in the wild.</li></ul>
<b>December 7</b>	<b>Armed Forces Flag Day</b>	<ul style="list-style-type: none"><li>▪ <b>Purpose:</b> Honor Indian soldiers and veterans.</li><li>▪ <b>Goal:</b> Raise funds for the welfare of armed forces personnel and their families.</li></ul>

Date	Day	Theme / Remark
<b>December 9</b>	<b>International Anti-Corruption Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Purpose:</b> Raise awareness about corruption.</li> <li>▪ <b>Theme:</b> "Uniting with Youth Against Corruption: Shaping Tomorrow's Integrity."</li> <li>▪ This day mobilizes individuals, governments, and organizations worldwide to combat corruption and its far-reaching consequences.</li> </ul>
<b>December 10</b>	<b>Human Rights Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Purpose:</b> Celebrate the adoption of the Universal Declaration of Human Rights (1948).</li> <li>▪ <b>Theme:</b> "Our Rights, Our Future, Right Now."</li> </ul>
<b>December 18</b>	<b>International Migrants Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Established:</b> By the UNGA in 2000.</li> <li>▪ <b>Purpose:</b> Improve migrant safety and protect migrant workers' rights.</li> </ul>
<b>December 24</b>	<b>National Consumer Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Purpose:</b> Raise awareness about consumer rights and promote fair trade.</li> <li>▪ <b>Theme:</b> "Virtual Hearings &amp; Digital Access to Consumer Justice."</li> </ul>
<b>December 20</b>	<b>SSB Raising Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Established:</b> In 1963, post-China's aggression in 1962.</li> <li>▪ <b>Purpose:</b> To protect borders, specifically Indo-Nepal and Indo-Bhutan.</li> </ul>
<b>December 21</b>	<b>World Meditation Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Purpose:</b> Promote meditation for global peace.</li> <li>▪ <b>Record:</b> India's Habuild set a world record with 287,711 participants.</li> <li>▪ <b>Theme:</b> "Inner Peace, Global Harmony!"</li> </ul>
<b>December 22</b>	<b>National Mathematics Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Purpose:</b> Celebrate the birth anniversary of mathematician Srinivasa Ramanujan.</li> <li>▪ <b>Significance:</b> Recognize Ramanujan's contributions to mathematics.</li> </ul>
<b>December 23</b>	<b>National Farmers Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Purpose:</b> Celebrate the birth anniversary of PM Chaudhary Charan Singh, a champion of farmers' rights.</li> <li>▪ <b>Theme:</b> "Empowering 'Anna Datas' for a Prosperous Nation."</li> </ul>
<b>December 25</b>	<b>Good Governance Day</b>	<ul style="list-style-type: none"> <li>▪ <b>Purpose:</b> Commemorate the birth anniversary of former PM Atal Bihari Vajpayee.</li> <li>▪ <b>Achievements:</b> Served three terms as Prime Minister, awarded Bharat Ratna in 2015.</li> </ul>



## 1.2 STATES

### Koraga Tribe - Operation Smile Project

- Kerala has started providing land titles (patta) to the Koraga community, a Scheduled Tribe (ST) group in Kasaragod and Manjeswaram taluks.
- The initiative is part of the "Operation Smile" project, funded by the Scheduled Tribes Development department's corpus.
- The Koraga population in the district is 1,706 individuals across 539 families.
- The project will involve surveyors, officers from gram panchayats, tribal extensions, village offices, community elders, and promoters.

- It celebrates the 17 major tribes of Nagaland, their customs, attire, and dances.
- The festival featured participants from Japan, Wales, Peru, and Bulgaria.

### Government e-Marketplace 2024

- Uttar Pradesh has become the first state to fully integrate its procurement procedures with the Centre's Govt e-Marketplace (GeM).
- This integration mandates adherence to central government regulations, with violations leading to disqualification from doing business with the state.

### Cybercrime Surge in States

- Cybercrimes have increased by 24.4% in India, with 65,893 cases registered in 2022 (up from 52,974 in 2021).
- Bengaluru recorded the highest number of cybercrimes in metropolitan cities with 9,940 cases in 2022.
- Other cities with high cases include Mumbai (4,724), Hyderabad (4,436), and New Delhi (685).

### Birhor Tribe Against Child Marriage

- The Birhor tribe, a Particularly Vulnerable Tribal Group (PVTG) in Jharkhand, has joined a movement against child marriage in Giridih.
- The Just Rights for Children Alliance (JRC) NGO is coordinating these activities.

### Legal Protection for Sacred Groves – Rajasthan

- The Supreme Court has directed Rajasthan to complete the survey and notification of sacred groves (orans) in all districts.
- These groves, including dev-vans and rundhs, should be mapped both on-ground and via satellite.
- The Court recommends protection under the Wildlife Protection Act, 1972, through Section 36-C, which allows the declaration of 'community reserves.'

### Me•Gong Festival 2024

- The Me•Gong Festival 2024, themed "Echoes of Tradition", celebrated the heritage of the Garo people.
- Held at Baljek Airport, Jengjal, West Garo Hills, Meghalaya, home to the Garo tribe.
- The festival is a two-day event showcasing the tribe's customs.

### 25th Hornbill Festival of Nagaland

- The 25th edition of the Hornbill Festival was held at the Naga Heritage Village in Kisama, coinciding with Nagaland's 62nd Statehood Day.

### Jharkhand - Private Sector Job Quota

- The Jharkhand High Court has stayed the implementation of the 75% reservation law for locals in private sector jobs.

- The law mandates the appointment of locals for 75% of jobs with salaries up to RS.40,000 in private companies.

### **Bordoibam - Bilmukh Bird Sanctuary**

- The number of bird species at Bordoibam-Bilmukh Bird Sanctuary in Assam has declined by nearly 72% in 27 years.
- In 1997, 167 species were recorded, but only 47 species were observed during an 18-month study.

### **Dolphin Tagging Initiative – Assam**

- The Wildlife Institute of India (WII), Assam Forest Department, and Aaranyak tagged the almost-blind Ganges River dolphin.
- The initiative aims to study the dolphin's migratory patterns, range, and habitat.

### **Tiger Translocation by Madhya Pradesh**

- Madhya Pradesh will translocate 14 tigers to Rajasthan, Odisha, and Chhattisgarh as part of an animal exchange program.
- Four tigers will go to Rajasthan, two to Odisha, and eight to Chhattisgarh, from reserves like Bandhavgarh, Panna, Kanha, and Pench.

### **Kreeda App - First Sports App**

- The Sports Authority of Andhra Pradesh (SAAP) launched 'Kreeda App', a first-of-its-kind sports management mobile app in India.
- It aims to streamline sports management, eliminate malpractices in sports quota certificates, and ensure transparency in player registration, performance tracking, tournament applications, and equipment distribution.

## **1.3 DEFENCE, NATIONAL SECURITY AND TERRORISM**

### **AgniWarrior 2024**

- The India-Singapore military exercise, AgniWarrior 2024, is set for November 28 to November 30. It will occur at the Devlali Field Firing Ranges in Maharashtra,
- Both countries will share best practices in artillery operations. Cultural exchanges will also take place.
- These activities aim to deepen relationships beyond military cooperation.

### **INS Arighaat**

- "INS Arighaat" - India's second nuclear ballistic missile submarine successfully fired a Submarine Launched Ballistic Missile (SLBM).
- Nuclear Submarine Development: First of two indigenously designed and manufactured nuclear attack submarines (SSN) expected to be ready by 2036-37.

- 26 Rafale-M fighter jets, 3 Scorpene-class conventional submarines.

- Both deals are in advanced stages and expected to be signed next month with France

- INS Arighaat, Successfully tested the K4 SLBM with a range of 3,500 km

### **Harimau Shakti**

- The 4th India-Malaysia Joint Military Exercise, HARIMAU SHAKTI, has begun at Bentong Camp in Malaysia's Pahang district and will continue until December 15, 2024.

- India is represented by 78 personnel from the MAHAR Regiment.

- HARIMAU SHAKTI is an annual exercise. It alternates locations between India and Malaysia.

- The previous year's exercise occurred at Umroi Cantonment in Meghalaya, India.



## CINBAX

- CINBAX is the first joint exercise between the Indian Army and the Cambodian Army, commenced on December 1, 2024, and will conclude on December 8, 2024.
- The exercise takes place at the Foreign Training Node in Pune. Each army has dispatched 20 personnel to participate.
- The focus is on planning joint Counter-Terrorism (CT) operations under **United Nations** guidelines.

## Bharatiya Vayuyan Vidheyak, 2024

- A new bill, the Bharatiya Vayuyan Vidheyak, 2024, was introduced by Union Aviation Minister Kinjarapu Rammohan Naidu.

- This bill replaces the outdated Aircraft Act of 1934, which was passed in the **Lok Sabha** in August 2024.
- The bill responds to recommendations from the International Civil Aviation Organization (ICAO).

### Key Features of the New Bill

- The bill clarifies the responsibilities of aviation bodies, which enhances the role of the **Directorate General of Civil Aviation (DGCA)**.
- The new legislation includes definitions for aircraft maintenance, design, and manufacturing.

## 1.4 EMINENT PERSONS

- Nandalal Bose was born in Munger, Bihar on December 3, 1882.
- Received numerous accolades, including the Padma Vibhushan in 1953. Over 6,800 of his works are housed in the National Gallery of Modern Art.
- In 1976, the Archaeological Survey of India recognized his works as "art treasures" under the Antiquities and Art Treasures Act of 1972.

## 1.5 AWARDS & HONOURS

- Michelle Bachelet, former Chilean President and human rights advocate.
- Receives Indira Gandhi Prize for Peace, Disarmament and Development
- From Indira Gandhi Memorial Trust

### Contributions

- Founding Director of UN Women.
- UN High Commissioner for Human Rights.

### Employees' Provident Fund Organisation (EPFO)

- India got selected the International Social

Security Association's Good Practice Award for Asia and Pacific for this year for five services provided by the Employees' Provident Fund Organisation (EPFO). Why ?

- Efficient communication channels
- Outreach programme "Nidhi Aapke Nikat"
- initiative "Prayaas" for pension order delivery

### UNESCO award

- Abathsahayeswarar Temple in Thukkachi village, near Kumbakonam, Thanjavur.

- It has combined modern conservation science with traditional construction practices
- Received UNESCO Asia Pacific award for cultural heritage conservation.
- Approximately 1,300 years old, located on 7 acres of land.
- Constructed by ancestors of Raja Raja Cholan; maintained by Kulothunga Cholan and Vikrama Cholan.

### UNESCO's 2023 Award of Distinction

- The Abathsahayeshwarar Temple in Thukkatchi, a 1,300-year-old Chola dynasty structure in Tamil Nadu's Thanjavur district, has gained international recognition by UNESCO's 2023 Award of Distinction for its exceptional conservation efforts.

### Historical Significance

- The temple was constructed by Kings Vikrama Chola and Kulothunga Chola and featured five prakarams or enclosures. The village was known as Vikrama Chozheeswaram and Kulothunga Chola Nallur. Kulothunga Chola established the idol for Aadhi Sarabeshwarar.

### Indira Gandhi Peace Prize 2024

- Recipient: Michelle Bachelet, former President of Chile.
- Contributions: Human rights, peace, and equality.
- Positions Held:
  - President of Chile (2006–2010, 2014–2018).
  - Led UN Women (2010–2013).
  - UN High Commissioner for Human Rights (2018–2022).
- Significance: Recognized for strengthening India-Chile relations.
- Established: 1986, awarded annually for contributions to peace and development.

### World Maritime Technology Congress 2024

- **Host:** Institute of Marine Engineers (India), Chennai Branch.
- **Frequency:** Every three years.
- **Participation:** 21 organizations from 17 countries.
- **Focus:** Maritime technology and related sectors.

### National Panchayat Awards 2024

- **Awards:** Recognized six panchayats for grassroots development.
- **Category:** Deen Dayal Upadhyay Panchayat Satat Vikas Puraskar (DDUPSVP).
- **Tamil Nadu:** Won two awards.

### Gukesh – 18th World Chess Champion

- **Champion:** D. Gukesh (India), defeated Ding Liren (China).
- **Age:** 18 years, making him the youngest-ever world champion.
- **Previous Record Holder:** Garry Kasparov (22 years old in 1985).

### E.V.K. S. Elangovan Passes Away

- **Roles:** Former Tamil Nadu Congress Committee president, MLA for Erode (East), and former Union Minister of State.
- **Contributions:** Elected as MLA in 1984 and in 2023; served in key political positions.

### Former Prime Minister Dr. Manmohan Singh Passes Away

- **Age:** 92.
- **Career:** Held key roles, including RBI Governor, Finance Minister, and Prime Minister (2004–2014).
- **Achievements:** Led economic reforms, saving India from a balance of payments crisis, and promoted growth.

- Legacy: Oversaw India's rapid economic growth and major reforms in the 1990s.

### **Sahitya Akademi Awards 2024**

- Winners: 21 writers and poets across Indian languages.
- Notable Recipients:
  - Gagan Gill (Hindi) for Main Jab Tak Aai Bahar.
  - Easterine Kire (English) for Spirit Nights.
- Awards for Bengali, Dogri, and Urdu: Yet to be announced.

### **PM Rashtriya Bal Puraskar 2024**

- Recipients: 17 children recognized for achievements in art, culture, innovation, science, sports, bravery, social service, and environment.
- Notable Awardees:
  - Sindhoora Raja (15, Tamil Nadu) for innovations for Parkinson's patients.
  - Janane Narayanan (14, Tamil Nadu) for Carnatic music.
  - Janane also received the Kalaimamani Award (2023-24).

## **1.6 SPORTS**

### **Chess: Gukesh becomes World Champion**

- India's D. Gukesh defeated reigning champion Ding Liren of China with a score of 7.5-6.5 to win the World Chess Championship title on Thursday.
- Gukesh has created history by becoming the youngest player (18) to win the championship. He has also earned the distinction of being the second Indian to win this championship.
- Total 765 international wickets, 2nd highest for India (behind Kumble's 953).
- First bowler to take 100 wickets in the World Test Championship (WTC).
- Currently leads WTC with 195 wickets in 41 matches.

### **FIFA Best Awards 2024**

- Best FIFA Men's Player: Vinicius Junior (Real Madrid).
- Best FIFA Women's Player: Aitana Bonmati (Barcelona).
- Puskas Award: Alejandro Garnacho (Manchester United).
- Marta Award: Brazil's Marta for her goal against Jamaica.
- Men's Goalkeeper: Emiliano Martinez (Argentina).
- Women's Coach: Emma Hayes (UK) – 2nd win.

### **Ashwin's Retirement**

- Retirement: Ravichandran Ashwin has announced his retirement from international cricket.
- Career Highlights:
  - 537 Test wickets (2nd after Anil Kumble's 619).
  - 116 ODIs with 156 wickets, 65 T20Is with 72 wickets.

## 1.7 APPOINTMENTS

### Chief of BrahMos Aerospace

- Dr. Jaiteerth Raghavendra Joshi has recently been appointed as the Chief of BrahMos Aerospace, which is renowned for developing the world's most advanced supersonic cruise missile system.
- His appointment marks a step in India's defence technology sector.
- Dr. Joshi has over 30 years of experience in missile technology.
- He holds a BTech in Mechanical Engineering from Osmania University.
- He also earned a PhD in Mechanical Engineering from NIT Warangal.



# 2. POLITICAL SCIENCE

## 2.1 LATEST COURT VERDICTS

### Worship Act, 1991

- A suit filed against the Shahi Jama Masjid in Sambhal, alleging it was built on an ancient Hindu temple site, led to violence and deaths.
- This trend of local courts entertaining such suits is seen as a violation of the Places of Worship (Special Provisions) Act, 1991.
- The Places of Worship (Special Provisions) Act, 1991, aims to preserve the religious status of places of worship, preventing conversions between different religious denominations or within the same denomination.
- The Act seeks to maintain communal harmony by freezing the religious character of these places and preventing disputes over such conversions.

### Toxic Waste Around the Plant

- Union Carbide plant manufactured carbaryl using methyl isocyanate (MIC), a highly toxic compound
- Madhya Pradesh government has disposed of only a small fraction despite pleas and orders from the National Green Tribunal and the Supreme Court
- Green peace report in 1999 indicated presence of mercury, chromium, copper, nickel, and lead.
- **Heavy Metal Toxicity:** Chromium, Copper, Lead, Mercury, Nickel.

### Harmful Organic Compounds :

- Hexachlorobutadiene, Chloroform, Carbon Tetrachloride, Trichlorobenzene
- The Supreme Court directed five States to provide facts and figures on sand-mining
- 5 States - Tamil Nadu, Maharashtra, Andhra Pradesh, Punjab, and Madhya Pradesh
- The petition highlighted the Sustainable Sand Mining Management Guidelines (2016) have not been respected.
- The Ministry of Environment Forest & Climate Change formulated the Sustainable Sand Management Guidelines 2016.
- Reports indicated illegal mining of one crore tonnes of beach sand in Tamil Nadu and indiscriminate mining in Andhra Pradesh's river basins.

- The Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act) is a key legislative framework in India aimed at regulating the mining sector

- Enacted on December 28, 1957, it provides for the development and regulation of mines and minerals under the control of the Union government.

### Places of Worship

- The Supreme Court on Thursday ordered that no court should issue any orders until further notice in cases related to surveys of places of worship, particularly mosques and dargahs,

and that no new cases on this matter should be heard.

- Muslim groups argue that such cases should not be admitted for hearing, citing the Places

of Worship Act 1991, as the Act prohibits changing the religious character of any place of worship as it existed on August 15, 1947, when India gained independence.

## 2.2 POLITICAL PARTIES AND POLITICAL SYSTEM IN INDIA

### Removal of the Vice-President

- The Opposition is set to move a no-trust motion against Rajya Sabha chairperson Jagdeep Dhankhar in the ongoing Winter Session.
- This is the second such attempt this year.
- Article 67 of the Constitution says that the Vice-President may be removed from office

with a resolution passed by a majority of members in the Rajya Sabha.

- The House of the People or the Lok Sabha has to agree to the resolution as well.
- The resolution, however, should be moved with at least 14 days' notice.

## 2.3 PUBLIC AWARENESS & GENERAL ADMINISTRATION

### Rights of Persons with Disabilities Act (RPWD Act)

- According to 2011 Census, Persons with disabilities constitute 2.21% of India's population.
- According to WHO Survey 2019, Prevalence of severe disability among Indian adults is 16%.
- India ratified the United Nations Convention on the Rights of Persons with Disabilities on October 1, 2007.
- Rights of Persons with Disabilities Act (RPWD Act) passed in 2016, replacing the 1995 Act to align with the convention.

### Salient Features of the RPWD Act, 2016:

- Expanded list from 7 to 21 conditions, including cerebral palsy, muscular dystrophy, acid attack victims, specific learning disabilities, and more.
- Replaced "mental retardation" with "intellectual disability."

- Persons with benchmark disabilities defined as those with at least 40% disability.

### Chief Justices Retirement

- Chief Justices often retire just as they begin to understand their roles, affecting the judiciary's effectiveness.
- Madras High Court had 11 Chief Justices in 85 years during British rule, nearly eight years per Chief Justice.
- Post-independence, the Court had 24 Chief Justices in 65 years, about 2.75 years per Chief Justice.
- Roles of Chief Justices: Include administration, financial management, judge recommendations, committee constitution, staff welfare, disciplinary actions, defence arrangements, administrative requests, public engagements, and addressing legal education.



## 2.4 GOVT – WELFARE ORIENTED GOVT SCHEMES, THEIR UTILITY

### Ayushman Bharat

- About 14 lakh people over 70 years of age have been enrolled in the past month in Ayushman Bharat, the central government's free medical insurance scheme.
- Under the Ayushman Bharat scheme, medical insurance up to Rs. 5 lakhs can be obtained.
- Since the launch of Ayushman Bharat scheme in 2018, 35.89 crore insurance cards have been distributed to the public.

### PRAGATI 2.0

- Study by Oxford University, Lauded Prime Minister Narendra Modi's PRAGATI system has accelerated 340 projects.
- **PRAGATI 2.0** : (Pro-Active Governance and Timely Implementation)
- India launched this ambitious multi-purpose and multi-modal platform (PRAGATI) on 25th March, 2015.
- As a part of Digital India program.
- A robust system for bringing e-transparency and e-accountability
- The Rajya Sabha passed the Boilers Bill, replacing the Boilers Act of 1923.
- Union Commerce Minister Piyush Goyal emphasized the Bill's focus on safety at factories using industrial boilers.
- The Bill aims to ensure uniformity in technical aspects of boiler regulation across India, including construction standards, maximum pressure specifications, and registration/inspection protocols.
- The Bill empowers the central government to constitute the Central Boilers Board to make regulations

### National Sample Survey (NSS)

- 79th round of the National Sample Survey (NSS), conducted between July 2022 and June 2023, revealed that **95.9% of individuals** in India possess basic literacy and numeracy skills.

- The survey assesses the literacy and basic numeracy skills of Indians aged 15–29, focusing on reading, writing, and arithmetic abilities.

### Key Findings of the Survey

- In **rural areas**, **95.3%** of individuals have basic literacy and numeracy skills, compared to **97.4% in urban areas**.
- States like **Mizoram (100%)**, **Goa (99.9%)** and **Sikkim (99.9%)** lead in literacy rates, while **Bihar (91.9%)** and **Uttar Pradesh (92.3%)** lag behind.

### Union Railways Minister Ashwini Vaishnaw emphasised

- The first passenger rail service in India was started in 1853
- In 1890, the Railways Act was enacted.
- The Railway Board Act was passed in 1905.
- Now the government has decided to merge the Indian Railways Board Act, 1905 with the Railways Act, 1989 into the one unified law – the Railways (Amendment) Bill, 2024.

### Railways Act, 1989

- Governs the functioning and administration of the Indian Railways.
- Includes provisions for organizing the Railways into zones for administrative convenience.

### Indian Railway Board Act, 1905

- Established the Railway Board as the central authority to oversee Indian Railways.
- Allows the central government to delegate its powers and functions concerning Railways to the Board.

### Railways (Amendment) Bill, 2024

- Seeks to repeal the 1905 Act.
- Aims to integrate the provisions related to the Railway Board into the 1989 Act.
- Objective: Streamline the legal framework and eliminate the need to refer to two separate laws.



# 3. GEOGRAPHY

## 3.1 POLICY ON ENVIRONMENT AND ECOLOGY

### Tamil Nadu Endangered Species

- Tamil Nadu Endangered Species Conservation Fund: Rs.50 crore is being established by the state government to protect endangered and critically endangered species.
- Key objectives include surveying, assessing, and mapping threatened species, enhancing conservation inside and outside protected areas, and establishing long-term protection partnerships.
- The fund is managed by the State Forest Development Agency and overseen initially by the Mudumalai Tiger Reserve Foundation, with funds held in Tamil Nadu Power Finance Corporation or Tamil Nadu Transport Development Finance Corporation.

### endemic to India are

- Kashmir stag (Hangul)
- Malabar large-spotted civet
- Andaman Shrew
- Jenkin's shrew
- Nicobar shrew
- Namdapha flying squirrel
- Large rock rat
- Leafletted leaf-nosed bat

- World Wildlife Conservation Day, Celebrated on **December 4** to evaluate efforts to protect critically.

### COP29 in Baku

- IPCC emphasizes to limit global warming to 1.5°C

### India's Biodiversity

- India holds 2.4% of the world's land area but accounts for 7-8% of all recorded species
- It has 45,000 plant species and 91,000 animal species
- India has 10 biogeographic zones.
- Home to 8.58% of mammalian species, 13.66% of avian species, 7.91% of reptiles, 4.66% of amphibians, 11.72% of fish, and 11.8% of plants.
- Four globally identified biodiversity hotspots: the Himalayas, Indo-Burma, the Western Ghats of Sri Lanka, and Sunderland
- **critically endangered mammals, which are**

- Current policies may lead to a temperature rise of up to 3.1°C.
- Allocation of Rs.19,100 crore to MNRE (Ministry of New and Renewable Energy) in Budget 2024-25
- Rs.5,790 crore subsidy to electric vehicle manufacturers under FAME scheme
- The Faster Adoption and Manufacturing of Electric Vehicles in India (FAME) scheme is a significant initiative by the Government of India aimed at promoting electric mobility.
- NCQG -The New Collective Quantified Goal (NCQG) on climate finance is a key element of the 2015 Paris Agreement.

- Aimed at setting a new financial target to support developing countries in their climate actions post-2025.
- Estimated \$5 trillion to \$7 trillion needed by 2030 for 98 countries.
- The Union Minister for Environment, Forest, and Climate Change, **Shri Bhupender Yadav**, has officially announced the notification of the **Ratapani Tiger Reserve** in Madhya Pradesh as India's **57th Tiger Reserve**.
- Ratapani Tiger Reserve is now the **8th Tiger reserve in Madhya Pradesh**, reaffirming the state's title as the **Tiger State of India**.
- On average, schools lost 11 days of instruction due to climate-related closures.
- Climate awareness is at 65% in low- and middle-income countries.
- The global green transition will create an estimated 100 million new jobs requiring skilled workers.

### Global Peatland Hotspot Atlas 2024

- Released by the UN Environment Program (UNEP), showing 488 million hectares of peatlands, with 12% degraded.
- Peatlands cover 3-4% of land but store one-third of the world's soil carbon.
- Human activity causes 1,941 Mt CO<sub>2</sub>e emissions per year.
- India has around 0.2% of global peatlands, mainly in Eastern Himalayas, Western Ghats, and Northeast India.

### COP29 Climate Finance Agreement

- Developed countries agreed to contribute \$300 billion per year starting in 2035.
- Developing countries demanded \$1.3 trillion annually.
- The new collective quantified goal (NCQG) will replace the \$100 billion goal expiring in 2025.
- In 2009, developed countries committed to raising \$100 billion annually from 2020.

### Bar-Tailed Godwit in Pulicat Lake

- Five bar-tailed godwits were spotted at Pulicat Lake.
- These birds are known for their territorial fights during breeding.
- One set a flight record of 13,560 km from Alaska to Australia in 2022.
- In India, they migrate but don't nest.

### Rare Imperial Eagle in Kerala

- The rare *Aquila heliaca* (Imperial Eagle) was spotted in Kerala's kole fields.
- It was last reported in Kannur in 2003.
- This eagle breeds in southeastern Europe and central Asia, migrating to Africa, West Asia, and southeast Asia in winter.
- The IUCN lists the species as vulnerable to extinction.

### Decline in Shark and Ray Populations

- Shark and ray populations have dropped over 50% since 1970, mainly due to overfishing, habitat loss, and pollution.
- Over one-third of chondrichthyan fishes now face extinction.

### Education for Climate Action Report (World Bank)

- The World Bank's report "Choosing Our Future: Education for Climate Action" emphasizes climate change disrupting learning.

### World's Oldest Known Wild Bird – Wisdom

- The Laysan albatross named Wisdom, at about 74 years old, recently laid an egg in Hawaii.

- First tagged in 1956, Wisdom has returned to Midway Atoll annually to nest.
- The typical lifespan of a Laysan albatross is 68 years.

### **2030 Global Strategy for Resilient Drylands (CGIAR)**

- Launched at the UNCCD COP16, focusing on drylands that host a third of the global population, half of livestock, and 44% of food systems.
- However, 20-35% of drylands are degraded.

### **Indian Rock Python Population Status (2024)**

- The Indian rock python has declined in Tamil Nadu, mainly due to habitat loss, but remains in the Moyar Valley.
- It is classified as "near threatened" by the IUCN.
- Populations were recorded at about 80 individuals between 2018-2020.

### **UNCCD COP 16 Outcomes**

- The COP16 summit in Riyadh raised \$12 billion to combat desertification, land degradation, and drought.
- An AI-driven International Drought Resilience Observatory was launched.
- The African-led Great Green Wall initiative mobilized funds to restore 100 million hectares of land.

### **UNESCO's Safeguard Ocean Life Report**

- UNESCO's marine biodiversity initiative used eDNA sampling to identify 4,500 species in 21 World Heritage sites.
- Over 70% of these sites are threatened by climate change.
- Up to all fish species may exceed their thermal tolerance under severe climate change.

### **Global Salt-Affected Soils Status (2024)**

- FAO reports 1.4 billion hectares (10.7% of global land) affected by salinity.
- Salt-affected soils are most common in Australia, Argentina, and Kazakhstan.
- India has 6.72 million hectares of salt-affected soil, mostly in Gujarat, Uttar Pradesh, Maharashtra, West Bengal, and Rajasthan.

### **Higher Count of Butterfly Species on Pachamalai Hills**

- A survey in 2022 identified 126 butterfly species, up from 15 in 2016.
- The hills have a healthy butterfly population, with a potential for 175 species.

### **Marine Heatwave 2024 Impact**

- A marine heatwave ("The Blob") killed 4 million common murrelets in Alaska, disrupting marine ecosystems.
- Phytoplankton depletion caused a collapse in fish stocks, affecting the murrelets' food supply.
- Hydrothermal Vent Discovery in the Indian Ocean
- India's Deep Sea Mission discovered an active hydrothermal vent 4,500 meters deep in the Indian Ocean.
- Hydrothermal vents create chimney-like structures and release minerals from the Earth's mantle.

### **Arsenic Contamination in Indian Groundwater**

- Arsenic is present in groundwater in 230 districts across 25 Indian states, with West Bengal and Bihar most affected.
- The WHO's recommended arsenic limit is 10 µg/L.

### 3.2 NATURAL DISASTERS – SAFEGUARD MEASURES

#### Disaster Management Bill: Passed in Lok Sabha

- The Disaster Management Amendment Bill was passed in the Lok Sabha.
- The bill was passed through voice vote in the Lok Sabha.
- The allocation for State Disaster Relief Fund has increased threefold from Rs.38,000 crore during 2004-2014 to Rs.1.24 lakh crore during 2014-2024.
- The National Disaster Relief Fund allocation has also been increased from Rs.28,000 crore to Rs.79,000 crore.





## 4. ECONOMICS

### 4.1 CURRENT SOCIO-ECONOMIC PROBLEMS

#### Unsecured Loans and Microfinance

- Unsecured loans by NBFCs and microfinance credit, which make up 23% of overall NBFC assets expected to be most affected in the current and next fiscals.
- NBFCs (Non-Banking Financial Companies) are defined as companies registered under the Companies Act, 1956,
- They can invest, lend, purchase the securities like all other banks
- They are regulated by the Reserve Bank of India (RBI) under the RBI Act of 1934
- Recent regulatory pronouncements highlight the importance of compliance and risk management.
- Repo rate unchanged at 6.5% amid high inflation and GDP decline by Monetary Policy Committee
- The Monetary Policy Committee (MPC) is a crucial body within the Reserve Bank of India (RBI) responsible for formulating and implementing the country's monetary policy.
- Established under Section 45ZB of the RBI Act, 1934.
- The MPC aims to maintain price stability while ensuring adequate flow of credit to productive sectors of the economy.

### 4.2 PUBLIC FINANCE

#### The Banking Laws Bill, 2024

- The Banking Laws (Amendment) Bill, 2024, proposes 19 amendments to various banking laws including
  - the Reserve Bank of India Act, 1934
  - the Banking Regulation Act, 1949
  - the State Bank of India Act, 1955
  - the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 and 1980.
- Amendments will apply to cooperative banks operating in the banking space.
- Seeks to transfer unclaimed dividends, shares, and interest to the Investor Education and Protection Fund (IEPF).
- Investor Education and Protection Fund Authority was established by Government of India on 7th September, 2016 for administration of Investor Education and Protection Fund under the provisions of section 125 of the Companies Act, 2013.



## 4.3 NEW ECONOMIC POLICY & GOVT. SECTOR

### Urban Infrastructure Development Fund (UIDF)

- The Urban Infrastructure Development Fund (UIDF) has been created by the government, which aims to enhance urban infrastructure in smaller cities. It specifically targets Tier 2 and Tier 3 cities, which is crucial for improving essential services in these areas.

#### Purpose of UIDF

- The UIDF addresses the shortfall in priority sector lending, which supports State Governments, Union Territories, and local agencies. The fund focuses on developing critical urban services.

#### Key Areas of Focus

- UIDF prioritizes several essential projects, which include sewerage systems, solid waste management, and water supply. Sanitation

and drainage system improvements are also included, aiming to enhance living conditions in urban areas.

### MuleHunter.AI

- MuleHunter.AI, Announced by the Reserve Bank of India (RBI)
- Developed by the Reserve Bank Innovation Hub (RBIH)
- AI-powered model to detect mule bank accounts and reduce digital fraud.

#### Money mule ?

- A money mule is someone who transfers or moves illegally acquired money on behalf of someone else.
- Around 4.5 lakh mule bank accounts frozen by the Centre.

## 4.4 CURRENT TRENDS IN INDIAN ECONOMY

### Economic Growth Declines to 5.4 Percent

- In the second quarter (July-September) of the current financial year, the country's economic growth has declined to 5.4 percent, a level not seen for about two years.

- This has been reported by the National Statistical Office operating under the Central Statistics and Programme Implementation Department.

## 4.5 REPORTS

### QS World University Rankings: Sustainability 2025

- 78 Indian universities feature in the 2025 QS Sustainability rankings, with 21 new entrants.
- IIT Delhi leads India, ranking 171st globally.
- IIT Kanpur and IIT Madras are ranked 4th and 5th in India (245th and 277th globally).

- The University of Toronto ranks highest globally, followed by ETH Zurich, Lund University, and UC Berkeley in joint third.
- Six Asian universities rank in the top 100.
- UN Report on Land Degradation 2024
- 77.6% of Earth's land became permanently drier from 1990 to 2020.

- Drylands have expanded by 4.3 million km<sup>2</sup>, now covering 40.6% of the planet's land.
- 2.3 billion people currently live in drylands; this could increase to 5 billion by 2100.
- China, India, and Pakistan account for 50% of the global dryland population.
- Africa's GDP dropped 12% due to aridity between 1990-2015, and Asia saw a 2.7% decline.
- Travel and Tourism Development Index 2024
- India ranks 39th among 119 countries, improving from 54th in 2021.
- The United States, Spain, Japan, France, and Australia top the 2024 index.
- Of the top 30, 19 are European, 7 are from Asia-Pacific, 3 from the Americas, and 1 from the UAE (MENA region).
- ILO Global Estimates 2024
- In 2022, 167.7 million international migrants were part of the global labor force.
- Migrants account for 4.7% of the labor force, with 68.4% in high-income countries.
- Unemployment among migrants is higher (7.2%) than non-migrants (5.2%).
- Migrant women face higher unemployment (8.7%) compared to men (6.2%).
- Coal Demand Report (IEA)
- Global coal consumption reached an all-time high of 8.7 billion metric tons in 2024.
- Coal remains critical for electricity generation in China (60%).
- India is the largest contributor to global coal production growth, exceeding 1 billion tonnes in 2023.
- Global coal production is expected to stabilize after 2024.
- Global Status Report on Drowning Prevention 2024 (WHO)
- In 2021, 300,000 drowning deaths occurred globally, with 92% in low- and middle-income countries.
- WHO's South-East Asia region saw 83,000 deaths (28% of the global total).
- Drowning deaths have declined by 38% since 2000.
- Children under five account for 24% of drowning deaths, and 7.2 million people, mostly children, could die by 2050 if trends continue.
- World Malaria Report 2024 (WHO)
- In 2023, the South-East Asia Region reported 4 million malaria cases, with India contributing 50%.
- Malaria cases in India fell by 17.7 million from 2000 to 2023.
- Sri Lanka was certified malaria-free in 2016.
- Nigeria, the Democratic Republic of Congo, and other African nations contribute to most malaria cases and deaths globally.
- Global Outlook 2025 Report
- Global GDP growth is expected to remain around 3% in 2025, similar to 2024.
- Economic growth in the U.S. and China will slow.
- No major economies are expected to be in recession; Europe, Japan, Canada, and the U.K. are projected to grow faster.
- China, the second-largest economy, accounts for 18% of the global economy.

## TAX STRUCTURE IN INDIA

### Windfall Tax End

- The government has scrapped the 30-month-old windfall profit tax on domestically produced crude oil and on the export of jet fuel (ATF), diesel, and petrol.
- India first imposed windfall profit taxes on July 1, 2022, joining other nations taxing supernormal profits of energy companies.
- A Rs.3,250 per tonne (\$40 per barrel) tax was levied on domestic crude production.
- The tax rates were reviewed every fortnight based on average oil prices from the previous two weeks.
- The government collected about Rs.25,000 crore in the first year, Rs.3,000 crore in 2023-24, and Rs.6,000 crore this year from the levy.

### GDP base year change

- The government has decided to update the base year for compiling Gross Domestic Product (GDP) from 2011-12 to 2022-23.
- A 26-member Advisory Committee, chaired by Biswanath Goldar, has been constituted and is expected to complete the exercise by early 2026.

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- GDP data based on the 2011-12 series was released in January 2015.
- The first official national income estimates were prepared by the Central Statistical Organisation (CSO) using the base year 1948-49 for constant price estimates.
- These estimates at constant (1948-49) prices, along with estimates at current prices and accounts of Public Authorities, were published in the 'Estimates of National Income' in 1956.

### First trade watch report

- NITI Aayog released the Trade Watch Quarterly report for Q1 FY25, covering India's trade dynamics from April-June 2024.
- India's total trade performance for the first half of 2024 reached \$576 billion, showing a year-on-year (YoY) growth of 5.45%.
- Exports were valued at \$231 billion, reflecting a modest increase of 5.41%.
- Imports surged to \$345 billion, leading to a widened current account deficit of \$9.7 billion.
- Services exports grew by 10.09% YoY, reaching \$89 billion.
- IT services and other business solutions hold global market shares of 10.2% and 7.16%, respectively.

**New UPI Lite Limit 2024**

- RBI has increased the transaction threshold for offline digital payments via UPI Lite.
- The per-transaction limit for UPI Lite has been raised from Rs 500 to Rs 1,000.
- The total wallet capacity for UPI Lite has been expanded from Rs 2,000 to Rs 5,000.
- The per-transaction limit for UPI123Pay has been increased from Rs 5,000 to Rs 10,000.
- UPI Lite allows users to complete low-value purchases without requiring internet connectivity.

**RBI's Global Gold Purchases 2024**

- The Reserve Bank of India (RBI) bought 48% of all the gold purchased by central banks in October.
- RBI added 27 tonnes to its gold reserves, bringing the total to 882 tonnes.
- Total gold buying by all central banks in October was 60 tonnes.
- Between January and September, RBI bought 24 tonnes, increasing its total to 854.73 tonnes.
- RBI is the second-biggest central bank buyer of gold.

**Secured Overnight Rupee Rate**

- RBI has introduced the Secured Overnight Rupee Rate (SORR) as a benchmark based on secured money markets.
- The RBI formed the Committee on the MIBOR Benchmark to review Rupee interest rate benchmarks.
- SORR will be based on secured money market transactions in both market repo and tri-party repo (TREP) segments.
- SORR will more accurately reflect the overnight market funding rate, rather than just the call money rate.

**Handbook of Statistics on Indian States 2023-24**

- The Reserve Bank of India has released the 2023-24 edition of the Handbook of Statistics on Indian States.
- The handbook includes vital information on demographics, health, and economic indicators.
- The data spans from 1951 to 2024, offering a historical context for analysis.
- Maharashtra's SGDP is the top contributor with Rs.35.24 lakh crore.
- Other major contributors include Tamil Nadu, Karnataka, Uttar Pradesh, West Bengal, and Rajasthan.
- Kerala has the highest rural wages, often double the national average.
- A male construction worker in Kerala earns Rs.894 per day.
- In contrast, Madhya Pradesh has the lowest wages at Rs.292 per day.
- Kerala's construction wages are three times higher than those in Madhya Pradesh.

**Collateral-Free Loan Limit for Farmers**

- RBI has instructed banks to waive collateral and margin requirements for agricultural and allied activity loans up to Rs.2 lakh per borrower.
- The loan limit has been increased from Rs.1.6 lakh to Rs.2 lakh, effective from January 1, 2025.
- This measure will benefit over 86% of farmers who are small and marginal landholders.

**Direct Tax Collection Surges in 2024-25**

- India's net direct tax collections increased by 16.5%, crossing Rs.15.82 lakh crore by December 17, with non-corporate taxes driving the growth.
- Net corporate tax receipts rose by 8.6%, reaching nearly Rs.7.43 lakh crore.

- Net collections from non-corporate taxes grew by 22.5%, totaling Rs.7.97 lakh crore.
- Gross tax receipts grew by 20.3%, crossing Rs.19.21 lakh crore, with corporate taxes rising by 16.9% and non-corporate taxes up by 22%.
- Receipts from the Securities Transaction Tax (STT) surged by 85.5%, exceeding Rs.40,100 crore.
- India is the fourth-largest medical devices market in Asia, after Japan, China, and South Korea.
- India is also among the top 20 global medical devices markets.
- The Scheme for Promotion of Medical Devices Parks was launched with a Rs.400 crore outlay, providing Rs.100 crore each to Uttar Pradesh, Tamil Nadu, Madhya Pradesh, and Himachal Pradesh for infrastructure development.

### Public Sector Banks' Profit 2024

- Public sector banks (PSBs), including SBI, are building on their record-breaking net profit of Rs.1.46 lakh crore in 2023-24 for 2024-25.
- PSBs have enhanced shareholder value by distributing Rs.61,964 crore in dividends over the past three years.
- Gross non-performing assets (GNPA) have significantly declined to 3.12% in September 2024, down from a peak of 14.58% in March 2018.
- At the current pace, PSBs are expected to exceed last year's profit milestone of Rs.1.46 lakh crore.

### India's Alternative Assets Market 2024

- India's alternative assets market is projected to grow five-fold to \$2 trillion by 2034.
- Alternative assets refer to investments outside traditional options like stocks, bonds, and cash.
- The market currently has \$400 billion in assets under management (AUM).
- Globally, the share of alternative assets in total AUM doubled from 10% to 20% between 2005 and 2020.

### Indian Medtech sector 2024

- The 21st Health Summit of the Confederation of Indian Industry (CII) was held with the theme "Transforming Healthcare for Viksit Bharat 2047."
- The Indian medical devices sector is valued at \$14 billion and is expected to grow to \$30 billion by 2030.

### Global Remittances for 2024

- India retained the number one spot for the highest monetary inflow from its diaspora, receiving \$129 billion in remittances.
- India's remittances are nearly equal to the combined annual budgets of Pakistan (\$67 billion) and Bangladesh (\$68 billion).
- India's remittances are nearly double that of Mexico, which ranked second with \$68 billion.
- Other countries in the top five for remittances are:
  - China: \$48 billion (third)
  - Philippines: \$40 billion (fourth)
  - Pakistan: \$33 billion (fifth)
- India has received more than \$100 billion in remittances each year for the last five years, except for 2020.
- Over the last 10 years, India's overall remittances grew by 57%.
- Between 2014 and 2024, India has received nearly \$1 trillion in remittances, totaling \$982 billion.

### 55th GST Council Meeting

- The 55th GST Council meeting was held in Jaisalmer, Rajasthan, under the Union Finance Minister.
- The Council recommended reducing the GST rate on Fortified Rice Kernel (FRK) to 5%.
- It announced a full exemption of GST on gene therapy.



- The Council clarified that no GST would be levied on transactions involving vouchers, as they are neither goods nor services.
- Penal charges levied by banks and NBFCs for non-compliance with loan terms will not attract GST.
- The Council proposed reducing the pre-deposit amount for appeals related solely to penalties from 25% to 10%.
- The concessional 5% GST rate on food inputs used for free distribution under government programs will continue.
- The GST rate on the sale of all old and used vehicles was increased from 12% to 18%.
- Jaipur holds the fifth position with 3.3% of the total crypto investment value.
- Household Consumption Expenditure Survey 2023-2024
- MoSPI conducted two consecutive surveys on household consumption expenditure in 2022-23 and 2023-24.
- In 2023-24, the average Monthly Per Capita Consumption Expenditure (MPCE) for the bottom 5% of India's rural population is Rs 1,677, while in urban areas it is Rs 2,376.
- The top 5% of India's rural population spends Rs 10,137 on average, compared to Rs 20,310 for their urban counterparts.

### Specialized Investment Fund

- SEBI has introduced a new asset class called Specialised Investment Fund (SIF).
- SIF is designed for informed investors who are willing to take on riskier investments.
- It bridges the gap between mutual funds (MFs) and portfolio management services (PMS).
- The minimum investment required for SIF is Rs 10 lakh, with lower thresholds for accredited investors.
- The bottom 5% of India's rural population saw the largest increase in MPCE, with a 22% rise from 2022-23, while the urban group saw a 19% growth.
- Households across the country are spending more on non-food items, accounting for 53% of MPCE in rural areas and 60% in urban areas.
- Report on Trend and Progress of Banking in India 2023
- The profitability of banks improved for the sixth consecutive year in 2023-24.

### India's Crypto Investment

- Delhi NCR continues to lead India's cryptocurrency adoption.
- Bengaluru and Mumbai follow as major hubs for cryptocurrency investments.
- More than 36% of India's total crypto investments are concentrated in these three cities:
  - Delhi: 20.1%
  - Bengaluru: 9.6%
  - Mumbai: 6.5%
- Pune ranks fourth, accounting for 3.5% of India's crypto investments.
- Gross bad debts or NPAs declined to a 13-year low of 2.7% in March 2024.
- Banks' profitability continued to rise in H1:2024-25.
- Return on assets (RoA) increased to 1.4%, and return on equity (RoE) rose to 14.6%.
- The gross non-performing assets (GNPA) ratio fell to 2.7% by end-March 2024 and 2.5% by end-September 2024.
- As of end-March 2024, India's commercial banking sector consisted of:
  - 12 public sector banks (PSBs)



- 21 private sector banks (PVBs)
  - 45 foreign banks (FBs)
  - 12 small finance banks (SFBs)
  - 6 payment banks (PBs)
  - 43 regional rural banks (RRBs)
  - 2 local area banks (LABs)
- Out of 141 commercial banks, 137 were scheduled banks, and 4 were non-scheduled banks.
  - The GNPA ratio of NBFCs dropped to 3.4% by end-September 2024.
- RBI's State Finances: A Study of Budgets 2024-25**
- The Reserve Bank of India (RBI) released the report "State Finances: A Study of Budgets of 2024-25."
- State governments kept their consolidated gross fiscal deficit (GFD) within 3% of GDP.
  - The revenue deficit stood at 0.2% of GDP during 2022-23 and 2023-24.
  - In 2024-25, states have budgeted a GFD of 3.2% of GDP.
  - Capital expenditure increased from 2.4% of GDP in 2021-22 to 2.8% in 2023-24 and is budgeted at 3.1% in 2024-25.
  - States' total outstanding liabilities declined from 31.0% of GDP in 2021 to 28.5% in 2024 but are still above pre-pandemic levels.
  - In 2020-21, the combined fiscal deficit of all states reached 4.1% of GDP, and their debt-to-GDP ratio rose to 31%.





# 5. SCIENCE

## 5.1 LATEST INVENTIONS ON SCIENCE & TECHNOLOGY

### Hyperloop Technology

- IIT Madras has completed a 410-meter Hyperloop test track, which was announced by Union Railway Minister Ashwini Vaishnaw.
- The project involves collaboration between the Railways, IIT Madras' Avishkar Hyperloop team, and TuTr, a startup from IIT Madras.

### Hyperloop Technology Overview

- Hyperloop is a proposed transportation system, that was first suggested by **Elon Musk** in 2012.
- The technology aims to provide high-speed travel in a vacuum-sealed environment. This design enhances speed and energy efficiency.

### World's Solar Capacity

- As of 2023, the world's solar capacity has surged to 1,419 GW from 1.22 GW in 2000.
- Quantum dot solar cells with has shown 18.1% efficiency.

### Global Market Share

- China - 43% (609 GW).
- U.S. - 10% (137.73 GW).
- Japan, Germany, India )- 5-6% each.
- China's dominance in component manufacturing - (97% wafers, 89% cells, 83% modules).

### Willow

- Google has launched its latest quantum chip, Willow, an advancement in quantum computing technology.

- Willow can solve complex problems in mere minutes and in contrast, the fastest supercomputer would take an unfathomable 10 septillion years for the same task, showcasing the transformative potential of quantum computing.

### Quantum Computing Basics

- Regular computers use bits, which represent either 0 or 1. Quantum computers utilize qubits, which can represent both states simultaneously.

### Key Achievement of Willow

- Willow successfully solved a problem known as random circuit sampling (RCS) in under five minutes. The fastest supercomputer, Frontier, would require 10 septillion years to achieve this, illustrating the efficiency of quantum technology.

### India's first AI laboratory to space

- ISRO is preparing to launch the ambitious Proba-3 mission to space aboard the Polar Satellite Launch Vehicle (PSLV).
- Hyderabad-based space technology firm TakeMe2Space is marking India's first artificial intelligence laboratory in space.
- The AI lab has been named MOI-TD (My Orbital Infrastructure-Technology Demonstrator).
- MOI-TD processes data directly in space, providing relevant insights to users.
- This approach significantly reduces both the cost of data transmission and latency. New Moiré Superconductor

- Scientists have reported that moiré materials made from semiconductor materials can also be superconducting.
- This property was once considered exclusive to the graphene system.
- Moiré materials are two-dimensional systems created by stacking two layers of material and twisting one layer by a small angle.
- The moiré pattern is a periodic structure resulting from atomic misalignment.

### **Tropical plant Subabul**

- Research reveals Subabul's potential in improving insulin sensitivity, offering new hope for managing type 2 diabetes.
- Subabul, or *Leucaena leucocephala* (Lam.) de Wit, is a fast-growing leguminous tree commonly found in tropical and subtropical regions.
- It is mainly found in Andhra Pradesh, Kerala, Maharashtra, Odisha, and Tamil Nadu.
- In Type 2 Diabetes, the body doesn't use insulin well and struggles to keep blood sugar at normal levels.
- GLUT2 is a protein that helps move glucose and fructose across cell membranes.

### **Nano Bubble Technology - Delhi Zoo**

- The National Zoological Park in Delhi will soon implement 'nano bubble technology' for cleaning and purifying water.
- It uses advanced filtration and recycling methods to remove impurities and prevent algae growth.
- The technology minimizes water wastage by enabling efficient recycling.
- Nanobubble technology generates tiny bubbles that dissolve in water.
- These bubbles enhance oxygen levels and purify the water.
- They can effectively reduce pollutants and improve water clarity.

### **Proba-3 satellite**

- ISRO successfully launched the European Space Agency's PROBA-3 satellite in its 61st commercial mission 'C-59'.
- PROBA-3 aims to study the Sun's corona with unprecedented precision.
- It is designed to demonstrate precision formation flying.
- The two satellites will maintain a separation of about 150 meters with millimeter accuracy.
- Together, they will create an artificial solar eclipse, a unique event in space science.
- The mission aims to study the Sun's corona for extended periods, far exceeding the duration of natural eclipses.

### **Artificial Solar Eclipse - Proba 3**

- Proba-3, launched by the European Space Agency, creates an artificial solar eclipse by bringing two satellites together instead of relying on natural solar eclipses.
- The artificial eclipse will be used to study the Sun's outer atmosphere, known as the corona.
- The corona is the Sun's outermost layer and remains one of its most mysterious parts.
- While the Sun's surface glows at about 5,500°C, the corona's temperature reaches 1-3 million°C.
- Normally, the corona is visible during a total solar eclipse when the moon blocks some light from the Sun.
- However, natural solar eclipses are rare and only occur for brief periods.

### **Parker probe 2024**

- NASA's Parker Solar Probe is making the closest approach to the Sun ever recorded by a human-made object.
- The probe has passed just 6.1 million kilometers (3.8 million miles) above the Sun's surface.

- Launched in 2018, the Parker Solar Probe aims to get a close-up look at the Sun.
- Parker is more than seven times closer to the Sun than previous spacecraft, traveling at a maximum speed of about 430,000 mph.

### **MASLD Disease**

- The term NAFLD (Non-Alcoholic Fatty Liver Disease) has been renamed MASLD (Metabolic Dysfunction-Associated Steatotic Liver Disease).
- The new name emphasizes the connection between fatty liver disease and metabolic issues like obesity, type 2 diabetes, and abnormal cholesterol levels.
- MASLD affects about 25% of people globally, with rates rising to 50-70% in individuals with type 2 diabetes or obesity.

### **ISRO's LVM3 Rocket - Multi-Orbit Capability**

- ISRO successfully conducted a crucial test to enable its largest rocket, LVM3, to inject satellites into multiple orbits at different altitudes in a single mission.
- This restart capability is made possible by the development of a 'multi-element ignitor'.
- The ignitor helps restart the 'CE-20' Cryogenic engine atop the LVM3 rocket.
- The Cryogenic engine in the final stage of the LVM3 rocket is responsible for placing satellites into their designated orbits in space.

## **5.2 LATEST DISCOVERIES IN HEALTH SCIENCE**

### **Snakebites a notifiable disease**

- India has over 310 species of snakes, 66 of which are venomous.
- 23 species are considered medically important as their venom can be fatal
- The government launched the National Action Plan for Prevention and Control of Snakebite Envenoming (NAPSE) with the aim of halving snakebite deaths by 2030.
- NAPSE recommended that snakebites should be made a notifiable disease
- An estimated 58,000 people die from snakebites each year in India.
- Venom used for antivenoms comes mainly from snakes caught by the Irula tribe
- Setting up zonal venom collection banks is suggested, but access is restricted by The Wild Life (Protection) Act, 1972.

### **Haemophilia A**

- Indian scientists successfully used gene therapy to treat severe haemophilia A.
- Financially supported by the Union Department of Biotechnology.
- Haemophilia is a rare, inherited bleeding disorder characterized by the body's inability to properly form blood clots due to deficiencies in specific clotting factors.

### **Haemophilia in India**

- India has the world's second-largest patient pool, with 40,000 to 1,00,000 patients
- Severe haemophilia A patients have less than 1% of the clotting factor

### **Gene Therapy Approval**

- Roctavian, a gene therapy, approved by the U.S. FDA in 2023.
- Showed a decrease in bleeding incidents from 5.4 to 2.6 bleeds per year.



## 6. NATIONAL – DIARY OF EVENT

### National Health Policy

- During 1966-70, approximately 80.5% of all sterilisation procedures in India were vasectomies
- This has drastically declined, with NFHS-4 (2015-16) and NFHS-5 showing a vasectomy rate of around 0.3%.
- The National Family Health Survey (NFHS) is a comprehensive survey conducted in India to collect data on health and family welfare.
- Managed by the Ministry of Health and Family Welfare, with the International Institute for Population Sciences as the nodal agency.
- Countries like South Korea, Bhutan, and Brazil have successfully increased vasectomy

### (FSSAI) reclassified packaged drinking and mineral water

- The Food Safety and Standards Authority of India (FSSAI) has recently reclassified packaged drinking and mineral water.
- This category is now deemed “**Highest Risk Food Category**,” which follows the removal of the **Bureau of Indian Standards (BIS)** certification requirement.
- All businesses in the high-risk category must have annual audits. These audits must be conducted by FSSAI-recognised third-party agencies.
- This ensures an unbiased evaluation of safety practices.

### Anna Chakra

- The Government of India has introduced an innovative tool, ‘**Anna Chakra**’ to enhance the **Public Distribution System (PDS)**, which

aims to streamline food supply chains and improve subsidy processes.

### Introduction of Anna Chakra

- Anna Chakra is a new tool launched by **Food and Public Distribution Minister Pralhad Joshi**. It is designed to optimize the logistics of the PDS.

### SHe-Box portal

- The SHe-Box portal has been launched to address workplace sexual harassment, which is part of the government’s commitment to creating safer work environments and it has been operational since October 19, 2024.
- The **Ministry of Women and Child Development** developed this platform, which aims to streamline the complaint process across various sectors.

### Purpose of SHe-Box

- SHe-Box serves as a centralized system for lodging complaints, which provides information about Internal Committees (ICs) and Local Committees (LCs).
- These committees are essential for addressing harassment cases in workplaces

### Conference on intersection of energy and artificial intelligence

- The International Energy Agency (IEA) hosted a groundbreaking conference on December 4-5, 2023, in Paris.
- This meeting united leaders from governments, the energy sector, technology firms, and civil society, the focus was on the intersection of energy and **artificial intelligence (AI)**.



**Importance of AI in Energy**

- AI relies heavily on energy, especially electricity, and has the potential to revolutionise the energy sector.
- AI can enhance efficiency, drive innovation, and improve security. It also aids in the transition to cleaner energy systems.

**India Internet Governance Forum (IIGF) 2024**

- The India Internet Governance Forum (IIGF) 2024 was held on December 9-10 at Bharat Mandapam, New Delhi, supported by MeitY and NIXI.
- The event, under the theme “Innovating Internet Governance for India,” focused on bridging the digital divide, trust, safety, and advanced technologies. IIGF, established in 2021 as the Indian chapter of the UN IGF, fosters multi-stakeholder dialogue on Internet policies.
- It promotes secure, inclusive, and ethically governed Internet practices while addressing challenges like cybersecurity, digital inclusion, and data privacy.

**Water Security In Meghalaya**

- The Government of India has partnered with the Asian Development Bank (ADB) and they signed a loan agreement worth \$50 million, which aims to enhance water security in Meghalaya and also focuses on climate change adaptation for local communities.

**Project Overview**

- The project will construct 532 small water-storage facilities across 12 districts and will collect and store rainwater.
- They will help manage heavy rainfall and mitigate water shortages during dry spells.
- Additionally, the initiative will develop 3,000 hectares for reliable irrigation.

**26th Governor of RBI**

- Sanjay Malhotra, currently the Revenue Secretary, will be the 26th Governor of the Reserve Bank of India.
- He will take over a day before the current Governor, Shaktikanta Das, completes his six-year term.
- Malhotra will handle the country's monetary policy framework and banking regulation.

**GeM System**

- Uttar Pradesh became the first in India to fully implement the central government's e-marketplace (GeM) system, which aims to eliminate corruption and ensure fair competition among suppliers.
- The Uttar Pradesh government has entirely replaced its old tendering system. All suppliers must now adhere to GeM's guidelines, which includes a wide range of products, from basic items to vehicles.
- Non-compliance may result in a ban from future contracts.

**Television channel in sign language**

- India has recently launched its first 24/7 television channel in sign language, part of the PM e-VIDYA program, named Channel 31, which aims to support hearing-impaired students and educators.
- It is managed by the National Council of Educational Research and Training (NCERT). The goal is to make education more inclusive.

**Purpose of Channel 31**

- Channel 31 provides educational resources in Indian Sign Language (ISL), designed for school children, teachers, and other stakeholders.
- The channel covers various topics, including career guidance, skill training, and mental health, which promotes ISL as a language subject alongside Hindi and English.



### Subramania Bharathi's works

- Prime Minister Narendra Modi will release a complete and annotated version of Subramania Bharathi's works
- The release coincides with Bharati's birth anniversary
- This is the first time Bharati's writings will be compiled in one place.
- The compilation was put together by Seeni Viswanathan, a nonagenarian scholar
- Bharati's writings were nationalised by the Tamil Nadu government in 1949.
- President Droupadi Murmu on Thursday conferred the honorary title of "General of the Indian Army" to Nepal Army Chief General Ashok Raj Thapa.
- Since the 1950s, both India and Nepal have maintained the tradition of conferring the rank of General to each other's Army Chiefs.
- It's worth noting that last month, Nepal's President Ram Chandra Poudel conferred the honorary rank of General of the Nepal Army to Indian Army Chief Upendra Dwivedi during a special ceremony in Nepal.

### Bharatiya Bhasha Utsav

- Bharatiya Bhasha Utsav is a festival that celebrates the linguistic diversity of India.
- The event emphasizes the importance of native languages in education and cultural preservation.
- the National Education Policy (NEP) 2020, support the promotion of Indian languages.
- The Union Cabinet has conferred the status of Classical Languages on several Indian languages, including Marathi, Pali, Prakrit, Assamese, and Bengali.
- The event also reflects on historical policies, such as Macaulay's Minute on Indian Education, which prioritized English over native languages.

- Efforts are being made to integrate technology with education **Example** : Bhasha Sangam programme and the Anuvadini app.

### Total Fertility Rate (TFR) of 2.0

- India has reached a Total Fertility Rate (TFR) of 2.0, which aligns with the goals of the **National Population Policy 2000** and the **National Health Policy 2017** and the TFR target was set at 2.1.
- The government has launched various initiatives under the Family Planning Programme, which aim to provide effective contraceptive methods.
- Recent introductions to contraceptive options include the Antara injectable contraceptive and the Chhaya Centchroman pill.

### Mission Parivar Vikas

- Mission Parivar Vikas is a key programme focusing on family planning and aims to improve access to services in seven priority states and six Northeastern states.

### Basic animal husbandry statistics 2024

#### Milk Production:

- Total Milk Production: 239.30 million tonnes (2023-24)

#### Growth:

- 5.62% increase over the past 10 years (from 146.3 million tonnes in 2014-15).
- 3.78% increase compared to 2022-23.
- Top Milk Producing States (2023-24):
  - Uttar Pradesh (16.21% share)
  - Rajasthan (14.51%)
  - Madhya Pradesh (8.91%)
  - Gujarat (7.65%)
  - Maharashtra (6.71%)
- Global Rank: India leads in milk production.

#### Egg Production:

- Total Egg Production: 142.77 billion eggs (2023-24)

### ▪ **Growth:**

- 6.8% increase over the past 10 years (from 78.48 billion in 2014-15).
- 3.18% increase compared to 2022-23.
- Top Egg Producing States (2023-24):
- Andhra Pradesh (17.85% share)
- Tamil Nadu (15.64%)
- Telangana (12.88%)
- West Bengal (11.37%)
- Karnataka (6.63%)
- Global Rank: India is second in egg production.

### **Meat Production:**

- **Total Meat Production:** 10.25 million tonnes (2023-24)
- **Growth:**
  - 4.85% increase over the past 10 years (from 6.69 million tonnes in 2014-15).
  - 4.95% increase compared to 2022-23.
  - Top Meat Producing States (2023-24):
  - West Bengal (12.62% share)
  - Uttar Pradesh (12.29%)
  - Maharashtra (11.28%)
  - Telangana (10.85%)
  - Andhra Pradesh (10.41%)

### **Wool Production:**

- **Total Wool Production:** 33.69 million kg (2023-24)
- **Growth:** 0.22% increase over the previous year.
  - Top Wool Producing States (2023-24):
  - Rajasthan (47.53% share)
  - Jammu & Kashmir (23.06%)
  - Gujarat (6.18%)
  - Maharashtra (4.75%)
  - Himachal Pradesh (4.22%)

### **TeacherApp**

- **Launch:** The Union government launched the TeacherApp in New Delhi to improve

education quality.

- **Purpose:** It aims to equip teachers with skills for 21st-century classrooms and support continuous professional development.
- **Features:** The platform offers over 260 hours of content, including courses, videos, podcasts, webinars, quizzes, and more.
- **Goal:** The app focuses on enhancing teaching practices and boosting student engagement.

### **National Landslide Risk Mitigation project**

- **Total Cost:** The Centre approved the National Landslide Risk Mitigation project at a cost of Rs. 1000 crore for 15 states.
- **Approved Funds for States:**
  - Uttarakhand: Rs. 139 crore
  - Himachal Pradesh: Rs. 139 crore
  - Eight North Eastern States: Rs. 378 crore
  - Maharashtra: Rs. 100 crore
  - Karnataka: Rs. 72 crore
  - Kerala: Rs. 72 crore
  - Tamil Nadu: Rs. 50 crore
  - West Bengal: Rs. 50 crore
- **Additional Approval:** Rs. 1115.67 crore for disaster mitigation and capacity building projects across various states.

### **SC on Preamble**

- **Supreme Court Ruling:** The Supreme Court upheld the inclusion of the words 'socialist' and 'secular' in the Preamble of the Constitution.
- **Insertion of Words:** These words were added through the 42nd Amendment in 1976, during the Emergency period.
- **42nd Amendment:** Known as the 'mini-constitution' due to the extensive changes it made, including expanding the powers of the Centre.
- **Challenge:** In July 2020, Dr. Balram Singh, a Supreme Court advocate, filed a petition challenging the inclusion of these words.

## National Mission on Natural Farming

- **Approval:** The Union Cabinet approved the launch of the National Mission on Natural Farming (NMNF) as a standalone Centrally Sponsored Scheme.
- **Outlay:** The scheme has a total budget of Rs. 2481 crore (Government of India: Rs. 1584 crore; State share: Rs. 897 crore) until the 15th Finance Commission (2025-26).
- **Objectives:**
  - Promote natural farming practices to provide safe and nutritious food for all.
  - Support farmers in reducing cultivation costs and dependence on externally purchased inputs.

## E-Daakhil portal

- **Milestone:** India has successfully implemented the E-Daakhil portal nationwide.
- **Launch:** The portal was introduced under the Consumer Protection Act of 2019 and launched on September 7, 2020.
- **Functionality:** E-Daakhil is an online, paperless platform for consumers to file grievances, providing a hassle-free complaint mechanism.
- **User Statistics (as of November 2024):**
  - Over 2,81,024 users registered.
  - 1,98,725 cases filed.
  - 38,453 cases resolved.

## Jarawa Tribe in Electoral roll

- **Historic Event:** For the first time, 19 members of the Jarawa Tribe were included on India's electoral roll.
- **Location:** The Jarawas live on the western coast of Middle Andaman and the South Andaman Islands.
- **Tribe's History:** The first friendly contact with the Jarawas was made in 1974.
- **Lifestyle:**
  - The Jarawas are hunting and gathering nomads.
  - They hunt wild pigs and monitor lizards using

bows and arrows (unlike other tribes, they don't use dogs for hunting).

- **Population:** The 2011 census recorded the Jarawa population at 380.

## 'Bal Vivah Mukht Bharat' Campaign

- **Campaign Launch:** The Centre launched the "Bal Vivah Mukht Bharat" national campaign to combat child marriage.
- **Focus States:** The campaign will target seven high-burden states: West Bengal, Bihar, Jharkhand, Rajasthan, Tripura, Assam, and Andhra Pradesh.
- **Child Marriage Free Bharat Portal:**
  - The portal allows citizens to report child marriage incidents, file complaints, and access information about Child Marriage Prohibition Officers (CMPOs) nationwide.
  - It is a key tool to enforce the Prohibition of Child Marriage Act, 2006.

- **Objective:** The aim is to reduce child marriage prevalence to below 5% by 2029.
- **Progress:** Child marriage rates have dropped from 47.4% in 2006 to 23.3% in 2019-21.

## First auction in Offshore areas

- **Launch:** The Ministry of Mines launched India's first-ever auction of mineral blocks in offshore areas.
- **Scope:** The auction opens up India's territorial waters, continental shelf, exclusive economic zone (EEZ), and other maritime zones for resource development.
- **First Auction:** The first tranche will feature 13 mineral blocks selected from the Arabian Sea and Andaman Sea.
- **Potential Reserves:** India's EEZ (over 2 million square kilometres) is believed to hold vast untapped mineral reserves, including cobalt, nickel, rare earth elements (REE), and polymetallic nodules.

## TRAI's Guidelines on OTPs

- **Effective Date:** The TRAI traceability guidelines came into effect on December 1,

2024.

- Purpose: The new rules require tracking the origin of commercial messages and OTPs to combat fraud, spam, and phishing.
- Goal: The aim is to create a safer and more robust ecosystem to reduce online fraud.

#### K-4 Missile

- Test Location: The K-4 missile was tested from the INS Arighaat submarine at Visakhapatnam, Andhra Pradesh.
- Significance: This was the first test of a submarine-launched ballistic missile (SLBM).
- Global Standing: With this test, India joined a select group of countries capable of firing nuclear missiles from land, air, and undersea.

#### Yuva Sangam Phase 5

- Start of Phase 5: Yuva Sangam Phase 5 began in Bihar and Andhra Pradesh, with participants traveling to Karnataka and Uttar Pradesh.
- Purpose: The initiative strengthens people-to-people connections among youth from different states and union territories.
- Key Focus Areas: The program promotes unity in diversity, emphasizing:
  - Paryatan (Tourism)
  - Parampara (Traditions)
  - Pragati (Development)
  - Paraspar Sampark (People-to-people connect)
  - Prodyogiki (Technology)
- Assessing Universal Basic Literacy in India
- Survey: The 79th round of the National Sample Survey (NSS) was conducted from July 2022 to June 2023.
- Literacy Rates:
  - 95.9% of individuals in India have basic literacy and numeracy skills.
  - Rural Areas: 95.3% of rural individuals are literate (97.4% males, 93.4% females).
  - Urban Areas: 97.4% of urban individuals are literate (98% males, 96.7% females).
- Top States: Mizoram (100%), Goa (99.9%), and

Sikkim (99.9%) have the highest literacy rates.

- Lagging States: Bihar (91.9%) and Uttar Pradesh (92.3%) have the lowest literacy rates.
- Definition of Universal: "Universal" refers to near-complete coverage, close to 100%.
- Sabal-20 Logistics Drone
  - Deployment: The Indian Army has received Sabal 20 logistics drones from EndureAir Systems for the Eastern sector.
  - Technology: The Sabal 20 is an electric unmanned helicopter with variable pitch technology, capable of carrying payloads up to 20 kg.
  - Mission Support: It will be used for long-range deliveries, high-altitude operations, and precision logistics.

#### Global Engagement Scheme 2024

- The Ministry of Culture launched the "Global Engagement Scheme" to promote India's cultural heritage and enhance its global image.
- Under the scheme, the "Festival of India" (FoI) is held abroad to foster people-to-people connections and bilateral cultural relations.
- From 2013-14 to 2023-24, 62 FoIs have been organized in various countries.

#### Banking Laws (Amendment) Bill, 2024

- The Bill was passed in Lok Sabha and introduces several changes to banking regulations:
  - Allows bank account holders to have up to four nominees.
  - Redefines "substantial interest" for directorships, raising the limit to Rs.2 crore.
  - Extends the tenure of directors (except chairman and whole-time directors) in cooperative banks from 8 to 10 years.
  - Allows directors of Central Cooperative Banks to serve on State Cooperative Bank boards.
  - Provides banks more freedom in deciding statutory auditor remuneration.
  - Changes regulatory compliance reporting dates to the 15th and last day of every

month.

▪ **The Bill amends five key Acts:**

- Reserve Bank of India Act, 1934
- Banking Regulation Act, 1949
- State Bank of India Act, 1955
- Banking Companies (Acquisition and Transfer of Undertakings) Acts, 1970 and 1980

**SheSTEM 2024**

- Organized by Atal Innovation Mission (AIM) and the Embassy of Sweden, this event encourages young minds to pursue careers in STEM (Science, Technology, Engineering, and Mathematics).
- The 2024 challenge focuses on energy storage and sustainability, inviting students to submit ideas on Battery Technology and Energy Storage (BEST) systems.

**Female Labour Force Participation (2017-2023)**

- Rural female labor force participation rose from 24.6% in 2017-2018 to 41.5% in 2022-2023 (69% growth).
- Urban female labor force participation increased by 25% from 20.4% to 25.4%.
- States like Jharkhand, Bihar, Nagaland, and Gujarat saw notable growth, especially among married women.
- Oilfields (Regulation and Development) Amendment Bill, 2024
- The Rajya Sabha passed the Bill, aimed at separating petroleum operations from mining operations.
- Expands the definition of "mineral oils" to include coal bed methane, oil shale, shale gas, shale oil, tight gas, tight oil, and gas hydrate.
- Introduces the concept of a "petroleum lease" for exploration, production, and disposal of mineral oils, replacing the mining lease.

**Bharatiya Vayuyan Vidheyak 2024**

- Parliament passed the bill to replace the 90-year-old Aircraft Act of 1934, enhancing

safety, regulatory oversight, and consumer protection.

- The bill promotes self-reliance in aircraft manufacturing, encourages investment, and streamlines governance structures for aviation authorities.
- The Directorate General of Civil Aviation will manage the licensing process, ensuring a single-window clearance for aviation personnel.

**Positive Trends Under BBBP Scheme**

- The Beti Bachao Beti Padhao (BBBP) scheme focuses on protecting and promoting the education of girl children.
- The Sex Ratio at Birth (SRB) improved from 918 in 2014-15 to 930 in 2023-24 (provisional data).
- In Odisha, the SRB declined from 948 in 2014-15 to 926 in 2023-24, but the Gross Enrolment Ratio of girls in secondary schools increased from 75.03% in 2014-15 to 80.60% in 2021-22.

**Atma Nirbhar Clean Plant Program**

- India and the Asian Development Bank (ADB) signed a \$98 million loan to improve access to disease-free planting materials for horticulture farmers.
- The program is part of the Mission for Integrated Development of Horticulture (MIDH) and aims to enhance plant health management from 2024 to 2030.
- Horticulture contributes 33% to agricultural GDP and occupies 18% of agricultural land.

**Insurance Amendment Bill 2024**

- Aims to amend the Insurance Act of 1938, the Life Insurance Corporation Act of 1956, and the Insurance Regulatory and Development Authority Act of 1999.
- Proposes 100% Foreign Direct Investment (FDI) in the insurance sector, raising the FDI limit from 74% to 100%.
- Reduces the net-owned funds requirement for foreign re-insurers from Rs.5,000 crore to



Rs.1,000 crore.

- India has 25 life insurance companies and 34 non-life insurance firms.

### **'Anna Chakra' and SCAN Portal**

- The government launched "Anna Chakra" and the SCAN portal to modernize the Public Distribution System (PDS).
- Anna Chakra optimizes the food grain supply chain by identifying optimal transportation routes.
- SCAN portal streamlines subsidy claims for states under the National Food Security Act (NFSA).

### **Digital Agriculture Mission 2024 Milestone**

- Gujarat became the first state to generate 'Farmer IDs' for 25% of targeted farmers.
- The Farmer ID links to land records and Aadhaar for seamless updates.
- Other states like Madhya Pradesh (9%), Maharashtra (2%), and Uttar Pradesh are also implementing the system.
- Special Assistance to States for Capital Investment
- The government released Rs.50,571.42 crore to states for development projects through the 'Special Assistance for Capital Investment' scheme.
- 23 out of 28 states have availed this interest-free assistance, aimed at boosting capital expenditure.

### **World's Largest Grain Storage Plan 2024**

- Under the pilot phase, grain storage facilities have been set up at Primary Agricultural Credit Societies (PACS) in 11 states.
- The total storage capacity reached 9,750 metric tonnes, with plans to expand to 500 additional PACS.

### **Bima Sakhi Yojana Scheme**

- Launched by the government to empower women and promote financial inclusion.
- Women aged 18-70, who have completed 10th grade, will receive training and stipends to become LIC agents or insurance Sakhis.

### **Amrit Gyaan Kosh Portal**

- The government launched the Amrit Gyaan Kosh portal, providing a shared knowledge bank with India-centric case studies.
- The Faculty Development portal aims to train faculty and practitioners to improve knowledge delivery to civil servants.

### **Total Fertility Rate (TFR) of 2.0**

- India achieved a TFR of 2.0 as per the National Family Health Survey-5 (2019-21), meeting the National Population Policy 2000 and National Health Policy 2017 targets.
- TFR in India has decreased from over 6 in the 1950s.

### **India Skills Report 2025**

- 55% of Indian graduates are expected to be globally employable in 2025, up from 51.2% in 2024.
- Maharashtra, Karnataka, and Delhi are emerging as hubs for employable talent.
- Employability for men is expected to rise to 53.5%, while for women it may decline to 47.5%.

### **Recognition of Prior Learning (RPL) Guidelines**

- The University Grants Commission (UGC) introduced draft guidelines for RPL to formalize informal and non-formal education.
- It allows individuals to earn up to 30% of degree credits through recognized competencies, aiming for implementation by 2026.

### **8 New Smart Cities**

- The government launched a scheme to develop 8 new smart cities with an Rs.8,000 crore fund.
- Each state can develop only one new city through this scheme. Tamil Nadu's



Thirumazhisai is part of the list.

### Consumer Confidence Survey 2024

- The Reserve Bank of India (RBI) consumer confidence survey showed weaker sentiments regarding the economy, employment, income, and spending.
- However, the Future Expectations Index (FEI) improved slightly to 121.9 points.

### Policy Initiatives for Agriculture Sector

- Key initiatives include the Clean Plant Programme for disease-free planting materials, Digital Agriculture Mission for digital solutions, and the National Mission on Edible Oils – Oilseeds to reduce oilseed import dependency.
- National Mission on Natural Farming promotes sustainable, eco-friendly farming practices.

### Performance Rating System for Highways

- The National Highways Authority of India (NHAI) launched a performance rating system for contractors maintaining highways.
- Contractors scoring less than 60 out of 100 will be labeled as “non-performers” and may lose future projects.

### Voronezh Radar System

- India and Russia are discussing a \$4 billion defence deal for the acquisition of the advanced Voronezh radar system.
- The radar will enhance India’s ability to detect aerial threats and track ballistic missiles, stealth aircraft, and even space objects.
- The deal includes a provision for 60% domestic manufacturing of the radar system

### Disaster Management Amendment Bill, 2024

- Amends the Disaster Management Act, 2005.
- **Key proposals:**
  - Creation of national and state-level disaster databases.
  - Establishment of Urban Disaster

Management Authorities for state capitals and large cities.

- Formation of State Disaster Response Forces by state governments.
- Grants statutory status to bodies like the National Crisis Management Committee (NCMC) and High-Level Committee (HLC).

### National Mission on Cultural Mapping 2024

- Aims to document India’s cultural heritage and creative potential.
- Mapping 6.5 lakh villages and creating a National Register of Artists and art practices.
- 4.5 lakh village data uploaded on the Mera Gaon Meri Dharohar (MGMD) Web Portal.

### India’s Women-Owned MSMEs 2024

- 2,20,73,675 women-owned MSMEs registered on Udyam Registration Portal by November 30, 2024.
- **Top states by registration:**
  - Gujarat: 9,12,052 registrations.
  - Rajasthan: 8,15,207 registrations.
  - Tamil Nadu: 1,926,040 registrations (43% of total).
  - West Bengal: 62% women-owned MSMEs.

### First Green Steel Taxonomy

- India unveils the world's first Green Steel Taxonomy to decarbonize the steel industry.
- Introduces a star-rating system to classify green steel based on emissions.
  - 5-star green steel requires emissions below 1.6 tCO<sub>2</sub>/tfs.
- Women’s Workforce Participation in India (2017-2023)
- Female Labour Force Participation Rate (LFPR) increased across most states.
- Rural LFPR rose by 69%, from 24.6% to 41.5%.
- Urban LFPR rose from 20.4% to 25.4%.

### 129th Constitutional Amendment Bill

- Introduces provisions for simultaneous

elections to Lok Sabha and State Assemblies.

- Key amendments: Articles 82A, 83, 172, and 327.
- The Bill passed with 263 votes in favor and 198 opposed using the electronic voting system.

### India's First Anti-Pesticide Bodysuit

- "Kisan Kavach": India's first anti-pesticide bodysuit designed to protect farmers from pesticide exposure.
- Offers protection against health complications like breathing disorders, vision loss, and more.

### New Credit Guarantee Scheme (CGS) 2024

- Rs.1000 crore corpus to help small farmers access post-harvest loans using electronic warehouse receipts (e-NWR).
- Farmers can use e-NWRs as collateral and sell produce when prices rise.

### AYUSH New Chairs in 5 Countries

- India has established academic AYUSH Chairs in Bangladesh, Australia, Mauritius, Latvia, and Malaysia.
- The initiative promotes international collaboration, research, and awareness of AYUSH systems.

### Yuva Sahakar Scheme

- Yuva Sahakar supports young entrepreneurs forming cooperative societies with new or innovative ideas.
- Provides long-term loans with 2% interest subvention for cooperative projects.
- Joint Parliamentary Committee (JPC) - One Nation One Election
- Lok Sabha refers simultaneous election bills to a Joint Parliamentary Committee (JPC).
- The JPC will have 39 members (27 from Lok Sabha, 12 from Rajya Sabha) and be headed by BJP MP PP Chaudhary.
- The JPC's recommendations are not binding on the government.

### Rooftop Solar Installations 2024

- Top states for rooftop solar installations:

• Gujarat, Maharashtra, and Uttar Pradesh.

- Installations expected to reach 10 lakh by March 2025 and 40 lakh by March 2026.
- The scheme is expected to generate 1,000 billion units of electricity and reduce 720 million tonnes of CO2 emissions.

### Atrocities against Scheduled Castes (2024)

- Parliamentary panel raises concerns about the failure of some states in addressing atrocities against Scheduled Castes.
- States like Madhya Pradesh, Rajasthan, Bihar, and Odisha lag behind in fund utilization and implementation of the Protection of Civil Rights Act, 1955, and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989.

### Protected Area Regime 2024

- Reimposition in Northeast: The Union Home Ministry reimposed the Protected Area Regime (PAR) in Manipur, Nagaland, and Mizoram.
- Foreigners' Permits: Foreigners visiting these states need prior permission and Protected Area Permits (PAP) as per the Foreigners (Protected Areas) Order, 1958.
- Reason for PAR: The relaxation was withdrawn after 14 years to monitor foreigner movement, which was initially relaxed in 2010.

### E-Shram Portal Registration 2024

- Registrations: Over 30 crore labourers registered on the e-Shram portal in the last three years, bringing the total to 30.48 crore by December 2024.
- Global Impact: The portal is now the world's largest database of unorganized workers, launched in August 2021 by the Ministry of Labour and Employment.

### India State of Forest Report 2023

- Forest and Tree Cover: India's total forest and tree cover increased to 25.17% in 2023, up from 24.62% in 2021.
- Key Findings:

- Forest cover stands at 7,15,342.61 sq km (21.76% of India's land area).
- Top states with the largest forest cover are Madhya Pradesh, Arunachal Pradesh, and Maharashtra.
- The increase in forest cover was highest in Chhattisgarh, Uttar Pradesh, and Odisha.
- Mangrove cover stands at 4,992 sq km.
- Achieving 100% Coverage: 11 states and UTs have achieved 100% coverage.

### **Domestic Migrants 2011-2023**

- **Decrease in Migration:** The number of domestic migrants dropped by 12% to 40.2 crore between 2011 and 2023.
- **Migration Rate:** The migration rate fell from 37.64% in 2011 to 28.88% in 2023.
- **Top Migrant States:** Uttar Pradesh, Maharashtra, Andhra Pradesh, Bihar, and West Bengal contributed to 48% of outbound and inbound migration.

### **Parliamentary Standing Committee on Agriculture 2024**

- **Recommendations:**
  - Legal guarantee for Minimum Support Price (MSP) for farmers.
  - Subsidies for managing stray cattle and crop residue.
  - Increase PM-KISAN support from Rs 6,000 to Rs 12,000 annually.
  - Compulsory crop insurance for smallholder farmers.

### **No Detention Policy 2024**

- **Policy Scrapped:** The Centre has removed the no-detention policy for students in Classes 5 and 8 in schools governed by it, including Kendriya Vidyalayas and Navodaya Vidyalayas.
- **State Autonomy:** States can decide on implementing or removing this policy for these classes.

### **Parliamentary Standing Committee on Defense 2024**

- **Air Force Accidents:** 19 out of 34 IAF accidents (2017-2022) were due to human error, including the Mi-17 crash that killed Gen Bipin Rawat.
- **Safety Improvements:** The accident rate per 10,000 flying hours decreased significantly from 0.93 (2000-2005) to 0.20 (2020-2024).

### **TRAI New Telecom Regulations 2024**

- **Tariff Plans for 2G Users:** TRAI mandated

### **Winter Session 2024**

- **Parliament Productivity:** The Winter Session saw low productivity:
  - Lok Sabha productivity: 54.5%, Rajya Sabha: 40%.
  - Only 4 Bills passed in Lok Sabha and 3 in Rajya Sabha.
  - Debate on "One Nation One Election" and the introduction of key bills.
  - Question Hour did not function for 15 days in Rajya Sabha.

### **Republic Day Parade 2025**

- **Selected Tableaus:** 15 States and UTs will present tableaus for the 2025 Republic Day parade.
- **Delhi's Proposal:** Delhi's tableau was not approved for the fourth consecutive year.
- **Representation Agreement:** A three-year agreement ensures every State and UT gets a chance to present at least once.

### **Amendment to Conduct of Election Rules 1961**

- **Public Access Restriction:** The Centre amended the Conduct of Election Rules to limit public access to certain poll documents.
- **New Clause:** Only specific papers will be open for public inspection, a shift from earlier rules.

### **Water Connection to Rural Homes**

- **Progress:** 79% of rural households (15.37 crore) now have tap water connections under the Jal Jeevan Mission.
- **Challenges:** States like West Bengal (53.9%), Kerala (54.13%), and Jharkhand (54.62%) have the lowest coverage.

telecom operators to offer SMS and voice call-only tariff plans to benefit around 150 million 2G users.

- **STV Validity:** Special Tariff Vouchers' validity will be increased from 90 days to 365 days.

### New Consumer Protection Apps

- **Launch of Consumer Apps:** The government launched the revamped Jagriti App and new 'Jago Grahak Jago App' to protect consumers and ensure fair practices in e-commerce.
- **AI-enabled National Consumer Helpline:** The updated NCH 2.0 app was also introduced.

### India's E-Waste Surge 2023-24

- **E-Waste Growth:** E-waste generation in India surged by 72.54%, reaching 1.751 million metric tonnes in 2023-24.
- **Processing Rate:** Only 43% of e-waste was processed, leaving 57% unprocessed.

### PVTG Sub-Quota in Eklavya Model Residential Schools (EMRS)

- **PVTG Representation:** Only 3.4% of students in EMRSs belong to Particularly Vulnerable Tribal Groups (PVTG), lower than the 5% quota.
- **Struggling States:** Madhya Pradesh, Chhattisgarh, and Gujarat are facing challenges in meeting the PVTG student quota.

### Road Accidents in India 2018-2022

- **Fatalities:** Over 7.77 lakh fatalities occurred from 2018-2022, with Uttar Pradesh, Maharashtra, and Tamil Nadu having the highest number of road accidents.
- **Increase in Deaths:** Road accident fatalities rose to 1,68,491 in 2022, up from 1,53,972 in 2021.
- **E-challans:** Over 23 crore e-challans, amounting to Rs.36,700 crore, have been issued since 2020.

### SMILE Program - ADB Loan

- **Loan for Logistics:** India and ADB signed a \$350

million loan for the Strengthening Multimodal and Integrated Logistics Ecosystem (SMILE) program.

- **Objective:** Enhance manufacturing sector competitiveness and supply chain resilience.

### Undersea Cable Network

- **India's Global Connectivity:** Reliance Jio is set to launch two undersea cable systems—India Asia Xpress (IAX) and India Europe Xpress (IEX)—to boost internet connectivity to Asia and Europe. The cables will be over 15,000 km long.

### Ken-Betwa Link Project 2024

- **Foundation Stone:** Prime Minister laid the foundation for India's first river interlinking project – the Ken-Betwa river-linking project in Khajuraho, Madhya Pradesh.
- **Objective:** The project aims to transfer water from the Ken River to the Betwa River (both tributaries of the Yamuna) to address water scarcity in the Bundelkhand region (spanning Uttar Pradesh and Madhya Pradesh).
- **Expected Impact:** It will fulfill drinking and irrigation water needs for at least 10 districts in Madhya Pradesh and Uttar Pradesh.
- **Energy Generation:** The project will generate 100 MW of hydropower and 27 MW of solar energy.
- **Floating Solar Project:** The Prime Minister also virtually inaugurated Madhya Pradesh's first floating solar power plant at Omkareshwar.

### INS Nilgiri and Surat

- **New Warships:** Mazagon Docks Shipbuilders Ltd delivered two indigenously built warships, Nilgiri and Surat, to the Indian Navy.
  - **Nilgiri:** First ship of Project 17A.
  - **Surat:** Fourth ship of Project 15B, equipped with supersonic Brahmos missiles and Barak-8 surface-to-air missiles.

### 'Viksit Panchayat Karmayogi' Initiative

- **Launch:** The initiative was launched on Good Governance Day to commemorate the 100th

birth anniversary of former Prime Minister Atal Bihari Vajpayee.

- Objective: Strengthen Panchayati Raj Institutions (PRIs) with better governance tools and knowledge, empowering elected representatives and officials.
- Focus: The initiative is part of the 'Prashasan Gaon Ki Aur' campaign and aims for grassroots-level reforms for lasting change.

### Property Cards under SVAMITVA Scheme

- Monetizing Rural Properties: The SVAMITVA scheme allows monetization of rural residential properties worth Rs.1.37 lakh crore for credit access using drone technology.
- Progress: 317,000 villages (92% of the target) have been surveyed, and property cards have been issued in 136,000 villages.
- Aim: Unlock economic potential in villages and improve financial inclusion.
- Exclusions: States like Tamil Nadu, Bihar, and Odisha opted out of the scheme due to updated rural land records.

### Suposhit Gram Panchayat Abhiyan

- Objective: Focuses on improving nutrition and welfare in rural areas.
- Focus: Strengthen nutrition infrastructure, engage communities to tackle malnutrition, and encourage villages to adopt better nutrition practices.

### Matsya Seva Kendras and Sagar Mitras

- India is the second-largest fish and aquaculture producer globally.
- National fish production reached a record 175 lakh tons in 2022-23, an 83% increase since 2013-14.
- 75% of this production comes from inland fisheries.

▪ Matsya Seva Kendras (MSKs) and Sagar Mitras provide critical support, training, and information to fishers.

- MSKs are one-stop solutions offering a range of services by trained aquaculture professionals.
- Government assistance of up to 60% is available for setting up MSKs for women and marginalized groups.

### Public Accounts Committee report 2024

- The Public Accounts Committee (PAC), chaired by K.C. Venugopal, a senior Congress leader, tabled its report during the recent Winter session.
- The report is titled "Excesses over voted grants and charged appropriations (2021-22)".
- It revealed that the Ministries of Finance, Defence, Railways, and Chemical & Fertilizers spent Rs.1,291.14 crore more than the budget approved by Parliament for 2021-22.

### Supreme Court on tree census

- The Supreme Court proposed conducting a tree census in the national capital through the Tree Authority, with assistance from the Forest Survey of India (FSI).
- It instructed that tree officers should not grant indiscriminate permission to fell trees.
- Permission to cut 50 or more trees in Delhi under the Trees Act 1994 must first be vetted and approved by the Central Empowered Committee (CEC).
- No tree cutting can occur until the CEC gives final approval.
- The CEC has the authority to reject or modify tree-cutting permissions.
- If an officer delays a decision beyond 60 days, the applicant may assume permission has been granted to cut the trees.



## Gas and chemical leakage accidents in India

- The number of gas and chemical leakage accidents in India more than doubled to 30 over the last decade.
- Gujarat reported 24 of these 30 incidents in 2023.
- Other states with reported incidents include Uttar Pradesh (3 cases), Assam (2), and Goa (1).
  - These incidents resulted in 25 fatalities and 32 injuries.

## S.A.F.E Accommodation Report

- NITI Aayog released a report titled "S.A.F.E. Accommodation - Worker Housing for Manufacturing Growth".
- The report highlights the importance of secure, affordable, flexible, and efficient (S.A.F.E.) accommodations for industrial workers in boosting India's manufacturing sector.
- It identifies key challenges and provides actionable solutions.
- The report emphasizes the need for interventions to scale up such housing facilities across the country.
- **India's First Multimodal AI Initiative**
  - BharatGen is an initiative to make generative AI accessible to citizens in various Indian languages.
  - It aims to develop advanced AI models tailored to India's diverse languages and cultures.
  - BharatGen launched the Bharat Data Sagar initiative to collect primary data, focusing on underrepresented languages.

## New SAMARTH Centers

- The Ministry of Heavy Industries (MHI) has established four Smart Advanced Manufacturing and Rapid Transformation Hub (SAMARTH) Centres.

- The initiative aims to enhance competitiveness in India's capital goods sector.
- The four Centres are:
  - Centre for Industry 4.0 (C4i4) Lab, Pune
  - IITD-AIA Foundation for Smart Manufacturing, IIT Delhi
  - I-4.0 India @ IISc, Bengaluru
  - Smart Manufacturing Demo & Development Cell, CMTI, Bengaluru

## 'Jalvahak' Scheme

- The Union Ministry for Ports, Shipping & Waterways launched the 'Jalvahak' scheme to promote inland waterways and cargo movement.
- The scheme aims to unlock the trade potential of inland waterways, reduce logistics costs, and ease congestion in road and rail networks.
- It incentivizes long-haul cargo movement on National Waterways (NW) 1 (Ganga), 2 (Brahmaputra), and 16 (Barak).

## Changes in Tilt of Earth's Axis

- The Earth has tilted 31.5 inches east in the past 17 years.
- The redistribution of groundwater has had the largest impact on the drift of the Earth's rotational pole.
- This redistribution has contributed to a sea level rise of about 0.24 inches and altered the distribution of Earth's mass.
- Between 1993 and 2010, approximately 2,150 gigatons of groundwater were pumped and shifted globally.
- Earth's tilt refers to the angle between the planet's rotational axis and its orbital axis.





# 7. INTERNATIONAL AFFAIRS

## **Euthanasia: British Parliament Approves**

- The British Parliament has approved a historic bill that allows for providing euthanasia (mercy killing) to those suffering from terminal illnesses facing death.
- In England and Wales, a person above 18 years of age who has been diagnosed with a terminal illness and is expected to die within six months can apply for artificial death to avoid mental and physical suffering in between.

## **Euthanasia law in India**

- Passive euthanasia is legal in India following the Supreme Court's landmark judgment in Aruna Shanbaug's case (2011) and was further cemented by the Common Cause judgment (2018).

## **Kash Patel Appointed as FBI Director**

- Indian-origin Kash Patel has been appointed as the Director of FBI (Federal Bureau of Investigation), America's central intelligence agency, by newly elected President Donald Trump.

## **INDIA AND NIGERIA**

- Prime Minister Narendra Modi made a visit to Nigeria on his way to the G-20 Summit in Brazil.
- This visit marks the first African visit of the Prime Minister in his third term and the first by an Indian Prime Minister to Nigeria in 17 years
- Trade between India and Nigeria has declined from \$14.95 billion in 2021-22 to \$7.89 billion in 2023-24, primarily due to India's increasing oil imports from Russia.

## **Global Plastics Treaty**

- An initiative by the United Nations Environment Programme to phase out plastic pollution, resulting from a 2022 UN resolution.
- The treaty originated from a resolution passed by United Nations member countries in 2022, with the goal to "end plastic pollution, including in the marine environment."
- Over the past two years, nearly 170 countries met five times to create a broad framework agreement, with the final meeting taking place in Busan

## **INS Tushil**

- Commissioning of INS Tushil into the Indian Navy
- Marks a new era of India-Russia cooperation in Artificial Intelligence, cybersecurity, space exploration, and counter-terrorism.
- INS Tushil is a stealth guided missile frigate, part of the Talwar class.
- Built at Yantar shipyard in Kaliningrad, showing the collaboration between Russian and Indian industries.
- INS Tushil is the seventh ship in the series,
- **Strategic Importance:** Enhances India's maritime security and anti-piracy efforts in the Indian Ocean Region (IOR).

## **UNCCD COP 16**

- The CoP16 of the UN Convention to Combat Desertification (UNCCD) was held in Riyadh, Saudi Arabia.
- The theme of the event was "Our Land. Our Future."
- India showcased the ambitious Aravalli Green Wall Project at the IUCN Pavilion.

- The project aims to restore 1.15 million hectares of degraded land across four states in northwestern India.
- The UNCCD was established in 1994 and is the only legally binding international agreement to combat desertification.
- The UNCCD works alongside the other two Rio Conventions: The Convention on Biological Diversity (CBD) and the UNFCCC.

### Visa-Free Travel for Indian Tourists

- By March 2025, Indian tourists may be able to visit Russia without needing a visa.
- Both countries are negotiating a bilateral agreement to ease visa rules and introduce visa-free group tourist exchanges.
- In August 2023, Indian travellers became eligible for e-visas to Russia, typically processed within four days.
- In 2023, India was among the top five countries receiving e-visas, with about 9,500 issued to Indian citizens, making up 6% of the total.
- Over 60,000 Indians visited Moscow in 2023, a 26% increase from 2022.
- By early 2024, India ranked third among non-CIS countries for business tourism, with nearly 1,700 e-visas issued in the first quarter.
- Russia currently allows citizens from China and Iran to enter without a visa as part of a visa-free tourist exchange program.
- Indian passport holders have visa-free access to 62 countries.

### UNGA Resolution for Ceasefire in Gaza

- The United Nations (UN) General Assembly overwhelmingly approved resolutions calling for an immediate ceasefire in Gaza.
- The resolution was adopted with 158 votes in favor, including India, and nine votes against, with 13 abstentions.
- It expressed support for the work of the UN's agency for Palestinian refugees (UNRWA).

- For the first time, Germany and Italy, which abstained in December, voted in favor of the Gaza ceasefire.

### UN cybercrime treaty 2024

- The Convention against Cybercrime aims to strengthen international cooperation in combating cybercrime and protecting societies from digital threats.
- It will open for signature in Hanoi, Vietnam, in 2025.
- It is the first legally binding UN instrument on cybercrime and will enter into force 90 days after being ratified by the 40th signatory.
- The convention establishes a global criminal justice policy to protect society against cybercrime by fostering international cooperation.

### Black sea oil spill 2024

- Russia declared a federal state of emergency following an oil spill in the Black Sea.
- A Russian oil tanker, Volgoneft 212, carrying over 4,000 tons of fuel, broke apart off the coast of Crimea.
- At least 3,700 tons of heavy oil were spilled.
- The spill has polluted approximately 55 kilometers (34 miles) of coastline.

### Gadhimai Mahotsav

- The festival is celebrated every five years, with this year's edition taking place at the Gadhimai Temple in Bara District, Nepal.
- It is famous for animal sacrifice and is one of the largest and most controversial slaughter events.
- The festival ranks as one of the world's largest animal sacrifice festivals, attracting thousands of devotees from Nepal, India, and beyond.
- The sacrificial animals include water buffalo, pigs, goats, and birds.



## 8. TAMILNADU AFFAIRS

### "Vizhuthugal"

- Chief Minister Stalin inaugurated "Vizhuthugal" rehabilitation service vehicle and peer support center services for persons with psychosocial disabilities, under the Department of Differently Abled Welfare.
- Under the "Tamil Nadu Rights" scheme, integrated service centers will be established across the state to provide rehabilitation services to differently-abled persons. For differently-abled individuals who cannot reach these centers, the Chief Minister launched the first rehabilitation service vehicle called "Vizhuthugal" (meaning "roots" or "tendrils").
- These vehicles will travel on predetermined routes and provide rehabilitation services such as physiotherapy, hearing therapy, speech therapy, and special education based on the needs of differently-abled persons in those areas.

### Tungsten mining

- Tamil Nadu Assembly adopted a resolution against tungsten mining in Madurai district.
- Arittapatti is a biodiversity heritage site with historical monuments and rare species.
- Tamil Nadu's chief minister opposes the tungsten mining project
- Despite Tamil Nadu's concerns, the Union government granted mining rights to Hindustan Zinc Limited.
- The area includes cave temples, Jain symbols, and Tamil Brahmi scripts.

### Entertainment tax

- Tamil Nadu government has tabled a Bill to levy a 10% entertainment tax.
- Tax applies to concerts, dramas, shows, and any events conducted by institutions, including educational ones.
- Already Tamil Nadu Local Authorities Entertainment Tax Act, 2017, allows local bodies to levy tax on specified entertainment events.
- The Bill introduces provisions to levy entertainment tax on events conducted by institutions, which was previously not covered.

### Memorial of Thanthai Periyar

- Kerala CM Pinarayi Vijayan and Tamil Nadu CM M.K. Stalin to inaugurate the renovated memorial of Thanthai Periyar in Vaikom.
- The Vaikom Satyagraha was the first organized movement for the rights of 'untouchable' communities in 1924.
- The museum houses Periyar's biography, the history of the Dravidian movement, images of his interactions with leaders, and copies of his writings.

### UZHAVAR APP

- **Purpose:** Simplifies farmers' access to agricultural information, government subsidies, and expert advisory services.

### Government Initiatives:

- **Chief Minister's Mannuyir Kaathu Mannuyir Kaappom Scheme:** Provides financial protection against crop losses due to climatic adversities.

- **Rainfed Area Development - IFS 2024-25:** Equips rainfed regions with irrigation systems, crop diversification strategies, and water conservation techniques.
- **Food and Nutritional Security (FNS) Nutri-Cereals 2023-24:** Encourages the cultivation of drought-resistant and nutritious millets.
- **TN Millet Mission:** Promotes sustainable farming and meets the demand for healthy grains.
- **N Irrigated Agriculture Modernization Project:** Optimizes irrigation systems to improve water-use efficiency and crop yields.
- **Kalaingar All Village Integrated Agricultural Development Program:** Provides integrated resources and training at the village level.

### **GCC Next Summit 2024**

- The GCC Next Summit 2024 organized by Guidance Tamil Nadu highlighted Chennai's emergence as a hub for global corporations. Chennai accounts for 11% of India's Global Capability Centre (GCC) talent.
- The city ranks third in GCC leasing activity in India for the period 2022-2024, after Bengaluru and Hyderabad.

### **SC Ruling on Religious Conversion**

- The Supreme Court ruled that conversion for reservation benefits without genuine belief is a "fraud on the Constitution."
- The court dismissed an appeal by C Selvarani, who was denied a Scheduled Caste (SC) certificate after claiming to have reverted to Hinduism for reservation purposes.

### **Thirumangai Alwar Idol Replication**

- Oxford University's Ashmolean Museum agreed to repatriate the bronze idol of Thirumangai Alwar to Tamil Nadu after

compelling evidence of its origin was found. The idol was stolen decades ago from the Soundararaja Perumal Temple in Kumbakonam.

### **Restoration of Thanjavur Durbar Hall**

- The Durbar Hall at Thanjavur, renovated by Maratha King Sahaji in 1684, is undergoing restoration by the Department of Archaeology and the Heritage Division of the Public Works Department.
- It is the largest structure with a lean-to-roof in India, covering 4,500 square feet.

### **Expenditure on Subsidies**

- Tamil Nadu's expenditure on subsidies exceeds the national average of 9% at 12% of revenue receipts for 2022-23.
- Subsidies are primarily for electricity supply, with over 95% of subsidies in Punjab and Rajasthan allocated for the electricity sector.

### **Tamil Nadu's Borrowing and Financial Health**

- Tamil Nadu's gross market borrowings stood at Rs.21,000 crore in Q1 of 2024-25, compared to Rs.25,000 crore in Q1 of 2023-24.
- Tamil Nadu's State's Own Tax Revenue (SOTR) accounts for over 70% of its total revenue receipts.
- Tamil Nadu Endangered Species Conservation Fund
- The Endangered Species Conservation Fund in Tamil Nadu has an initial corpus of Rs.50 crore aimed at protecting endangered species and enhancing conservation efforts.

### **Manjulai Tea Estate Workers VRS**

- The Madras High Court dismissed petitions challenging the voluntary retirement scheme (VRS) offered by Bombay Burmah Trading

Corporation Limited (BBTCL) to workers at Manjolai tea estates in Tirunelveli district.

### One Nation One Ration Card Scheme

- Tamil Nadu has not received an allocation of food grains under the One Nation One Ration Card scheme but distributed around 22.8 tonnes of wheat and 0.036 tonnes of rice under inter-state portability in the first half of the year.

### Tamil Nadu's Net Zero Emissions Goal

- Tamil Nadu is working towards achieving net-zero emissions by 2070, and the state aims to source 50% of its energy from renewable sources by 2030.
- The state is third in the country for renewable energy generation, with wind energy contributing 11,900 million units per year.

### Wild Elephant Menace Control Model

- The Karnataka government has directed officials to study Tamil Nadu's model of controlling the wild elephant menace, which involves the use of steel rope fences costing Rs.45 lakh per kilometre.

### Cyclone Fengal Relief

- The Ministry of Home Affairs approved Rs.944.80 crore for Tamil Nadu from the State Disaster Response Fund (SDRF) in response to Cyclone Fengal.

### Tuberculosis-Free Tamil Nadu Campaign

- Kanimozhi, a Lok Sabha member from Thoothukudi, launched a 100-day campaign aiming to make Tamil Nadu TB-free by 2025.
- An awareness campaign vehicle was launched by Chennai Mayor Priya.

### Tamil Inscriptions from Alathudaiyanpatti Temple

- Tamil inscriptions from the Arulmigu Somanathar Temple at Alathudaiyanpatti near

Thuraiyur were deciphered, dating back to the 13th century and associated with Chola King Rajaraja III.

### Entertainment Tax Amendment Bill

- The Tamil Nadu government proposed an amendment to the Local Authorities Entertainment Tax Act, 2017, to allow local bodies to levy 10% entertainment tax on events where admission fees are charged.
- Tamil Nadu's Economic Performance (2022-2023)
- Gross State Domestic Product (GSDP) for 2022-2023 grew by 14.16% compared to the previous year, driven by the industry and services sectors.
- The per capita GSDP was nearly 56% higher than the national average.

### Losses in Public Sector Undertakings (PSUs)

- 30 out of 68 PSUs in Tamil Nadu incurred losses during 2021-22. Many PSUs also lacked necessary governance mechanisms, such as independent directors and remuneration committees.
- Forest Rights in Anamalai Tiger Reserve
- Community forest rights were granted to three tribal settlements in the Anamalai Tiger Reserve (ATR) under the Forest Rights Act of 2006, allowing residents to collect minor forest products.

### Kalaigarnar Craft Scheme

- The Kalaigarnar Kaivinaai Thittam scheme aims to empower artisans and craftsmen by offering subsidy-linked credit support, skill development, and entrepreneurship development, benefiting those in 25 crafts.