VETRII IAS STUDY CIRCLE
Current Affairs

(A book for TNPSC Examination)

NOVEMBER 2024

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Head Office

Old No. 52, New No. 1, 9th Street,
F Block, 1st Avenue Main Road, (Near Istha Siddhi Vinayakar Temple), Anna Nagar East – 600 102.
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Branches

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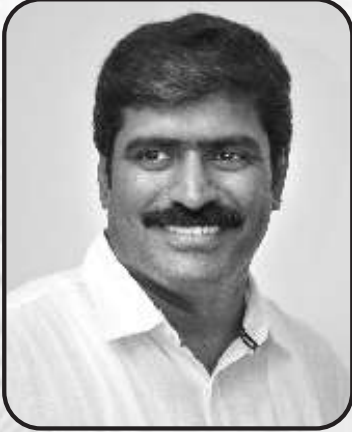**Ph: 78711 69099 | 78715 71819**

KOVILPATTI
No. 15, Kathiresan Kovil Road,
Behind Kaliamman Temple,
Kovilpatti – 628 501.
**Ph: 90037 90335
81222 80685**

THIRUCHENGODE
Vivekananda Educational Institutions
Elayampalayam (Po),
Thiruchengode (Tk),
Namakkal (Dt) – 637205.
Ph: 7845779908

www. vetriias. com

Preface

M. SHUNMUGAM
Director
Vetrii IAS Study Circle.

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 !

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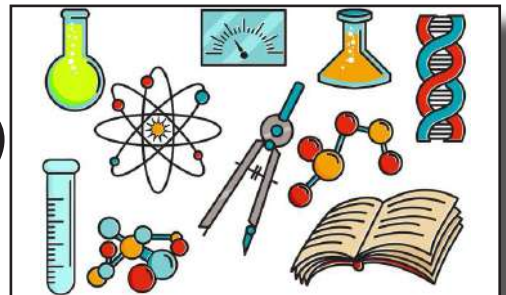
1. HISTORY

1.1 IMPORTANT DAYS

Date	Day	Theme / Remark
November 5	*Tsunami Awarneess Day*	▪ The date **November 5** was chosen to commemorate the **"Inamura-no-hi"** (The Great Fire of Inamura) incident from 1854 in Japan ▪ India has established state-of-the-art **Tsunami Early Warning System at INCOIS, Hyderabad** ▪ Regular tsunami mock drills are conducted in coastal states ▪ India is actively participating in Indian Ocean Tsunami Warning System ▪ UN's Sendai Framework for Disaster Risk Reduction 2015-2030 guides global tsunami preparedness
November 8	*World Radiology Day*	▪ **World Radiology Day**, celebrated every year on **November 8**, honours the contributions of **Wilhelm Conrad Röntgen**, the German physicist who discovered **X-rays in 1895.** ▪ This monumental discovery has since revolutionized medical diagnosis and treatment by providing non-invasive ways to see inside the human body. ▪ Observing this day serves as a reminder of the importance of **radiology** in modern healthcare, recognizing the dedication of radiographers, and promoting a greater understanding of X-ray therapy in patient care.

Date	Day	Theme / Remark
November 12	*Public Service Broadcasting Day*	▪ This day is observed to commemorate the **50th anniversary of Mahatma Gandhi's** visit to All India Radio center. ▪ This was **Mahatma Gandhi's first** and only visit to All India Radio in Delhi in 1947. ▪ After the partition of India, Mahatma addressed displaced people (refugees from Pakistan) who had temporarily settled in Kurukshetra, Haryana. ▪ In **2001**, this day was officially declared as Public Service Broadcasting Day.
November 12	*World Pneumonia Day*	▪ **Main Objective**: To create awareness among people about the risks of pneumonia, its prevention methods, and treatment. ▪ **Theme: "Every Breath Counts: Stop Pneumonia in its Tracks"** ▪ Pneumonia is a lung infection that is particularly dangerous for children and the elderly. Numerous deaths occur globally every year due to this disease.
November 13	*World Kindness Day*	▪ World Kindness Day is celebrated worldwide to promote the importance of **showing compassion** to one another, to yourself, and to the world.
November 14	*World Diabetes Day*	▪ This day was established to create awareness about diabetes, one of the diseases threatening the world. ▪ The day was declared by the **United Nations** through a resolution passed on November 14, 2006. ▪ **Frederick Banting**, along with **Charles Best,** discovered insulin for treating diabetes in **1921**. This day is commemorated on his birthday.
November 14	*Children's Day in India*	▪ **Children's Day** is celebrated in India on November 14 in memory of **Pandit Jawaharlal Nehru**, the first Prime Minister of independent India. ▪ Pandit Jawaharlal Nehru was born on November 14, 1889, in Allahabad, Uttar Pradesh. ▪ Before 1964, Children's Day in India was celebrated on November 20, which is the Universal Children's Day declared by the United Nations. ▪ After Jawaharlal Nehru's death on May 27, 1964, India decided to celebrate his birthday as **Bal Diwas** (Children's Day) to honor him.

Date	Day	Theme / Remark
November 16	*National Press Day*	▪ Newspapers are described as the **Fourth Pillar of Democracy**. This day is celebrated to recognize India's free and responsible press. ▪ It is celebrated on **November 16, the day when the Press Council of India,** which regulates print media in India, began functioning. ▪ The Press Council of India is an autonomous, legal and quasi-judicial body established under the **Press Council Act 1978.**
November 18	*Celebrated as Natural Medicine Day in India*	▪ In **1945, Mahatma Gandhi**, after receiving 90 days of naturopathy treatment, inaugurated a natural medicine institution on **November 18th** and declared, **"I can now live up to 120 years. Natural medicine has transformed my health condition."**
November 18 to 24	*World Antimicrobial Awareness Week (WAAW)*	▪ WAAW occurs annually from **November 18 to 24,** which aims to raise awareness about AMR. The theme for this year is **"Educate. Advocate. Act now",** which emphasizes the urgent need for action across all levels of society. ***Impact of AMR*** ▪ In 2019, AMR directly caused approximately 1.27 million deaths. It contributed to a total of 4.95 million deaths globally.
November 19	*World Toilet Day*	▪ **World Toilet Day is observed annually on November 19 by the United Nations** to raise awareness among people about sanitation-related issues globally. ▪ The **Total Sanitation Campaign was launched in 2000** to create public awareness about the sanitation program. ▪ **SDG 6 (Sustainable Development Goal),** which is one of the Sustainable Development Goals targeted to be achieved by **2030**, aims to ensure sanitation and hygiene for all, reduce the proportion of untreated wastewater by half, increase recycling, and promote safe reuse of water resources

Date	Day	Theme / Remark
November 19 - 25	*World Heritage Week*	▪ World Heritage Week is celebrated by the Archaeological Survey of India to promote the protection of culture and heritage. ▪ It celebrates heritage sites recognized by UNESCO (United Nations Educational, Scientific and Cultural Organization). ▪ The World Heritage Convention was adopted by UNESCO member states in 1972.
November 21	*World Television Day*	▪ World Television Day: Celebrated annually on November 21 to highlight television's influence on society and its role in communication ▪ Historical Evolution: Television has evolved from Black and White (B&W) sets in the early 20th century to modern Smart TVs with internet connectivity. ▪ Technological Advancements: Key milestones include the introduction of color TV in the 1950s, cable and satellite TV in the 1980s, digital TV in the late 1990s, and high-definition broadcasting in the early 2000s. ▪ 2024 Theme: The theme for World Television Day 2024 is "Advocate for Quality Programming." ▪ Role in Elections: Television plays a significant role in political campaigns and voter decision-making, with political commercials impacting election outcomes. ▪ Impact on Society: Television is recognized for its ability to inform, educate, and connect people, shaping public opinion and decision-making. ▪ UN Recognition: The United Nations General Assembly established World Television Day in December 1996, following the first World Television Forum.
November 25	*International Day for the Elimination of Violence Against Women.*	▪ **November 25** is observed annually as the **International Day for the Elimination of Violence Against Women.** ▪ The day calls upon governments, international organizations, and civil society to **raise awareness and promote actions** to combat violence against women and girls worldwide.

Date	Day	Theme / Remark
		▪ In 2024, the observance marks **25 years since the UN's official designation of the day**, coupled with a **UN Women-led campaign to launch a new report and highlight best practices** for eliminating violence against women and girls. ▪ The day has been observed since **1981** by women's rights activists. ▪ The date commemorates the brutal murder of the Mirabal sisters—political activists from the Dominican Republic—on **November 25, 1960**, by the regime of Rafael Trujillo.
November 26	*Constitution Day*	▪ **November 26, 2024, marks the 75th anniversary of the adoption of the Indian Constitution by the Constituent Assembly.** ▪ The Union government will commemorate this with a special joint sitting of Parliament. ▪ Ambedkar stressed that the success of the Constitution depends on its custodians and highlighted the lack of equality and fraternity in Indian society. ▪ Ambedkar emphasized the need for social and economic equality and the importance of fraternity for national unity. ▪ Abolition of untouchability and affirmative action have advanced equality, but social and economic equality remains incomplete. ▪ Despite ongoing challenges, a sense of nationhood has become more embedded in India. ▪ Caste reservations have promoted equality but may have undermined fraternity, according to sociologist Dipankar Gupta. ▪ The undermining of institutions, pressures on the judiciary, and diminishing democratic spirit remain issues. ▪ Ambedkar reminded that post-independence, Indians can no longer blame the British for their problems

Date	Day	Theme / Remark
November 26	*National Milk Day*	▪ **National Milk Day** was celebrated on **November 26, 2024**, it marked the 103rd birth anniversary of Dr. Verghese Kurien, known as the Father of the White Revolution in India. ▪ The celebration brought into light the dairy sector's importance to India's economy and nutrition. ***National Gopal Ratna Awards*** ▪ The National Gopal Ratna Awards were presented during the celebration, which honour excellence in livestock and dairy. ▪ Categories included Best Dairy Farmer, Best Artificial Insemination Technician, and Best Dairy Cooperative. ▪ For the first time, awards were given to winners from the North Eastern Region. Awardees shared innovative practices in dairy farming. ***Publications Launched*** ▪ Two important publications were launched at the event.The **Basic Animal Husbandry Statistics (BAHS)** 2024 provides data on livestock trends. ▪ It aids in policymaking. A manual for identifying elite cows was also introduced.

1.2 DEFENCE, NATIONAL SECURITY AND TERRORISM

Third edition of the high-level virtual interaction MAHASAGAR

▪ The third edition of the high-level **virtual** interaction MAHASAGAR was conducted by the Indian Navy on **05 Nov 24.**

▪ Heads of Navies/ Maritime Agencies and Senior Leadership from Indian Ocean Region littorals viz., **Bangladesh, Comoros, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Seychelles, Sri Lanka** and **Tanzania**. Are present in this meeting

▪ MAHASAGAR which stands for vast ocean in Hindi, is the Indian Navy's flagship outreach for high-level virtual interaction between **Maritime Heads for Active Security** and Growth for all in the region.

Unmanned vessel finishes 1,500-km voyage from Mumbai to Thoothukudi

▪ An autonomous surface vessel built by **Sagar Defence Engineering** has completed a 1,500-km voyage from Mumbai to Thoothukudi without human intervention, in an endeavour supported by the Indian Navy.

▪ It is supported by the Indian Navy's Naval Innovation and Indigenisation Organisation (NIIO), the Technology Development Acceleration Cell (TDAC), and the Innovations for Defence Excellence (iDEX) initiative under the Defence Innovation Organisation (DIO).

▪ **Sagarmala Parikrama** journey was virtually flagged off on October 29

550 'Asmi' machine

▪ The Indian Army made an important advancement in its Atmanirbharta initiative.

The induction of **550 'Asmi' machine** pistols into the Northern Command marks a pivotal moment for indigenous defence manufacturing in India.

What is the Atmanirbharta Initiative?

▪ Atmanirbharta, or self-reliance, is a campaign launched by Prime Minister Narendra Modi on May 12, 2020.

▪ The goal is to make India self-sufficient in various sectors, including defence. It encourages local production and reduces dependency on imports.

Development and Manufacturing

▪ The **'Asmi'** was developed by Colonel Prasad Bansod of the **Indian Army**. It was created in collaboration with the **Defence Research and Development Organisation (DRDO).**

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Successful Test of Long-Range Surface-to-Surface Missile

▪ The **Defense Research and Development Organization (DRDO)** successfully conducted the first test of a long-range missile capable of hitting ground targets

▪ Defense Minister Rajnath Singh praised that this would serve as a model for future indigenously **manufactured missile projects.**

▪ The missile test, conducted at the Integrated Test Range in **Chandipur, Odisha**, performed better than expected and fulfilled the project's objectives, according to the Ministry of Defense.

According to the ministry's press release:

▪ The missile's performance was monitored through radars, electro-optical tracking systems, and telemetry installed at various locations.

▪ It traveled accurately along the predetermined path to reach its target, demonstrating its capabilities at various altitudes and speeds.

▪ The missile is equipped with modern aviation technologies and software.

▪ Bharat Dynamics in Hyderabad and Bharat Electronics in Bangalore played crucial roles in the missile's development and production.

Nationwide Coastal Surveillance Exercise to Begin on Nov. 20

▪ The Ministry of Defence announced that the Indian Navy will conduct a nationwide **'Coastal Surveillance - 24'** (Sea Vigil-24) exercise on November 20 and 21.

▪ These surveillance exercises have been conducted to strengthen coastal security following the **2008 Mumbai terrorist attacks.** The country has approximately **11,098 km of coastline** and an **Exclusive Economic Zone covering 2.4 million square kilometers** along the coastal region.

▪ This comprehensive exercise aims to create awareness about security threats from the sea by simultaneously engaging all maritime stakeholders, including the fishing community, coastal residents, and various coastal security infrastructure facilities.

▪ The exercise is conducted under the leadership of the Indian Navy's **CDSRE (Coastal Defence Security Readiness Evaluation)** team, which includes naval commanders from all coastal states and Union Territories (Lakshadweep, Andaman Islands). The exercise aims to assess and enhance coastal security and defense preparedness.

AFSPA reimposed in six riot-hit areas of Manipur

▪ The Union Home Ministry has reimposed AFSPA (Armed Forces Special Powers Act) in six police station areas across five districts of **Manipur, declaring them as "disturbed areas."**

▪ The affected areas include police stations in Imphal West (Sekmai and Lamsang), Imphal East (Lamlai), Jiribam, Bishnupur (Moirang), and Kangpokpi (Leimakhong) districts.

▪ AFSPA had previously been withdrawn from these areas in April 2022 due to improved security conditions, but is now reinstated until March 31, 2025.

▪ The reimposition comes in response to

ongoing ethnic violence, with recent incidents including intermittent firing in violence-prone areas and increased insurgent group activity.

- Since May 2023, over 240 people have died in ethnic conflicts between the Meitei people (valley residents) and the tribal Kuki-Zo-Hmar people (hill residents), with 14 deaths reported just since November 7.

- The security presence in the region includes **22,000 Central Armed Police Force** personnel and approximately **140 Army columns**, with AFSPA allowing armed forces to conduct operations without waiting for magistrate or state police presence.

About AFSPA:

- **Objective**: Conferring certain special powers upon members of the armed forces in disturbed areas in North eastern States.

- **Section 3 of Act**: Governor of State or Administrator of Union territory or Central Government may declare whole/such part of such State/UT to be a disturbed area.

- Disturbed area is an area where use of armed forces in aid of civil power is necessary.

Section 4 of Act:

- Gives special powers to armed forces although they must be exercised with extreme caution.

- After giving due warning, it can fire upon/ use force against any person acting in contravention of laws,

- If reasonable suspicion exists, can also arrest a person without a warrant;

- Unless otherwise authorized by the central government, Army soldiers operating under AFSPA are shielded from all legal actions.

'Hypersonic' Missile Test Success

- India successfully tested its first long-range hypersonic missile capable of traveling over **1,500 km** carrying nuclear weapons.

- Russia and China are leading globally in hypersonic missile development. The United States is actively working on developing hypersonic missiles under its ambitious program. Countries like **France, Germany, Australia, Japan, and Israel** are also pursuing similar projects.

- The missile, developed by the **Defence Research and Development Organisation (DRDO)** under India's first long-range hypersonic missile program, was successfully tested from Dr. APJ Abdul Kalam Island off the Balasore coast in Odisha.

- It's worth noting that DRDO has previously developed long-range missiles including Prithvi, Akash, and Agni.

Naval Exercise

- Indian Navy's sail training ship INS Tarangini participated in a joint sailing exercise with Italian sailing vessel Amerigo Vespucci off the Kochi coast.

- This exercise, which took place last Friday (Nov. 22) off the Kochi coast in Kerala, demonstrates the Indian Navy's commitment to fostering global maritime traditions and international friendship.

New Telecom Cyber Security Regulations

- The Government of India has implemented new telecom cyber security regulations, aimed to enhance the protection of communication networks and services.

- Telecom companies are now required to report security incidents to the government. They must also share specific data for cybersecurity purposes.

Reporting Security Incidents

- Telecom companies must report any security incidents within six hours. Reports should include details about the affected systems.

- Within 24 hours, they must provide information on the number of users impacted and the geographic area affected.
- Companies must share traffic data and other relevant information, which excludes message content. The government can request this data to boost cyber security efforts.

Cyber Security Policies

- Each telecom entity must adopt a comprehensive **cyber security policy.**
- This policy should encompass security measures, risk management, and incident response strategies. Training and network testing are also essential components.

SAREX-24

- The Indian Coast Guard will conduct SAREX-24 in Kochi from November 27 to 30, which focuses on enhancing search and rescue operations.
- It is organised by the **National Maritime Search and Rescue** (NMSAR) Board. The exercises will involve national agencies and foreign partners, whose aim is to improve India's capabilities in handling maritime emergencies.
- Participants will include officials from government agencies, ministries, and armed forces. Foreign delegates will also be present to share insights and experiences.

France to Provide Technology for Navy's Submarine Projects

- The Indian Navy plans to build 66 warships under "Project 66" as part of its expansion.
- According to this, 50 ships are under construction. Similarly, under "Project 77," the Navy plans to acquire nuclear-powered submarines.
- For these projects, France will provide advanced pump-jet propulsion technology that reduces noise levels, similar to what's used in their Barracuda-class submarines.
- This will increase the ability to operate without attracting enemy attention. By using this technology, Indian submarines in the Indian Ocean region will become much quieter

Joint Defense Cooperation Committee (JDCC)

- India and Tanzania conducted their third Joint Defense Cooperation Committee (JDCC) meeting on November 26, 2024. The meeting was held in Goa, with the objective of strengthening defense relations between the two countries.

Committee Activities

- The Tanzanian delegation visited the Goa Shipyard, aimed at understanding India's ship-building capabilities.

1.3 WORLD ORGANISATIONS – PACTS AND SUMMITS

International Cooperative Alliance (ICA) Global Cooperative Conference

- India will host the **International Cooperative Alliance (ICA) Global Cooperative Conference in New Delhi from November 25 to 30, 2024.**
- This marks the first time in the 130-year history of the ICA that the global cooperative movement's premier event will be held in India.
- **Theme:** "Cooperatives Build Prosperity for All"

1.4 EMINENT PERSONS

▪ The Constituent Assembly of India had 15 women members, including prominent figures like Sarojini Naidu, Sucheta Kripalani, and Vijaya Lakshmi Pandit.

▪ President Droupadi Murmu highlighted the role of these women on Constitution Day (November 26).

▪ **Five notable women from the Constituent Assembly:**

1. Ammu Swaminathan (1894-1978)

• born in Palakkad, Kerala.

• Opposed widow restrictions after her mother's experience.

• Spoke on the Hindu Code Bill and gender equality in the Assembly.

2. Annie Mascarene (1902-1963)

• Born in Travancore in a Latin Christian family.

• Advocated for universal adult franchise and a strong Centre.

3. Begum Qudsia Aizaz Rasul (1909-2001)

• Came from a privileged background with a royal family heritage.

• Joined politics and opposed separate electorates based on religion.

• Promoted women's hockey post-independence.

4. Dakshayani Velayudhan (1912-1978)

• First Dalit woman to graduate in science in Cochin.

• Disagreed with Ambedkar on separate electorates, advocating nationalism.

• Faced financial difficulties, which limited her political career.

5. Renuka Ray (1904-1997)

• Born in Pabna (present-day Bangladesh).

• Quit college to join the freedom struggle after meeting Gandhi.

1.5 SPORTS

India submits letter expressing interest to host 2036 Olympics to International Olympic Committee

▪ The Sports Ministry sources indicate that this great opportunity will bring benefits in terms of economic growth, social progress, and youth development for India.

▪ Strong countries like Saudi Arabia, Qatar, and Turkey are in the lead. India will have to compete with these countries.

▪ Regarding the 2036 Olympics, Ahmedabad is the leading candidate city to host the competition.

1.6 BOOKS AND AUTHORS

British Author Wins Booker Prize

▪ British author **Samantha Harvey** has won this year's Booker Prize.

▪ She was awarded the prize for her novel '**Orbital**'.

▪ Written for the first time with six astronauts living on the International Space Station as characters, the book became a bestseller in Britain.

▪ The judges stated that the Booker Prize, **one of the world's highest literary awards**, was given to this book for its compact size yet beautifully expansive ideas.

▪ Along with this prize, Samantha Harvey will receive a cash prize of 50,000 pounds **(approximately Rs. 53.63 lakhs).**

Kalitogai, a classical Tamil anthology

▪ **Rebel Theatre**: A poem from Kalitogai portrays unconventional characters, a hunchback woman and a dwarf, falling in love, showcasing their indomitable spirit and wit.

▪ **Controversial Interpretation**: The author previously suggested that the 'Kutru' in Tholkappiyam could have evolved into 'koothu' (theatre), stirring debate among scholars.

▪ **Sangam Classics:** These classics depict rigid conventions in 'aham' (love) poems, focusing on specific geographical regions and life stages, often idealizing the hero and heroine.

▪ **Geographical Themes**: Tamil country is divided into five regions: hills (premarital love), plains (quarrels in married life), pastoral (waiting for husband), coastal (romantic agony), and arid lands.

▪ **Classical Rules**: Tholkappiyam's rules emphasize good looks, nobleness, and virtue in lovers, typically from the same social and economic class.

▪ **Unique Drama:** The Kalitogai poem defies these conventions, featuring physically imperfect characters with strong spirits, humor, and self-acceptance.

▪ **Play Description:** The poem's play involves a witty and ironic interaction between the characters, highlighting their unique romantic dynamics and challenging traditional norms.

Thirukkural

▪ Tamil Nadu Textbook and Educational Services Corporation (TNTECS) plans to publish Thirukkural in Tamil, English, and a third language.

▪ This includes Maori, Scottish, and Albanian.

▪ The English translation will use work by Thomas Hitoshi Pruiksma.

▪ Thirukkural has been translated into over 70 languages worldwide.

▪ Supporting translations into additional languages, including those with fewer than five lakh speakers.

▪ TNTECS plans to translate other Tamil epics like Silappadikaram and Manimekalai.

▪ There will be 150 bilingual books released.

▪ The 2025 Chennai International Book Fair will feature sessions on self-publishing, the book trade, and children's literature.

1.7 CULTURAL PANORAMA

Sky is the limit for development of tribes: President Droupadi Murmu

▪ President Droupadi Murmu addressed the nation on the **eve of Birsa Munda's birth** anniversary **(Janjatiya Gaurav Divas),** emphasizing that India's true development depends on tribal communities' progress.

▪ She praised the government's commitment to tribal development, **highlighting a 74%** increase in the Tribal Affairs Ministry's budget to **Rs.13,000 crore.**

▪ Murmu recalled tribal freedom fighters who fought against British rule and shared her personal connection to tribal welfare, having started her public service career on the Tribal Advisory Council.

- She expressed optimism about tribal communities' future development prospects.

About Bhagwan Birsa Munda (1875 – 1900)

- He was born in the Munda tribe at Ulihatu, Khunti district of the Chotanagpur Plateau region (Jharkhand). Also known as **'Dharti Aaba'.**

Contributions

- Started faith of Birsait and stressed the importance of prayer, staying away from alcohol, and having faith in God.

- Started a movement called 'Ulgulan (The Great Tumult)' against the exploitation of tribals by local authorities.

- This led to the enactment of the Chotanagpur Tenancy Act (1908) which restricted the transfer of land from tribal people to non-tribals.

Legacy

- His birth anniversary (on 15th November) is celebrated as **Janjatiya Gaurav Divas.**

Guru Nanak Dev

- Founder of Sikhism and Social Reformer

Historical Context and Life

- Guru Nanak Dev (1469-1539) emerged as one of the most influential spiritual leaders in South Asian history.

- Born in **Nankana Sahib**, Pakistan, he established Sikhism as a faith that would transform the religious and social landscape of the Indian subcontinent.

- His journey from a thoughtful young man to a revolutionary spiritual leader marked the beginning of a movement that continues to influence millions worldwide.

Core Philosophy

- At the heart of Guru Nanak's teachings lies a revolutionary understanding of divinity and human existence.

- His fundamental belief in **"Ek Onkar"** (One Universal Creator) challenged the prevailing religious orthodoxies of his time. This concept wasn't merely theological; it formed the foundation for a radical social philosophy that emphasized human **equality and dignity.**

Key Tenets and Innovations

- Social Reform Through Spiritual Practice

- **Community Engagement**
  - Introduced the concept of Langar (community kitchen)
  - Established Sangat (collective worship) as a cornerstone of spiritual practice
  - Created Pangat (eating together) to break social barriers

- **Economic Justice**
  - Advocated for "Kirat Karni" (honest labor)
  - Introduced "Vand Chakna" (sharing with others)
  - Established Dasvandh (voluntary tithing) for community development

Spiritual Practice

  - Emphasized **"Naam Japna"** (meditation on divine truth)
  - Rejected empty ritualism
  - Integrated spirituality with daily life

1.8 ARCHEAOLOGICAL DISCOVERY

News: 6,000-year-old stones discovered in Vembakkottai excavation

- **PLACE : Sathur,**

- During the ongoing Phase 3 excavation near Vembakkottai, stones called jasper and chert, which were used to make ornaments 6,000 years ago, were discovered on Friday.

- The Phase 3 excavation work has been ongoing since June 18.

- In this Phase 3 excavation, more than 2,800 archaeological artifacts have been discovered so far, including:

- Gold coin
- Copper coins
- Broken terracotta figurine
- Chess pieces
- Glass beads
- Circular discs

- The archaeologists continue to uncover evidence of ancient civilization and craftsmanship at this important historical site.

1.9 SASTRI'S TAKE ON DRAVIDIAN-ARYAN DIVIDE

Sastri's take on Dravidian-Aryan divide

- According to historian **K.A. Nilakanta Sastri,** both Dravidians and Aryans came to India in **multiple waves over time, not in a single migration.**

- Oxford Professor J. Burrow suggested that Vedic speech was influenced by **"proto-Dravidian"** language that existed before both Dravidian languages and Aryan arrival in India - though this was disputed by some scholars like **Fürer-Haimendor**

- Sastri emphasized that using "Aryan" and "Dravidian" as racial terms is scientifically incorrect, citing Max Müller who strongly **discouraged inferring race from language.**

- He challenged the oversimplified notion that North India is purely Aryan/Brahmin/Sanskrit while South India is purely Dravidian/non-Brahmin/Tamil.

- Sastri **rejected** claims about **Tamil land being the origin of civilization** and the Indus Valley Civilization being created by Tamils, noting these weren't supported by scientific scholarship.

1.10 APPOINTMENTS

Government appoints two Additional Advocate Generals

- Senior advocates **K.Chandramohan** and **M. Sureshkumar** have been appointed as Additional Advocate Generals of the Madras High Court.

Appointments – Who is who?

- President Droupadi Murmu has appointed K.Sanjay Murthy as the new **Comptroller and Auditor General (CAG)** of India. Murthy, an IAS officer from the 1989 batch, is currently the Secretary of the Department of Higher

Education. He belongs to the Andhra Pradesh cadre.

- K Sanjay Murthy will assume the role of CAG from the date he takes office.

- He replaces Girish Chandra Murmu, who has served since August 8, 2020. Before this, Murthy was the **first Lieutenant Governor of Jammu and Kashmir.**

Comptroller and Auditor General

- K.Sanjay Murthy, former Secretary of the Central Higher Education Department, took charge as the country's new **Comptroller and Auditor General (CAG).**

- **Girish Chandra Murmu**, who was serving as the **Comptroller and Auditor General**, retired last Wednesday.

- A **1989 batch** IAS officer from Himachal Pradesh cadre, he has extensive experience in public administration.

Hemant Soren as appointed as Chief Minister of Jharkhand

- Hemant Soren began his fourth term as Chief Minister of Jharkhand, sworn in by Governor Santosh Kumar Gangwar in Ranchi.

2. POLITICAL SCIENCE

2.1 INDIA'S FOREIGN POLICY

The LAC agreement, the détentes and the questions

- A recent India-China détente (IMPROVEMENT) announced in October 2024, marked by a summit between PM Modi and President Xi Jinping at the 16 TH BRICS Summit in Kazan.

- While both sides have agreed to disengage troops at Depsang and Demchok, questions remain about the specific details of new patrolling arrangements and troop de-escalation along the LAC (Line of Actual Control).

- The article explores four theories behind China's 2020 LAC transgressions:

- China's policy to control "every inch" of its claimed territory

- A reminder of India's continental vulnerabilities despite US partnership

- Pushback against India's infrastructure development

- Reaction to India's 2019 reorganization of Jammu and Kashmir

- **Key disputed areas**: Depsang, Demchok, Yangtse, Arunachal Pradesh, Pangong Tso, Galwan

- **Infrastructure projects**: G695 highway through Aksai Chin, Karakoram-2 Highway

- **The recent agreement follows three other improvement :**
  - Elections in Jammu and Kashmir.
  - Agreements with Ladakhi protesters.
  - Diplomatic opening with Pakistan.

2.2 LATEST COURT VERDICTS

- **NEWS: SC overrules 1967 verdict against (Aligarh Muslim University) AMU's minority tag,** An educational institution established by a minority community will not lose its identity once it is recognised through a statute. SC declared in a 4:3 majority judgment by a seven-judge Bench headed by Chief Justice D.Y.Chandrachud.

Main Issue:

- Whether an educational institution established by a minority community loses its minority status once it is recognized through a statute/ law

Historical Context:

- AMU was established in 1875

- Lost minority status due to 1967 Azeez Basha verdict

- Regained it through 1981 AMU Amendment Act

- Lost it again in 2006 due to Allahabad High Court decision

Constitutional Aspect:

- **Article 30(1) has dual nature:**
  - Anti-discriminatory provision
  - Special rights provision for religious and linguistic minorities
- **Requirements for Minority Status:**
  - Institution must be established by minority community
  - The community must prove they

established it to preserve their cultural fabric

- Article 30 extends to secular education as well

- **Significance:**
  - Impacts other minority institutions like St. Stephen's College and Christian Medical College, Vellore
  - Protects minority institutions from discrimination

2.3 PUBLIC OPINION

Misuse of Copyright

- Misuse of Copyright:The dispute highlights how copyright can be misused to suppress speech and silence opponents.
- South Indian actor filed a copyright infringement suit against other actress for using clips from their film without permission.

- Copyright law treats a film as an amalgamation of various components, each potentially having different copyright owners.
- The **concept of 'fair dealing' under Section 52(1)(a) of the Copyright Act 1957** allows certain uses of copyrighted work without constituting infringement.

2.4 PROBLEMS IN CONDUCT OF PUBLIC ELECTIONS

At 65%, Maharashtra clocks better turnout than in 2019

- Maharashtra recorded a voter turnout of 65.11% in the single-phase Assembly election, higher than the 61.6% turnout in 2019.
- Urban centers like Mumbai and Thane registered low turnouts, with Mumbai City at 52.07% and Mumbai Suburban at 55.77%.
- Naxalism-affected Gadchiroli district saw a high turnout of 73.68%, while Kolhapur recorded 76.25% and Bhandara 69.42%.
- Minor skirmishes were reported in Beed district, including vandalism of a polling booth and an assault on a local leader.

- Chief Electoral Officer S. Chockalingam noted that the voter experience in Mumbai was significantly better than during the Lok Sabha election earlier this year, with no complaints of long queues or inadequate facilities.

Factors collectively contributed to the higher voter turnout compared to the previous election in 2019.

- **Improved Voter Outreach**: Extensive efforts by the Election Commission to reach out to voters and encourage participation.
- **Ease-of-Voting Measures:** Implementation of measures to make voting more accessible and convenient for the electorate.

- **Better Arrangements:** Enhanced arrangements at polling stations, including the deputation of municipal commissioners as election officers, leading to a smoother voting experience.

- **Increased Awareness**: Greater awareness and education about the importance of voting and the electoral process.

- **High-Profile Participation**: The involvement of prominent figures, such as cricket legend Sachin Tendulkar, which can inspire and motivate people to vote.

- **Peaceful Polling**: Despite minor incidents, the overall peaceful conduct of the elections likely encouraged more people to participate.

2.5 POLITICAL PARTIES AND POLITICAL SYSTEM IN INDIA

The perfect cocktail of layered discrimination

- Delimitation involves recalibrating Lok Sabha seats per state based on population, currently frozen **since 1971** census but may change **by 2026.**

- Non-Hindi states (Kerala, Tamil Nadu, West Bengal) have **lower fertility rates (1.6-1.8)** compared to Hindi heartland states **(Bihar, UP, MP) with rates around 3.5.**

- Post-delimitation, southern states' parliamentary representation would **drop from 25% to 17%,** while Hindi heartland states would increase from **40% to 60%.**

- Developed states already receive only 30% of their tax contributions, while states like Bihar receive **250-350% of their contribution.**

- Hindi-speaking population has **grown from 36% to 43%,** while other linguistic groups have decreased, threatening India's federal structure.

- Possible solutions include extending the freeze or permanent **freezing of delimitation,** creating new federal structure, or preserving current seat proportions while **increasing total seats.**

Total Fertility Rate (TFR)

- TFR is "a demographic indicator that estimates the average number of children a woman gives birth to during her reproductive years." The replacement level TFR is 2.1.

Context

- The delimitation of Lok Sabha seats in India is primarily addressed **under Article 81** of the Indian Constitution.

- **Article 82** complements this by stating that the Parliament must enact a Delimitation Act after each Census to readjust the number of seats in the Lok Sabha and their respective constituencies

- This process (delimitation) was suspended under **Indira Gandhi's government until 2001**

- Further suspended **for 25 years by A.B.Vajpayee's government until 2026**

- The freezing was done to avoid disincentivizing states that effectively controlled their population

2.6 PUBLIC AWARENESS & GENERAL ADMINISTRATION

Sanjiv Khanna Takes Charge as 51st Chief Justice of Supreme Court

- President Droupadi Murmu administered the oath of office. Sanjiv Khanna took charge today after D.Y. Chandrachud's retirement.

- Sanjiv Khanna will serve as Chief Justice of Supreme Court for 6 months. He will remain in office until May 13 next year

- Sanjiv Khanna began his career as a lawyer in 1983. He served as a lawyer for about 23 years. He was appointed as Delhi High Court Judge in 2016 and Supreme Court Judge in 2019.

Important Judgments

- He was part of the **5-judge constitutional bench** that delivered historic verdicts including cancellation of electoral bonds scheme for political party donations and confirmation of the abrogation of **Article 370** that granted special status to **Jammu-Kashmir.**

- A bench headed by him delivered a judgment on April 26 affirming the reliability and security of Electronic Voting Machines, refusing to ban their use in elections.

- He also ordered interim bail for **Aam Aadmi Party's National Coordinator and then Delhi** Chief Minister Arvind Kejriwal, who was arrested in the Delhi excise policy case, to campaign in the Lok Sabha elections.

- 5,000 additional Central Armed Police Forces (CAPF) personnel are being deployed in Manipur.

- **Reason :** There has been a surge in violence, resulting in at least 22 deaths.

- Confrontation between a special commando team and protesters in Jiribam district.

- Suspected activities of **Kuki militants,** were found in the Barak river in Assam

- The curfew in **Imphal East, Imphal West, and Bishnupur** districts was extended.

- Internet and mobile data ban extended in seven districts.

- Home Minister **Amit Shah** reviewed the security situation and deployment of security forces.

- Three cases of violent crimes against women and children have been handed over to the **National Investigation Agency (NIA)**.

- Chief Minister **N.Biren Singh** chaired a meeting with **NDA legislators** to review the law-and-order situation.

The Central Armed Police Forces

- **The Central Armed Police Forces (CAPF)** is a collective term for the central police organizations in India, operating under the **Ministry of Home Affairs.**

- These forces were previously known as the **"Central Para-Military Forces (CPMF)"** but since 2011, India adopted the term **"Central Armed Police Forces"** to eliminate the word **"paramilitary."**

- CAPF is tasked with ensuring **internal security and guarding the borders**. There are seven security forces under this designation, all overseen by the **Ministry of Home Affairs.**

These seven security forces are

- Assam Rifles (AR)
- Border Security Force (BSF)
- Central Industrial Security Force (CISF)
- Central Reserve Police Force (CRPF)
- Indo Tibetan Border Police (ITBP)
- National Security Guard (NSG)
- Sashastra Seema Bal (SSB)

2.7 GOVT – WELFARE ORIENTED GOVT SCHEMES, THEIR UTILITY

- Government health spending in low and lower-middle income countries shows a concerning downward trend after an initial pandemic-related spike, threatening progress toward SDG health targets.

- Growth in health spending per capita from 2019-2023 has been minimal (0.4% in LICs (low income countries), 0.9% in LMICs (lower middle class income countries) compared to pre-pandemic growth (4.2% in LICs, 2.4% in LMICs), indicating a significant slowdown.

- The share of health in government budgets is declining as overall government spending grows faster than health expenditure, reversing pre-pandemic trends where health was gaining priority.

- 35 nations, including India, face particular risks with declining per capita health spending and reduced budget share for health. India's health spending dropped below 2% of the budget post-pandemic.

- Future outlook is concerning as 23 countries are projected to face government budget contractions from 2023-2029, which may force difficult trade-offs in maintaining health spending levels.

- The TeacherApp was launched by Union Minister for Education Dharmendra Pradhan.

- Developed by Bharti Airtel Foundation.

- Provides over 260 hours of resources, including courses, videos, and interactive sessions.

NEP 2020:

- The app aligns with the National Education Policy 2020.

- Emphasizes continuous teacher development to enhance student engagement and learning outcomes.

- The TeacherApp seeks to be a comprehensive platform for teacher development, leveraging technology to improve education quality across India.

One Nation - One Subscription

- The Cabinet has approved several schemes including 'One Nation One Subscription', National Natural Farming Mission, two hydroelectric projects in Arunachal Pradesh, and the extension of the Atal Innovation Mission.

- The One Nation One Subscription scheme has been launched to support initiatives of Anusandhan National Research Foundation, which was established to enhance research in universities, colleges, and laboratories as per the New Education Policy recommendations to achieve the goal of Developed India.

- The scheme ensures quality higher education for youth.

Rs 6,000 Crore Allocation

- Under this scheme, Rs 6,000 crore has been allocated to implement a uniform subscription model across the country for accessing research papers and journals.

- The scheme will be implemented for three years - 2025, 2026, and 2027.

- It will be implemented in all higher education institutions nationwide, including central and state governments, and autonomous colleges under the University Grants Commission (UGC).

- Higher education institutions can access research papers and journals through the "One Nation One Subscription" portal developed by the Ministry of Higher Education.

Natural Farming Mission

▪ The National Natural Farming Mission will be launched to promote natural farming across 7.5 lakh hectares, benefiting 1 crore farmers. Rs 2,481 crore has been allocated for this project.

▪ The government plans to select interested panchayats to develop 15,000 agricultural groups and establish 10,000 natural input resource centers as needed.

▪ These centers will distribute natural resources and provide capital assistance up to Rs 1 lakh.

Bima Sakhi Yojana

▪ Prime Minister Narendra Modi will launch the "Bima Sakhi Yojana", at Panipat, which aims to empower women across India.

Scheme Overview

▪ The "Bima Sakhi Yojana" focuses on women's financial security, which promotes insurance coverage for women.

▪ The scheme encourages female entrepreneurship. It aims to enhance women's roles in economic development.

Benefits of the Scheme

▪ The scheme will provide financial assistance. Women will gain access to insurance products, which will also offer training for skill development.

2.8 CENTER AND STATE RELATION

Net Borrowing Ceiling (NBC) Caps Kerala's Borrowing at 3% of GSDP

▪ In 2023, the central government set a 3% Net Borrowing Ceiling (NBC) of GSDP on Kerala, covering all borrowing methods, restricting development and welfare funding.

▪ Kerala has petitioned the Supreme Court to challenge the NBC under Article 293 of the Constitution, arguing it limits the state's constitutionally guaranteed fiscal autonomy.

▪ The **Fiscal Responsibility and Budget Management (FRBM)** Act enforces fiscal discipline with deficit targets, aiming to reduce the fiscal deficit to below 4.5% of GDP by 2025-26; states argue this curtails their financial autonomy.

▪ Proposals suggest strengthening **Article 293** by creating a commission akin to the Finance Commission, setting clear guidelines for the Center's control over state borrowing, ensuring transparency, consultation, and fairness to uphold cooperative federalism

Role of Voluntary Organizations

▪ Women gig workers in India held a **first digital strike on Deepavali**, organized by the **Gig and Platform Services Workers Union (GIPSWU),** protesting against exploitative labour practices by platform companies.

▪ Discounts offered by platform companies come at the expense of gig workers' wages, who face exploitative conditions.

▪ The narrative often highlights start-up job creation without examining the labour exploitation underlying rapid growth.

▪ **The absence of strong labour and data privacy laws** enables unchecked exploitation, with a call for grassroots organizing and policy reform.

3. GEOGRAPHY

3.1 POLICY ON ENVIRONMENT AND ECOLOGY

First Global Tree Assessment

- First Global Tree Assessment was published as part of an update to the **IUCN Red List** of **Threatened Species**, with its findings announced at the **Convention on Biological Diversity (CBD COP16) in Cali, Colombia.**

- The 2024 UN Biodiversity Conference of the Parties (COP) to the UN Convention on Biological Diversity (CBD) was held recently in Cali, Colombia with an objective to assess how countries are advancing towards the **2022 Montreal commitment to protect 30%** of the planet's land and marine areas by 2030.

- The South Western Ghats of Kerala host Buchanania barberi, a small tree classified as Critically Endangered on the IUCN Red List since 2018.

Asia–Pacific (APAC) Climate Report 2024

- The **Asian Development Bank (ADB)** released its **Asia–Pacific (APAC) Climate Report 2024,** highlighting alarming economic impacts of climate change on the Asia-Pacific region.

- High-end greenhouse gas emissions, the APAC region could see a 17% reduction in **Gross Domestic Product (GDP)** by 2070.

- By 2100, this figure may surge to 41% under high GHG emissions.

- India may experience a **24.7% GDP** decline by 2070. Bangladesh faces a potential 30.5% loss, while Vietnam could see a 30.2% reduction, and Indonesia a 26.8% decline.

NEWS: The tiger population in western Assam's Manas National Park, a major wildlife preserve stretching into Bhutan, tripled from 2011 to 2019.

- **Location**
  - Manas National Park is in western Assam
  - It's a cross-border preserve extending into Bhutan
  - **It's a UNESCO World Heritage Site**
  - One of Assam's two tiger reserves (the other being Kaziranga)

- **Context**:
  - Park previously suffered from prolonged armed conflict

Current challenges include

- **Poaching threats,** Habitat loss, Management of growing tiger population approaching carrying capacity.

- **Success Factors**: Increased funding, Improved protection infrastructure, Larger staff deployment, Tourism revenue support.

- **Collaborative efforts between**: Local communities, Governme, Conservation agencies.

- This case study demonstrates successful wildlife conservation in a post-conflict zone.
- Study suggests potential doubling of tiger numbers by **2023** (conditional on effective conservation measures).
- **India's developing carbon credit mechanism, with focus on COP-29 Baku, Azerbaijan).**
- India updated its Na**tionally Determined Contributions** in **2023**
- Established the Energy Conservation Amendment Act in **2022** for **Carbon Credit Trading Scheme (CCTS).**

It emphasizes two key lessons:
- Maintaining carbon credit integrity and aligning with global standards, particularly Article 6 of the Paris Agreement.
- The framework faces challenges like greenwashing in the **voluntary carbon market (VCM)** and issues with the **Green Credit Programme (GCP).**
- The **Bureau of Energy Efficiency (BEE)** plays a crucial oversight role, and the **Voluntary Carbon Markets Integrity Initiative (VCMI)** introduces a tiered system for credit claim assessment.
- It stresses the importance of transparency, third-party verification, and robust protocols to prevent double-counting while aligning with international standards.
- Green washing? Greenwashing is when a company makes misleading claims or false advertisements to suggest that they are more environmentally friendly than they actually are.
- VCM - **The voluntary carbon market (VCM)** is a decentralised market where private actors voluntarily buy and sell carbon credits that represent removals or reductions of **Green House Gases (GHGs)** in the atmosphere.
- **The Bureau of Energy Efficiency (BEE)** : To improve Energy Intensity of Indian Economy thereby contributing towards sustainable development of country.

COP29
- huge costs" were being levied upon India for the voluntary "climate action" it was undertaking.
- Countries are expected to update next year their voluntary commitments to curb emissions from the use of fossil fuel, known as Nationally Determined Contributions (NDC), the upper limit of carbon emissions that the atmosphere can support, to have a shot at preventing temperatures from going past the 1.5 degrees Celsius mark, it was likely to breached by the end of the decade, India noted.

COP
- The UNFCCC, signed in 1992 at the **United Nations Conference on Environment and Development** also known as the Earth Summit, the Rio Summit or the Rio Conference The UNFCCC entered into force on March 21, 1994, and has been ratified by 197

New frog species
- Scientists from SACON have identified a new frog species in Meghalaya, named 'Raorchestes asakgrensis'. This discovery took place over two years, from October 2020 to January 2022.
- The research team surveyed various locations in the Garo and Khasi Hills, which were

published in the journal Herpetozoa on November 18.

Discovery Process

- They captured and photographed the frogs for further analysis.

- The team documented their observations meticulously to describe the new species accurately.

Naming the Species

- The new species is named after the Eman Asakgre Community Reserve, which honours the local community that supported the researchers during their study.

- It reflects a commitment to recognising Indigenous contributions to scientific research.

Air pollution in India has escalated beyond an environmental concern to a severe health and economic crisis.

Health Impact

- Air pollution is the leading environmental risk to health and the cause of premature deaths, with nearly 2 million deaths in India in 2021.

- Vulnerable groups like pregnant women, children, the elderly, and those with existing health conditions face higher risks.

National Clean Air Programme (NCAP)

- The National Clean Air Programme (NCAP) was launched by the Ministry of Environment, Forest and Climate Change (MoEFCC) at the start of 2019.

- To improve the air quality of 131 cities across 24 states/UTs in India.

- It is the first-ever effort by the Indian government to provide a national-level framework with time-bound reduction.

- India is the third most polluted country in the world.

- Out of the 50 most polluted cities, 42 were in India according to the IQAir report 2023.

- With the right to a healthy environment as part of Article 21, the programme seeks to reduce the concentration of atmospheric Particulate Matter (PM) by 20-30% by 2024.

- This was later revised to 40% and to be achieved by the year 2025-26.

Eco-sensitive Zones (ESZs)

- Areas around national parks and wildlife sanctuaries, serving as "shock absorbers" for protected areas.

- Usually extend within 10 km of these boundaries, but can vary.

- Function as transition zones from higher protection to lesser protection areas.

- Not intended to disrupt local daily activities but to safeguard and enhance the environment.

Policy Frameworks

- **Two significant reports**

  - Gadgil report: Advocated strong environmental regulations and extensive ESZs.

  - Kasturirangan report: Recommended a balance, reducing ESZ areas for developmental needs.

Recent Developments in Kerala

- 2013, Kerala proposed 9,993.7 sq km as ESZs, But in 2019, Proposal reduced to 8,656 sq km.

- In May 2024 ,Kerala included 12 villages from Wayanad district as ESZs.

India's largest saline wetland

- Sambhar Lake is India's largest inland saltwater lake at 230 sq km, spread mostly across Jaipur and Nagaur districts and also a part of Ajmer.

- It has a catchment area of **5,700 square km**, with the water depth fluctuating between 60 cm in the dry season to about 3 metres at the end of the monsoon.

- When the monsoon arrives in July, the lake erupts with delight, accompanied by the chirping of avian species such as **coots, black-winged stilts, sandpipers, and redshanks.**

- Sambhar Lake has also been classified as a **Ramsar Site.**

3.2 MISCELLANEOUS

First Green Hydrogen Fuelling Station

- Iindia has recently inaugurated its first green hydrogen fuelling station in Leh, Ladakh, which is milestone in the green mobility sector.

- The project was completed by Amara Raja Infra for NTPC Ltd, which aims to promote emission-free transport in the region.

Project Overview

- The green hydrogen fuelling station is part of a broader green mobility initiative, which enables the operation of hydrogen fuel cell buses in Leh.

Station Specifications

- The fuelling station can produce 80 kg of green hydrogen daily.

- It was constructed at an altitude of 3,400 meters.

Operational Details

- NTPC will operate five hydrogen fuel cell buses in the region.

- The project includes three years of operation and maintenance for all systems. This ensures the fuelling station runs efficiently

4. ECONOMICS

4.1 CURRENT SOCIO-ECONOMIC PROBLEMS

India's urban infrastructure financing, needs and reality

Urban Population and Financing Needs

▪ India's urban population is expected to double from 400 million to 800 million over the next three decades.

▪ India needs approximately Rs.70 lakh crore by 2036 to meet urban infrastructure needs.

▪ Current annual investment in urban infrastructure is around Rs. 1.3 lakh crore, only a quarter of the required Rs.4.6 lakh crore.

Municipal Finances and Challenges

▪ Municipal finances have remained stagnant at 1% of GDP since 2002.

▪ Municipal bodies contribute 45% of urban investments; the rest is managed by parastatal agencies.

▪ Municipalities' own revenue sources declined from 51% to 43%.

Public-Private Partnerships and Future Steps

▪ PPP investments in urban infrastructure have dropped significantly over the past decade.

▪ Strengthening State finance commissions and empowering municipal governments is crucial.

▪ Developing a pipeline of 600-800 projects to meet investment needs.

Collaboration and Sustainable Development

▪ Addressing financial and structural challenges requires collaboration across government levels and private sector participation.

▪ Emphasizing innovation and efficient governance to meet the demands of growing cities.

4.2 NEW ECONOMIC POLICY & GOVT. SECTOR

▪ India's GDP growth for July-September 2024 is expected to decrease to 6.5%, the slowest in one and a half years, due to elevated food prices reducing household spending.

▪ The Reserve Bank of India (RBI) forecasts a rebound to 7.6% growth in the current quarter, driven by festival-related consumption.

▪ Sustained economic growth above 8% is needed to generate sufficient employment for India's growing youth population; current slowdown raises concerns about meeting employment demand.

▪ Challenges: High food inflation, reduced consumer spending, and weakened industrial activity are key challenges affecting GDP growth.

▪ Slow pace of capital expenditure by both states and the central government is a major concern, but rural demand and agricultural growth are expected to support future growth.

▪ The Ministry of Statistics and Programme Implementation came into existence as an

Independent Ministry on 15th Oct 1999, after the merger of the Department of Statistics and the Department of Programme Implementation.

- The Statistics Wing called the National Statistical Office (NSO) consists of the Central Statistical Office (CSO), the Computer centre and the National Sample Survey Office (NSSO).

- **The Programme Implementation Wing has three Divisions, namely,**

  - Twenty Point Programme

  - Infrastructure Monitoring and Project Monitoring

  - Member of Parliament Local Area Development Scheme.

- Besides these two wings, there is National Statistical Commission created through a Resolution of Government of India (MOSPI) and one autonomous Institute, viz., Indian

- Statistical Institute declared as an institute of National importance by an Act of Parliament.

4.3 CURRENT TRENDS IN INDIAN ECONOMY

10-year Sovereign Green Bonds

- The Reserve Bank of India (RBI) has expanded the list of Government securities available for non-resident investment under the **Fully Accessible Route (FAR)** by designating 10-year **Sovereign Green Bonds (SGrBs)** as 'specified securities.' These bonds will be issued by the government in the second half of the fiscal year 2024-25, aligning with the increasing global inclusion of Indian Government Securities (G-Secs) in international bond indices, such as JPMorgan Chase's GBI-EM GD index, Bloomberg **EM Local Currency Government** indices, and FTSE Russell's EMGBI.

10-Year Sovereign Green Bonds in FAR

- The RBI's move to include **10-year Sovereign Green Bonds** under FAR comes as the government plans to issue these bonds as part of its borrowing program in **FY2024-25.**

India should join RCEP and CPTPP

- BVR Subrahmanyam, CEO of NITI Aayog, suggests India should join RCEP and CPTPP.

Background:

- **RCEP (Regional Comprehensive Economic Partnership):** A 15-country FTA (Free Trade Agreement), including ASEAN (Association of Southeast Asian Nationsnations) and China. India was part of initial negotiations but left just before finalization.

- **CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership):** An 11-country FTA, including Canada, Japan, and Australia, evolved from the Trans-Pacific Partnership.

Provisions Beyond India's Practice:

- RCEP and CPTPP include (MFN and FET) principles, missing in India's current treaties.

MFN (Most Favored Nation) ?

- It is a principle in international trade that

ensures equal treatment among countries. When one country grants MFN status to another, it agrees to extend the same trade advantages, such as low tariffs or high import quotas, that it provides to its most favored trading partners. This principle is a cornerstone of the World Trade Organization (WTO) agreements, aimed at promoting non-discriminatory trade practices among member nation

FET (Fair and Equitable Treatment) ?

▪ It is a fundamental principle in international investment law, primarily found in Bilateral Investment Treaties (BITs) and other international investment agreements (IIAs).

This standard aims to protect foreign investors by ensuring that they receive just and unbiased treatment from host states.

▪ India would need to deviate from its 2015 Model BIT (Bilateral Investment Treaty) for RCEP and CPTPP.

(Bilateral Investment Treaty)?

▪ An agreement establishing the terms and conditions for private investment by nationals and companies of one state in another state. These treaties aim to promote and protect foreign investments through various protections like fair and equitable treatment, and dispute resolution mechanisms.

4.4 REPORTS AND INDICES

Henley Passport Index

▪ The Henley Passport Index revealed that Singapore holds the title of the world's most powerful passport.

▪ Singaporean citizens can travel to 195 countries without needing a visa.

Henley Passport Index Overview

▪ The **Henley Passport Index** ranks passports based on the number of destinations their holders can access without a visa.

▪ The index is a useful tool for understanding global mobility and the strength of a country's passport.

Top Rankings

- **Singapore**: 1st place, 195 countries.
- **France, Germany, Italy, Japan, Spain**: 2nd place, 192 countries.
- **United States**: 8th place, 186 countries.
- **India**: 83rd place, 58 countries. These rankings reflect the ease of travel for citizens of these countrie

5. SCIENCE

5.1 LATEST INVENTIONS ON SCIENCE AND TECHNOLOGY

GM crops can help fight hunger depending on farming method

- **Population Growth and Food Demand:** The world's growing population necessitates more food production without indiscriminately expanding agricultural land or using excessive pesticides.

- **Genetically Modified (GM) Crops:** GM crops, like Bt cotton and Bt brinjal, have been developed to resist insects by incorporating genes from Bacillus thuringiensis, reducing the need for insecticides.

- **Herbicide-Tolerant (HT) Crops:** HT GM crops are resistant to specific herbicides, allowing farmers to target weeds without harming the crops, which helps reduce tilling and carbon emissions.

- **Health and Environmental Impact**: While consuming GM crops shows negligible adverse health effects, the broader farming methods have complex impacts on human health and the environment.

- **Resistance Development:** Pests can develop resistance to GM traits over time, necessitating diversified GM crop planting and the inclusion of multiple resistance genes to maintain efficacy.

- **Regulation Costs and Accessibility**: The high cost of regulating GM crops limits their development to a few major companies, making it challenging for government institutions and smaller companies.

- **Sustainable Pest Management:** Integrated pest management and crop rotation are recommended to reduce reliance on agro-chemicals and prevent resistance, balancing between the extremes of no pesticide use and current intensive practices.

BOMB CYCLONE

- Definition: A bomb cyclone is a powerful winter storm characterized by a rapid drop in atmospheric pressure, at least 24 millibars in 24 hours.

- **Approaching Storm**: An upcoming bomb cyclone is set to impact the US West Coast, predicted to drop nearly 70 millibars in one day, potentially reaching 942 millibars, similar to a Category 4 hurricane.

- **Formation:** Bomb cyclones form when warm, moist air collides with cold Arctic air, creating a rapidly intensifying storm. The term was coined in the 1980s, likening the storm's intensification to an explosion.

- **Atmospheric River**: The storm will merge with an atmospheric river, a narrow band of concentrated moisture, leading to substantial rainfall and snowfall across several states.

- **Rainfall Predictions:** California is expected to receive approximately 8 trillion gallons of water, Oregon and Washington 5 trillion and 3 trillion gallons, respectively, and Idaho around 2.5 trillion gallons, totaling nearly 20 trillion gallons across the western US.

- Potential Effects: Coastal regions may face erosion and flooding, inland areas are at risk of flash floods and mudslides, and mountainous regions could experience record snowfall.

- Precautionary Measures: Residents are advised to stay updated on weather changes and follow evacuation orders from local authorities

- A year-long study by (Sálim Ali Centre for Ornithology and Natural History) SACON, Coimbatore, indicates an exponential rise in the peafowl population in Tamil Nadu.

- The study estimated a mean population size of about 61 lakh peafowl and a minimum of about 38 lakh.

- A total of 1,025 peafowl were sighted in 32 of the 38 districts, but data revealed their presence in all 38 districts.

- The study addressed crop damage caused by peafowl, with 78.70% of farmers reporting damage and 82.88% saying it was a daily occurrence.

- From 2011 to 2023, 1,345 peafowl deaths were reported due to pesticide poisoning, electrocution, and vehicular accidents, with the highest mortality in March.

- The disappearance of mesocarnivores like jackals and foxes from Tamil Nadu's plains is linked to the rise in peafowl population.

- The increasing peafowl population poses a significant concern for farmers, damaging crops like maize, tomato, chilli, millets, and paddy. Farmers use plastic tape and dogs to keep peafowl away due to the ineffectiveness of fencing.

- **Indian peafowl** : scientifically known as Pavo cristatus, is currently classified as a species of Least Concern by the International Union for Conservation of Nature (IUCN), indicating that its population is stable. This species is primarily found across the Indian subcontinent, including India and Sri Lanka, and has been introduced to various other regions worldwide

Aphantasia

- A study by Roberto S. Luciani and colleagues at the University of Glasgow examines the relationship between auditory and visual senses in people with aphantasia.

- Individuals without aphantasia show strong neural activity in the visual cortex in response to auditory stimuli, while those with aphantasia show significantly weaker neural activity.

- The study supports the idea that mental visualization exists on a spectrum, with aphantasia at one end.

- The research highlights unique variations in human cognitive processes, challenging previous assumptions about uniform brain functions.

- The study underscores the interconnectedness of different brain regions, even in individuals with limited visual imagination.

- Aphantasia is a condition where individuals cannot create mental images, first observed by Francis Galton in the 1880s and named by Adam Zeman in 2015.

- Aphantasia is relatively rare, affecting about 2% of the population.

- People with aphantasia may not create mental images from sounds or dreams but can be creative in other ways like writing or problem-solving.

- Aphantasia occurs due to differences in the brain's ability to imagine.

- Aphantasia is not considered a problem; people with the condition can live normal, happy lives and may not realize they have it until asked to imagine something

Recent research in Harvard Medical School

- Cellular Learning: Recent research suggests human cells can exhibit a form of learning known as habituation.

- **Definition of Habituation**: Habituation is the process where an organism stops responding to repeated stimuli over time.

- **Research Details**: The study was conducted by researchers from **Harvard Medical School** and the **Centre for Genomic Regulation,** published in Current Biology.

- **Findings**: Four molecular networks within cells exhibit habituation, functioning similarly to animal brains. Two types of cellular memory were identified, with one fading quickly.

- **Implications**: The research raises questions about cellular capabilities, potentially explaining chemotherapy resistance in cancer cells and antibiotic resistance in bacteria.

- **Further Research**: More studies are needed to validate these findings and gather real-world biological data.

- **Centre for Genomic Regulation**: This Spain-based center focuses on understanding gene functions and their implications in health and disease.

- **Current Biology**: A scientific journal that publishes research on various biological topics, including cellular processes and evolution.

- **Ciliate**: Single-celled organisms with hair-like structures that exhibit primitive learning abilities similar to animals.

Moiré Materials- superconductivity
What is super conductors ?

- **Definition**: Superconductors are materials that can conduct electricity with zero resistance below a certain temperature.

- **Critical Temperature (Tc):** The specific temperature at which a superconductor's resistance drops to zero.

- **Zero Resistance**: Below the critical temperature, superconductors conduct electricity without any resistance.

- **Low Energy State:** Most materials must be in an incredibly low energy state (very cold) to become superconductive.

- **Cooling Process:** Currently, a significant amount of energy is required to cool materials to achieve superconductivity, making it uneconomical and inefficient.

- **Research and Development:** Studies are ongoing to design compounds that can become superconductive at higher temperatures, aiming to make superconductors more practical and cost-effective.

- **Moiré Materials:** Created by stacking two layers of the same material (e.g., graphene) and twisting one layer slightly, resulting in a unique moiré pattern.

- **Superconductivity:** Moiré materials made from semiconductors, like tungsten diselenide (tWSe), not just graphene ,This can also exhibit superconductivity .

- **Flat Bands**: The twist in moiré materials leads to the formation of flat energy bands, causing electrons to move slowly and interact strongly.

- **Cooper Pairs:** Strong electron-electron interactions in flat bands lead to the formation of Cooper pairs, essential for superconductivity and zero resistance.

- **Recent Study**: tWSe2 with a twist angle of $3.65°$ showed superconductivity at a transition temperature of around $-272.93°$ C when electronic states were half-filled.

- **Stability:** tWSe2's superconducting state is robust and more stable than graphene-based moiré materials, driven by electron-electron interactions and half-band filling.

- **Insulating State**: The moiré material can transition to an insulating state by altering its electronic properties.

Palpares contrarius

- Researchers identified Palpares contrarius on the Madras Christian College (MCC) campus, a new species of antlion in Tamil Nadu, which marks addition to the region's biodiversity.

Identification Features

- Palpares contrarius resembles a dragonfly, which has distinct antennae and a unique fluttering flight.

- Antennal structure helps differentiate it from similar insects. Adults are elusive and primarily nocturnal.

Habitat and Distribution

- Antlions are prevalent in several countries.

- They are found in Africa, Myanmar, Thailand, and Sri Lanka. In India, they inhabit states like Odisha, Maharashtra, Karnataka, Mizoram, Uttarakhand, and Madhya Pradesh.

- The discovery of this species in **Tamil Nadu** is unprecedented.

Research and Publication

- Anita Pearline Esther, an entomologist at MCC, documented this finding.

- The research was published in the Journal of Threatened Taxa.

- The specimen has been preserved at the Zoological Survey of India in Chennai.

5.2 SPACE

Rocket, Satellite Research Center: IIT Chennai - ISRO Agreement

- IIT Chennai has signed a Memorandum of Understanding with ISRO regarding the establishment of a satellite and rocket temperature research center.

Press release from IIT Chennai regarding

- A special Fluid and Thermal Research Center will be established at IIT Chennai with ISRO's support. A Memorandum of Understanding for this was signed at IIT

- ISRO is providing financial assistance of **Rs. 1 crore and 84 lakhs** for establishing this research center.

- Temperature management research related to rockets and satellites will be conducted here. IIT professors will provide technical assistance for temperature-related issues that arise during the testing of rocket and satellite design and various components.

- It has been stated that this will greatly encourage collaborative efforts between ISRO scientists and IIT professors engaged in new discoveries in fluid and thermal sciences

SpaceX's Falcon-9 deploys Indian Satellite into Orbit

- India's GSAT-N2 (GSAT-20) communication satellite was successfully launched by **SpaceX's Falcon-9** rocket

- At Cape Canaveral Space Force Station in **Florida, Falcon-9** put the GSAT-N2 into a **geosynchronous transfer orbit.**

- GSAT-N2 is a Ka-band high throughput communication satellite of NewSpace India Limited.

- **Ka-band** refers to a segment of the microwave part of the electromagnetic spectrum, specifically encompassing frequencies from **27 GHz to 40 GHz.**

- This frequency range **provide high data transfer rates and wide bandwidth.**

- The satellite is set to enhance broadband services and in-flight connectivity across the Indian region.

- This satellite, featuring multiple spot beams and wideband Ka x Ka transponders.

- Aims to support a large subscriber base with small user terminals, significantly boosting system throughput through its multi-beam architecture which allows frequency reuse

- The **GSAT-N2** satellite, with a lift-off mass of **4,700 kg, has a mission life of 14 years.**

- This is India's **first collaboration with Elon Musk's SpaceX.**

World's First Twin Satellite Launch Project designed for solar research

- The European Space Agency's twin satellites, designed for solar research, will be launched by ISRO using a PSLV rocket on December 4.

- The European Space Agency has developed twin satellites to study the Sun's corona. This project has been named Proba-3.

- The two satellites are equipped with laser zone and reflector instruments to conduct research while flying in tandem.

"PSLV C-59 Set to Launch European Satellite on December 4"

- The PSLV C-59 rocket is scheduled to launch on December 4th carrying the European Space Agency's 'PROBA-3' satellites, designed to study the Sun's outer atmosphere.

- New Space India Limited, operating under the Indian Space Research Organisation (ISRO), has been conducting commercial operations to launch foreign satellites.

- The ESA's PROBA-3 satellites will be positioned in an orbit 60,500 kilometers from Earth by the PSLV C-59 rocket, where they will study the Sun's outer radiation.

"India's First AI Laboratory to Launch in Space Soon"

- Hyderabad-based Tech Me 2 Space, an innovative company, is set to establish an artificial intelligence (AI) laboratory in space.

- The Mission Orbital Infrastructure - Technology Demonstrator (MOI-TD), an AI laboratory designed to facilitate cost-effective space research, will be India's first AI laboratory in space.

- The MOI-TD is scheduled to be launched into space this December via ISRO's PSLV-60 rocket. This laboratory is being established to provide users with direct access to space data, reducing data transfer costs and delays.

5.3 LATEST DISCOVERIES IN HEALTH SCIENCE

Global Tuberculosis Report – 2024

- TB has likely returned to being the world's leading infectious disease killer in 2023

- **Five countries account for 56% of global TB cases:** India (26%), Indonesia (10%), China (6.8%), Philippines (6.8%), Pakistan (6.3%)

  - India accounts for 26% of global TB cases

  - Highest TB burden globally

  - Making significant progress in TB notification and treatment

- **Risk factors**:   Key risk factors include undernutrition, alcohol use disorders, smoking, and diabetes.

  - Social determinants like poverty, income inequality, and poor living conditions significantly impact TB spread

Telcos cast satellite Internet as a threat to terrestrial networks

- CRUX : The conflict between telecom operators (like Reliance Jio) and satellite internet providers (like SpaceX's Starlink) regarding

- Whether satellite internet services should require spectrum auctions in India

- **Spectrum Auction**: A process where government sells rights to transmit signals over specific bands of the electromagnetic spectrum)

- **Purpose**: Allocate scarce radio frequencies to telecommunication companies

- **Concerns over satellite capacity and coverage, with specific numbers being debated:**

  - Starlink's projected 35,000 satellites globally

  - Potential 500-600 satellites over India

  - **India representing 0.6% of world's surface area**

- **Wayforward:** This shows a significant policy debate in India's telecommunications sector regarding the regulation and implementation of satellite internet services.

Scientists have discovered that mpox (formerly known as monkeypox) clade Ia has evolved to achieve sustained human-to-human transmission.

- Adding to growing concerns about the virus's evolution. This is particularly significant because previously, clade Ia only caused sporadic infections from animals to humans since its discovery in 1970.

- **There are four known variants of mpox**: Ia, Ib, IIa, and IIb

  - Clade IIb was responsible for the 2022 outbreak

  - Clade Ib is currently causing infections in central Africa

  - WHO has declared mpox a public health emergency twice in two year

- The evidence for human-to-human transmission comes from studying mutations in the virus's DNA.

- Researchers found that 63% of mutations in clade Ia infections were consistent with changes introduced by APOBEC (a human immune system protein family).

- This protein introduces random changes in foreign DNA as a defense mechanism.

Food prices spur inflation to 6.2%

- **Overall Inflation Rate**: India's retail inflation jumped to **6.2% from 5.5%**, **hitting a 14-month** high and breaching RBI's upper tolerance limit.

- **Food Inflation Driver:** The main cause was a **10.9% surge in food prices**, with urban areas

seeing food inflation cross **11.1% and rural areas at 10.7%.**

- **Vegetable Price Spike**: Vegetable prices saw a dramatic 42.2% increase - the highest in 57 months (nearly 5 years), up from 36% in September.

- **Edible Oil Crisis**: Edible oil prices increased by 9.5%, the highest in nearly two years, driven by a 27% rise in global prices due to Southeast Asian supply disruptions.

- **Regional Impact:** Rural India faced sharper inflation at 6.7% compared to urban areas at 5.6%.

- **RBI Implications:** This spike makes interest rate cuts unlikely in RBI's December review, challenging their Q3 (QUARTER) projection of **4.8% average inflation.**

- **Reason** : disruption in South East Asia

210 Million People Affected in India: Lancet Study Reveals

- A long-term 32-year study was conducted on diabetes across 4 major population groups.

- The study covered a total population of 212 million people, including:
    - **India**: 146 million people
    - **China**: 36 million people
    - **USA**: 27 million people

- Various factors were examined including age differences, lifestyle changes, and dietary habits.

- This study helped understand the spread of diabetes and its impacts.

- It is considered a crucial study that will help develop new methods to control and prevent diabetes.

Turritopsis dohrnii (The Immortal Jellyfish)

- Nicknamed **"immortal jellyfish"** due to unique regeneration abilities

- Can reverse its aging process when stressed or damaged

- Transforms adult cells back to polyp stage through transdifferentiation

- First scientific description in **1883**

- Natural habitat includes **Mediterranean Sea and Worldwide Oceans**

- Only known animal capable of reverting to earlier life cycle stage

State of the Climate 2024 Report (WMO)
Key Findings:

- 2024 projected to be warmest year on record

- January-September temperature 1.54°C above pre-industrial levels

- **Global sea level rise rate**: 4.77mm/year (2014-2023)

- Rate doubled compared to 1993-2002 period

- India faced extreme weather on 93% of days in first 9 months

- Punjab & Haryana worst affected (34 days of extreme weather)

- Only 55% countries have Multi-Hazard Early Warning Systems

Agasthyamalai Bamboo Tail

- New damselfly species discovered in Thiruvananthapuram

- **Local name:** Agasthyamala Mulavalan

- Belongs to bambootail group

- **Only other related species** Malabar Bambootail

- Found in specific region of Western Ghats

COP-29

- At COP-29 in Baku, India expressed frustration no progress made on issues critical by developing countries

▪ India emphasizes (Mitigation Work Programme) MWP should help, not punish

About the Mitigation Work Programme (MWP):

▪ The **Mitigation Work Programme (MWP)** is an initiative under the **United Nations Framework Convention on Climate Change (UNFCCC)** aimed at supporting countries in enhancing their mitigation efforts and achieving the 1.5°C target outlined in the Paris Agreement.

Objectives

▪ Encourage dialogue: Facilitate innovative discussions among policymakers and stakeholders to address challenges in scaling up mitigation actions.

▪ Promote inclusivity: Ensure broad participation to aid national processes and develop practical domestic policy pathways.

▪ Identify opportunities: Highlight cost-effective and scalable mitigation strategies to support the implementation and enhancement of Nationally Determined Contributions (NDCs).

▪ Operationalize efforts: Organize annual global dialogues and investment-driven events from 2023 to 2026.

▪ Focus on equity and sustainability: Prioritize equity, sustainable development, and alignment with adaptation strategies, incorporating regional perspectives.

Oscar-winning music composer A.R.Rahman received the 'XTIC Award 2024 for Innovation'.

▪ The award was presented by:

▪ Experiential Technology Innovation Centre (XTIC) at IIT Madras

▪ Specifically handed over by Professors Steven LaValle and Anna LaValle (co-inventors of Oculus)

Virtual Reality

▪ Virtual Reality origins can be traced back to the 1960s when computer scientist Ivan Sutherland developed a prototype head-mounted display (HMD) capable of displaying basic wireframe graphics.

▪ Virtual Reality is using computer technology to create a simulated environment that can be explored in 360 degrees. Unlike traditional interfaces, VR places the user inside the virtual environment to give an immersive experience.

APPLICATION

▪ Industrial Applications: Training simulations (driving, flight, combat) , Prototyping , Design and testing of tools/objects

▪ **Healthcare :** FDA-approved EaseVRx for pain management, Uses cognitive behavioral therapy, Helps with chronic pain reduction

▪ **Education :** Minimizes visual and auditory distractions, Enables one-on-one teacher-student interaction, Supported remote learning during COVID-19

▪ Social Interaction: Facilitates user-to-user connections, Provides cognition training.

Helps develop social skills like:

- Emotion recognition
- Social attribution
- Analogical reasoning

▪ Travel & Tourism, Offers immersive virtual tourism, Enables virtual museum visits, Provides location exploration through tools like Google Street View

Hundred years ago, Satyendra Nath Bose changed physics forever

▪ The centenary celebrations of the iconic "Bose-Einstein" Statistics were inaugurated by Union

Minister **Dr. Jitendra Singh at the S.N. Bose National Centre for Basic Sciences in Kolkata.**

- The event honored the contributions of Indian physicist Satyendra Nath Bose and highlighted India's strides in quantum research.

- The celebrations included international conferences and outreach programs, focusing on **Bose Statistics** in **Condensed Matter Physics, Quantum Information, and Quantum Science.**

- The Minister also emphasized the recently launched **National Quantum Mission (NQM),** which aims to position India at the forefront of quantum technology

IISc, published - Biophysical Journal

- Cancer Cell Study Recent research from IISc, published in the Biophysical Journal, investigates how the microenvironment influences the movement of cancer cells, focusing on metastasis.

- The study examines two ovarian cancer cell lines, OVCAR-3 (rounded shape) and SK-OV-3 (elongated shape), both capable of invading surrounding tissues.

- Researchers used soft surfaces to simulate healthy tissue and stiff surfaces to mimic scarred tissue around tumors, observing cell movement under these conditions.

- On soft surfaces, both cell types exhibited slow and random movement. On stiff surfaces, OVCAR-3 cells moved more than SK-OV-3 cells and displayed a unique "slipping" movement pattern.

- The research team plans to explore the mechanisms driving these movements in more intricate 3D environments to better understand ovarian cancer's rapid spread and treatment challenges.

M-Pox a Public Health Emergency of International Concern

- The World Health Organization (WHO) has declared M-Pox a **Public Health Emergency of International Concern (PHEIC),** which follows a rise in cases worldwide.

- The WHO Emergency Committee met recently to assess the situation.

- Concerns focus on a new variant known as clade Ib, which originated in the Democratic Republic of Congo.

- Cases of M-Pox are increasing, which has spread to various countries, including the UK, Germany, **Sweden** and India. The outbreak is now classified as global.

5.4 MASS MEDIA & COMMUNICATION

India's 6Ghz spectrum dilemma is affecting PS5 Pro console launch in India

- Traditionally, WiFi has used 2.4GHz and 5GHz bands.

- In 2021, several countries began de-licensing the 6GHz spectrum for WiFi, but India and China have not yet allowed its use.

- PS5 Pro Console Launch: Released in key markets globally, but not in India due to the unavailability of the 6GHz wireless band for WiFi 7.

WiFi Bands and Technology

- 4GHz covers larger areas with limited bandwidth; 5GHz is faster but covers shorter distances.

▪ WiFi 6 uses 2.4GHz and 5GHz with greater efficiency. WiFi 6E introduced 6GHz spectrum for higher speeds (up to 9.6Gbps).

6GHz Spectrum in India

▪ The 6GHz band in India is currently allocated to ISRO for satellite use.

▪ Telecom operators and tech companies are pushing for 6GHz allocation for 5G, 6G, and WiFi use.

Regulatory and Industry Response

▪ The International Telecommunications Union aims for uniform wireless frequencies, but many countries haven't agreed on 6GHz usage.

▪ Telecom operators want 6GHz for telecom, while tech companies advocate for its allocation to WiFi.

▪ The Indian government might follow a balanced approach like Australia, de-licensing part of the spectrum.

Future Prospects

▪ Other devices (Apple, Samsung) can avoid connecting to 6GHz spectrum in India; Sony could adopt similar measures for PS5.

▪ WiFi 7 doesn't require 6GHz to function and can work with existing bands for improved efficiency and speed.

5.5 NEW SCIENTIFIC LABORATORIES/ OBSERVATORIES/ CENTRES

Alarming rate of decrease in African Elephant count

▪ African elephants, Earth's largest land mammals, face severe population decline across the continent, as revealed in a comprehensive study spanning 1964-2016.

▪ The research **covered 475 sites across 37 African countries**, examining both savannah and forest elephant species.

Population statistics show:

- Savannah elephants: **70% decline**
- Forest elephants: **90% decline**
- Overall average decline: **77%**

▪ Primary threats identified: **Poaching , Habitat loss.**

▪ Regional variations:

- **Northern/Eastern Africa**: Severe losses, especially in Mali, Chad, and Nigeria
- **Southern Africa**: Population growth in 42% of surveyed sites
- **Improved areas** : Botswana, Zimbabwe, and Namibia

▪ Forest elephants are particularly vulnerable, with population numbers approximately one-third of savannah elephants.

▪ As of 2016, the combined population estimate for both species was between 415,000 and 540,000 elephants.

6. NATIONAL – DIARY OF EVENT

Proba-3 Spacecraft

- ISRO will launch the **European Union's Proba-3** spacecraft next month from Sriharikota using the **PSLV-XL** rocket.

- It will help study the corona, the bright halo region of the Sun.

- This will be the world's first mission to precisely study the Sun.

- India plans to establish a space station by 2035 and land the first Indian astronaut on the Moon by 2040.

Shilp Samagam Mela 2024

- The Union Ministry of Social Justice and Empowerment launched the **'Shilp Samagam Mela 2024'** at **Dilli Haat, New Delhi.**

- This event aims to showcase and promote traditional handicrafts from various states in India.

- It is organized by three key corporations under the Ministry: **NSFDC, NBCDFC** and **NSKFDC.**

The TULIP Initiative

- During the event, **Dr.Kumar** launched the 'TULIP' programme. This stands for Traditional Artisans' Upliftment Livelihood Programme. TULIP aims to empower marginalised artisans. It provides them with an online platform for global exposure and sales of their products. The initiative primarily targets artisans from Scheduled Castes (SC), Other Backward Classes (OBC), sanitation workers, and persons with disabilities.

Easy Educational Loans for Higher Education Students

- The Union Cabinet has approved the Prime Minister's 'Vidya Lakshmi Scheme' to facilitate easy educational loans for students gaining admission to the country's top government and private higher education institutions.

According to NIRF's recent rankings, the scheme will be launched in:

- Government and private higher education institutions ranked in the top 100 overall and in other categories

- State government higher education institutions ranked between 101-200

The central government will provide:

- 75% guarantee for loans up to Rs. 7.5 lakhs

- 3% interest subsidy on educational loans up to Rs. 10 lakhs for students from families with annual income up to Rs. 8 lakhs and who are not benefiting from any other scholarship or interest subsidy schemes

- This interest subsidy will be provided to one lakh students per year.

First All-Women CISF Battalion: Central Government Approval

- The central government has approved the formation of the **country's first all-women battalion** in the **Central Industrial Security Force (CISF)** with over thousand personnel.

CISF Act: March 10, 1969

CISF Establishment: June 15, 1983

▪ The CISF, which has about 180,000 personnel, is responsible for protecting VIPs, Parliament, Delhi Metro stations, 68 airports nationwide, and important historical monuments.

▪ The Home Ministry has issued a notification approving the creation of the country's first all-women battalion comprising 1,025 female personnel under a senior commander.

Debating the healthy longevity initiative

▪ World Bank's 2024 report projects global deaths to increase from **61 million (2023)** to 92 million (2050), with **(Non Communicable Disease) NCDs** being the leading cause, especially in **Low-and Middle-Income Countries (LMICs).**

▪ India has the world's second-largest elderly population (140 million aged 60 vs China's 250 million), with growth **rate 3 times higher** than overall population growth.

▪ NCDs in India are projected to account for **75% of all deaths by 2030**, with **cardiovascular diseases, cancer, respiratory illness, and diabetes causing 50% of current deaths.**

▪ **Key risk factors**: tobacco use, alcohol abuse, obesity, sedentary lifestyle, and diets high in simple carbohydrates and saturated fats.

▪ **Ayushman Bharat Scheme** aims to provide health insurance to bottom **40% households** but faces challenges like inadequate funding, strict eligibility criteria, and corruption (revealed in CAG 2023 report).

▪ Supreme Court directed central government to regulate hospital procedure rates due to inflated private healthcare costs.

"Swami AI Chatbot" App to Help Sabarimala Devotees

▪ In conjunction with the Mandala Puja pilgrimage, an **Artificial Intelligence (AI)-**powered conversational chatbot called Swami AI Chatbot is set to be introduced to assist

devotees visiting Sabarimala. The **logo** of this application was released by Kerala Chief Minister Pinarayi Vijayan.

▪ To prevent overcrowding, the Kerala government has decided to allow only 80,000 devotees who register online daily and 10,000 walk-in devotees this year.

▪ The chatbot will provide detailed information about puja timings, railway and airport facilities in **Malayalam, Tamil, English, Hindi, Telugu, and Kannada languages**.

▪ During this year's holy pilgrimage season, the chatbot will ensure a more convenient, accurate, and safe pilgrimage experience for Ayyappa devotees.

Constitutional Museum in Haryana

▪ Lok Sabha Speaker Om Birla is set to inaugurate India's first Constitutional Museum, which has

been magnificently established at Jindal Global University in Haryana.

- An **advanced guide robot**, developed by a team of **IIT Chennai students to assist visitors to this museum, was introduced in Chennai.**

- The university has set up the Constitutional Museum spanning **10,000 square feet to create public awareness about the Indian Constitution.**

Special Features:

- The museum features statues and paintings of over 300 people including Ambedkar, Rajendra Prasad, K.M. Munshi, who were instrumental in creating the Indian Constitution. It also houses the original copy of the Indian Constitution, descriptive sculptures, exhibitions, paintings, and commemorative postage stamps.

- The museum will be inaugurated by Lok Sabha Speaker Om Birla on November 26th, the day when the Indian Constitution came into effect.

- AI Technology... IIT Chennai has developed an advanced guide robot to assist visitors to this museum. The robot has been designed with Artificial Intelligence technology.

- It will explain the special features of the museum to visitors in Hindi and English languages and will also answer visitors' questions.

Odisha: 24 Villages Receive 'Tsunami Ready' Recognition

- 24 coastal villages in Odisha state received **UNESCO's Intergovernmental Oceanographic Commission's Tsunami Ready** recognition. This recognition was initiated to train people to face tsunami impacts and improve preparedness.

- The **2nd Global Tsunami Conference was held in Indonesia**, where various measures were undertaken including preparing tsunami management plans, community awareness programs, conducting mock drills, and identifying evacuation routes for these 24 tsunami-vulnerable villages.

- The **State Disaster Management Authority** has identified 381 tsunami-prone villages in the state. Officials stated that work is ongoing to improve tsunami preparedness in all these vulnerable villages.

Prime Minister Narendra Modi Receives High Honors from Guyana and Dominica

- These awards were presented in recognition of his contributions during the COVID-19 pandemic period and outstanding service to humanity. With this, the number of foreign high honors awarded to Prime Minister Modi has increased to 18.

- During his Nigeria visit, the Prime Minister was honored with that country's highest award, the Grand Commander of the Order of the Niger.

- He engaged in bilateral talks with leaders of various countries including the United States, Britain, France, Italy, Brazil, and South Africa.

ISRO Signs MoU with Australian Space Agency for Gaganyaan Mission Implementation

- ISRO has signed a Memorandum of Understanding with the Australian Space Agency regarding the implementation of India's human spaceflight Gaganyaan mission. ISRO, which has designed the Gaganyaan mission to send humans to space, is entering into agreements with various countries' space agencies for implementing this project.

▪ The plan is to send 3 astronauts to low Earth orbit and bring them back to Earth after 3 days. The agreement has been made to track the Gaganyaan spacecraft while it orbits in space and exchange information during emergencies.

Army Chief General Upendra Dwivedi Receives Honorary General of Nepal Army Title

▪ During his four-day visit to Nepal, Army Chief General Upendra Dwivedi was honored with the title of Honorary General of the Nepal Army by Nepal's President Ram Chandra Paudel.

▪ The exchange of visits between army chiefs of Nepal and India and conferring honorary general titles to both army chiefs has been a tradition since 1950.

▪ Nepal shares a 1,850 km border with five Indian states: Sikkim, West Bengal, Bihar, Uttar Pradesh, and Uttarakhand.

India's Renewable Energy Generation Capacity Increase

▪ India's renewable energy generation capacity increased by 24.2 gigawatts in October.

▪ The country's renewable energy generation capacity, which was 178.98 gigawatts in October 2023, has increased by 24.2 gigawatts (13.5 percent) to 203.18 gigawatts in the same month this year.

▪ In October alone, an additional 1.72 gigawatts of renewable energy generation capacity was installed.

▪ As of October, large hydroelectric power stations contributed 46.93 gigawatts to the country's renewable energy generation capacity. Nuclear power stations' contribution was 8.18 gigawatts, according to the report.

Climate Change Performance Index

▪ India has ranked 10th among more than 60 countries evaluated for their efforts to combat climate change.

▪ The Climate Change Performance Index (CCPI-2024) rankings were released at the annual UN Climate Conference being held in Baku, Azerbaijan.

▪ The rankings were released by think tanks 'Germanwatch, New Climate Institute, and Climate Action Network International'

▪ According to the rankings, the first three places remain empty as no country performed adequately in all index measurements.

▪ Following that, Denmark (4th), Netherlands, and Britain are in subsequent positions as countries with high performance and low emissions.

India in 10th Place:

▪ India ranks 10th among countries with high performance in climate change actions.

Below Global Average

▪ Although India is the world's most populous country, its per capita emissions and energy use are comparatively low.

▪ India's per capita CO_2 emissions are 2.9 tonnes, which is significantly lower than the global average of 6.6 tonnes.

▪ As the world's third-largest greenhouse gas emitting country and a rapidly growing major economy, India has committed to achieving net-zero emissions by 2070.

▪ India also aims to achieve 500 gigawatts of renewable energy capacity by 2030.

▪ **China and the United States**, the world's largest emitters, rank very low in performance at 55th and 57th places respectively.

- **Russia (64th), United Arab Emirates (65th), Saudi Arabia (66th)** and **Iran (67th)** are at the bottom of the rankings.

Bhu-Neer portal

- The Bhu-Neer portal was launched on September 19, 2024, and aims to enhance groundwater management in India.

- It was introduced during the **India Water Week 2024** closing event and Union Jal Shakti Minister C.R. Paatil inaugurated the platform.

Purpose of Bhu-Neer

- Bhu-Neer is designed to improve the management of groundwater use, which makes the process of obtaining withdrawal permits more transparent.

- It promotes efficiency and sustainability in groundwater usage.

Development and Features

- The Central Ground Water Authority (CGWA) developed the portal. The National Informatics Centre (NIC) assisted in its creation.

- Bhu-Neer replaces the older NOCAP system.

- It features a single ID system linked to the user's PAN. This simplifies the application process for permits.

First Artificial Intelligence (AI) data bank

- India revealed its first **Artificial Intelligence (AI)** data bank, which aims to encourage innovation and enhance national security, by the **Ministry of Science and Technology.**

- The data bank will serve researchers, startups, and developers by providing essential datasets for AI solutions.

- The AI data bank was launched at the 7th ASSOCHAM AI Leadership Meet 2024

The Ustad Bismillah Khan Yuva Puraskar

- The Ustad Bismillah Khan Yuva Puraskar will be awarded to young artists, and take place on November 22, 2024, which will be held at Dr Ambedkar International Centre in New Delhi.

Award Details

- The Ustad Bismillah Khan Yuva Puraskar was established in 2006. It honours the legendary Ustad Bismillah Khan.

- The award is given annually to artists under 40 years old. Eligible fields include music, dance, drama, folk and tribal arts, and puppetry.

- Each awardee receives a cash prize of Rs.25,000. They also receive a plaque and an angavastram

Khelo India Youth Games

- Bihar will host the Khelo India Youth Games in April 2025, which marks the state's first time as a host for this prestigious event.

- The Khelo India Para Games will follow shortly after, with a gap of 10 to 15 days, and this is the first time the Para Games will be held in Bihar.

- Dr. Mansukh Mandaviya, Union Minister of Youth Affairs and Sports, supports this initiative.

- He stated that it aligns with Prime Minister Narendra Modi's vision. The goal is to bring Khelo India Games to every region of the country.

- Sports are essential for achieving a developed India by 2047.

Young Leaders Conference for Developed India

- Prime Minister Narendra Modi announced that a Young Leaders Conference for Developed India will be held in Delhi on January 11-12

next year, as part of an effort to involve youth without political background in public life.

- About 2,000 youth will participate in person in this conference to be held at Bharat Mandapam in Delhi.

- The Prime Minister made this announcement during his "Mann Ki Baat" radio program.

- The 162nd birth anniversary of Swami Vivekananda will be celebrated on January 12 next year.

- This initiative is called the Young Leaders Conference for Developed India.

- National Cadet Corps (NCC) Day was observed on Sunday (November 24).

Central Government Issues Guidelines for Differently-Abled Persons Reservation

- The Central Government has issued guidelines for forming committees to properly implement 40% reservation for differently-abled persons and identify government jobs for them.

- The guidelines specify that reservation should be followed in jobs identified for differently-abled persons.

- Under the Rights of Persons with Disabilities Act 2016, the guidelines state that it is necessary to identify government jobs to properly implement 40% reservation for persons with disabilities.

- These identified positions should be reviewed once every three years.

- 4% reservation in direct recruitment and promotions must be mandatorily followed for categories including visually impaired, hearing impaired, and intellectually disabled persons.

- It was also announced that notifications issued in 2021 and 2022 regarding this would be exempted.

The Prime Minister Internship Scheme (PMIS)

- The Prime Minister Internship Scheme (PMIS) will launch on December 2, 2024, and aims to enhance job opportunities and skills for India's youth.

- The pilot phase began on October 3, 2024, and Selected candidates will receive joining orders on the launch day.

Internship Opportunities

- PMIS has secured 1.28 lakh internships from 280 leading companies, spans 745 districts, and covers 25 industries.

- Companies include Tata Consultancy Services, Reliance Industries, and HDFC Bank.

- Sectors involved are energy, automotive, banking, manufacturing, IT, and telecom.

Applicant Details

- The scheme received 6.2 lakh applications before the November 15 deadline. Eligible applicants must be aged 21-24. They should have completed at least the 10th grade, ITI, Polytechnic, Diploma, or graduation. Applicants can apply for up to five internships in their own or other states

- Interns will receive a monthly allowance of Rs.5,000. A one-time grant of Rs.6,000 will also be provided. The government has allocated Rs.800 crore for the pilot phase. The goal is to offer 1.25 lakh internships in the fiscal year 2025.

Atal Innovation Mission 2.0

- The Union Cabinet has recently approved Atal Innovation Mission 2.0, which will run until March 31, 2028.

- The goal is to create more jobs and innovative products, which will boost India's global competitiveness.

Objectives of AIM 2.0

▪ it aims to increase the number of innovators and entrepreneurs.

▪ it seeks to improve the success rate of startups.

▪ it intends to enhance job quality and service delivery.

Key Programs Under AIM 2.0

▪ Two major programs will broaden participation in the innovation ecosystem.

▪ The Language Inclusive Program of Innovation (LIPI) will support innovators in 22 official languages.

▪ The Frontier Program will target regions like Jammu and Kashmir, and the North East, establishing new Atal Tinkering Labs.

Startup Support Initiatives

▪ The Human Capital Development Program will train professionals to support innovation.

▪ The Deeptech Reactor will assist deep tech startups.

▪ The State Innovation Mission (SIM) will empower states to build strong innovation frameworks.

▪ The International Innovation Collaborations program will promote global partnerships

QR Code-enabled Free Permanent Account Number (PAN) Card

▪ A PAN 2.0 project worth Rs 1,435 crore has been approved to streamline the current PAN card distribution system.

▪ This is an online administrative project that will transform taxpayer registration services by making technical improvements to PAN and TAN (Tax Deduction and Collection Account Number) services.

▪ The project aims to use a common identification document for all digital processes of specified government agencies.

"Bal Vivah Mukt Bharat"

▪ Women and Child Development ministry launched the national campaign "Bal Vivah Mukt Bharat" in New Delhi

▪ Aimed at eradicating child marriage and empowering young girls, the campaign aligns with the vision of a developed India (Viksit Bharat) by 2047.

▪ It includes the launch of the Child Marriage Free Bharat Portal, an innovative tool for citizen engagement and enforcement of the Prohibition of Child Marriage Act, 2006.

Campaign Launch and Objectives

▪ **Objective**: Eradicate child marriage and ensure education, health, and safety for girls.

▪ Aligns with the National Education Policy 2020 and the Prohibition of Child Marriage Act, 2006.

▪ Child Marriage Free Bharat Portal

▪ Online platform for reporting child marriage incidents and filing complaints.

▪ Provides details of Child Marriage Prohibition Officers (CMPOs) nationwide.

Key Achievements Highlighted

• Improved sex ratio at birth,

• 918 (2014-15) → 930 (2023-24).

• Prevented over 1 lakh child marriages in 2023.

▪ Recognized by the United Nations for significant contributions to reducing global child marriage rates.

Tamil Teaching Program for Fiji Tamil Descendants' Children

▪ A program to teach Tamil language to children

of Tamils who have been living in Fiji for several generations has been launched with central government funding.

▪ This program has been introduced at a school managed by an organization called Sangam, located in the Rakiraki area, run by people of Indian descent. The Southern Indian Sanmarga United Sangam, known as Sangam, is implementing this program in collaboration with Fiji's Education Department.

▪ Two Tamil teachers have been brought from India to teach Tamil language at a school in Rakiraki and at Sangam organization's primary school in Labasa area. The Indian government is providing funding for this.

53rd Parliamentary Standing Committee Report on National Minorities Commission

▪ The Parliamentary Standing Committee has recommended in its 53rd report that constitutional status should be granted to the National Commission for Minorities.

▪ The Parliamentary Standing Committee on Social Justice recommended in its 53rd report (2017-18) that constitutional status should be granted to the National Commission for Minorities.

International Film Festival of India (IFFI)

▪ The 55th International Film Festival of India (IFFI) happened in Panaji.

▪ Toxic won the Golden Peacock Award for Best Film for exploring adolescence and economic hardship.

▪ Toxic is the debut feature film by Lithuanian filmmaker Saulė Bliuvaitė.

▪ Bogdan Muresanu won the Best Director award for his Romanian tragicomedy The New Year That Never Came.

▪ Australian director Phillip Noyce received the Satyajit Ray Lifetime Achievement Award for his contributions to cinema.

Agricultural Credit Societies to Operate as Public Service Centers in Tamil Nadu

▪ Union Home Minister Amit Shah announced in Parliament that the 4,453 agricultural credit societies in Tamil Nadu will function as public service centers.

▪ Efforts are in full swing to computerize and integrate 67,930 agricultural credit societies nationwide.

▪ This initiative will provide benefits such as rapid loan disbursement, low service charges, and transparency in money handling.

▪ These agricultural credit societies will operate as public service centers, offering over 300 services including:

  • Banking transactions

  • Life insurance

  • Aadhaar card application and modification

  • Health-related services

  • Electricity bill payment

▪ Nationwide, 40,214 agricultural credit societies, with 4,453 in Tamil Nadu, are being transformed into public service centers. For Tamil Nadu, the central government has allocated Rs.28.2 crore in the current financial year for computerizing agricultural credit societies and the cooperative registrar's office.

7. INTERNATIONAL AFFAIRS

India and France have been re-elected as the president and co-president of the International Solar Alliance (ISA)

- The **International Solar Alliance**, in a global collaboration with the Ministry of New & Renewable Energy, the Government of India, the Asian Development Bank, and the International Solar Energy Society, organised the third edition of the High-level Conference on New Technologies for Clean Energy Transition.

- India and France have been re-elected as the president and co-president of the **International Solar Alliance (ISA)**, respectively, at the seventh ISA assembly held in New Delhi. During the inaugural day of the assembly,

- The conference's overarching goal is to translate dialogue into action. Deep-dive sessions focusing on new-age solar technologies, emerging storage technologies,

- Global solar capacity is set to skyrocket to between 5457 and 7203 GW by 2030

- **NEWS : On September 21, 2024, the Quad nations (Australia, India, Japan, and the United States) issued the Wilmington Declaration, which underscores the Quad's commitment to sustainable energy solutions, particularly focusing on high-efficiency cooling systems.**

International Cooperation

- India-US bilateral cooperation on clean energy supply chains

- Global Cooling Pledge at COP28 with 63 countries committing to reduce cooling emissions

India's Position & Challenges:

- India is among most climate-vulnerable nations

- Projected to have world's highest cooling demand by 2050 (1.14 billion ACs)

- Temperatures started exceeding 50°C in 2024

- 160-200 million Indians could face deadly heatwaves annually by 2030

Policy Framework:

- **India Cooling Action Plan (ICAP) targets:**
    - 20-25% reduction in cooling demand
    - 25-40% reduction in energy consumption
    - Shift to low-GWP refrigerants
    - Kigali Amendment ratification (2021)- commitment to reduce HFCs by 85% by 2047

SRILANKA

- President Anura Kumara Dissanayake of Sri Lanka made significant promises to the Tamil community in Jaffna

- Return of state-grabbed Tamil lands

- Addressing drug issues affecting Tamil youth

- despite his party's historical opposition to Tamil rights

- This proves the importance of Indian diaspora in vote sharing

FRANCE

- France is evaluating India's Pinaka multi-barrel rocket launch (MBRL) system as a potential replacement for their M270 rocket systems

  - A French military delegation will visit India soon to assess both the launcher and ammunition

  - **Armenia** is currently the first and only export customer for Pinaka

  - Indian Army has **4 Pinaka regiments in service,** with 6 more on order

  - Pinaka Mk1 has 38km range; extended versions under development aim to reach 75km, 120km, and eventually 300km

- The 7th bilateral Army exercise 'Shakti' was held in Meghalaya; next exercise will focus on high-altitude warfare

Prime Minister Modi is set to receive Dominica's highest honor

- Prime Minister Modi is set to receive Dominica's highest honor, the 'Order of Dominica'. The main reasons for this are

- Providing 70,000 AstraZeneca vaccines to Dominica during the COVID-19 pandemic (February 2021)

- Continued support in healthcare, education, and information technology sectors

- Infrastructure development to prevent impacts of climate change

Award Ceremony Details:

- **Location**: Georgetown, Guyana

- **Presenter**: President of the Commonwealth of Dominica, Sylvanie Burton

- Dominican Prime Minister Roosevelt Skerrit has expressed gratitude to Modi for helping during difficult times

- Modi has accepted this honor and assured that India will continue to work with Dominica and Caribbean nations to address geopolitical challenges and climate change issues.

Rafael Mariano Grossi, the Director-General of the International Atomic Energy Agency (IAEA), has warned about diminishing opportunities for negotiation regarding Iran's nuclear program.

About the International Atomic Energy Agency (IAEA)

- **Established**: 1957 as an autonomous entity within the UN framework.

- **H eadquarters:** Vienna, Austria.

- **Objective**: To promote the peaceful use of nuclear energy while preventing its diversion for military purposes.

Mandate:

- Encourage the peaceful applications of nuclear technology.

- Ensure nuclear materials are not used for military purposes.

- Uphold standards for nuclear safety, security, and radiation protection.

- Provide technical support, training, and research to advance global nuclear technology.

Key Missions:

- **Peaceful Uses**: Facilitate the development of nuclear energy for non-military purposes.

- **Safeguards**: Monitor and verify nuclear programs to prevent military misuse.

- **Safety:** Advocate for nuclear safety and radiation protection worldwide.

Role in Non-Proliferation

- Supervises adherence to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

- Conducts inspections and monitors nuclear facilities to ensure compliance.

Global Impact:

- The IAEA collaborates with developing countries to harness nuclear technology for energy production, medical advancements, and agricultural improvements.

PM Modi Receives Nigeria's Highest Honor

- Prime Minister Modi was awarded **Nigeria's second-highest honor, the "Grand Commander of the Order of the Niger"** by Nigerian President Bola Ahmed Tinubu.

- Previously, only **Britain's Queen Elizabeth II received this honor in 1969**. With this award, PM Modi has now received his 17th highest international honor.

Miss Universe

- **Denmark's Victoria Giar Dilvick won the Miss Universe** crown at the final competition held in Mexico.

- Among 120 participants, **Nigeria's Sitimma Adatshina secured second place,** while Mexico's Maria Fernanda Beltran came in third.

Putin signs new Russian nuclear doctrine

- President Vladimir Putin on Tuesday signed a revised nuclear doctrine declaring that a conventional attack on Russia by any nation that is supported by a nuclear power will be considered a joint attack on his country.

- Mr. Putin's endorsement of the new nuclear deterrent policy comes on the 1,000th day after he sent troops into Ukraine, on February 24, 2022.

- It follows the U.S. President Joe Biden's decision to let Ukraine strike targets inside Russia with U.S.-supplied longer-range missiles.

- The signing of the doctrine, which says that any massive aerial attack on Russia could trigger a nuclear response, demonstrates Mr. Putin's readiness to tap the country's nuclear arsenal to force the West to back down as Moscow presses a slow-moving offensive in Ukraine.

MORE ABOUT CARICOM

- The **Caribbean Community (CARICOM)** is a grouping of twenty-one countries: fifteen Member States and six Associate Members.

- It is home to approximately sixteen million citizens, 60% of whom are under the age of 30, and from the main ethnic groups of Indigenous Peoples, Africans, Indians, Europeans, Chinese, Portuguese and Javanese.

- Stretching from The Bahamas in the north to Suriname and Guyana in South America, **CARICOM** comprises states that are considered developing countries, and except for Belize, in **Central America and Guyana and Suriname in South America, all Members and Associate Members are island states.**

- Prime Minister Narendra Modi proposed seven key pillars to strengthen ties between **India** and **CARICOM** during the second India-CARICOM **Summit in Guyana.**

- The summit focused on areas such as **trade, technology, tourism, economic cooperation, agriculture and food security, health and pharmaceuticals, and science and innovations**.

- Modi highlighted the importance of the SME sector and mentioned a grant of one million dollars for SME sectors announced during the previous India-CARICOM meeting.

- There are around 3.2 lakh people of Indian origin in Guyana.

- Modi arrived in Guyana from Brazil, where he attended the G-20 Summit and met with global leaders, including **U.S. President Joe Biden, French President Emmanuel Macron, and U.K. Prime Minister Keir Starmer**

PM Vidyalaxmi differ from other Schemes

- The **Union Cabinet approved PM Vidyalaxmi**, a new Central Sector Scheme to provide financial support to meritorious students for higher education.

- Students can get collateral-free, guarantor-free loans for tuition fees and other course-related expenses.

- The scheme covers students admitted to 860 higher education institutions defined by the **National Institutional Ranking Framework (NIRF)** and potentially benefits 22 lakh students.

- For students with an annual family income of up to **Rs.8 lakh, a 3%** interest subvention for loans up to Rs.10 lakh is provided during the moratorium period, covering one lakh students each year.

- The scheme has an outlay of Rs.3,600 crore from 2024-25 to 2030-31, aiming to benefit seven lakh fresh students with interest subvention.

- Unlike previous schemes, Vidyalaxmi covers middle-income families and simplifies loan applications through the Vidyalaxmi portal, linking to major public and private banks.

- Eligibility under Vidyalaxmi is based on **NIRF** rankings rather than **NAAC and NBA** accreditations, limiting it to top 100 ranked institutions in various categories.

- The reduced number of eligible institutions increases the competition for high ranks, affecting students' ability to avail loans based on academic performance.

ICC issues arrest warrants against Netanyahu, Gallant, Hamas leaders

- The International Criminal Court (ICC) issued arrest warrants for Israeli Prime Minister Benjamin Netanyahu, former Defence Minister Yoav Gallant, and Hamas officials, accusing them of war crimes and crimes against humanity.

International Criminal Court (ICC)

- The International Criminal Court (ICC) is a permanent international tribunal located in The Hague, Netherlands, established to prosecute individuals for serious crimes such as genocide, war crimes, and crimes against humanity

- Its foundation is rooted in the Rome Statute, adopted in 1998 and effective from July 1, 2002. Currently, 124 countries are parties to the Rome Statute, although notable absences include the United States, China, and India

Armenia has become full member of the International Solar Alliance (ISA)

- Armenia has become the 104th full member of the International Solar Alliance (ISA).

Membership Details

- Armenia's membership commenced on November 15, 2024.

- This followed the signing of the ISA agreement on November 16, 2023, in Yerevan, which was ratified by Armenia's President.

- The ISA was established by India and France to combat **climate change.**

- The organization promotes solar energy as a sustainable solution.

Member Nations:

- A total of 106 countries have signed the ISA Framework Agreement.
- Out of 106 nations, 86 have signed and ratified the ISA Framework Agreement.
- All member states of the United Nations are eligible to join the ISA.

- **The Headquarters is in India with its Interim Secretariat being set up in Gurugram.**

- The ISA was conceived as a joint effort by India and France to mobilize efforts against climate change through deployment of solar energy solutions.

Benefits of Membership

- Joining the ISA allows Armenia access to resources and expertise in solar technology.
- It can enhance Armenia's energy security.
- The membership supports Armenia's commitment to renewable energy

Climate talks at Baku run into overtime

- Climate talks in **Baku, Azerbaijan**, extended due to disagreements over the draft agreement.
- Developed countries proposed **$250 billion by 2035** for climate finance, despite acknowledging a need for at least **$700 billion by 2030** for developing countries.
- There was no commitment to disburse funds to developing countries on affordable terms, leading to criticism from several countries and civil society groups.

More than 50 Countries Sign UN Sustainable Tourism Declaration

- **UN Declaration:** Over 50 governments signed a U.N. declaration to make global tourism more climate-friendly.

- **Climate Action Agenda:** Tourism was included in the U.N. Climate Change Conference Action Agenda for the first time.

- **Tourism Industry Impact:** The tourism industry contributes about 3% to global GDP and 8.8% to total greenhouse gas emissions.

- **Commitment to NDCs:** Signatory countries will integrate tourism into their climate strategies, known as Nationally Determined Contributions (NDCs), with updates due in February.

- **Emerging Economies:** Tourism is a vital source of foreign income for emerging nations but is vulnerable to climate-related events.

- **Sustainability and Business Viability**: Kanan Gasimov emphasized the link between sustainability and business viability in tourism.

- **New Sustainability Initiatives:** The World Sustainable Hospitality Alliance launched a framework to monitor environmental metrics like greenhouse gas emissions, water usage, and energy consumption in hotels.

- **Environmental Impact:** Collecting and analyzing data will help the tourism sector and travelers understand their environmental impact.

- **Industry Responsibility:** Glenn Mandziuk stressed the responsibility of the tourism industry to protect the destinations they depend on.

8. TAMILNADU AFFAIRS

Infrastructure Projects Worth Rs.187 Crore at Ports

▪ Union Minister for Ports and Shipping Sarbananda Sonowal inaugurated infrastructure projects worth **Rs.187 crore at Chennai and Ennore Kamarajar ports in Chennai.**

Mudhalvar Padaippagam

Purpose

▪ To provide an affordable study environment for students preparing for competitive exams

▪ To serve as low-cost office space for entrepreneurs starting new businesses

▪ Built under the **North Chennai Development Project** by the Tamil Nadu government at a cost of Rs.2.85 crore

▪ Offers **"Shared Workspace Services"**

▪ Functions as an educational center

Vigilance Awareness Week - 2024

▪ With the theme **"Culture of Integrity for a Prosperous Nation,"** Vigilance Awareness Week was observed from **October 28 to November 3**. This initiative focused on promoting transparency and integrity as foundations for national development.

Tamil Nadu Artificial Intelligence Mission

▪ The Tamil Nadu government has approved the Tamil Nadu Artificial Intelligence Mission report and issued an order allocating Rs. 13.93 crore for implementing the mission.

▪ Under the Chief Minister's leadership, the Tamil Nadu AI Mission will be established to provide constructive guidance on opportunities for using artificial intelligence in education, employment, industry, research, and medical fields, and to clearly define the frameworks needed to guide the implementation of this new technology.

▪ According to the report, the main objectives include solving administrative problems through AI, providing AI-based solutions to project implementation agencies, establishing laws for government data sharing, and providing solutions for data security. It has been announced that this mission will be implemented through the Tamil Nadu e-Governance Agency.

M. Selvarasan to receive Semmozhi Tamil Award

▪ Tamil scholar M. Selvarasan, formerly with the Tamil Department of the University of Madras, is set to receive the Kalaignar M. Karunanidhi Semmozhi Tamil Award for 2024 in Chennai The award carries a cheque for ₹10 lakh, a citation plaque, and a bronze replica of the donor — late leader and former Chief Minister M. Karunanidhi.

Innuyir Kappom-Nammai Kakkum 48 scheme

▪ The State government will soon increase funding under the Innuyir Kappom-Nammai Kakkum 48 scheme from ₹1 lakh to ₹2 lakh. The scheme, which funds the treatment of

persons injured in road accidents for the first 48 hours, has covered three lakh beneficiaries so far,

▪ After meeting the 3,00,000th beneficiary at Rajiv Gandhi Government General Hospital (RGGGH) on Thursday, the Minister said that the government had spent ₹261.46 crore on the scheme that was launched in December 2021.

Scheme

▪ **Hospitals**: The scheme covers both government and private hospitals that are empaneled in the program.

▪ **Treatment**: The scheme covers 81 designated treatment packages, with each costing up to ₹1 lakh.

▪ **Eligibility**: The scheme is open to everyone, regardless of income, including those with the Chief Minister's Medical Insurance Card.

▪ The scheme was launched in December 2021 to reduce the number of deaths and injuries caused by road accidents. Let me translate the features of the Innuyir Kappom-Nammai Kakkum 48 scheme into Tamil.

Safe Trekking Program in 40 Locations of Tamil Nadu: Forest Department Implements in 14 Districts

▪ Forest Department The initiative covers a total 40 locations across 14 districts and 18 forest divisions

▪ This program was launched on October 24

▪ 300 tribal youth trained as guides (including 15 women)

Medical Services for Hill Village People Without Transport Facilities: Tamil Nadu Government Orders Purchase of 25 Two-Wheeler Ambulances for Rs.1.60 Crores

▪ Government has ordered to provide 25 two-wheeler emergency medical vehicles worth Rs.1.60 crores to 10 districts

▪ These will function as support vehicles to 108 emergency ambulances and provide emergency **medical services to hill area residents**

▪ Services will include prenatal care, safe maternity transport, and mother-child health examinations

▪ All vehicles will be fitted with GPS devices for monitoring

▪ This program will be integrated into the existing 1,353 emergency 108 ambulance services

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Medical Services for Hill Village People Without Transport Facilities

- **Tamil Nadu Government Orders Purchase of 25 Two-Wheeler Ambulances for Rs.1.60 Crores**

- Government has ordered to provide 25 two-wheeler emergency medical vehicles worth Rs.1.60 crores to 10 districts

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- Services will include prenatal care, safe maternity transport, and mother-child health examinations

- All vehicles will be fitted with GPS devices for monitoring

- This program will be integrated into the existing 1,353 emergency 108 ambulance services

NEWS : Archana Patnaik is new Chief Electoral Officer of Tamil nadu

- She is from Odisha state and was appointed as an IAS officer in Tamil Nadu cadre in 2002.

- Archana Patnaik is the **first woman Chief Electoral Officer of Tamil Nadu.**

- The position of **Chief Electoral Officer was created in 1948.**

- Since then, only male IAS officers from North Indian states had been serving as Chief Electoral Officers in tamil nadu cadare

Commodore Suresh Takes Charge as Chief of Tri-Services Ordnance Division

- Commodore J. Suresh took charge as the head of the Ministry of Defense's Tri-Services Ordnance Division headquartered in Chennai.

- J. Suresh has experience in efficiently managing key national security responsibilities including coordinating precise military operations and tri-services cargo handling operations.

Raja Raja Cholan Award Announcement

- Five people were awarded the Mammannar Raja Raja Award at the Sathaya festival held at Thanjavur Big Temple.

- The 1039th Sathaya festival of Emperor Raja Raja Cholan was held at Thanjavur Big Temple. District Collector P. Priyanka Pankajam presided over the Raja Raja Award ceremony.

- **The Mammannar Raja Raja Award was presented to:**
  - Professor Ko. Theivanayagam
  - Dr. C. Gunasekaran
  - Cinematographer Ravivarman
  - Educationalist Punitha Ganesan
  - Social philanthropist Guru. Subramania Sharma

Ramnath Goenka Sahitya Samman Awards

Venue

- Bharat Mandapam Reader's Lounge, Pragati Maidan, Delhi

Awards:

- Presented to outstanding contributors in the literary field
- Lifetime Achievement Award will also be presented
- Distinguished guests from various fields including: Society, Literature, Arts, Language, Culture, Writing, Judiciary, Administration.
- This is a prestigious award presented by The New Indian Express Group to recognize and honor significant achievements in the literary world.

Ensure Nutrition' Phase Two Program

- Tamil Nadu Chief Minister M.K.Stalin launched the second phase of the "Ensure Nutrition" program in **Ariyalur.**
- The **first phase of this program was implemented in 2022** to address nutritional deficiencies in children born in Tamil Nadu.
- The Tamil Nadu government has reported that approximately 77.3% of children identified with severe nutritional deficiencies have returned to normal condition through the first phase of this program.

T.N. has highest number of women councillors

- Nearly 46% of the councillors in India are women, and in 19 out of the 21 capital cities that have active urban local bodies, including Patna, Shimla, Ranchi and Bhubaneswar, the figure goes well over 60%.
- Among the States, Tamil Nadu has the highest number of women councillors, according to a road map on urban transformation in India released on Tuesday.
- The other States in the top 10 are Rajasthan, Madhya Pradesh, Maharashtra, Andhra Pradesh, Karnataka, Uttar Pradesh, Kerala, Bihar and Chhattisgarh.
- According to the report "Road map for India's citysystems reforms" by Janaagraha, a not-for-profit organisation, 17 States have legislated for 50% women's quota, over the constitutional minimum of 33%.

The Green Energy Corridor-II (GEC-II)

- The Green Energy Corridor-II (GEC-II) Scheme is a project for Tamil Nadu, which aims to enhance the state's renewable energy transmission capacity.
- The initiative is part of a larger national effort to integrate renewable energy sources into the grid. The **Central Electricity Authority (CEA)** has outlined this plan in its recent report.

Project Overview

- The project is valued at Rs.719.76 crore and focuses on integrating 19 gigawatts (GW) of renewable energy. Tamil Nadu will contribute 4,000 megawatts (MW) of this total.
- The infrastructure will include 624 **circuit kilometers (ckm)** of transmission lines and 2,200 substations.

Financial Aspects

▪ The total cost of the project is Rs.12,031.33 crore. The **Central Financial Assistance (CFA)** stands at Rs.3,970.34 crore, which is 33% of the overall cost.

▪ Funding will also come from loans via institutions like KfW, REC, and PFC. The CFA is subject to approval by the Cabinet Committee on Economic Affairs.

Stalin flags T.N.'s 3 major challenges with XVI Finance Commission

▪ Tamil Nadu faces three **primary challenges:** natural disasters, an increasing elderly population, and rapid urbanization.

▪ Severe impact from cyclones, torrential rains, and flooding has affected lives, property, livelihoods, and infrastructure.

▪ The average age in Tamil Nadu is currently **36.4, expected to rise to 38.5** by the end of the **16th Finance Commission's** tenure, making it the state with the highest elderly population.

▪ Rapid urbanization requires significant funds for urban infrastructure, especially in cities like Chennai.

▪ The State needs financial support for relief and restoration measures, social welfare for the elderly, and urban infrastructure development.

▪ The Goods and Services Tax regime has created obstacles in generating revenue for the State.

▪ Chief Minister emphasized the importance of the Finance Commission's role in ensuring the overall development of the country through the development of States.

The 16th Finance Commission

▪ The 16th Finance Commission of India, established **under Article 280 of the Indian Constitution,** is primarily focusing on the devolution of the consolidated fund.

▪ The Commission aims to support local bodies such as panchayats and municipalities, as mandated by the 73rd and 74th constitutional amendments.

▪ The agenda includes addressing the fiscal health of municipalities, enhancing property tax collection, improving maintenance of accounts, and allocating resources for pollution mitigation.

▪ The Commission also recognizes the significant role of cities in India's economic growth and the need for increased financial devolution to urban local bodies

Nationalization of 9 Tamil Scholars' Books

▪ Tamil Development and Information Minister M.P. Saminathan presented royalty amounts totaling Rs. 90 lakhs to nine Tamil scholars whose works were nationalized. The scholars are:

- Dr. So. Sathyaseelan
- Dr. Ma. Ra. Arasu
- Poet S. Balasundaram
- Dr. P. Aravanan
- Dr. K.T. Thirunavukkarasu
- Dr. R. Kumaravelan
- Poet Ka. Vezhvendhan
- Scholar Dr. Aru. Azhagappan
- Ramalingam (aka Ezhil Muthalvan)

▪ Their books have been nationalized by the **Tamil Development Department** for the fiscal year 2024-2025.

188 Tamil Scholars' Books Nationalized

▪ So far, 188 Tamil scholars' books have been nationalized by the Tamil Development Department. Notably, **140 scholars' books were nationalized** during former Chief Minister **Karunanidhi's administration.**

Next World Tamil Economic Conference in New York

▪ V.R.S.Sampath, the founding president, announced that the **12th World Tamil Economic Conference** will be held in **Washington D.C., USA,** as decided in the previous conference in Malaysia.

Cooperative Department's Transformation of Small Savings

▪ The Cooperative Department's chain network is fundamental to the success of Tamil Nadu government's welfare schemes. During COVID-19 lockdown, cyclones, rains, and floods, the department delivered essential goods and financial assistance to people.

▪ Minister launched three special schemes including the "Siragugal Scheme" for transgender persons and small multi-purpose stores in Chennai.

"Tamil Magal Scheme"

▪ 1.16 crore women receive Rs. 1,000 monthly. Of these, 8.29 lakh women receive the amount through cooperative banks. Women are earning interest by keeping their rights amount as deposits instead of withdrawing it. Through this "Tamil Magal" scheme, the Cooperative Department has transformed small savings into a movement.

▪ The first cooperative society was established in **Triplicane** in 1904.

▪ The Honorable Minister for Cooperation is **Mr.K.R. Periyakaruppan.**

Precision Technology Center

▪ Chief Minister Stalin inaugurated the **Precision Engineering Technology Center.**

▪ The government announced that a Mega Cluster scheme worth Rs. 100 crores will be implemented in 5 locations across Tamil Nadu to enhance the production capabilities and encourage innovations of micro, small and medium enterprises, and to help them enter emerging industrial sectors.

▪ According to this plan, a Precision Manufacturing Cluster was planned to be established in Thirumudivakkam Industrial Estate in Kanchipuram district of Chennai region, in collaboration with entrepreneurs' association. This center is considered a hub for creating precision engineering parts used in autonomous vehicles, machinery, and electrical and electronic equipment.

▪ For the first time in South India, a Precision Engineering and Technology Center has been established at the Thirumudivakkam SIDCO Industrial Estate.

Tamil Nadu tops the table in growth of SGST collections

▪ **Growth in SGST Collections**: Tamil Nadu saw a 20.12% growth in State Goods and Services Tax (SGST) collections in the first half of 2024-25, reaching Rs.35,414.05 crore from Rs.29,481.97 crore in the previous year.

▪ **Top Performer**: This growth rate is the highest among key comparable states, with Gujarat and Uttar Pradesh recording over 14% growth, Maharashtra 13.46%, and Karnataka over 10%.

▪ **SGST Contribution**: SGST accounts for roughly half of the States' own tax revenue (SOTR).

▪ **Key Growth States**: Tamil Nadu, Assam, Maharashtra, Uttar Pradesh, and Karnataka showed significant year-on-year growth (13.3%-50.8%).

State Goods and Services Tax (SGST)

▪ SGST is a tax applied within the GST framework on transactions within a state.

▪ It is imposed by the state government where the goods or services are consumed, making it an intrastate tax.

▪ SGST is regulated by the state's **SGST Act of 2017** and is subject to periodic revisions.

▪ The introduction of SGST consolidated various state-level taxes, simplifying the taxation structure.

▪ SGST is imposed by state or Union Territory governments, governed by a uniform tax rate based on the type of goods or services

Muttamizh Peravai Golden Jubilee Year

▪ The 50th year golden jubilee celebration of Muttamizh Peravai, which was inaugurated by the late former Chief Minister Karunanidhi, was held at Raja Annamalai Puram in Chennai with a music festival and awards ceremony.

▪ Actor **Sathyaraj** received the **"Kalaignar Award", D.K.S. Meenakshi Sundaram** of Tiruppamuram received the **"Rajaratna Award",** poet Andal Priyadarshini received the "Iyal Selvam Award", Dr. Gayatri Girish received the "Isai Selvam Award", **D.S.Umasankar** of Thirukadaiyur received the **"Nadaswara Selvam Award",** Swami Malai

C. Gurunathan received the **"Thavil Selvam Award", Dr. T.Somasundaram** received the **"Gramiya Kalai Selvam Award",** and **Parvathi Ravi Kandasala** received the **"Nattiya Selvam Award".**

▪ The Chief Minister released the golden jubilee year souvenir book titled **"Life History of Thiruvavatuthurai T.N.Rajarathinam"** written by author Thumilan.

"Vizhuthugal - One Stop Centre"

▪ Chief Minister M.K. Stalin inaugurated the "Vizhuthugal - One Stop Centre"

▪ The centre aims to provide health-related rehabilitation services to persons with disabilities.

▪ He also opened a renovated building at Chennai Middle School, Sholinganallur, under the "Namakku Naame" initiative.

▪ The Vizhuthugal Centre is part of a World Bank-assisted Rights Project, with 273 centres planned.

▪ They are integrated into the Chief Minister's Comprehensive Health Insurance Scheme.

▪ The centres comply with the Union government's 2021 Harmonized Guidelines for building design.

PRASAD Scheme

▪ The Ministry of Tourism has announced plans to develop 29 locations in Tamil Nadu, including 8 Navagraha temples.

▪ Through PRASAD (Pilgrimage Rejuvenation and Spiritual Heritage Augmentation Drive), 29 new locations including eight Navagraha temples in Tamil Nadu have been identified for development.

- The Ministry of Tourism has taken steps to promote spiritual tourism destinations, including those in Tamil Nadu, through various events, websites, and social media platforms.

Chief Minister's Proficiency Test for Students

- The government examination department has announced that government school 10th standard students can apply from November 30 for the Tamil Nadu Chief Minister's Proficiency Test, which provides monthly educational assistance of Rs.1000.

- Students studying 10th standard in government schools under Tamil Nadu State curriculum in the current academic year can apply for this test.

- A total of 1,000 people (500 boys and 500 girls) will be selected based on current reservation policies.

- They will receive Rs.1,000 per month, totaling Rs.10,000 per academic year as educational assistance.

- The test will include multiple-choice questions from 9th and 10th standard Mathematics, Science, and Social Science subjects.

Not to implement the PM Vishwakarma

- Chief Minister informed the Centre that Tamil Nadu will not implement the PM Vishwakarma scheme in its current form.

- The Centre did not consider Tamil Nadu's concerns about caste-based discrimination within the scheme.

- Tamil Nadu plans to develop a more inclusive and comprehensive scheme.

- The Prime Minister's attention has been drawn to these issues.

PM Vishwakarma Scheme

- Launched on 17th September, 2023 by the Prime Minister.

- **Target Beneficiaries:** Supports artisans and craftspeople engaged in 18 trades (e.g., carpenters, blacksmiths, potters, cobblers, etc.).

Benefits to Artisans and Craftspeople

- Certificate and ID card for artisans and craftspeople.

- Basic Training (5-7 days) and Advanced Training (15 days or more) with a stipend of Rs. 500 per day.

- **Credit Support:** Collateral-free loans of up to Rs. 3 lakh.