

# TNPSC THERVUPETTAGAM CURRENT AFFAIRS AUGUST 2024

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## **TNPSC BITS**

- ❖ The water level in Mettur dam reached 100 feet for the 71<sup>st</sup> time since its inauguration in 1934.
- ❖ Meta unveiled its biggest and the “best open-source model yet,” the Llama 3.1.
- ❖ 1955 batch Veteran civil servant P.N. Veda Narayanan passed away recently.
- ❖ Manu Bhaker opened India’s medal count at the Paris 2024 Games by winning a bronze medal in the women’s 10m air pistol event.
- ❖ India's Kush Maini achieved a milestone by winning his first Formula 2 Sprint Race at the Hungarian Grand Prix.
- ❖ The Indian Institute of Spices Research (IISR) has received the best technology award for its pioneering work in the field of horticultural sciences.
- ❖ OpenAI has launched GPT-4o mini, which according to them is their most cost-efficient small model.
- ❖ OpenAI launched a prototype of its search engine, called SearchGPT, to give users “fast and timely answers with clear and relevant sources.”
- ❖ Sri Lanka secured their first Women's Asia Cup cricket title win by beating India.
  - Earlier in 2018, Bangladesh beat India by three wickets.
- ❖ The Union Minister Dr. Jitendra Singh was conferred the prestigious “Lifetime Achievement Award” for his exemplary dedication to the advancement of the diabetology, diabetes care and diabetes research.
- ❖ Nita Ambani, International Olympic Committee (IOC) member, has officially inaugurated India House, marking India’s first-ever country house at the Olympic Games.
- ❖ The country's first sunken museum was inaugurated at the Humayun Tomb complex, a UNESCO World Heritage Site, in Delhi.
- ❖ The “State of Food Security and Nutrition in the World 2024” (SOFI 2024) report was published by the FAO, IFAD, UNICEF, WFP, and WHO.
- ❖ India’s shooters Manu Bhaker - Sarabjot Singh pair clinched bronze medal in the 10 m air pistol mixed team event.
  - With this, Manu become the first Indian athlete to win two medals in a single Summer Olympic Games since independence.
- ❖ Uttar Pradesh Prohibition of Unlawful Conversion of Religion (Amendment) Bill, 2024 was passed to removes restrictions on who can file an FIR.
  - It proposes stringent bail conditions similar to those for accused persons in terrorism and money laundering cases, and increases the punishment for unlawful conversion.





- ❖ Venezuela's Nicolas Maduro wins third term as President with 51% vote share.
- ❖ V. Vedachalam, an eminent Tamil epigrapher and historian, has been conferred the V Venkayya Epigraphy Award for 2024.
- ❖ Periyar Tiger Reserve (PTR) in Thekkady has installed a wind turbine to generate power for real-time monitoring cameras and Wi-Fi connectivity within its forests.
- ❖ Indian students secured two gold and three silver medals at the International Physics Olympiad, and one gold, one bronze, and two silver medals at the International Chemistry Olympiad 2024.
- ❖ The Aditya Birla Group has entered into the Indian jewellery market with the launch of its new brand, Indriya.
- ❖ Preeti Sudan, a former Union Health Secretary and 1983 batch IAS officer from the Andhra Pradesh cadre, has been appointed as the new chairperson of the Union Public Service Commission (UPSC).
- ❖ A 16-year-old girl, Jiya Rai, diagnosed with autism, swam 34 km across the English Channel in 17 hours and 25 minutes, becoming the youngest and fastest para swimmer to do so.
- ❖ BBVA and the International Finance Corporation have issued a USD15 million first tranche of the world's first biodiversity bond, which aiming to USD 70 million.
- ❖ The Indian shooter Swapnil Kusale secured a bronze medal in the 50m Rifle 3 positions event at the Paris Games.
- ❖ The Atomic Energy Regulatory Board (AERB) recently accorded permission for the 'first approach to criticality' of India's indigenous 500 MWe sodium-cooled Prototype Fast Breeder Reactor (PFBR) at Kalpakkam.
- ❖ The Central Water Commission (CWC) has been awarded the GEEF Global Water Tech Award for 'Water Department of the Year' at the Global Water Tech Summit 2024, hosted by the Global Energy and Environment Foundation (GEEF).
- ❖ India is hosting its first multinational air exercise, 'Tarang Shakti 2024' in Sulur, Tamil Nadu with around 30 countries participation.
- ❖ Lt Gen Sadhna Saxena Nair, assumed the office of Director General Medical Services (Army), thus becoming the first woman to be appointed to this post.
- ❖ India Elected as Vice Chair of Supply Chain Council Under Indo-Pacific Economic Framework.
- ❖ The Prime Minister received "Call of the Gir" a coffee table book on Gir and Asiatic lions by Rajya Sabha Member, Parimal Nathwani.
- ❖ Kashmir City received the Certificate of World Craft City from the World Crafts Council.



- ❖ The Ministry of Ayush and WHO has signed a Donor Agreement which outlines the financial terms for implementing the activities of the WHO Global Traditional Medicine Centre (GTMC) in Jamnagar, Gujarat.
- ❖ KIIT (Kalinga Institute of Industrial Technology of Bhubaneswar, Odisha), deemed to be university, has been granted the distinguished Special Consultative Status by the United Nations Economic and Social Council (UN ECOSOC).
- ❖ Every year, August 1 is celebrated as World Fintech Day to recognise the transformative impact of financial technology on global economies.
- ❖ The Supreme Court has commenced its week-long special Lok Adalat drive to amicably settle the long-pending disputes as a part of its 75th anniversary celebrations.
- ❖ Union Ministry for Environment launched 'Ideas4LiFE' for inviting ideas related to products and services, which induce the behavioural changes related to the environment-friendly lifestyles.
- ❖ India is ranked 39th among 119 countries, according to the Travel and Tourism Development Index 2024 report published by the World Economic Forum.
- ❖ Former Indian cricketer and Coach Anshuman Gaekwad passed away recently.
- ❖ South India's first double-decker flyover was inaugurated in Bengaluru.
- ❖ On the first Sunday in August (August 04<sup>th</sup>), India celebrates National Friendship Day to encourage people across the world to connect with friends.
- ❖ India and China held the 30<sup>th</sup> meeting of the Working Mechanism for Consultation and Coordination on India-China Border Affairs (WMCC) in New Delhi.
- ❖ Bike-taxi startup Rapido is the latest Indian startup to become a unicorn, meaning it reached \$1 billion in valuation.
- ❖ The National Skill Development Corporation (NSDC) has unveiled the Women Entrepreneurship Program.
  - It aims to tackle the challenges faced by women in entrepreneurship by offering crucial skills, knowledge, and networking opportunities.
- ❖ The Union Education Ministry launched the National Apprenticeship Training Scheme (NATS) 2.0 Portal.
  - It allows people looking for apprenticeships to register and apply for opportunities, and it helps industries manage job openings and contracts more effectively.
- ❖ The Central Board of Indirect Taxes and Customs (CBIC) released the National Time Release Study (NTRS) 2024 report.



- Out of the 15 ports, 9 ports have witnessed a reduction in the average release time in 2024 vis-a-vis previous year.
- ❖ “The Human Rights, Liberation and Reconciliation: Nelson Mandela Legacy Sites” in South Africa are recognized as World Heritage property by the UNESCO.
  - It encompasses 14 locations intricately linked to Nelson Mandela’s life and South Africa’s liberation struggle.
- ❖ The Indian Prime Minister inaugurated the 32nd International Conference of Agricultural Economists in Delhi.
- ❖ The 7th edition of the India International Hospitality Expo (IHE 2024) was held in Greater Noida.
- ❖ Manu Bhaker has been chosen as India's flag bearer at the Paris 2024 Olympics Closing Ceremony.
- ❖ Bangladesh Prime Minister Sheikh Hasina, who had been in power for the past 15 years, resigned recently after worse unrest.
- ❖ The Caribbean Community (CARICOM) officially named Curaçao as the sixth Associate Member of the regional organisation.
- ❖ The Union Government has introduced a new Electronic Human Resource Management System (e-HRMS).
  - This system aims to streamline and enhance the management of government employees’ service matters through digital means.
- ❖ President Droupadi Murmu was conferred the Companion of the Order of Fiji, the highest honour of Fiji by the President of Fiji.
- ❖ The first Conference of Governors to presided by President Murmu was held in Rashtrapati Bhavan, Delhi.
- ❖ Lt Col Kabilan Sai Ashok has made history as the youngest Olympic referee in boxing from India at the Paris Olympics.
- ❖ Recently, a maritime partnership exercise (MPX) was conducted between India and Russia in St. Petersburg of Russia.
- ❖ Novak Djokovic of Serbia secured his first Olympic gold medal at the Paris 2024 Olympics.
- ❖ Biochemist Govindarajan Padmanabhan, the Chancellor of Central University of Tamil Nadu in Tiruvarur, was selected for the first ‘Vigyan Ratna’ award, the top-most science award in the country.
- ❖ The final ‘Report of India’s G20 Task Force on Digital Public Infrastructure’ by India’s G20 Task Force on Digital Public Infrastructure for Economic Transformation, Financial Inclusion and Development’ was released in New Delhi.





- ❖ Nagaland has become the first state in India to start a disaster management insurance scheme by signing an agreement with SBI General Insurance.
- ❖ Zimbabwe became a 11<sup>th</sup> African country and 54<sup>th</sup> Party to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UN Water Convention).
- ❖ National Book Lovers Day is celebrated on August 9<sup>th</sup> every year.
- ❖ The 'Parvat Prahaar' military exercise, a significant strategic initiative, was conducted by the Indian Army in the high-altitude regions of Ladakh.
- ❖ Purandar Highlands Farmers Producer Company Ltd has achieved a significant milestone by exporting India's first GI-tagged fig juice to Poland.
- ❖ State Bank of India appointed Challa Sreenivasulu Setty as chairman of the bank for three years with effective from 28<sup>th</sup> August 2024.
- ❖ Noah Lyles clinched the title of the fastest man on Earth in a thrilling 100m race at Paris Olympic by beating Jamaica's Kishane Thompson by just 0.005 seconds.
- ❖ The Indian men's hockey team beats Spain and win the bronze medal at the Paris 2024 Olympics.
- ❖ Indian wrestler Aman Sehrawat secured the men's 57kg freestyle bronze medal at the Paris Olympics.
- ❖ PR Sreejesh and Manu Bhaker were selected as flag-bearers for the Indian delegation at the 2024 Olympic Games closing ceremony.
- ❖ The Union Ministry of Culture and Tourism announced that the third edition of the "Har Ghar Tiranga" (HGT) campaign will take place from August 9 to 15, 2024.
- ❖ The first BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) Business Summit meeting was held in New Delhi.
- ❖ The Cabinet Committee on Economic Affairs approved eight railway projects with total estimated cost of ₹ 24,657 crore.
- ❖ Three underwater geographical structures located in the Indian Ocean have been awarded names proposed by India.
  - The names are: Ashoka seamount, Chandragupt ridge and Kalpataru ridge.
- ❖ The National Commission for Women (NCW) has inaugurated the Digital Shakti Center in New Delhi to address the rising cybercrimes against women.
- ❖ Bharat Heavy Electricals Limited (BHEL) has received the first ever order for the demonstration of methanol firing in a Gas Turbine at the 350 MW Kayamkulam Combined Cycle Power Plant (CCPP) in Kerala.
- ❖ The West Bengal government and UNICEF have teamed up to encourage fathers to play an active role in promoting breastfeeding among new mothers.



- ❖ The Odisha government has introduced India's first round-the-clock grain ATM, also known as the 'rice ATM,' to revolutionise the Public Distribution System (PDS) for ration cardholders.
- ❖ The Tamil Nadu government has named senior IAS officer S.K. Prabakar as the chairman of the Tamil Nadu Public Service Commission (TNPSC).
- ❖ The Society of Indian Automobile Manufacturers (SIAM) held its 3rd International Conference on World Biofuel Day (August 10) in New Delhi.
- ❖ Union Ministry of Information and Broadcasting withdrew a fresh draft of the Broadcast Bill 2024 which it had privately circulated among a handful of industry stakeholders.
- ❖ The ad hoc Division of the Court of Arbitration for Sport (CAS) dismissed Vinesh Phogat's appeal against the United World Wrestling (UWW) and International Olympic Committee (IOC).
- ❖ The 10<sup>th</sup> edition of the India-Sri Lanka Joint Military Exercise 'Mitra Shakti' is being held in Sri Lanka.
- ❖ The Actor-politician Khushbu Sundar resigned from the post of Member of the National Commission for Women.
  - She was nominated to the post in February 2023.
- ❖ The Government of India and the World Bank have entered into an agreement for the construction of the Green National Highway Corridors Project (GNHCP) of 781Kms.
- ❖ India's gold industry has launched the Indian Association for Gold Excellence and Standards (IAGES) as a new self-regulatory organisation with support from the World Gold Council.
- ❖ Rajya Sabha MP Bhim Singh authored a book titled '75 Great Revolutionaries of India'.
- ❖ The largest floating solar project in central and north India generating 90 MW energy has been commissioned at Omkareshwar in Madhya Pradesh.
- ❖ Shah Rukh Khan became the first Indian to be honoured with a lifetime achievement award, also called Pardo alla Carriera/ Career Leopard, at the 77th edition of the Locarno Film Festival, Switzerland.
- ❖ The Chhattisgarh announced that it would establish a new tiger reserve, making it the fourth such reserve in the forest-rich State.
  - Currently, Chhattisgarh has three tiger reserves — Indravati in Bijapur district, Udanti-Sitanadi in Gariaband and Achanakmar in Mungeli.
- ❖ Tamil Nadu government has launched the new helpline number - 102 to monitor pregnant women.



- ❖ The first-ever Global Pravasi Women's Kabaddi League is scheduled to take place in Haryana.
- ❖ The Indian Air Force and the Royal Malaysian Air Force participated in Exercise 'Udara Shakti 2024' in Malaysia.
- ❖ For the 1<sup>st</sup> time in the History of Supreme court, the gender equality based Hindi movie 'Laapataa Ladies' was recently screened at the Supreme Court for all the Supreme Court judges, their spouses, and members of the registry.
- ❖ India and Israel have joined hands for the establishment of a new water technology centre at IIT Madras.
- ❖ The 3rd Tamil Nadu International Kite Festival took place at Thiruvidadanthal Beach, Mahabalipuram with over 40 kite flyers from various countries.
- ❖ International Left Handers Day is an international day observed annually on August 13 to celebrate the uniqueness and differences of left-handed individuals.
- ❖ Queenie Hallegua, the last of the foreign Jewish women in Kochi, passed away recently.
- ❖ The Central Water Commission has launched the 'FloodWatch India' App 2.0 to give timely warning to the common people about the danger of floods in the rivers.
- ❖ NLC India Ltd has revalidated its Corporate Plan 2030 and Vision 2047 and has planned a three-fold increase in its total power generation capacity by 2030.
  - It intends to achieve the renewable energy portfolio mix of 50% of the total planned capacity, from the present RE capacity of 1.43 GW to 10.11 GW by 2030.
- ❖ IRCTC and the National Capital Region Transport Corporation (NCRTC) have collaborated to launch the 'One India-One Ticket' initiative to enhance the travel experience for passengers on Indian Railways and Namo Bharat Trains.
  - It will allow passengers to book Namo Bharat tickets through both platform with flexible cancellation and payment.
- ❖ Senior IRS officer Rahul Navin has been appointed as Director of the Enforcement Directorate (ED).
- ❖ The Assembly elections for Haryana and Jammu and Kashmir will be held from September 18 to October 1.
- ❖ Wings EV, an Indore-based firm, is set to launch the Electric Microcar "Robin" in 2025.
- ❖ Propshare, a fractional real estate platform, recently became the first player to secure a small and medium Real Estate Investment Trust licence from SEBI.
- ❖ PR Sreejesh, who recently led India to a bronze medal at the 2024 Olympics, has been appointed as the new head coach of the Indian junior men's hockey team.



- ❖ Paetongtarn Shinawatra was elected as Thailand's youngest prime minister at the age of 37.
- ❖ Tamil Nadu government appointed incumbent Chief Secretary Shiv Das Meena as the Chairperson of the Tamil Nadu Real Estate Regulatory Authority (TNRERA).
- ❖ The Union Defence Minister released a ₹100 coin to commemorate the birth centenary of late DMK president M Karunanidhi.
- ❖ Union Defence Minister inaugurated a new Maritime Rescue Coordination Centre (MRCC) of the Coast Guard in Chennai.
- ❖ Japan's Prime Minister Fumio Kishida announced his resignation from the post next month.
- ❖ India will host the 3rd Voice of Global South Summit with the theme of 'An Empowered Global South for a Sustainable Future'.
- ❖ Thiruvananthapuram International Airport Limited (TIAL) has been awarded the prestigious Pollution Control Waste Recycling Excellence Award by the Greentech Foundation.
  - The award is for the excellence in 'zero waste to landfill' implementation undertaken by the TIAL.
- ❖ Bharat Petroleum Corporation Limited (BPCL) has launched India's first biofuel blend High Flash High Speed Diesel (HFHSD) bunker at Mumbai Port.
- ❖ India has started negotiating with the United Kingdom (UK) to expand critical minerals collaboration under the newly-signed UK-India Technology Security Initiative (TSI).
- ❖ The Food Safety and Standards Authority of India (FSSAI) has launched a project to assess microplastic contamination in food products and develop methods for its detection.
- ❖ Gaza has recorded its first polio case in 25 years.
- ❖ Sudan has been stricken by a cholera outbreak with at least 22 people have died from the disease, and that at least 354 confirmed cases.
- ❖ World Photography Day is celebrated annually on August 19<sup>th</sup>.
  - The theme for 2024 is "An Entire Day".
- ❖ The Former Chief of Army Staff (COAS) General S. Padmanabhan passed away recently in Chennai.
- ❖ The 4 Indian student team has bagged three gold and bronze each and two silver medals across three competition categories at the 17th edition of the International Earth Sciences Olympiad held in Beijing, China.



- ❖ The North Eastern Handicrafts and Handlooms Development Corporation recently received the OEKO-TEX certification from Germany for its Eri silk (world's only vegan silk).
  - The certification is a rigorous standard that ensures textiles are tested for harmful substances and produced in environment-friendly conditions.
- ❖ Tamil Nadu-based aero tech company Space Zone India has launched three cube satellites designed to monitor and collect data on atmospheric conditions, by using reusable hybrid rocket - Rhumi 1.
- ❖ Parvathaneni Harish appointed as the next Ambassador/ Permanent Representative of India to the United Nations at New York.
- ❖ RBI Governor Shaktikanta Das has received an "A+" rating in the Global Finance Central Banker Report Cards for the second consecutive year.
- ❖ The Paralympic Committee of India has appointed Satya Prakash Sangwan as the Chef de Mission (CMD) of the Indian contingent for the upcoming Paris 2024 Paralympic Games.
- ❖ Indian Defence Minister and External Affairs Minister had held the 2024 edition of the '2+2" dialogue with their Japanese counterparts in New Delhi.
- ❖ The Women's T20 Cricket World Cup 2024 has been moved from Bangladesh to UAE due to safety concerns.
- ❖ The Tamil Nadu government is to install two doppler weather radars, one each in Yercaud and Ramanathapuram, to track cyclones.
  - The existing two radars are installed in Chennai and one each in Karaikal and Sriharikota.
- ❖ Dabur India have signed an MoU to invest Rs 400 crore to set up its first manufacturing unit in South India at SIPCOT food park in Tindivanam, Tamil Nadu.
- ❖ Tamil Nadu's CM inaugurated the State Emergency Operations Centre (SEOC), which has been upgraded as the Multi Hazard Early Warning Centre at in Chepauk, Chennai.
- ❖ Tamil Nadu Chief Minister has issued directions nationalising all the literary works of late DMK leader and former CM M. Karunanidhi without royalty.
  - Among his literary works are 15 novels, 20 dramas, 15 short stories, over 200 poems, among others.
- ❖ The Christian Medical College, Vellore and IIT-Madras have jointly developed an innovative, portable, and affordable robotic solution for hand movement therapy, and making the physical and occupational therapy for stroke recovery, timely and effective.





- ❖ India has overtaken China as the world's largest importer of Russian oil - 2.07 million barrels/day in July 2024.
- ❖ Karnataka has the highest number (5,765) of public EV charging stations in the country ahead of States like Maharashtra, Uttar Pradesh, and Delhi.
- ❖ International Day of Remembrance of And Tribute to Victims of Terrorism is annually observed on 21<sup>st</sup> August.
- ❖ International Day Commemorating the Victims of Acts of Violence Based on Religion or Belief is observed annually on 22<sup>nd</sup> August.
- ❖ Raipur, the capital of Chhattisgarh, hosted the 17<sup>th</sup> Divya Kala Mela for Divyang artists.
- ❖ The South India's first Adivasi library, 'Kaanu' (means evergreen forest), was inaugurated at BR Hills in Chamarajanagar district, Karnataka.
- ❖ Maria Branyas, who was the world's oldest living person (117 years and 168 days), has died in Spain.
- ❖ India and Denmark collaborated to create a 'smart laboratory on clean rivers' in Varanasi, aimed at rejuvenating the Varuna River within 2-3 years.
- ❖ Amul was recently recognised as the world's strongest food brand with an AAA+ rating by Brand Finance's Food and Drink 2024 Report.
- ❖ Elon Musk's X AI has released its latest large language models named Grok-2 and Grok-2 mini chatbot.
- ❖ South Korea and the United States kicked off annual summertime military exercises named Ulchi Freedom Shield exercises.
- ❖ Net foreign direct investment (FDI) during the April-June period of the current financial year was \$6.9 billion, compared to \$4.7 billion in the year-ago period.
  - With around 75 per cent of the flows, the major source countries were Singapore, Mauritius, the Netherlands, the US, and Belgium.
- ❖ The Indo-American Chamber of Commerce's (IACC) first Centre of Excellence for MSMEs in India was inaugurated in Ahmedabad.
  - It aims to enhance and support Micro, Small, and Medium Enterprises (MSMEs) to better serve export markets.
- ❖ Tarun Chugh's book "Modi's Governance Triumph: Reshaping India's Path to Prosperity" was released recently.
- ❖ India will host the first World Audio Visual and Entertainment Summit in November alongside the International Film Festival of India in Goa.



- ❖ India and Ukraine have inked four agreements and resolved to enhance their cooperation in a range of key areas including defence, trade, pharmaceuticals, green energy and education.
- ❖ The Rajiv Gandhi International Airport (RGIA) in Hyderabad has been recognized as the Best Airport at the India Travel Awards for the third year in a row.
- ❖ Razorpay became the only Indian company featured in the Forbes Cloud 100 list for 2024.
  - This is the company's third consecutive appearance on the list.
- ❖ DRDO has successfully carried out its maiden flight test of Long-Range Glide Bomb (LRGB), GAURAV from Su-30 MK-I platform.
- ❖ India's second home-built 700 MW nuclear power reactor at Kakrapar Atomic Power Station in Gujarat started operating at its full capacity.
- ❖ U.S. Food and Drug Administration approved a nasal spray, Neffy to treat severe allergic reactions, the first needle-free alternative to shots like EpiPen.
- ❖ Tamil Nadu Chief Minister laid the foundation for various projects including an ornamental fish complex of international standards at Puzhal Lake, Chennai.
- ❖ Manyachiwadi village in the Patan Taluka of Satara district has become the first 'Solar Village' in Maharashtra.
- ❖ India's indigenous 4.5 generation plus LCA Mark 2 fighter jets are scheduled to commence flights by March 2026, with mass production expected to begin by 2029.
- ❖ Delhi Indira Gandhi International Airport has become the country's first airport to get the net zero carbon emission status under the Airport Council International's accreditation programme.
- ❖ O.P. Jindal Global University (JGU) is set to launch India's first Constitution Museum, marking the 75th anniversary of the adoption of the Constitution of India.
  - The museum is named "The Constitution Academy and The Rights & Freedoms Museum".
- ❖ India annually observes the National Small Industry Day on August 30 to acknowledge the crucial role played by small-scale industries (SSIs) in the nation's economic framework.

## TAMIL NADU

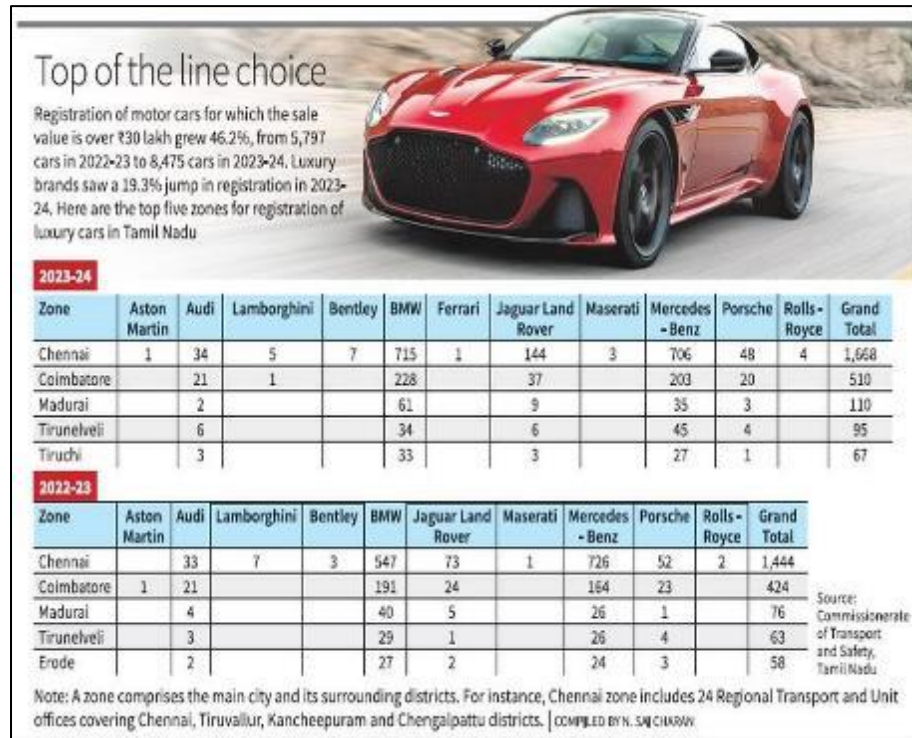
### Tamil Nadu's own Stonehenge

- ❖ An ancient observatory is found at the State's first astro-archaeological site in Ellanthankarai, Sivagangai.
- ❖ The huge burial site dating back to the megalithic period.
- ❖ This is the first astro-archaeological site in Tamil Nadu that reveals a clear observatory ground.
- ❖ This would then lead to a highly learned group called Tamil Arivargal who resided in the region.
- ❖ The earliest mention of these people is in the Tholkaappiyam.
- ❖ These people were well versed in astronomy.
- ❖ They would disseminate what they learnt to others and this form of learning was called Ainthiram, is also found in The Tholkaappiyam.

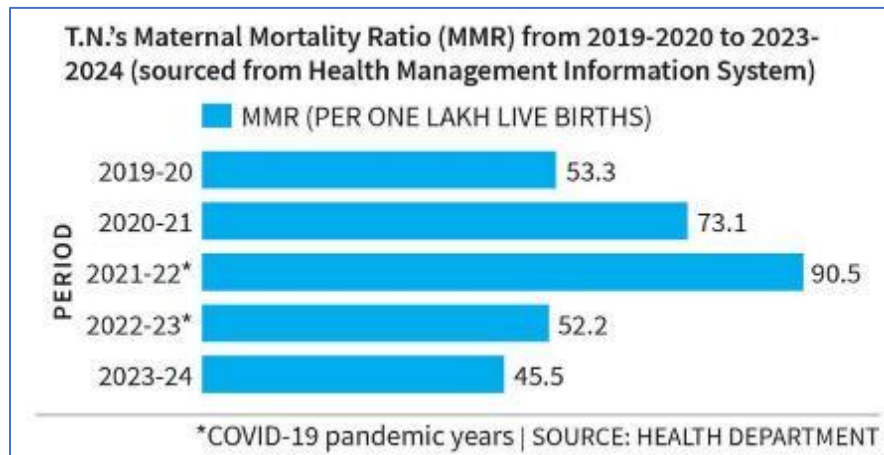


### Luxury car registration in Tamilnadu

- ❖ Tamil Nadu has seen an increase in registration of luxury cars among a growing affluent population.
- ❖ In 2023-24, 8,475 over ₹30 lakh priced cars were registered in the State – an increase of about 46.2% from 5,797 cars in 2022-23.
- ❖ In 2021-22, 3,954 cars were registered, as against 2,816 cars in 2020-21.
- ❖ In 2019-2020, 4,187 cars were registered.
- ❖ The Chennai Zone saw the highest number of luxury brands registered at 1,668 in 2023-24.
- ❖ It was followed by Coimbatore Zone with 510 cars, Madurai Zone, 110; Tirunelveli Zone, 95; and Tiruchi Zone, 65.



## Tamilnadu Maternal Mortality Ratio 2023-24



- ❖ Tamil Nadu's Maternal Mortality Ratio (MMR) recorded a significant drop during 2023-24.
- ❖ MMR is declining by over six points to reach 45.5 per one lakh live births.
- ❖ Virudhunagar Health Unit District (HUD) recorded nil maternal deaths during the same period.
- ❖ MMR has dropped from 52.2 per one lakh live births during 2022-2023 to 45.5 during 2023-24.



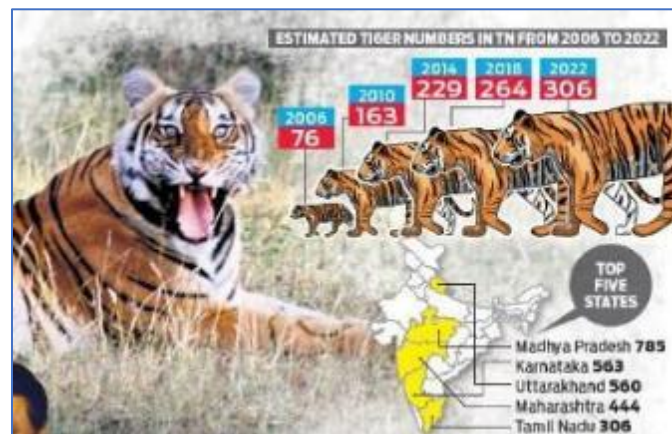
- ❖ Earlier, MMR dropped each year by two to three points.
- ❖ However, during 2023-24, the MMR dropped by 6.7 points.
- ❖ Norway had the lowest MMR at 1.8 per one lakh live births.
- ❖ Other European countries, such as Sweden and Finland, also have achieved the gold standard of having a single-digit MMR.

### Tamilnadu Institutional deliveries data



- ❖ TN Health Ministry conducted a workshop in Chennai on 'Connecting the Missing Dots' to discuss measures needed to reduce maternal deaths in the State.
- ❖ In Tamil Nadu, 99.9% of deliveries take place in a health facility, of which 59% happen in government institutions.
- ❖ Out of this, 80% of deliveries have taken place in the Comprehensive Emergency Obstetric and Newborn Care centres.

### Tiger conservation in Tamilnadu 2024





- ❖ The Nilgiris landscape has the largest tiger population in the world.
- ❖ The contiguous forests spreads between Kerala and Tamil Nadu in Periyar – Meghamalai cluster and Anamalai – Parambikulam complex.
- ❖ 306 tigers were recorded in Tamil Nadu in the nation-wide census by the National Tiger Conservation Authority (NTCA) for 2022.
- ❖ This number was an increase from the 264 big cats found in the 2018 survey.
- ❖ There has been a four-fold increase in the tiger numbers here over the past two decades.
- ❖ The conservation of tigers in India can be divided into two phases.
- ❖ The first phase was starting in the 1970s.
- ❖ It involved the enactment of the Wildlife Protection Act and the establishment of protected areas.
- ❖ The second phase began in 2005-2006.
- ❖ During this period, the government adopting a landscape-level approach and implementing strict monitoring for tiger conservation.
- ❖ In 2018, the tiger population was estimated at 981 and in 2022, 824 unique tigers were recorded.

### **Cauvery river flow 2024**



- ❖ The Cauvery is handling about 1.5 lakh cusecs of water, and the quantum is likely to go up to two lakh cusecs.
- ❖ The Mettur project had originally provided for 2.5 lakh cusecs because the previous high was 2.07 lakh cusecs in 1896.
- ❖ On July 26, 1924, the river saw a flood of 4.56 lakh cubic feet per second (cusecs).
- ❖ During July 28-August 2, 1924, more number of areas in the Cauvery basin heavily damaged due to flood.

## **Breach of privilege proceedings 2024**

### **Madras HC Revives Breach of Privilege Notice Against CM Stalin, DMK MLAs for 2017 'Gutkha Protest'**

The breach of privilege proceedings were initiated against Stalin and his party MLAs after they carried displayed packets of gutkha in the assembly as part of a protest about open availability of gutkha in the market back in 2017.

- ❖ The Madras High Court has referred the 2017 breach of privilege proceedings against Tamil Nadu Chief Minister and 17 others to the present Assembly.
- ❖ It is also stating that Breach of privilege proceedings can continue even after the dissolution of the House.
- ❖ The party argued that the proceedings initiated by the earlier Assembly can't continue now.

## **Chennai Double-Decker Corridor**



- ❖ The double-decker Metro construction for Corridor 4 in Chennai is progressing swiftly.
- ❖ It marks India's first double-decker Metro with both lines supported on the same pier.
- ❖ The 5 km stretch will feature four stations-Alwarthirunagar, Valasaravakkam, Karambakkam, and Alapakkam.

### **‘Thagaisal Tamizhar’ award 2024**

- ❖ Tamil Nadu government has announced ‘Thagaisal Tamizhar’ (distinguished Tamilian) award for veteran Congress leader Kumari Ananthan.
- ❖ This is the fourth year the award is being conferred.
- ❖ N Sankaraiah, R Nallakannu and K Veeramani were the previous awardees.
- ❖ He was elected MLA four times, in 1980, 1984, 1989 and 1991.
- ❖ He was elected as MP in 1977.
- ❖ He was appointed chairman of Palmyrah Development Board in 2008.



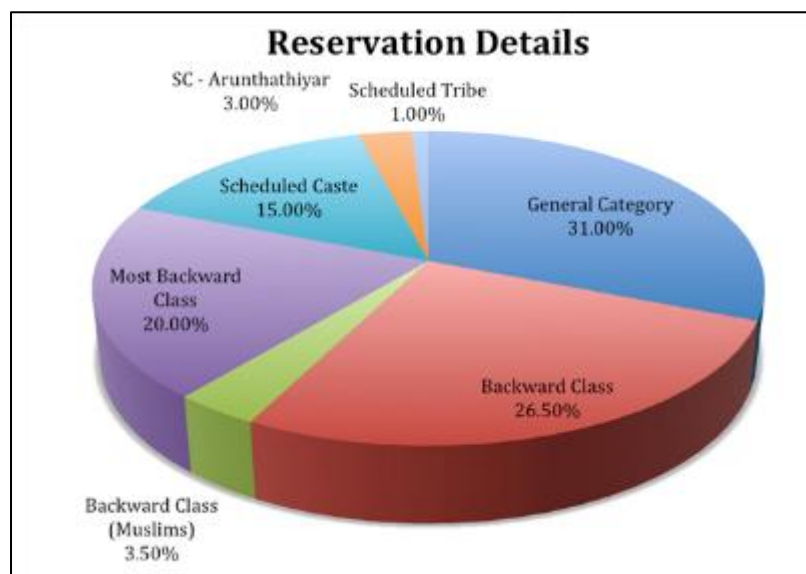
### **Cauvery water quota 2024**

The Cauvery Water Dispute: SC Verdict	
<b>Old Allocations:</b>	
Karnataka to Tamil Nadu:	192 tmc ft
Bengaluru:	18.25 tmc ft
Kerala:	30 tmc ft
Puducherry:	7 tmc ft
<b>New Allocation:</b>	
Karnataka to Tamil Nadu:	177.25 tmc ft
Bengaluru:	23 tmc ft
Kerala:	No change
Puducherry:	No change

- ❖ Tamil Nadu, during the month of July, realised a heavy quantity of Cauvery water that it got not only its quota for the month and August but also much more.
- ❖ During July 1-31, the State received 96.5 thousand million cubic feet (tmc ft) of water.

- ❖ In June, Tamilandu got 2.25 tmc ft against the stipulated 9.19 tmc ft.
- ❖ Totally, in the last two months, Tamil Nadu recorded nearly 98.8 tmc ft against the quota of 40.43 tmc ft.
- ❖ For the month of July, Tamil Nadu is to get 31.24 tmc ft and for August, 45.95 tmc ft.
- ❖ As per the final award of the Cauvery Water Disputes Tribunal, as modified by the Supreme Court in February 2018, Tamil Nadu is to get 177.25 tmc ft in a water year, beginning from June.

### **Tamil Nadu's Arunthathiyar quota**



- ❖ The Supreme Court has backed the constitutional validity of a Tamil Nadu law that offered preferential treatment among the Scheduled Castes (SCs) to socially and educationally backward Arunthathiyars.
- ❖ The Court held that sub-categorisation within a class was a Constitutional requirement to secure substantive equality.
- ❖ The Tamil Nadu State Legislature had enacted the Tamil Nadu Arunthathiyars Reservation Act, 2009.
- ❖ It aims to provide the Arunthathiyars reservation in appointments or posts in State services on a preferential basis among the SCs.
- ❖ The Act has defined Arunthathiyars to include the castes — Arunthathiyar, Chakkiliyan, Madari, Madiga, Pagadi, Thoti, and Adi Andhra — from the list of 76 SCs notified by the President under Article 341 of the Constitution.

### Higher educational expenses in Tamilnadu

- ❖ The Tamil Nadu government will bear the higher educational expenses of students from State government schools who have been admitted to prestigious institutions in various parts of the country.
- ❖ The government would also bear the initial cost of travel for students of State government schools who enrolled in prestigious institutions abroad.
- ❖ The number of students qualifying for higher education in top institutions are increased to 274 in 2023 from 75 students in 2022.
- ❖ This year so far, the count is 447 (institutions in India).

### Section 77-A of the Registration Act

- ❖ The Madras High Court has declared 77-A of the Registration Act, 1908 as unconstitutional Section.
- ❖ It conferred excessive quasi-judicial power on the District Registrars to cancel documents related to any immovable property in the State if they were found to have been registered through fraud or on submission of forged revenue records.
- ❖ Section 77-A, introduced to the Central enactment by way of a 2022 State amendment.
- ❖ Sections 22-A and 22-B of the Act empower Registration Department officials to refuse registration of certain documents.
- ❖ Section 77-A empowers them to cancel documents registered in contravention of those two provisions.

#### This section 77A reads as follows:

"77-A. Cancellation of registered documents in certain cases.— (1) The Registrar, either suo motu or on a complaint received from any person, is of the opinion that the registration of a document is made in contravention of section 22-A or section 22-B, shall issue a notice to the executant and all the parties to the document and parties to subsequent documents, if any, and all other persons who, in the opinion of the Registrar, may be affected by the cancellation of the document, to show cause as to why the registration of the document shall not be cancelled. On consideration of reply, if any received therefor, the Registrar may cancel the registration of the document and cause to enter such cancellation in the relevant books and indexes.

(2) The power under sub-section (1) may also be exercised by the Inspector General of Registration."

### MBC-DNCs in higher education and employment

- ❖ Vanniyars lead the Most Backward Classes (MBC) - Denotified Communities (DNC), in terms of representation in higher education and public employment.
- ❖ In MBBS course, 5,938 candidates belonging to the MBC-DNCs were selected during 2018-2022.



- ❖ Of them, Vanniyars account for 3,354, representing about 56% of the chosen MBC-DNC candidates.
- ❖ In respect of candidates qualified in tests for police sub-inspectors during 2013-22, the MBC-DNCs constituted 605, of which 307 were Vanniyars.
- ❖ In admission to the government law colleges (2018-22), 2,096 persons belonging to the Vanniyars were chosen out of a total of 4,962 MBC-DNC candidates.
- ❖ The MBC-DNCs' quota of 20% forms part of the 69% quota for Backward Classes, BC (Muslims), MBC-DNCs and Scheduled Castes (SCs)/Scheduled Tribes (STs).
- ❖ There are 41 communities in the list of MBCs and 68 under DNCs.

**Ahead of others**  
A look at various posts secured by MBCs, and DNCs in the State

Period and post	Vanniyars			DNC			Other MBCs			Total	
	Quota Seats	OC seats	Total	Quota Seats	OC seats	Total	Quota seats	OC seats	Total	No	Share (in %)
2013-2022 TNUSRB Sub Inspectors (total no of selected candidates: 1,919)	NA	NA	317 (17%)	NA	NA	152 (7.9%)	NA	NA	126 (6.5%)	605	31.55%
2013-2022 MRB Assistant Surgeons/ Assistant Medical Officers (total no of selected candidates: 8,579)	1,185	248	1,433 (17.1%)	292	73	365 (4.3%)	734	138	842 (10%)	2,640	31.55%
2021 TRB PG assistants (total no of selected candidates: 3,044)	NA	NA	533 (17.5%)	NA	NA	130 (4.3%)	175	58	230 (7.6%)	893	29.45%
2021 TNFUSRC forest officials (total no of selected candidates: 1,520)	192	115	308 (20.2%)	92	13	105 (6.9%)	41	27	68 (4.5%)	481	31.60%
2013 & 2018 TNPSC Group II (total no of selected candidates: 2,882)	NA	NA	386 (13.4%)	92	30	124 (4.3%)	171	50	221 (7.7%)	679	23.55%
2013-22 TNPSC Group IV (total no of selected candidates: 26,784)	NA	NA	5,215 (19.5%)	NA	NA	1,565 (5.8%)	NA	NA	2,882 (10.8%)	9,662	36.07%
2013-22 Combined Engineering Services (total no of selected candidates: 1,768)	182	76	258 (14.6%)	73	25	98 (5.5%)	100	26	126 (7%)	452	25.54%
2013-22 civil judges' examinations (total no of selected candidates: NA)	39 (10.5%)	NA	NA	10 (4%)	NA	NA	24 (6.1%)	NA	NA	73	NA
Deputy Collectors (as on Sept 1, 2013) (Total in service: 542)	63 (11.6%)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TNPUSRB: Tamil Nadu Uniformed Services Recruitment Board | MRB: Medical Services Recruitment Board | TRB: Teachers Recruitment Board  
TNFUSRC: Tamil Nadu Forest Uniformed Services Recruitment Committee | NA: Not available | NP: Not applicable

## Ranipet monument

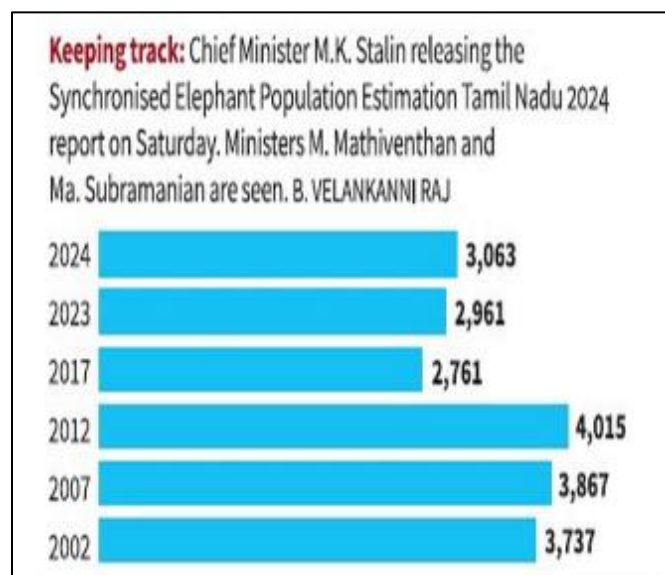
- ❖ The memorial that gave Ranipet its name is to be declared a monument by the Tamil Nadu State Archaeology Department.
- ❖ The town derives its name from the young wife of Rajput ruler of Gingee of the 18th Century.
- ❖ At present, the State Archaeology Department has 108 monuments.
- ❖ Madurai has the largest number of monuments (18), followed by Villupuram (10) and Kancheepuram (8).
- ❖ The Valeeswarar Temple in Arakkonam, Seven Mother's Sculptures and Kanja Sahib Tomb in Sholinghur are the three monuments in Ranipet district.

## Tirupur inscriptions



- ❖ One 'Vattezhuthu' and eight Tamil inscriptions were found on the walls of Thaleekeeiswarar Temple at Kovilpalayam near Koduvai in Tirupur.
- ❖ It is estimated to be more than 1,100 years old.
- ❖ The 'Vattezhuthu' inscription, was a form of Tamil writing script that was prevalent from 5th Century Common Era (CE) to 12th Century CE.
- ❖ Among the eight Tamil inscriptions was one by Kongu Chola Ruler Vira Rajendran (1207-1256).
- ❖ The rest were by his grandson Vikrama Chola (1273-1305 CE).
- ❖ The inscriptions indicate that the village falls in the 'Pongalurkanadu' of the ancient Kongu Nadu.

## TN Wild elephant population 2024



- ❖ Tamil Nadu has around 3,063 elephants, according to the synchronised elephant population estimation this year.
- ❖ This is an increase from 2,961 elephants, recorded in the previous survey in 2023.
- ❖ The estimated population was the highest in STR-Sathyamangalam forest division (372).
- ❖ It is followed by Coimbatore (336), STR-Hassanur (279), MTR-Udhagai (271), MTR-Masinagudi (263), and Hosur (240).
- ❖ Among the five elephant reserves, the Nilgiris Eastern Ghats Reserve has the highest density of elephants.
- ❖ It is followed by Nilambur-Silent Valley-Coimbatore, Agasthyamalai, Anamalai-Parambikulam, and Periyar.
- ❖ The Nilgiri and Coimbatore Elephant Reserves together represent about 70% to 80% of the total elephant population in the State.
- ❖ These reserves are connected to Wayanad and Nilambur Reserves in Kerala, and Mysore Reserve in Karnataka, forming the Nilgiri-Eastern Ghats landscape.
- ❖ Tamil Nadu could not hold more than 3,200 elephants as that was the saturation point.

### **Terracotta pipelines – Keeladi 2024**



- ❖ A hollow terracotta pipeline resembling a drainage system has been unearthed in Keeladi.
- ❖ The unearthed materials have proved the knowledge that prevailed in the water management system.
- ❖ The alignment seems to be in a series connected to the pipelines in the adjoining sections.

### New mayors of Tirunelveli and Coimbatore

- ❖ Mayors of these corporations, PM Saravanan and Kalpana Anandakumar, had resigned on July 3.
- ❖ The State Election Commissioner instructed the collectors of Tirunelveli and Coimbatore to conduct election.
- ❖ The candidate has been chosen by indirect election in Tamil Nadu.
- ❖ In indirect elections, the elected councillors will vote to select a candidate to the mayoral post.
- ❖ A second-time councillor G. Ramakrishnan was elected Mayor of Tirunelveli.
- ❖ The Councillor R. Ranganayaki has been elected as Mayor for the Coimbatore Corporation.

### Centre for Innovation in Governance

- ❖ A Centre for Innovation in Governance has been set up at the Tamilnadu State Planning Commission.
- ❖ A first-of-its-kind initiative in the country, the centre, is established by the Tamil Nadu government under State Planning Commission.
- ❖ It aims at fostering an innovative ecosystem in governance in the State.
- ❖ The Centre will provide support to government departments and district administrations in piloting innovative projects and building capacity in various technologies that would augment effective governance in the State.

### Loan scheme of NCDC - Tamilnadu

A rundown on lending							
Loans disbursed by the National Cooperative Development Corporation since 2019-20							
(₹ in crore)							
Year	Andhra Pradesh	Karnataka	Kerala	Tamil Nadu	Telangana	Sub-total for southern States	Grand total (all-India)
2019-20	400.31	149.03	359.88	18.23	3,553.70	4,481.15	27,569.16
2020-21	575.05	170.11	295.53	16.77	685.11	1,742.57	24,421.57
2021-22	2,828.57	163.57	362.45	46.56	990.66	4,391.81	33,939.08
2022-23	9,686.20	111.48	677.05	24.59	9,091.26	19,590.58	40,513.29
2023-24	13,269.90	259.96	272.33	-	11,931	25,733.19	60,218.53
2024-25*	500	225.22	120.29	-	12,001.06	12,846.57	19,256.53

\* As on June 30, 2024. Note: The Union Territory of Puducherry did not draw any loan in all these years. Since 2023-24, Tamil Nadu, too, did not take any loan from the Corporation



- ❖ Tamil Nadu has displayed a perceptible lack of interest towards the loan scheme of the National Cooperative Development Corporation (NCDC).
- ❖ It provides the assistance for weaker-section programmes and other purposes.
- ❖ Since 2019-20, the State took loans to the extent of ₹106.15 crore.
- ❖ From 2023-24, it stopped drawing any loan from the NCDC, even though it received grants of ₹5.78 crore in the two years.
- ❖ State of Andhra Pradesh had availed itself of ₹ 27,260.03 crore and Telangana, ₹38,252.79 crore.
- ❖ The rate of interest in respect of loans, if applied through State governments, for the weaker section programmes is 11.5%.
- ❖ In the event of direct funding, the rates are 11.8% (if the project cost up to ₹1 crore) and 11.92% (exceeding ₹1 crore).
- ❖ The NCDC's rates of interest are "very high" with "many conditions".

### **Verdict on Uthapuram temple**

- ❖ The Madras High Court ordered to open the Sri Muthalamman; Sri Mariamman temple situated in Uthapuram village in Peraiyur taluk in Madurai district.
- ❖ It had remained closed for 10 years due to the community clash.
- ❖ The court also held that, the idol housed in a temple is to be treated as a living person and the closure of the temple without customary pujas will amount to its imprisonment.
- ❖ An idol is considered as a juristic personality in law.
- ❖ This is understood as enabling the idol to hold property and to sue and be sued in its name.
- ❖ No temple can be locked and sealed on the grounds of law and order.
- ❖ Any temple is an abode of deity.
- ❖ The question is whether a temple can be closed by citing public order.
- ❖ So long as there is no practice of untouchability or offending the rights of others, a temple cannot be closed or shut down indefinitely.
- ❖ This is as much the right of a devotee to offer worship as well as the right of the deity to observance of the customary rituals.
- ❖ The court has to exercise parens patriae jurisdiction when the interest of minors, the mentally ill and idols are at stake.
- ❖ The fundamental right of the petitioner guaranteed under the Constitution to visit the temple and take part in the worship of the deity shall not be taken away for any reason.



## Tamil Pudhalvan scheme 2024



- ❖ Tamil Nadu Chief Minister on August 9, launched the Tamil Pudhalvan scheme in Coimbatore.
- ❖ Under this, boys of the state government schools who join colleges will get ₹1,000 per month.
- ❖ It is on the lines of Pudmaipen Scheme for girl students.
- ❖ A total of three lakh girl students have been benefitted by the scheme launched by the Chief Minister in September 2022.
- ❖ In Tamil Nadu, a total of 7,72,000 students complete school education in government schools and government-aided schools
- ❖ A total of 2,09,365 girls had been benefitted by the Pudmaipen scheme in 2022-23 and their number had increased to 2,73,596 in 2023-24.
- ❖ The scheme was extended to students of Tamil medium in government aided schools in 2024-25.
- ❖ The state's Gross Enrolment Ratio in higher education is higher than the national average.

## Detention under Goondas Act

- ❖ The Madras high court quashed the detention of Youtuber Shankar under the Goondas Act.
- ❖ It is highlighted the Article 19(1)(a) and held "soul of a healthy democracy lies in free speech."

- ❖ He was booked under Section 509 of Indian Penal Code (IPC) read with Section 4 of Tamil Nadu Prohibition of Harassment of Women Act, 1998, Section 67 of the Information Technology Act, 2000.



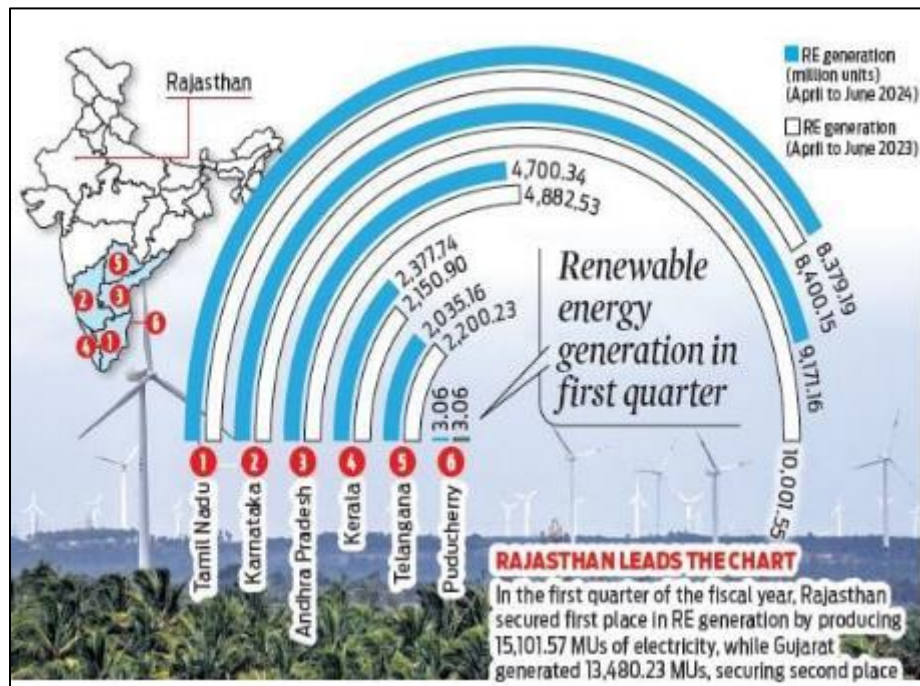
### Public EV charging stations - 2023

- ❖ Public electric vehicle charging stations in Tamil Nadu consumed 1.727 million units (MU) of electricity in the first two months of financial year 2024-25.
- ❖ The overall electricity consumption by public charging stations across India was 113.58 MU in the first two months of FY2024-25.
- ❖ In Tamil Nadu, 163 public charging stations consumed 1.032MU of electricity in April 2024, while 154 consumed 0.695 MU in May 2024.
- ❖ The major regions in Tamil Nadu with public charging stations included Coimbatore, Villupuram, Tirunelveli, Chennai North and Vellore.
- ❖ In 2023-24, the public charging stations in Tamil Nadu consumed 13.383 MU of electricity.
- ❖ In April 2023 and May 2023, the consumption was 1.438 MU and 1.422 MU respectively.
- ❖ Around 40% of the EV four-wheelers and close to 70% of the EV two-wheelers sold in the country are made in Tamil Nadu.

- ❖ Delhi (54.43 MU), Maharashtra (28.64 MU), Gujarat (8.78MU) were the top states in terms of electricity consumption by public charging stations.



### Renewable energy generation in Tamilnadu 2024



- ❖ Tamil Nadu has continued to rank second in renewable energy generation among southern states during the first quarter of the current financial year for the second year in a row.
- ❖ The state produced 8,379.19 million Units (MUs) of renewable energy.

- ❖ This is bit less than 8,400.15 MUs it generated during the same period last year.
- ❖ Karnataka took the top spot by generating 9,171.16 MUs despite recording a marginal dip from 10,001.55 MUs it generated last year.
- ❖ Tamil Nadu led in wind energy generation, producing 4,114.02 MUs, while Karnataka generated 3,095.93 MUs.

### **School education helpline - 14417**



- ❖ Tamil Nadu government has directed the school education helpline 14417 to extend its services.
- ❖ The helpline has now begun running 24x7 to address the increasing number of calls about the scheme, which offers ₹1,000 every month to college-going boys.
- ❖ According to the School Education Department, 14417 was converted to a 24X7 helpline from 5 August, 2024.

### **Higher education in Tamil Nadu – 9th NIRF**

- ❖ Tamil Nadu continues to be the destination for higher education, as per the results of the 9th edition of the National Institutional Ranking Framework.
- ❖ The Indian Institute of Technology Madras stood first in overall ranking and the engineering category.
- ❖ It also scored second in research and innovation category.
- ❖ The State is home to 18 of the 100 top institutions in the country.
- ❖ They include six State universities, 10 private institutions and two Central institutes.
- ❖ The State universities are: Anna University (rank 20); Bharathiar University (44); Bharathidasan University (55); University of Madras (64); Alagappa University (76) and Periyar University (100) are State-run institutions.



- ❖ Anna University tops the public funded State universities in the country and is ranked 13 among universities.
- ❖ The Tamil Nadu Agriculture University is ranked 6 in its category and the TN Veterinary and Animal Sciences University is ranked 17.
- ❖ JSS College of Pharmacy, Ooty, is ranked 6th, the College of Pharmacy of Madras Medical College is ranked 78.
- ❖ Of the six architecture and planning colleges four are in Chennai.
- ❖ Madras Medical College is ranked 10 while Christian Medical College is ranked 3rd among medical colleges.
- ❖ Presidency College is ranked 13 from 3rd last year in arts and science colleges and Loyola has been ranked 8th.

NIRF RANKINGS 2024		STATE PUBLIC UNIVERSITY		ENGINEERING		DENTAL	
Top educational institutions in each category from Tamil Nadu		(New category)		IT Madras		Saveetha Institute of Medical and Technical Sciences	
		Anna University		NIT Trichy		SRM Dental College	
		Bharathiar University		Vellore Institute of Technology		Sri Ramachandra Institute of Higher Education and Research	
		University of Madras		SRM Institute of Science and Technology		Meenakshi Academy of Higher Education and Research	
		Bharathidasan University		Anna University		Anrita Vishwa Vidyapeetham	
		Alagappa University					
TOP FIVE COLLEGES		UNIVERSITIES		MEDICAL		MANAGEMENT	
NIRF 2024 RANKING		Anrita Vishwa Vidyapeetham		Christian Medical College		IT Madras	
(Within bracket previous year's ranking)		Vellore Institute of Technology		Anrita Vishwa Vidyapeetham		NIT Trichy	
		Saveetha Institute of Medical and Technical Sciences		Madras Medical College		Anrita Vishwa Vidyapeetham	
PSG Krishnammal College for Women, Coimbatore		SRM Institute of Science and Technology		Saveetha Institute of Medical and Technical Sciences		Great Lakes Institute of Management	
Loyola College, Chennai		Anna University		SRM Institute of Science and Technology		NIT Trichy	
PSG College of Arts and Science, Coimbatore							
Presidency College, Chennai							
Madras Christian College							
						</	



- ❖ CM had presented the 'Thagaisal Thamizhar' award to veteran Congress leader Kumari Ananthan.
- ❖ Dr. A.P.J. Abdul Kalam award was presented to ISRO scientist P. Veeramuthuvel.
- ❖ Kalpana Chawla Award for Courage and Daring Enterprise was given to nurse A. Sabeena, who rescued people affected in the Wayanad landslides.
- ❖ The monthly pension for Freedom fighters will be increased from Rs 20,000 to Rs 21,000.
- ❖ Martyrs' family pension will also be increased from Rs. 11,000 to Rs. 11,500.
- ❖ The pension for the descendants of Kattabomman, VOC, and Maruthu brothers will be increased to Rs 10,500.

### Investment proposals in Tamilnadu 2024



**எங்கெங்கு எவ்வளவு முதலீடுகள்..?**  
**அமைச்சர் பகிர்ந்த தகவல்கள்..?**

- ₹44,125 கோடி முதலீட்டு திட்டங்களுக்கு அமைச்சரவை ஒப்புதல். புதிய தொழில் முதலீடுகள் மூலம் 24,000 பேருக்கு வேலைவாய்ப்பு.
- ஈரோட்டில் மில்கி மிஸ்ட் நிறுவனம் ₹1770 கோடி முதலீடு
- கிருஷ்ணகிரியில் கிரீன் டெக் நிறுவனம் ₹1,779 கோடி முதலீட்டு திட்டம் தொடக்கம்
- காஞ்சிபுரத்தில் மதர்ஸ் எலக்ட்ரானிக்ஸ் நிறுவனம் ₹2200 கோடி முதலீடு.
- ஸ்ரீபெரும்புதூர் அருகே வல்லம்படுகையில் ₹206 கோடியில் தொழிலாளர்களுக்கான தங்கும் இடம் வரும் 17ம் தேதி திறப்பு. நாட்டிலேயே முதல்முறையாக 18,000 படுக்கை வசதியுடன் தொழிலாளர்களுக்கு தங்கும் இடம் ஏற்பாடு செய்யப்பட்டுள்ளது.

அமைச்சரவை சபட்டத்திற்கு பின் நிதியமைச்சர் தங்கும் தென்னரைத் தகவல்..!

- ❖ Tamil Nadu Cabinet approved investment proposals to the tune of ₹44,125 crore into the State.
- ❖ The investment proposals by 15 companies are expected to generate employment for over 24,000 people.
- ❖ The Sembcorp would invest ₹21,340 crore in Thoothukudi district generating employment for over 1,100 people.
- ❖ The Motherson would invest ₹2,600 crore in Kancheepuram district to generate employment for over 2,500 people.



- ❖ Milky Mist would invest ₹1,777 crore in Erode district and Lohum Tech would invest ₹1,597 crore in Krishnagiri district on lithium battery recycling.

### **Tamil Nadu Government awards 2024**

- ❖ Tamil Nadu government announced the recipients of Good Governance Awards, Chief Minister's Police Medal for Excellence in Investigation and Chief Minister's Police Medal for Excellence in Public Service for 2024.
- ❖ It also announced recipients for certificates for innovative initiatives.
- ❖ Six officers will receive Good Governance Awards.
  - They are: J. Innocent Divya, S. Divyadharshini, V.P. Jeyaseelan, K. Elam bahavath, N. Gopalakrishnan and D. Vanitha.
- ❖ 10 police officers would receive the Chief Minister's Police Medal for Excellence in Investigation.
  - They are: Deputy Superintendents of Police N. Suresh, S. Sowmiya and S. Pugazhenthir Ganesh; Inspectors K. Punitha, T. Vinothkumar, I. Sornavalli, N. Parvathi, P. Radha, R. Dheivarani and A. Anbarasi.
- ❖ IGP T.S. Anbu, SP E. Karthik, DSP C.R. Boopathirajan, Inspector K. Srinivasan and SI P.V. Mubaidullah would receive the Chief Minister's Police Medal for Excellence in Public Service.
- ❖ Three officers - IAS officers D. Jagannathan and P. Madhusudhan and retired IAS officer R. Sudhan Reddy would receive certificates for innovative initiatives for this year.

### **Autonomy to University of Madras**

- ❖ The University Grants Commission has announced formally that the University of Madras is now a category-1 institution.
- ❖ Last year the University received A++ grade from the National Assessment and Accreditation Council.
- ❖ The UGC in its 582<sup>nd</sup> meeting on July 24 decided to grade University of Madras as a category-1 university.
- ❖ This means the university has complete autonomy and is eligible for all benefits stipulated in clause 4 Dimension of Autonomy for category -1 universities as per the regulations.

### **Athikadavu-Avinashi project 2024**

- ❖ The Athikadavu-Avinashi project in Tamil Nadu, which was conceived 67 years ago, is finally commissioned recently.
- ❖ The project proposes to divert 1.5 thousand million cubic feet (TMC) of surplus water from the downstream of Kalingarayan anicut of the Bhavani River at Kalingarayanpalayam in Erode district.
- ❖ It diverted to fill 1,045 water bodies and irrigate 24,468 acres of farm land in Erode, Tiruppur, and Coimbatore districts.
- ❖ The then Chief Minister K. Kamaraj in 1957 to divert the water through open canals and fill the dry pockets in the erstwhile Coimbatore district.
- ❖ The scheme was initially named the Upper Bhavani Project.
- ❖ In 2009, a technical expert committee was constituted under the chairmanship of A. Mohanakrishnan, that investigated the viability of the scheme.
- ❖ In 1972, the project was re-christened the Athikadavu-Avinashi Ground Water Recharge and Drinking Water Supply Scheme.
- ❖ The foundation stone for the ₹1,652-crore project was laid on February 28, 2019 and the project commenced on December 25, 2019.



### **Sipcot's industrial housing facility**

- ❖ TN Chief minister inaugurated a 706-crore industrial housing facility for women employees of Foxconn company's Sriperumbudur plant.
- ❖ The residential complex is now the largest of its kind for workers in India.
- ❖ Foxconn employs 41,000 workers in the state, of which 35,000 are women.
- ❖ Foxconn's largest workforce outside China is India now, and the largest number is in Tamil Nadu.
- ❖ Sipcot (State Industries Promotion Corporation of Tamil Nadu) would soon build creches in its industrial estates.
- ❖ TN has the most women factory workers in the country at 42%.

### **Tamil Nadu's New Chief Secretary 2024**

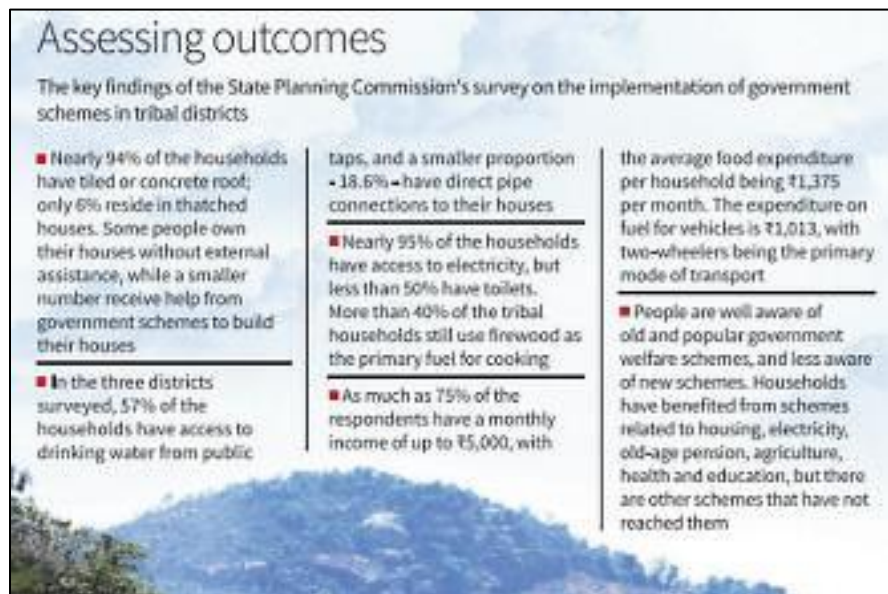
- ❖ Tamil Nadu government has appointed senior IAS officer N. Muruganandam as the Chief Secretary, replacing Shiv Das Meena.
- ❖ He became the 50th chief secretary of Tamil Nadu.
- ❖ Also, he is the third Dalit chief secretary of Tamil Nadu after A Padmanaban (1985) and A P Muthusamy (1999).
- ❖ Mr. Meena, who is set to retire in October, has been appointed chairperson of the Tamil Nadu Real Estate Regulatory Authority (TNRERA).

### **Evaluation of Schemes in the Tribal Villages**

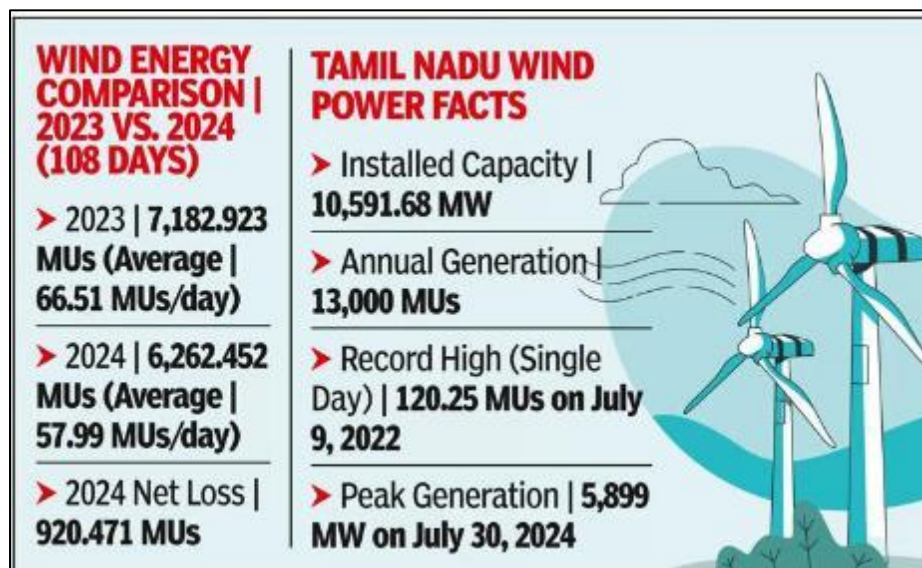
- ❖ According to the 2011 Census, there are 36 sub-groups of tribes in the Tamilnadu State.
- ❖ The main tribes among them are Malayali, Toda, Kurumbas, Paniyan, Irular, Kattunayakan, Kanikkar, Palliyan, and Kadar.
- ❖ Of these, Toda, Kota, Kurumbas, Kattunayakan, Paniyan, and Irular have been designated as 'Primitive Tribes'.
- ❖ The combined Scheduled Tribes population of the State, as per the 2011 Census, is 7.94 lakh, representing 1.10 per cent of the total population of the State (which is 721 lakh).
- ❖ Out of the 7.94 lakh tribal population, 50.5 per cent are males and 49.5 percent are females.
- ❖ The State Planning Commission (SPC) conducted a comprehensive evaluation of the implementation of government schemes in the densely-populated tribal districts of Salem, Kallakurichi, and Tiruvannamalai in the Eastern Ghats.
- ❖ It found persistent challenges pertaining to basic infrastructure, transportation, and education.
- ❖ There was a need to increase both the frequency and the number of government bus services.
- ❖ It had also found that the State government's free bus travel for women scheme was not available in this hilly region.
- ❖ There is a need to establish more schools and upgrade existing high schools into higher secondary schools to reduce dropout rates and increase enrolment.
- ❖ In the tribal area, there are no government or private polytechnic and arts and science colleges, except for the government ITI.
- ❖ Seasonal migration of entire families to other states for employment has also led to the discontinuation of their education.



- ❖ The study also found that over 97 per cent of households possess both a voter identity card and an Aadhaar card.
- ❖ Approximately 10 per cent of households have a savings account at a post office.
- ❖ More than 85 per cent have an account with a commercial bank.
- ❖ Over 60 per cent of households hold community certificates, whereas only 15 per cent have tribal identity cards.
- ❖ People were well aware of old and popular government welfare schemes but they were less aware of new schemes.



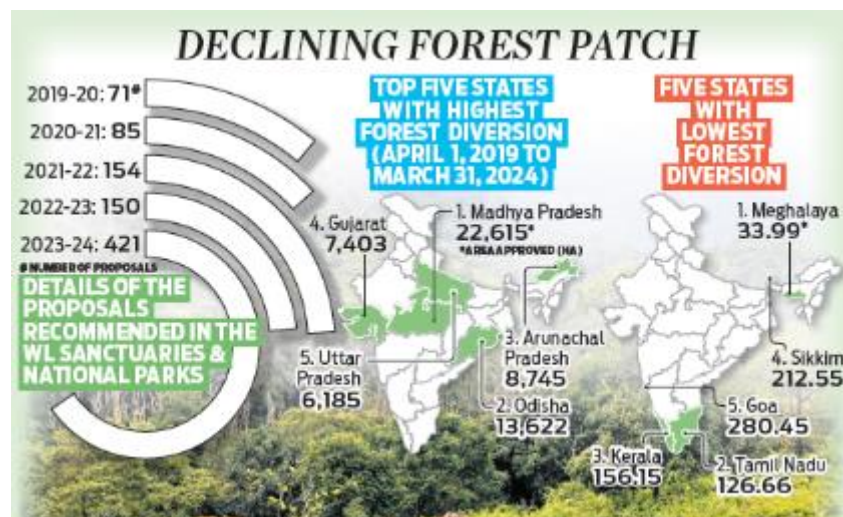
## Total installed power capacity July 2024





- ❖ Tamil Nadu's total installed power capacity was 40,527.24 MW as on July 31, 2024, according to data from the Central Electricity Authority (CEA).
- ❖ The coal-fired power capacity stood at 12,771.99 MW.
- ❖ Of this, 4,320 MW was from the State sector; 5,426.67 MW, the private sector; and 3,025.32 MW, the Central sector.
- ❖ Tamil Nadu's lignite-based thermal capacity stood at 1,959.16 MW, with a contribution of 1,709.16 MW from the Central sector and 250 MW from the private sector.
- ❖ Gas-based power plants' capacity was 1,027.18 MW, with 524.08 MW coming from the State Sector and 503.10 MW from the private sector.
- ❖ The private sector accounted for diesel-based power capacity of 211.70 MW, while 1,448 MW of nuclear power capacity came from the Central sector.
- ❖ The overall conventional power installed capacity in the State was 17,418.03 MW.
- ❖ The State's renewable energy installed capacity stood at 23,109.21 MW.
- ❖ Of this, 2,178.20 MW was of hydro power; 10,881.34 MW, wind; and 8,831.86 MW, solar.
- ❖ Biomass, and co-generation bagasse power plants, among others, accounted for the rest of the renewable energy capacity.

### Status of Forests in Tamil Nadu 2024



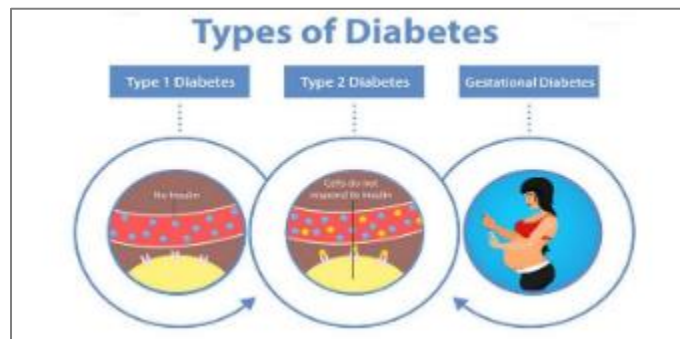
- ❖ The State Planning Commission has identified policy focus areas to improve the forest cover in Tamil Nadu after analysing 20 years of data.
- ❖ It has been brought out by the Tamil Nadu State Land Use Research Board of the Commission.

- ❖ The Nilgiris now tops the table with a loss of 226 sq. km between 2003 and 2011 of dense forests and 348 sq. km of moderately dense forests between 2011-2021.
- ❖ The five - Chennai, Tiruvarur, Karur, Nagapattinam, and Perambalur districts accounts for only 1.89% of the State's Forest cover.
- ❖ Sivagangai district's forest cover came down by 20.47% in the last two decades, followed by Villupuram (13.85%), and Kancheepuram (13.03%).
- ❖ Dharmapuri has lost 409 sq. km of open forests.
- ❖ The tree cover in the State from 2001 to 2021 to an extent of 1,630 sq. km.
- ❖ The share of Tamil Nadu in the national mangrove cover is only 0.9%.
- ❖ Tamil Nadu has recorded an increase in the mangrove cover from 23 sq. km in 2001 to 49 sq. km in 2017.
- ❖ But the State had lost 4 sq. km of the mangroves between 2017 and 2021.

### 385th Madras Day 2024 - August 22

- ❖ Madras Day is a festival organized to commemorate the founding of the city of Madras (now Chennai) in Tamil Nadu on 22<sup>nd</sup> August every year.
- ❖ On 22 August 1639, it is being the widely agreed date for the purchase of the village of Madraspatnam or Chennapatnam by the East India Company from Damarla Venkatadri Nayaka.
- ❖ The first recorded celebration of the founding of Madras was its commemoration in 1939.
- ❖ Recent idea to mark Madras Day celebrations was started by Chennai Heritage Foundation in 2004.

### Diabetes registry



- ❖ Tamil Nadu has formed a registry for type 1 diabetes.
- ❖ Patients in the registry would receive treatment, including insulin therapy, at no cost.

- ❖ Type 1 diabetes is an autoimmune disease where the body's immune system mistakenly attacks and destroys insulin-producing cells in the pancreas.
- ❖ This was leading to an increase in sugar levels in the body.
- ❖ India has an estimated 8.60 lakh people with type 1 diabetes – one of the highest in the world.

### Tamil Nadu investment conclave 2024

- ❖ Chief Minister laid the foundation stone for 28 industrial projects with a collective investment of Rs 51,157 crore.
- ❖ He also inaugurated 19 additional projects with an investment of Rs 17,616 crore, totaling 47 projects.
- ❖ These initiatives are expected to generate the employment for over one lakh individuals.

**தமிழ்நாடு முதலீட்டாளர்கள் மாநாடு**  
**முதலமைச்சர் தொடங்கி**  
**வைத்த 19 புதிய திட்டங்கள்**

	முதலீடு (₹கோடி)	தொடக்கம்	மொத்தம்
Omron Healthcare	128	88	திருவள்ளூர்
Hi-P	312	700	சாஞ்சிபுரம்
Matheson Electronic	2,600	2,800	சாஞ்சிபுரம்
LSI Innovation	3,500	40,000	சென்னை
TVS Indecon	2,850	800	திருவள்ளூர்
Jurojin Developers	2,000	1,500	சாஞ்சிபுரம்/திருவள்ளூர்
Renault Nissan Tech		2,000	சென்னை
Sundram Fasteners	1,411	1,577	திருவள்ளூர்
ESJAY Pharma	1,000	1,500	சாஞ்சிபுரம்
ENES Textile Mills	1,000	7,000	யோகோட்டி, திருப்பூர்
Caplin Point	700	1,500	திருவள்ளூர்
WEG Industries	650	650	திருவள்ளூர்
Milky Mat	500	3,400	நாடோடு
Gurit Wind	300	300	சாஞ்சிபுரம்
Hibrow Healthcare	200	300	சாஞ்சிபுரம்
Royal Enfield	200	200	திருவள்ளூர்
Grupo Cosmos	100	300	சாஞ்சிபுரம்
GP Sulphonates	100	150	திருவள்ளூர்
Matheson Health	65	203	சாஞ்சிபுரம்

**திட்டங்கள் - 19 | முதலீடுகள் ₹17,616 கோடி | உருவாக்கம் 64,968**

- ❖ The Singapore-headquartered Sembcorp will invest Rs 36,238 crore for the establishment of a green hydrogen/green ammonia manufacturing unit in Tuticorin district.
- ❖ Renewable energy company Greenko Group will set up pumped storage projects across Tamil Nadu with an investment of Rs 20,114 crore.
- ❖ The government in association with TIDCO and TATA Technologies with establish the Tamil Nadu Engineering and Innovations Centre (TN ENGINE) at Coimbatore with an investment of Rs 400 crore.

## Green policies in energy sector



- ❖ The Tamil Nadu government has approved three major power policies on pumped storage projects, small hydel projects, and wind repowering and life extension.
- ❖ This marks the first time such policies are being introduced in the state's energy sector.
- ❖ The state is aiming to boost the green energy sector with a target of setting up renewable energy power plants with a combined capacity of 20,000 MW by 2030.

## Chandru committee recommendation on centralized kitchen

- ❖ Experts expressing concerns about one of the recommendations of the Justice K. Chandru committee, on replacing the on-site cooking of noon-meal for school students with centralised kitchens.
- ❖ The report has recommended the Tamil Nadu government to prohibit students in schools from wearing coloured wristbands, rings, or forehead marks that may indicate their caste and removal of caste appellations in the names of schools.
- ❖ The report includes establishing centralised kitchens at block level with adequate staff required for its operation and a distribution network attached to school noon meal centres, instead of having kitchens in every school.
- ❖ In some States, functioning of centralised kitchens, particularly in rural areas, were not up to the mark.
- ❖ When food is cooked in the noon meal centres located within school premises, teachers, students and parents can monitor the cooking activities and the process is accountable.



- ❖ But in the case of centralised kitchens, there is a less chance of the public accountability.
- ❖ Cooking food at noon meal centres in schools generates employment, particularly for women.
- ❖ Nearly 27% of the noon-meal workers belong to Scheduled Caste or Scheduled Tribe communities.

### **Kalvarayan hills overexploitation – Jagirdars**



- ❖ Kalvarayan hills were overexploited by three of its Jagirdars (mini rulers) before the State government takeover in 1976.
- ❖ It is spread over 78,000 hectares in the eastern ghats.
- ❖ The Kalvarayan hills were spread over 600 square kilometres across Kallakurichi, Salem, Tiruvannamalai and Dharmapuri districts.
- ❖ They had an elevation ranging from 600 to 900 metres.
- ❖ The hills were ruled by the Jagirdhars Jadayak Goundan, Ariyak Goundan and Kurumba Goundan for long time.
- ❖ But the Inam Estates (Abolition and Conversion into Ryotwari) Act of 1963 was intended to abolish the Jagirs.



- ❖ The State government passed an order on December 31, 1965 for taking control of the Kalvarayan hills under the 1963 Act.
- ❖ The legal battle ended only in 1976 when the cases were withdrawn and the government finally took over the lands on August 25, 1976.
- ❖ These hills had a population of around 20,000 people as per the 2011 census.

### **1,300 artefacts in Vembakottai**

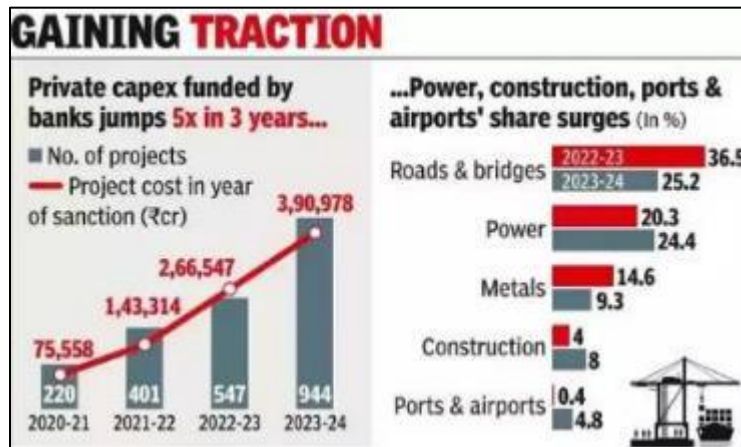
- ❖ More than 1,300 artefacts have been unearthed during the excavations at Vembakottai in Virudhunagar district.
- ❖ A carnelian intaglio showing a humped bull was also found at this site.
- ❖ This is the second such carnelian intaglio found during archaeological excavation in Tamil Nadu.
- ❖ Another one such material on a wild boar was found in Keezhadi near Madurai in the past.
- ❖ Carnelian are generally found only in Maharashtra and Gujarat and intaglio technique is from Rome.
- ❖ The carnelian intaglio found in Keezhadi and Musiri belonged to the Sangam era.



### **Global Muthamizh Murugan Conference 2024**

- ❖ The two-day Global Muthamizh Murugan Conference was held in Palani.
- ❖ The conference aims to bring together the devotees and harness the philosophy of Lord Murugan.
- ❖ More than 50 devotees from Japan participated in the Conference.
- ❖ It features about 1,300 research papers presented by Tamil scholars from around the globe, including the US, Canada, the UK, Australia, Sri Lanka, Singapore, and Mauritius.

## Private projects sanctioned by banks in Tamilnadu



- ❖ The number of private sector projects in Tamil Nadu financed by banks and financial institutions increased to 83 in 2023-24 from 44 in 2022-23.
- ❖ The State's share in overall project cost of ₹3,90,978 crore dipped to 3% in 2023-24.
- ❖ The State's share was 4.8% in the total cost of ₹2,66,546 crore in 2022-23.
- ❖ The number of private projects sanctioned by banks and financial institutions in Tamil Nadu was 40 in 2021-22.
- ❖ The state-wise distribution of projects sanctioned by banks and financial institutions revealed that the top five states viz., Gujarat (14.7%), Maharashtra (11.7%), Karnataka (11.1%), Andhra Pradesh (10.1%) and Uttar Pradesh (7.6%).
- ❖ They had together accounted for about 55 per cent of the total cost of projects sanctioned during 2023-24.
- ❖ Tamil Nadu ranks only at 12th place in 2023-24 in terms of share in total project cost, when compared to no 1 position in 2018-19.

## Rare granite idol

- ❖ Around 300 years old granite Amman idol was unearthed at Mathur village near Cheyyar in Tiruvannamalai.
- ❖ They also discovered a small bronze sword with a handle.
- ❖ The idol was belonged to the later Vijayanagara era.
- ❖ Because it was during that period that the region witnessed more temple-related construction activities.
- ❖ Under the Indian Treasure Trove Act 1878, anything found below one foot belongs to the government.

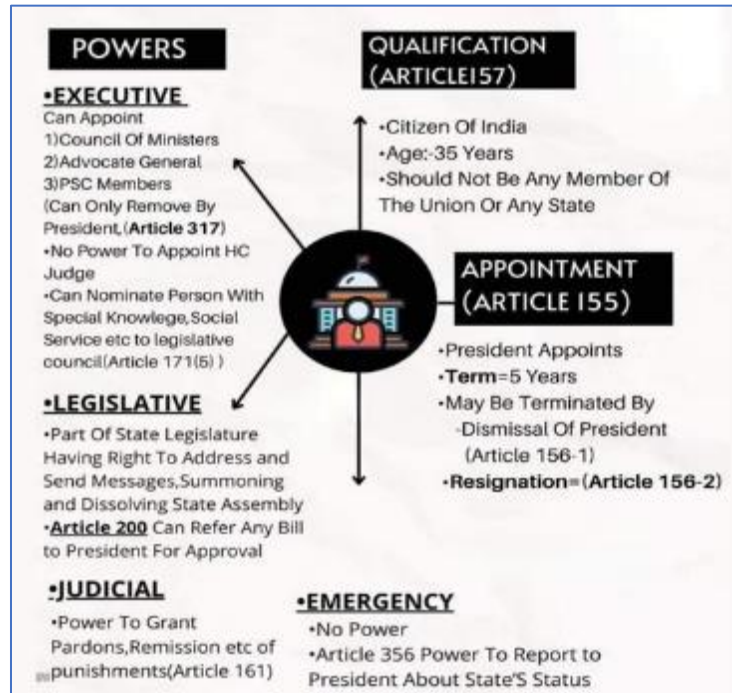


## NATIONAL

### New Governors Appointment 2024

- ❖ President Droupadi Murmu appointed Governors to nine states.
- ❖ Santosh Gangwar has been appointed Governor of Jharkhand.
- ❖ Former Lok Sabha MP from Assam Ramen Deka has been appointed Governor of Chhattisgarh.
- ❖ The Former Maharashtra Assembly Speaker Haribhau Kisanrao Bagde has been appointed Governor of Rajasthan.
- ❖ Former Deputy CM of Tripura Jishnu Dev Varma has been appointed Governor of Telangana.
- ❖ O P Mathur, a former member of the Rajya Sabha, has been appointed Governor of Sikkim.
- ❖ The Former Lok Sabha member from Karnataka C H Vijayshankar has been appointed Governor of Meghalaya.
- ❖ K Kailashnathan, a retired IAS officer, has been appointed the Lt Governor of Puducherry.
- ❖ C P Radhakrishnan, Governor of Jharkhand with additional charge of Telangana, will now be Governor of Maharashtra.

- ❖ Gulab Chand Kataria, Governor of Assam, has been appointed as Governor of Punjab and also Administrator of the Union Territory of Chandigarh.



## First offshore mineral auctions

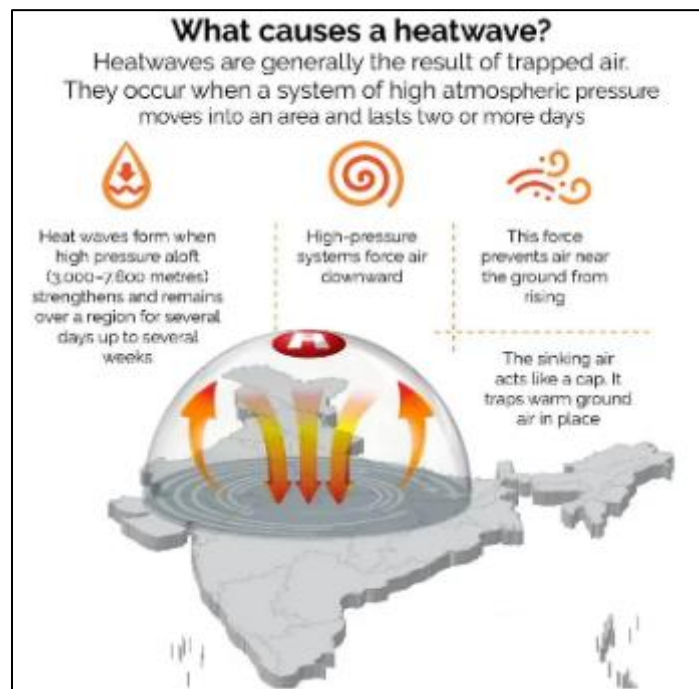


- ❖ 10 blocks located in India's Exclusive Economic Zone (EEZ) are available for auction for grant of composite license.
- ❖ Of these, 7 blocks of poly-metallic nodules and crusts are located in Andaman Sea, 3 blocks of lime-mud are located off the Gujarat coast.

- ❖ The auctions will be conducted under the Offshore Areas Mineral (Development and Regulation) Act (OAMDR), 2002.

### Heatwave as 'notified disaster'

- ❖ Union ministry of science and technology announced that, there is currently no plan to classify it as a notified disaster.
- ❖ If it is announced as notified disaster, it will make it eligible for financial assistance under the Disaster Management Act, 2005.
- ❖ Presently the notified list of disasters eligible for National Disaster Response Fund/State Disaster Response Fund (SDRF) assistance includes 12 disasters.
- ❖ They are Cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst, pest attack and frost and cold wave.
- ❖ The country saw 536 heatwave days this summer — the most in 14 years.



### Agarwood - CITES in India

- ❖ India recently increased the quota for exports through the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- ❖ Agarwood is prized for its aromatic and medicinal value.
- ❖ It is used in making incense sticks, essential oils and perfumes.
- ❖ It is listed as Threatened under the IUCN's Red List.



- ❖ The tree has been listed in Appendix II of CITES since 1995.
- ❖ Its export from the country was banned until November 2021, but re-export was permitted.
- ❖ At least 139.89 million (13.989 crore) Agarwood plants under cultivation/plantation in non-forest areas.
- ❖ As per CITES document, in 2023 the species was put under Review of Significant Trade (RST) for India along with four other Agarwood producing countries.
- ❖ Due to removal of India from the RST in 2024, peoples who are engaged directly or indirectly in Agarwood industry would be benefitted.




### **Integrated Disease Surveillance Program**



- ❖ A total of 1,862 disease outbreaks were reported to the Integrated Disease Surveillance Programme last year.
- ❖ The highest number is being reported from Kerala.
- ❖ Kerala reported 253 outbreaks followed by Karnataka at 223, Maharashtra at 208 and Madhya Pradesh at 140.
- ❖ The Ministry of Health and Family Welfare launched the portal of Integrated Health Information Platform on April 5, 2021.

### **Sub-classification of SCs for reservation 2024**

- ❖ The Supreme Court held that the sub-classification of Scheduled Castes would be permissible for granting reservation.
- ❖ This verdict overruled a 2004 judgment in E.V Chinniah vs State of Andhra Pradesh judgement.
- ❖ The ruling means that within the 15% reservation for SCs, castes that are deemed more disadvantaged would be given more weightage than others.
- ❖ In 2006 Punjab provided 50% quota and first preference to Valmiki and Mazhabi Sikhs in public jobs within the quota meant for the SCs.

<b>Court on creamy layer</b>	
<b>EXCLUSION FROM QUOTA</b> <ul style="list-style-type: none"><li>• Justice BR Gavai, in a judgment supported by CJI DY Chandrachud and 4 other judges, called for excluding creamy layer from SC/ST quota.</li><li>• Creamy layer currently only applies to OBCs. The concurring judgment called upon govt to extend the concept to SC/STs.</li></ul>	<b>LIMITING BENEFITS</b> <p>Justice Pankaj Mithal held in his judgment that reservation benefits should be extended to only one generation in a category.</p> <p><b>"Reservation should be meant for only the first generation among a category and if the second generation has come up then benefits of reservation shall not be given."</b></p>
<p>The State must evolve a policy for identifying the creamy layer even from the Scheduled Castes and Scheduled Tribes so as exclude them from the benefit of affirmative action."</p> 	

### **PM-PRANAM 2024**

- ❖ The Cabinet Committee on Economic Affairs (CCEA), approved the PM-PRANAM scheme, aimed at restoring and nurturing the Mother Earth through the use of biofertilizers.

- ❖ PM-PRANAM stands for Prime Minister Programme for Restoration, Awareness Generation, Nourishment, and Amelioration of Mother-Earth.
- ❖ It aims to complement the efforts initiated by States/UTs to save the health of Earth by promoting sustainable and balanced use of fertilizers, adopting alternate fertilizers, promoting organic & natural farming etc.
- ❖ All States/UTs are covered under the PM- PRANAM.
- ❖ Under the scheme, 50% of the fertilizer subsidy saved by a State/UT in a particular financial year by way of reduction in consumption of chemical fertilizers (Urea, DAP, NPK, MOP) compared to previous 3 years' average consumption, will be passed on to that State/UT as Grant.
- ❖ States/UTs can utilize this grant for the benefit of people in the state, including farmers.



### **One DAE One Subscription initiative**

- ❖ The Department of Atomic Energy (DAE) has launched the “One DAE One Subscription” (ODOS) initiative at Tata Memorial Hospital in Mumbai.
- ❖ The initiative provides comprehensive access to scientific and academic resources for DAE employees.
- ❖ ODOS is created to make it easier for DAE members to access both national and international research papers and journals online.

## **Tentative List for World Heritage site 2024**



- ❖ There are nearly 60 properties in India which find a place in the Tentative List for further inclusion in the UNESCO World Heritage List.
- ❖ A Tentative List is an inventory of those properties that each State Party intends to consider for nomination as a UNESCO World Heritage Site.
- ❖ Recently the mound-burial system of the Ahom dynasty in Assam - 'Moidams' was inscribed on the UNESCO World Heritage List.
- ❖ The site was put in the Tentative List of the UNESCO World Heritage Sites in 2014.
- ❖ As of now, 42 properties have been inscribed on the World Heritage List."

## **Project Tiger and tribals displacement**

- ❖ The Rights and Risks Analysis Group (RRAG), released the report highlighting the impact of Project Tiger on tribal and forest-dwelling communities.
- ❖ The report was titled "India's Tiger Reserves: Tribals Get Out, Tourists Welcome."
- ❖ It stated that out of these 5.5 lakh people identified for relocation by the Tiger Projects.
- ❖ About 20,857 families, comprising 92,605 people, were relocated by December 31, 2021, as per the central govt.
- ❖ Therefore, about 457,394 persons or 1,03,016 families are yet to be relocated.
- ❖ In monetary terms, it would cost Rs 15,2766 million or US\$1,853 million in addition to the requirement of massive land for resettlement.
- ❖ While 2,54,794 persons were identified for relocation from 50 tiger reserves from 1973 to 2021.
- ❖ At least 290,000 persons are slated to be displaced from six tiger reserves being created from 2021 period.



- ❖ It means a whopping 967% increase of displacement per tiger reserve in the post-2021 period.
- ❖ The report states that among the 2.9 lakh persons are expected to be displaced in the post-2021 period, 4,000 from the Srivilliputhur-Megamalai Tiger Reserve, Tamil Nadu, about 4,400 from Ramgarh Vishdhari Tiger Reserve, Rajasthan.



### **Bharatiya Vayuyan Vidheyak 2024**



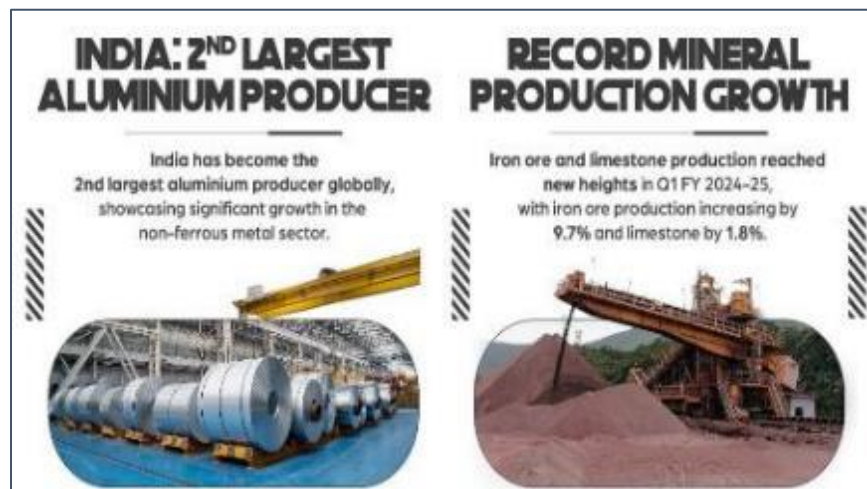
- ❖ The Union Civil Aviation Ministry present the Bharatiya Vayuyan Vidheyak, 2024 Bill (Aircraft Bill) in Parliament.
- ❖ This new legislation aims to overhaul India's aviation regulations, replacing the outdated Aircraft Act of 1934 from the British era.



- ❖ Since 1934, 21 amendments have been made in this act.
- ❖ The bill includes provisions to regulate the design, manufacture, maintenance, possession, use, operation, sale, export or import of any aircraft or class of aircraft.
- ❖ One of the significant changes in the bill is the updated definition of "aircraft."

## **2nd Largest Aluminum Producer**

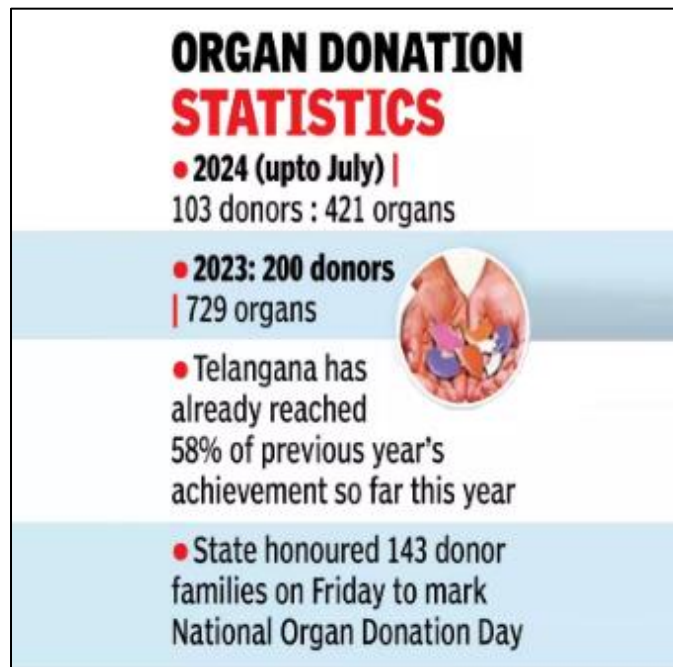
- ❖ India is ranked as the 2nd largest Aluminium producer, 3rd largest lime producer and 4th largest iron ore producer in the world.
- ❖ The primary aluminium production reached a record level of 41.6 lakh tonnes (LT) in FY 2023-24.
- ❖ In FY 2023-24, iron ore production reached 275 million metric tons (MMT), while limestone production hit 450 MMT.



## **Organ transplants in India 2023**

- ❖ In 2023, India recorded 18,378 organ transplants, with 42 recipients receiving more than one organ, resulting in a total of 18,336 recipients.
- ❖ Among the recipients, 30% were women.
- ❖ In 2023, nearly 10% of all organ transplants in India involved foreign nationals.
- ❖ Out of 18,336 organ recipients, 1,851 were foreigners.
- ❖ The highest number of these procedures occurred in Delhi, Rajasthan, and West Bengal.
- ❖ According to NOTTO data, of the 1,851 foreign transplant cases in 2023, only nine involved organs from deceased donors.

- ❖ Delhi had the highest number with 1,445 cases, followed by Rajasthan with 116, and West Bengal with 88.



### **CCPWC Initiative**

- ❖ CCPWC stands for Cyber Crime Prevention against Women and Children.
- ❖ The CCPWC initiative launched under the Nirbhaya Fund, focuses on tackling cybercrimes.
- ❖ A key part of this initiative is the National Cybercrime Reporting Portal (NCRP).
- ❖ The main features of the scheme are:
  - Online cybercrime reporting platform
  - One national level cyber forensic laboratory
  - Training of Police officers, judges & prosecutors
  - Cybercrime awareness activities
  - Research & Development

### **New National high-speed corridors**

- ❖ The Cabinet approves 8 important National High-Speed Road Corridor Projects of length 936 km at a total capital cost of Rs. 50,655 Crore.
- ❖ It aims to improve the logistics efficiency, reduce congestion and enhance the connectivity across the country.

### 8 New National High-Speed Road Corridor Projects

Cabinet approves 8 important National High-Speed Road Corridor Projects of Total Length: **836 km** or Total Cost: **Rs. 60,666 crore**

- » 6-Lane Agra – Gwalior National High-Speed Corridor
- » 4-Lane Kharagpur – Moregram National High-Speed Corridor
- » 6-Lane Tharad – Deesa – Mehsana – Ahmedabad National High-Speed Corridor
- » 4-lane Ayodhya Ring Road
- » 4-Lane Section between Pathalgaon and Gumia of Raipur – Ranchi National High-speed Corridor
- » 6-Lane Kanpur Ring Road
- » 4-Lane Northern Guwahati Bypass and Widening/Improvement of Existing Guwahati Bypass
- » 8-lane Elevated Nashik Photo – Khed Corridor near Pune

- » Guwahati ring road to facilitate un-hindered access to North-East
- » Travelling to Ayodhya to be much faster
- » 8-Lane elevated flyover corridor section between Pune and Nashik to eliminate logistics nightmare
- » Projects to generate an estimated 4.42 crore man days of direct and indirect employment
- » Travel time between Agra and Gwalior to be reduced by 50%
- » Kharagpur – Moregram corridor to transform the economy of West Bengal and North-East
- » Highway networks around Kanpur to be decongested by Kanpur Ring Road
- » Growth of Jharkhand and Chhattisgarh to be unlocked through completion of Raipur Ranchi Corridor
- » New corridor between Tharad and Ahmedabad to complete the High Speed Road Network in Gujarat for seamless port connectivity and reduced logistics cost

## Appropriation Bill for Financial Year 2024-25



**THE APPROPRIATION (VOTE ON ACCOUNT) ACT, 2024**

The Appropriation (Vote on Account) Act, 2024, is associated with expenditure part of the Budget for Financial Year 2024-25.

Act authorizes Union Government to draw funds amounting to roughly **₹ 81.6 Lakh Crores** from the Consolidated Fund of India for part of the Financial Year 2024-25.

- ❖ The Lok Sabha has approved about ₹140 lakh crore in expenditure demands by different ministries of the Central Government.
- ❖ It is completing two-thirds of the legislative approvals needed for the full Budget of 2024-25.
- ❖ This is followed a guillotine being applied after a discussion on grants for four ministries — Railways, Education, Health and Fisheries.
- ❖ The Rajya Sabha is also simultaneously discussing demands for grants for four other ministries — Agriculture, New and Renewable Energy, Cooperation, Housing, and Urban Affairs.

- ❖ It has also discussed the Finance Bill, but as per the Constitution, it can only return such bills to the Lower House.

### **Bill for Oil and Gas Policy Stability**

CHANGES IN THE OFFING
■ Oilfields (Regulation and Development) Amendment Bill, 2024, bats for new 'petroleum leases' to be granted on stable terms
■ Reporting of carbon emissions, facilitation of solar, wind projects at oilfields
■ Expands ambit of law to wider range of mineral oils, such as shale oil, gas hydrates
■ Introduces alternative dispute resolution methods

- ❖ The Oilfields (Regulation and Development) Amendment Bill, 2024 was introduced in Rajya Sabha.
- ❖ It aims to boost investor sentiment by addressing many long-held concerns.
- ❖ The Bill has proposed to replace "mining leases" with "petroleum leases".
- ❖ The Bill also allows for a dispute resolution mechanism "in a place within India or outside
- ❖ The Bill seeks to decriminalise the breach of petroleum law and introduces financial penalties instead.

### **Disaster Management (Amendment) Bill 2024**

- ❖ The Disaster Management Act, 2005 was enacted to provide for the effective management of disasters.
- ❖ The Disaster Management (Amendment) Bill, 2024 introduced in the Lok Sabha.
- ❖ The Bill seeks to create a "disaster database at national and State level."
- ❖ It also makes provision for the constitution of "the Urban Disaster Management Authority" for the State capitals and large cities having municipal corporations, except the union territories of Delhi and Chandigarh.



- ❖ The Bill empowers the NDMA to take stock of the entire range of disaster risks in the country periodically, including emerging disaster risks.
- ❖ It includes “risks of those disasters that may not have taken place, but may occur in future due to extreme climate events and other factors.”

#### Disaster Management (Amendment Bill), 2024:

- The bill seeks to amend the Disaster Management Act, 2005, which was enacted to provide for the effective management of disasters.
- The bill makes provision for the constitution of “Urban Disaster Management Authority” for State capitals and large cities having municipal corporations, except the union territories of Delhi and Chandigarh.
- The bill empowers the National Disaster Management Authority (NDMA) and the State Disaster Management Authorities to prepare the disaster plan at the national level and state level, respectively, instead of the plans made by the National Executive Committee and the State Executive Committees earlier.

### Extended PMSMA



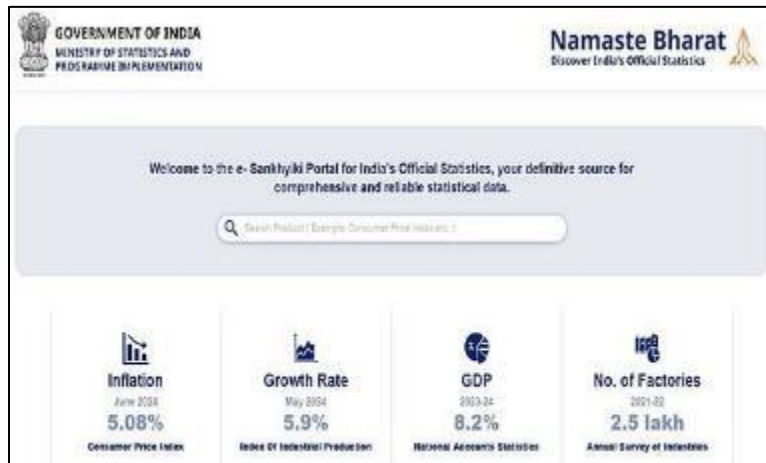
- ❖ Continuing with the efforts to ensure safe motherhood through PMSMA and with the vision for further improvement, an Extended PMSMA strategy was launched recently.
- ❖ The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) has been launched by the Ministry of Health & Family Welfare in July 2016.
- ❖ It aims to provide assured, comprehensive and quality antenatal care, free of cost, universally to all pregnant women on the 9th of every month.



- ❖ PMSMA guarantees a minimum package of antenatal care services to women in their 2nd / 3rd trimesters of pregnancy at the designated government health facilities.

### Sankhyiki Portal

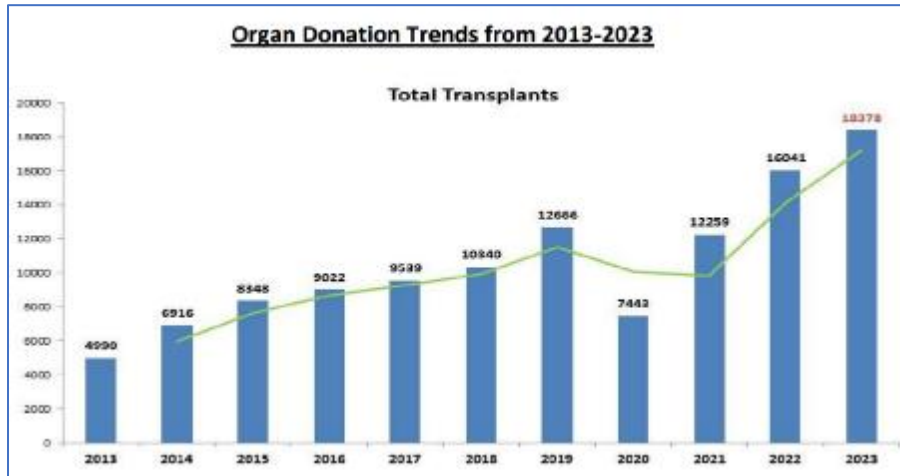
- ❖ The Ministry of Statistics and Programme Implementation (MoSPI) has launched the e-Sankhyiki portal.
- ❖ It aims to streamline the sharing of official statistics through a comprehensive system designed to enhance ease of access and analysis.
- ❖ It provides real-time access to data, helping with better planning and decision-making.



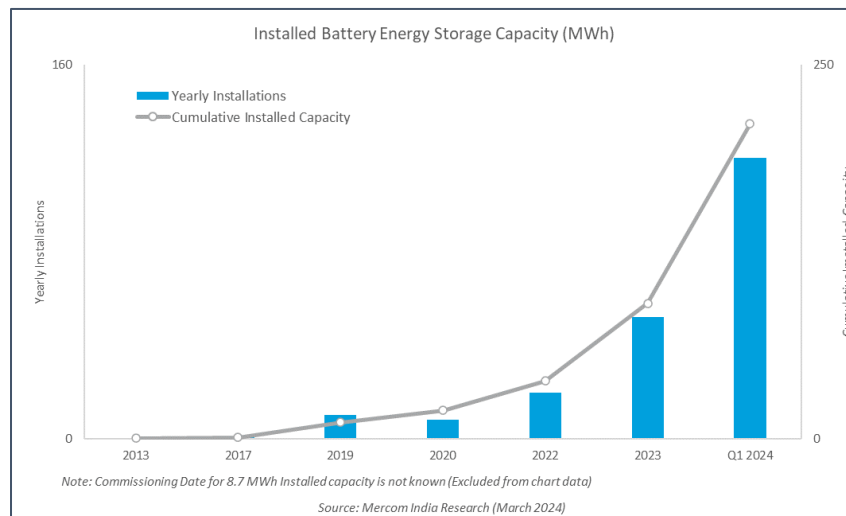
### Organ donation in India - 2023

- ❖ The number of women living donors was 9,784 last year compared to 5,651 men.
- ❖ A lone transgender contributed an organ to save the life of another human being.
- ❖ The total number of living donors in the country in 2023 rose to 15,436.
- ❖ The total number of organ transplants, taking into account both living and deceased donors, was 18,378, the highest ever.
- ❖ The Number of deceased donors was much higher among men, with 844 persons donating their organs, while women accounted for 255 such donations.
- ❖ The total (living and deceased) number of kidney transplants from January to December was 13,426.
- ❖ It was followed by liver and heart transplants at 4,491 and 221, respectively.
- ❖ Telangana topped the country in organ donation with 252 cadaver donors, followed by Tamil Nadu and Karnataka with 178 cases each.

- ❖ In the number of kidney transplants, Delhi stood ahead of others with 2,576 cases while Tamil Nadu and Maharashtra reported 1,633 and 1,305 cases.
- ❖ Tamil Nadu reported the highest number of heart transplants, with 70 cases last year.



### **‘India’s Energy Storage Landscape’ Report**



- ❖ India had a cumulative installed Battery Energy Storage System (BESS) capacity totaling 219.1 MWh as of March 2024.
- ❖ Capacity installations in Q1 2024 is totalled at 120 MWh (40 MW).
- ❖ Solar photovoltaic (PV) systems combined with battery energy storage systems (PV + BESS) was accounted for 90.6% of the total installed capacity.
- ❖ The highest BESS capacity was installed in Chhattisgarh, accounting for 54.8% of cumulative installed capacity.

- ❖ The country's operational pumped hydro storage capacity is totalled at 3.3 GW as of March 2024.
- ❖ Nearly 76% of the country's operating capacity is in Telangana and West Bengal.

### **NITI Gearshift Challenge**



- ❖ NITI Aayog has announced the launch of the NITI Gear Shift Challenge as part of the e-FAST India initiative.
- ❖ This hackathon aims to foster innovative business models for the adoption of zero-emission trucks (ZETs) in India.
- ❖ It was addressing the nation's pressing economic and environmental challenges.
- ❖ The Road freight was accounting for a staggering 55% of India's annual diesel consumption and nearly 40% of CO<sub>2</sub> emissions from road transport.

### **SAFAL Test Cycle 2024**

- ❖ The CBSE has started a new test cycle that promises to take the exam pressure off.
- ❖ It will assess students of Classes 5 and 8 on "core concepts" rather than rote learning.
- ❖ It is also through a "no-preparation required" exam.
- ❖ It is named as SAFAL - Structured Assessment For Analyzing Learning.

- ❖ After a pilot run, this year, it extended with 11,000 plus schools and over 10 lakh students joining the July-August cycle.
- ❖ 2025 is likely to see the SAFAL test go to all 29,000 odd CBSE schools.



## Waqf board bill 2024

<b>BILL SEEKS TO VERIFY PROPERTY CLAIMS</b>	
<ul style="list-style-type: none"> <li>➤ The Wakf Act, passed in 1954 and replaced with a new version in 1995, is meant to regulate 'auqaf' (assets donated and notified as waqf) by a wakif, the person who dedicates a property for any purpose recognised by Muslim law as religious or charitable</li> <li>➤ Govt proposes to amend Act, make verification mandatory for claims on properties by waqf boards</li> <li>➤ This will also apply to</li> </ul>	<p>properties on which <b>claims and counter-claims</b> have been made by waqf boards and individual owners</p> <ul style="list-style-type: none"> <li>➤ Currently, waqf boards enjoy powers to tag any property as waqf asset. Around <b>8.7 lakh properties spanning 9.4 lakh acres</b> are under jurisdiction of waqf boards in the country</li> <li>➤ Bill also proposes changes in <b>composition of waqf boards</b>, it is learnt</li> </ul>

- ❖ The Union government has tabled the Waqf (Amendment) Bill in the Lok Sabha.
- ❖ This legislation aims to reform the registration process for the waqf properties through a centralised portal.
- ❖ It seeks to rename the existing Waqf Act of 1995 to the Unified Waqf Management, Empowerment, Efficiency and Development Act.



- ❖ The Waqf pertains to properties that are designated exclusively for religious or charitable purposes in accordance with Islamic law.
- ❖ Once a property is established as waqf, it cannot be revoked.
- ❖ With approximately 30 waqf boards managing over 9 lakh acres of land valued at an estimated Rs 1.2 lakh crore.
- ❖ Waqf boards rank as the third-largest landowners in India, following the Railways and the Defence Ministry.
- ❖ The bill proposes the establishing of a Central Waqf Council alongside state Waqf Boards.
- ❖ Notably, these bodies will have representation from Muslim women and non-Muslims.
- ❖ It also has a provision to appoint two women to all state boards as well as to the central council.
- ❖ It designates the District Collector as the primary authority in determining whether a property is classified as waqf or government land.
- ❖ This shifts the responsibility away from the Waqf Tribunal.
- ❖ The legislation outlines the creation of a separate Board of Auqaf specifically for the Boharas and Aghakhanis, ensuring representation for Shias, Sunnis, Bohras, and Aghakhanis within waqf boards.

### **National Communications Academy**

- ❖ Three training institutes of DoT (Department of Telecommunications) have been merged into a single administrative entity, named 'National Communications Academy' (NCA) with immediate effect.
- ❖ They are:
  - National Telecommunications Institute for Policy Research, Innovation and Training (NTIPRIT),
  - The National Institute of Communication Finance (NICF) and
  - Wireless Monitoring Training & Development Centre (WMTDC).

### **Broadcast Services Bill 2024**

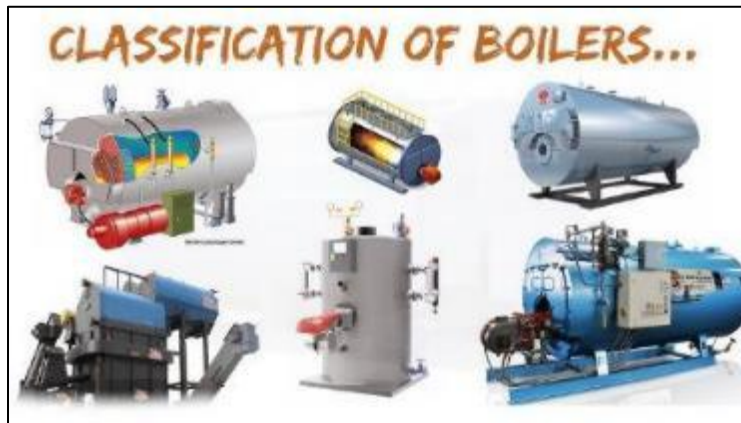
- ❖ The government is set to replace the 30-year-old Cable TV Networks Act 1995 with Broadcasting Services (Regulation) Bill 2024.
- ❖ It has proposed introducing onerous regulations on independent creators of news events on platforms like YouTube, Instagram and X.



- ❖ The new version also defines a “digital news broadcaster” in sweeping terms, and requires prior registration with the government to prescribing standards for content evaluation.

### **Boilers Bill 2024**

- ❖ It repeals the Boilers Act, 1923 (5 of 1923).
- ❖ It was comprehensively amended in the year 2007 by the Indian Boilers (Amendment) Act, 2007
- ❖ Out of the seven offences, to ensure safety of boilers and personnel dealing with boilers, in four major offences which may result in loss of life and property, criminal penalties are retained.
- ❖ For other offences, provision is being made for fiscal penalty.
- ❖ Moreover, for all non-criminal offences ‘fine’ has been converted into ‘penalty’ to be levied through executive mechanism instead of courts as existed earlier.



### **Million Designers, Billion dreams**

- ❖ The Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM) has announced the launch of the initiative "Million Designers, Billion Dreams."
- ❖ It aims to empower individuals across India with systems design know-how to tackle complex societal challenges.
- ❖ It is a unique initiative designed to enhance the capacity of individuals through systems design know-how.
- ❖ It targets rural leaders, frontline change agents and village entrepreneurs, equipping them with the skills to create impactful, scalable solutions.



## Kavach 4.0

- ❖ The railways have approved the installation of the “Kavach-4.0” anti-collision device on 10,000 locomotives.
- ❖ The new system surpasses the previous Kavach-3.2 model in technological advancement and reliability.
- ❖ The existing Kavach-3.2 system is effective on 1,465 routes and operational on 144 locomotives.

### IMPROVEMENTS IN VERSION 4.0

- Additional functional requirements such as 'temporary speed restriction'
- Direct interface to electronic Interlocking with Kavach (Will remove relays and Increase reliability)
- Station-to-station Kavach Communication for Improved reliability
- Authority to loco pilots for passing signal at danger in Intermediate Block Signalling and advanced starter on run

NEW KAVACH VERSION HAS UNDERGONE EXTENSIVE TRIALS ACROSS VARIOUS TERRAINS AND WEATHER CONDITIONS

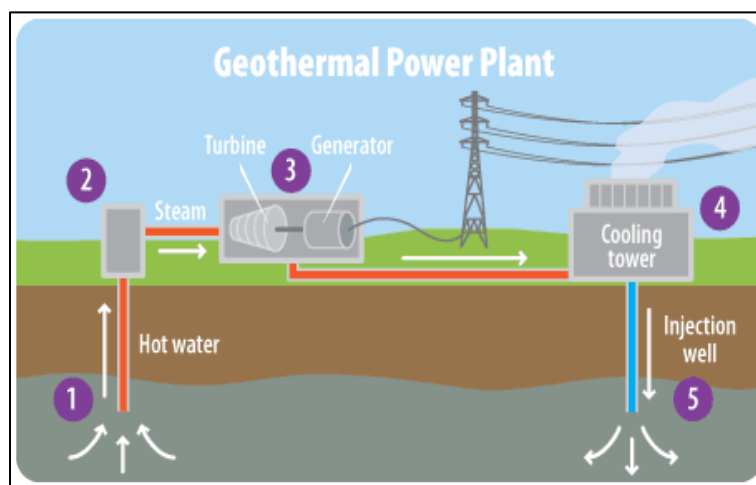



- Improved location precision
- Improved braking curves
- Radio Frequency Identification tag data and radio protocol upgradation for compatibility with LTE (long-term evolution)

### KAVACH DEVELOPMENT

- 2014-15: Started Installation on 250 route kilometres on South Central Railway on pilot basis
- 2015-16: First field trial on passenger trains
- 2017-18: Kavach specification version 3.2 finalised
- 2018-19: Research Designs and Standards Organisation approves 3 firms based on Independent Safety Assessment
- 2020: Kavach was declared a national automatic train protection system
- 2024: New Kavach 4.0 specification approved

## Geothermal Power Potential in India 2024



- ❖ India has identified a potential of approximately 10,600 MW of geothermal power.



- ❖ The Geological Survey of India's (GSI) report is titled 'Geothermal Atlas of India, 2022'.
- ❖ A 20-kW pilot geothermal power plant has been commissioned by Singareni Collieries Company Limited (SCCL) in Telangana.
- ❖ Geothermal Energy is renewable heat energy generated and stored in earth.
- ❖ Geothermal technology extracts this energy/heat for direct heating and cooling, or convert it into electricity.

### **Kasturi Cotton Bharat program**

- ❖ This Ministry of Textiles' programme is a pioneering effort in the traceability, certification and branding of Indian cotton.
- ❖ It is operational at the national level and its promotion is being made at national and international platform.
- ❖ India is contributing to 25% of global production.

### **NIPCCD's Executive Council**

- ❖ The centre has reconstituted the Executive Council and General Body of the National Institute of Public Cooperation and Child Development (NIPCCD) after more than five decades.
- ❖ NIPCCD, an autonomous organization under the Ministry of Women and Child Development.
- ❖ It was initially established in 1966 under the Societies Registration Act XXI of 1860.
- ❖ The reconstitution reduces the size of the General Body from 94 to 22 members and the Executive Council from 21 to 13 members.
- ❖ The General Body is responsible for formulating the overall policies, while the Executive Council manages the administrative affairs of the institute.

### **Renewable Energy Capacity 2024**

- ❖ India's installed renewable energy capacity has increased by 165 per cent over the past decade.
- ❖ It is rising from 76.38 Gigawatts (GW) in 2014 to 203.1 GW in 2024.
- ❖ India has achieved 4th position globally in RE Installed Capacity.
- ❖ India stood 4<sup>th</sup> in Wind Power capacity and 5<sup>th</sup> in Solar PV capacity.

- ❖ For the first time, the country has crossed 200 GW capacity from non-fossil fuel sources.
- ❖ It includes 85.47 GW of solar power and 46.93 GW of large hydro 46.66 GW of wind power, 10.95 GW of biopower, and 5.00 GW of small hydropower.



### **9<sup>th</sup> NIRF Ranking 2024**

- ❖ Indian Institute of Technology, Madras is the best education institution in the country for the sixth time since 2019.
- ❖ The Indian Institute of Science, Bengaluru is the top institution under both the universities and research categories, retaining both positions since 2016 and 2021 respectively.
- ❖ The ranks were given in 16 categories this year, three more than last year.
- ❖ Open universities, skill universities and State public universities are the three new categories.
- ❖ IIM Ahmedabad has continued to be the top management institute for the fifth consecutive year since 2020.
- ❖ AIIMS, New Delhi is the best place to study medical sciences, in the top spot for the seventh consecutive year.
- ❖ Jamia Hamdard, New Delhi is the best college for pharmacy.
- ❖ Saveetha Institute of Medical and Technical Sciences, Chennai is the best college to pursue dental science.
- ❖ IIT, Bombay is the best 'innovational institution' followed by IIT Madras and IIT Delhi.
- ❖ In engineering, IIT Delhi and IIT Bombay follow IIT Madras.

- ❖ In management, IIM Bangalore and IIM Kozhikode come after IIM Ahmedabad.
- ❖ IIT Roorkee retained its first position in architecture and planning for the fourth consecutive year.
- ❖ The National Law School of India University, Bengaluru was named the best law school, the seventh year in a row.
- ❖ Indian Agricultural Research Institute, New Delhi is the best institution to study agriculture and allied sectors.
- ❖ Indira Gandhi National Open University (IGNOU), New Delhi is the best open university.
- ❖ Symbiosis Skill and Professional University, Pune emerged the best in the skill universities category.

India Rankings 2024: Top 100 in Overall			
Name	City	State	Rank
Indian Institute of Technology Madras	Chennai	Tamil Nadu	1
Indian Institute of Science, Bengaluru	Bengaluru	Karnataka	2
Indian Institute of Technology Bombay	Mumbai	Maharashtra	3
Indian Institute of Technology Delhi	New Delhi	Delhi	4
Indian Institute of Technology Kanpur	Kanpur	Uttar Pradesh	5
Indian Institute of Technology Kharagpur	Kharagpur	West Bengal	6
All India Institute of Medical Sciences Delhi	New Delhi	Delhi	7
Indian Institute of Technology Roorkee	Roorkee	Uttarakhand	8
Indian Institute of Technology Guwahati	Guwahati	Assam	9
Jawaharlal Nehru University	New Delhi	Delhi	10

## 78th Independence Day

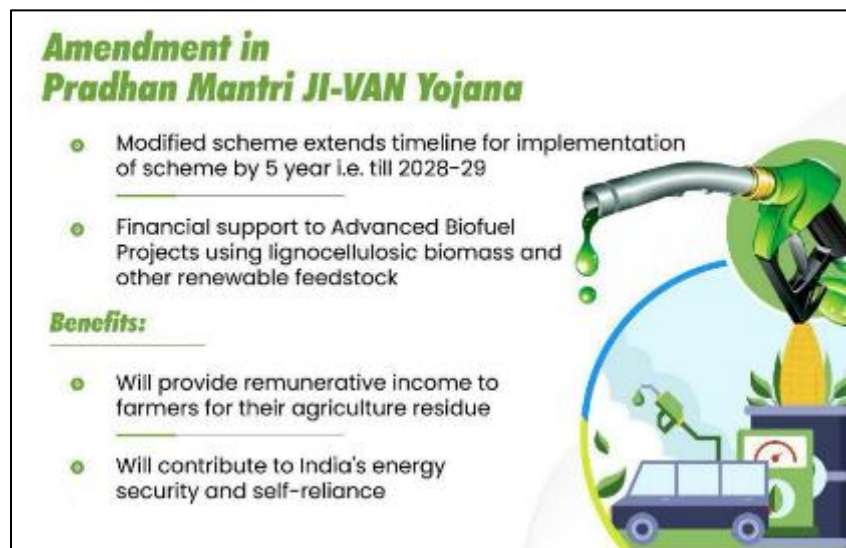
- ❖ This year the nation marked its 78th Independence Day or Swatantrata Diwas.
- ❖ The government of India has announced the theme for this year is Viksit Bharat@2047 or Developed India.
- ❖ Prime Minister addressed the nation from the Red Fort for the 11th consecutive time.
- ❖ This was making him the third PM after Jawaharlal Nehru and Indira Gandhi to do so.



- ❖ The 2024 PM's 98-min Independence Day address becomes his longest-ever Independence Day speech.
- ❖ Before him, Jawaharlal Nehru in 1947 and IK Gujral in 1997 had the longest speeches at 72 and 71 minutes, respectively.
- ❖ Nehru and Indira also gave the shortest speeches on record at 14 minutes in 1954 and 1966, respectively.
- ❖ Around 400 women representatives from Panchayati Raj Institutions invited as special guests at the Red Fort.

### **Pradhan Mantri JI-VAN Yojana 2024**

- ❖ The Union Cabinet approved amendments to the Pradhan Mantri JI-Van Yojana.
- ❖ This programme has focused on converting biomass to ethanol, by extending the project's implementation timeline by five years.
- ❖ The modified scheme extends timeline for implementation of scheme by Five (5) year i.e. till 2028-29.
- ❖ It includes advanced biofuels produced from lignocellulosic feedstocks i.e. agricultural and forestry residues, industrial waste, synthesis (syn) gas, algae etc. in its scope.



### **Banking Laws (Amendment) Bill - 2024**

- ❖ The Government introduced the Banking Laws (Amendment) Bill, 2024.
- ❖ It seeks to increase the option for nominees per bank account to four, from existing one, among others.

- ❖ The Bill suggests the allocation of unclaimed dividends, shares, interest, or redemption of bonds to the Investor Education and Protection Fund (IEPF).
- ❖ It is redefining 'substantial interest' for directorships, which could increase to ₹2 crore instead of the current limit of ₹5 lakh, which was fixed almost six decades ago.
- ❖ The Bill also seeks to redefine the reporting dates for banks for regulatory compliance to the 15th and last day of every month instead of the second and fourth Fridays.
- ❖ The Bill, proposes to amend the
  - Reserve Bank of India Act, 1934,
  - The Banking Regulation Act, 1949,
  - The State Bank of India Act, 1955,
  - The Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 and
  - The Banking Companies (Acquisition and Transfer of Undertakings) Act, 1980.



### **Nandini Sahakar Yojana**

- ❖ It aims to assist women cooperatives to take up business model-based activities under the purview of the National Cooperative Development Corporation (NCDC).
- ❖ This is a women focused framework of financial assistance, project formulation, hand-holding and capacity development.
- ❖ There is no minimum or maximum limit on financial assistance to projects by women cooperatives.
- ❖ NCDC provides 2% interest subvention on its rate of interest on term loan portion for new and innovative activities.

- ❖ 1% interest subvention on its rate of interest on term loan portion for all other activities resulting in lower borrowing costs of women cooperatives.

## Nandini Sahakar

Empowering Women through Cooperatives

**Objective:**

- ▶ Enhance the socio-economic status of women.
- ▶ Support entrepreneurial dynamism via women cooperatives.

**Eligibility:**

- ▶ Cooperative societies with at least 50% women as primary members.
- ▶ Minimum of three months in operation.

**Benefits:**

- ▶ Credit linkage for infrastructure term loan and working capital.
- ▶ Subsidy or interest subvention from other government schemes/agencies.

**Incentives:**

- ▶ NCDC provides a **2% interest** subvention on its term loan interest rate for new and innovative activities.
- ▶ **1% interest** subvention on its term loan interest rate for all other activities, lowering borrowing costs.





## PMAY-U 2.0

- ❖ The Union Cabinet has approved the Pradhan Mantri Awas Yojana-Urban (PMAY-U) 2.0, with the aim of constructing 1 crore houses.
- ❖ It aims to give financial support to the middle class as well as impoverished urban families for building, buying, or renting reasonably priced urban homes.
- ❖ The eligible income criteria are as follows:
  - EWS households with an annual income up to ₹3 lakh.
  - LIG households with an annual income between ₹3-6 lakh.
  - MIG households with an annual income between ₹6-9 lakh.

### Pradhan Mantri Awas Yojana-Urban 2.0 Scheme

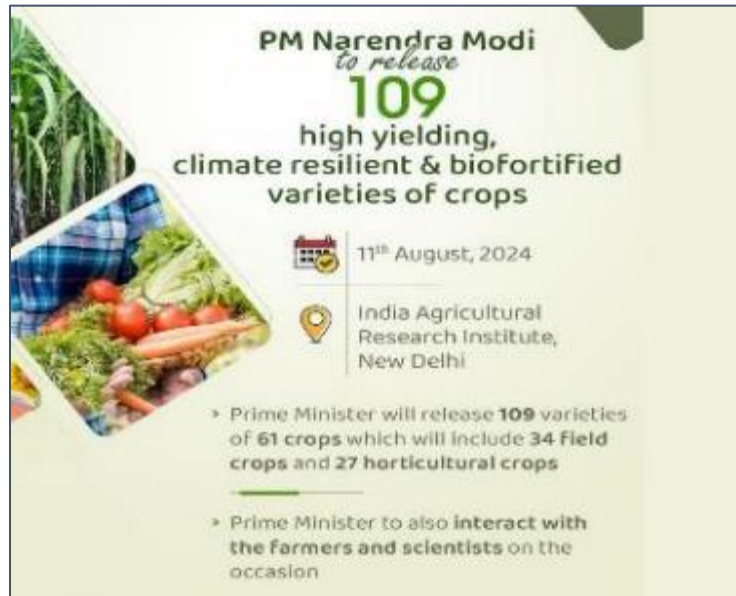


Financial assistance will be provided to **One crore urban poor and middle-class families** in 5 years

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Investment of **Rs.10 lakh crore** and Government Subsidy of **2.30 lakh crore** under PMAY-U 2.0

## 109 high-yielding climate-resilient crop varieties



- ❖ The Prime Minister released 109 high-yielding, climate-resilient and biofortified varieties of crops in New Delhi.
- ❖ The 109 varieties of 61 crops released by the Prime Minister includes 34 field crops and 27 horticultural crops.
- ❖ Among the field crops, seeds of various cereals including millets, forage crops, oilseeds, pulses, sugarcane, cotton, fibre and other potential crops were released.

## QCI Surajya Recognition & Ranking Framework

- ❖ The Quality Council of India (QCI) is introducing the QCI Surajya Recognition & Ranking Framework.
- ❖ This framework is categorized under four pillars: Shiksha (Education), Swasthya (Health), Samridhhi (Prosperity), and Sushasan (Governance).
- ❖ The Surajya Recognition acknowledges the outstanding performance and the commitment to quality by states and organisations in these vital areas.
- ❖ In the Shiksha Rankings, Uttar Pradesh leads with the highest number of accreditations, assessments, and ratings.
- ❖ Delhi, as a union territory, also ranks prominently.
- ❖ In the Swasthya category, Chhattisgarh, Karnataka, Kerala, Rajasthan, Mizoram and Manipur stand out with complete certification in the Ayushman Arogya Yojana (NABH).
- ❖ Tamil Nadu and Maharashtra lead in the Medical Entry Level Testing Labs (MELT) rankings (NABL).





## Clean Plant Program 2024

**Clean Plant Programme (CPP) under Mission for Integrated Development of Horticulture**

- Investment of **Rs.1,765.67 Cr**
- CPP will provide access to virus-free, high-quality planting material to farmers regardless of their landholding size or socioeconomic status
- Streamlined certification processes & infrastructure support to nurseries
- Nine world class state-of-the-art Clean Plant Centers will be established across India
- It will address diverse agro-climatic conditions across India by developing region-specific clean plant varieties & technologies



- ❖ The Union Cabinet approved the Clean Plant Program (CPP).
- ❖ It is aimed at increasing the yield and productivity of horticulture crops in India.
- ❖ The CPP is also targeted at enhancing the quality of fruit crops across the nation.
- ❖ The programme has three main components geared towards helping farmers obtain virus-free, high-quality planting material to increase crop yields and improve income opportunities.
- ❖ India is the second largest producer of fruits and vegetables in the world after China.



- ❖ From 2013-14 to 2023-24, the area under horticulture crops has risen from 24 million hectares to 28.63 million hectares.
- ❖ Its Production has increased from 277.4 million metric tonnes (mt) to 352 million mt.
- ❖ India is also a major importer and exporter of fresh fruits.
- ❖ In the financial year 2023-24, India exported fresh fruits worth \$1.15 billion, while it imported fruits worth \$2.73 billion.

### **'Bail is the rule, and jail is the exception' principle**

<b><u>"Bail is the rule and jail is the exception"</u></b>	<b>Anticipatory bail:</b> Anticipatory bail is granted under section 438 of CrPC either by session court or High Court. Applicable only to a non-bailable offense.
<b>Regular bail:</b> granted to a person who has been arrested or is in police custody. A bail application can be filed for the regular bail under section 437 and 439 of CrPC.	<b>Constitutional foundations-</b>
<b>Interim bail:</b> for a short period of time and it is granted before the hearing for the grant of regular bail or anticipatory bail.	Article 21 of the Constitution which safeguards not only life but also liberty by commanding that liberty can be deprived only through the procedure established by law, which must be "just, fair and reasonable"

- ❖ The Supreme Court revived a principle that 'jail and not bail is the exception' while granting bail to former Deputy CM of Delhi, Manish Sisodia.
- ❖ The adage 'bail is the rule, jail is an exception' came from the pen of Justice Krishna Iyer, in 1977.
- ❖ It was first used in the judgment of the 'State of Rajasthan vs Balchand alias Baliya' case.
- ❖ The ruling underscored that bail should be denied only in circumstances where there is a risk of the accused fleeing from justice, obstructing justice, repeating offenses, or intimidating witnesses.

### **PM-Surya Ghar Muft Bijli Yojana guidelines**

- ❖ The Ministry of New & Renewable Energy (MNRE) has issued the operational guidelines for implementing the model solar village under the 'PM-Surya Ghar: Muft Bijli Yojana'.
- ❖ Under the scheme component 'Model Solar Village,' emphasis has been made on creating one model solar village per district across India.
- ❖ A total financial outlay of ₹800 crore has been allocated for this component.
- ❖ It is providing ₹1 crore per selected model solar village.

- ❖ In order to be considered a village under the competition mode, a village must be a revenue village with a population size above 5,000 (or 2,000 for special category States).
- ❖ The winning village in each district, with the highest RE capacity, will receive a central financial assistance grant of ₹1 crore.
- ❖ The Government of India has approved the PM-Surya Ghar: Muft Bijli Yojana on February 29, 2024.
- ❖ It aims to increase the share of solar rooftop capacity and empower residential households to generate their own electricity.
- ❖ The scheme has an outlay of ₹75,021 crore and is to be implemented till FY27.

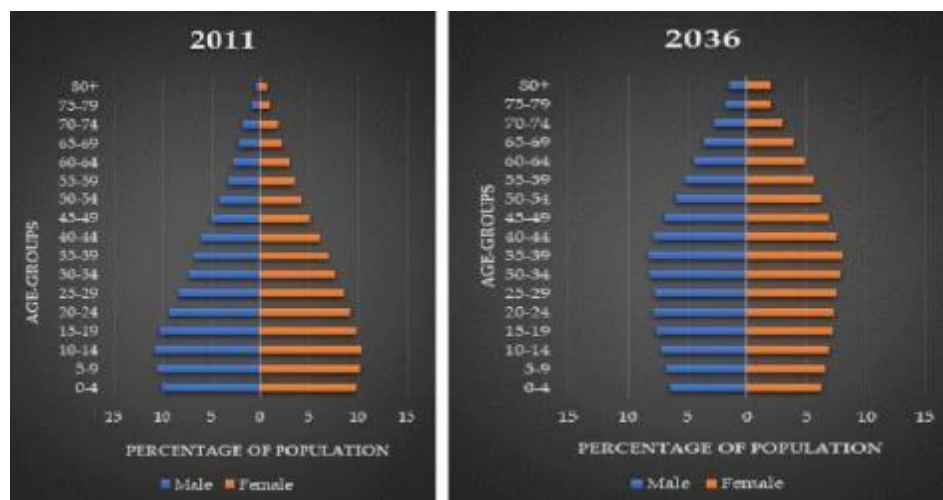
### PM-Surya Ghar Muft Bijli Yojana

#### Benefits

- Households will be able to save electricity bills
- Households can earn additional income through sale of surplus power to DISCOMs
- Will result in addition of 30 GW of solar capacity through rooftop solar in the residential sector
- Reduction of 720 million tonnes of CO<sub>2</sub> equivalent emissions over the 25-year lifetime of rooftop systems
- Scheme will create around 17 lakh direct jobs in manufacturing, logistics, supply chain, sales, installation, O&M and other services

- Total outlay of ₹ 75,021 crore
- Scheme provides a central financial assistance of
  - ₹ 30,000 subsidy for 1 kW system
  - ₹ 60,000 for 2 kW systems
  - ₹ 78,000 for 3 kW systems or higher
- Households will apply for subsidy through national portal and can select suitable vendor for installing rooftop solar
- Households can access collateral-free low-interest loan products of around 7% at present for installation
- Model Solar Village to be developed in each district to act as role model for adoption of rooftop solar in rural areas

## Women and Men in India 2023



- ❖ The Ministry of Statistics and Programme Implementation (MoSPI) released the 25th issue of its publication titled 'Women and Men in India 2023'.



- ❖ By 2036, population of India is expected to reach 152.2 Crore, with a slightly improved female percentage of 48.8% as compared to 48.5 percent in 2011.
- ❖ The proportion of individuals under 15 years is projected to decrease from 2011 to 2036.
- ❖ The sex ratio which is projected to increase from 943 in 2011 to 952 by 2036, highlighting a positive trend in gender equality.
- ❖ Age Specific Fertility Rate (ASFR) in the age group of 20-24 and 25-29 has been reduced from 135.4 and 166.0 to 113.6 and 139.6 respectively.
- ❖ The ASFR for the age 35-39 for the above period has been increased from 32.7 to 35.6.
- ❖ Adolescent Fertility Rate was 33.9 for illiterate population whereas 11.0 for the literate in 2020.
- ❖ The Under 5 Mortality Rate data shows that it has decreased from 43 in 2015 to 32 in 2020.
- ❖ Female IMR had always been higher than that of male but in 2020, both were equal at the level of 28 infants per 1000 live births.

### **New Parliamentary Committees 2024-25**

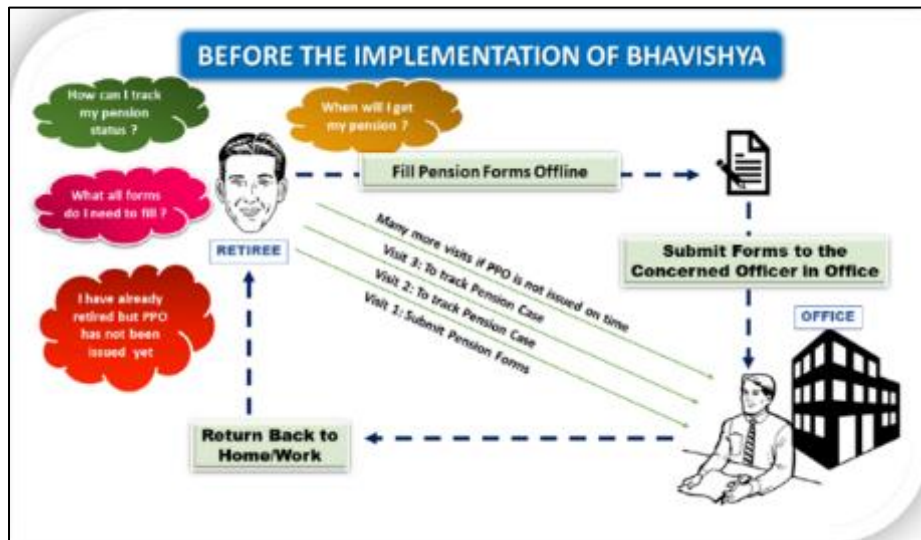
- ❖ Lok Sabha Speaker constituted six new Parliamentary Committees, including the Public Accounts Committee (PAC).
- ❖ Parliamentary committees draw their authority from Article 105 and Article 118 of the constitution.
- ❖ PAC is headed by senior Congress leader K.C. Venugopal.
- ❖ The Public Accounts Committee was introduced in 1921.
- ❖ It is not an executive body, and can only make decisions that are advisory by nature.
- ❖ It presently comprises 22 members (15 members elected by the Lok Sabha Speaker, and 7 members elected by the Rajya Sabha Chairman)
- ❖ Two other financial committees — the Estimates Committee and the Public Undertakings Committee — will be chaired by ruling Party leaders.
- ❖ The Speaker has appointed Ganesh Singh as Chairperson of the Committee on Welfare of Other Backward Classes.
- ❖ Fagga Singh Kulaste has been appointed Chairperson of the Committee on the Welfare of Scheduled Castes and Scheduled Tribes.
- ❖ All the above-formed committees have a tenure of one year and have members from both the Lok Sabha and the Rajya Sabha.

- ❖ The Lok Sabha Speaker is yet to constitute the 24 departmentally-related Standing Committees.



### **BHAVISHYA platform**

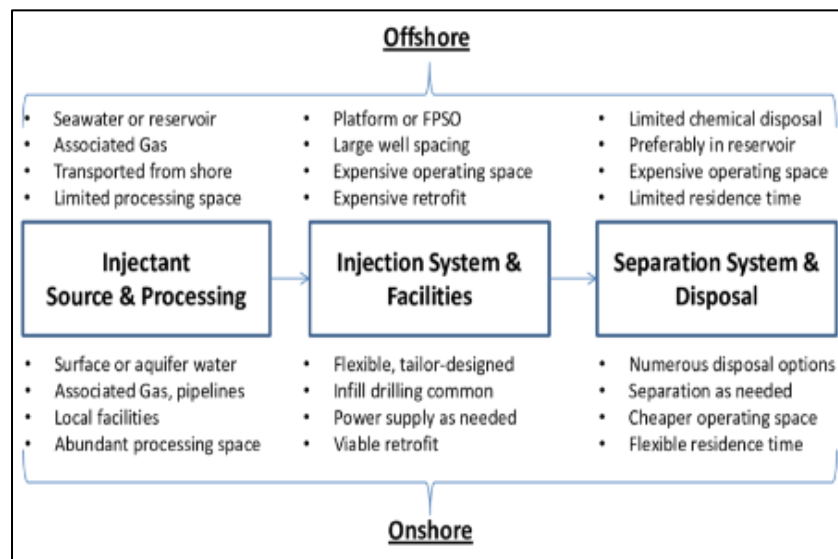
- ❖ The DOPPW (Department of Pension & Pensioners' Welfare) introduced a unique innovative centralized pension processing software called 'Bhavishya' for all central government Ministries/Departments.
- ❖ It aims to overcome the problems of delay & clerical errors in processing the pension cases, as well as financial loss and harassment to the pensioners.
- ❖ Bhavishya has been ranked 3rd best in NeSDA (National e-Governance Service Delivery Assessment), 2021.



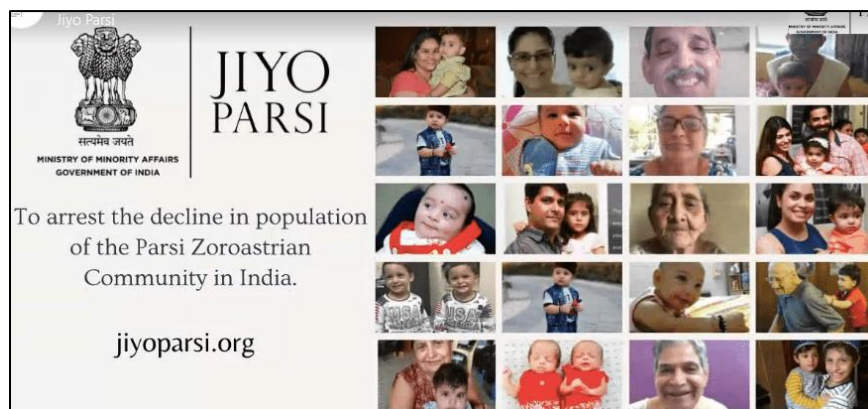


## Offshore Areas Mineral Trust Rules 2024

- ❖ It will be establishing the first-ever framework to oversee mineral exploration and production in India's offshore areas.
- ❖ Under the new rules, holders of production leases of offshore mines are required to contribute to the Trust by paying 10 per cent of their royalty payments to the government.
- ❖ This sum will be deposited in the Public Account of India, providing a financial backbone for the Trust's initiatives.
- ❖ The primary objective of the Trust is to promote sustainable exploration, while ensuring environmental conservation and community welfare.



## Jiyo Parsi scheme portal

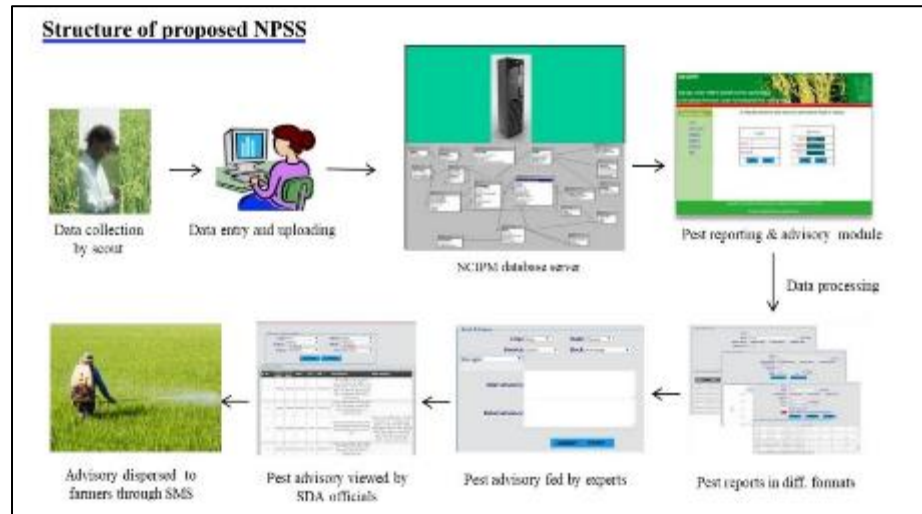


- ❖ Centre launched the Jiyo Parsi Scheme portal, a Central Sector Scheme to arrest the population decline of the Parsi community in India.



- ❖ It aims to reverse the declining trend of Parsi population by adopting a scientific protocol and structured interventions, and to stabilise their population.
- ❖ It provides the financial assistance to Parsi couples for medical treatment under standard medical protocol and towards childcare, and assistance to dependent elderly.

## National Pest Surveillance System



- ❖ The Union Government launched the AI-based National Pest Surveillance System (NPSS).
- ❖ This will help farmers to connect with agriculture scientists and experts on controlling pests using their phone.
- ❖ NPSS will analyse the latest data on pests using AI tools to help farmers and experts in pest control and management.
- ❖ Farmers can take photos of the infested crops or the insect using the NPSS platform and these will reach scientists and experts.

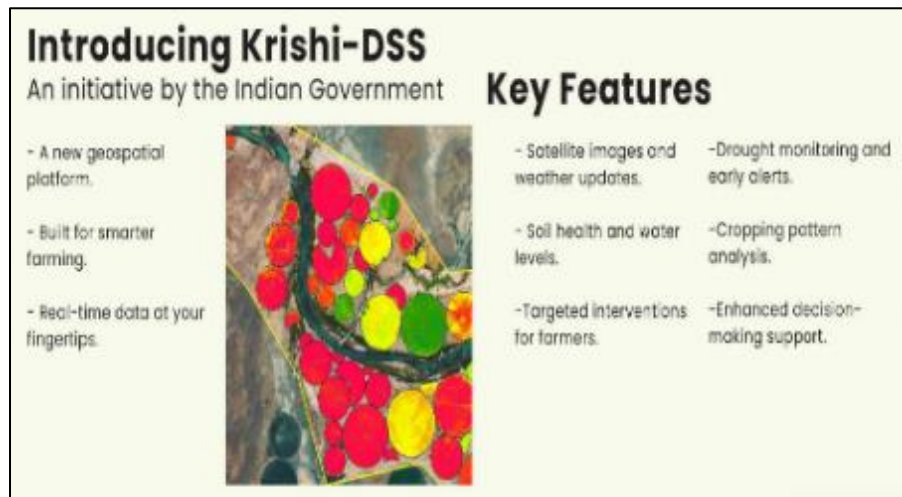
## List of Critical and Strategic minerals 2024

- ❖ The Central Government has notified a list of 24 minerals including Tantalum, in Part D of the First Schedule of the MMDR Act, 1957 as Critical and Strategic minerals.
- ❖ Tantalum is a rare metal with the symbol Ta and atomic number 73.
- ❖ The Geological Survey of India has taken up 6 projects on exploration for Tantalum and associated minerals in different parts of the country.
- ❖ Raw tantalum rarely occurs in nature.

- ❖ It is typically found in the ore columbite-tantalite (usually referred to as coltan).
- ❖ It has an extremely high melting point, exceeded only by tungsten and rhenium.
- ❖ Democratic Republic of the Congo, Rwanda, Brazil, and Nigeria are the Major Producers of Ta.



## Krishi Decision Support system



- ❖ The centre launched Krishi-Decision Support System (Krishi-DSS).
- ❖ It is a unique geospatial platform for Indian agriculture.
- ❖ It provides detailed data on fields, soil, weather, water levels, and crop conditions, accessible anytime, anywhere.
- ❖ Krishi-DSS offers real-time information on soil moisture, crop conditions, and drought monitoring.

- ❖ It includes a "One nation-one soil information system" with comprehensive soil data.
- ❖ The platform helps the government analyze cropping patterns and implement targeted interventions.

### **Green Tug Transition Program**



- ❖ The Union Ministry of Port Shipping and Waterways has officially launched the Standard Operating Procedure (SOP) for Green Tug Transition Program (GTTP).
- ❖ The Green Tug Transition Program (GTTP) as a key initiative under the 'Panch Karma Sankalp'.
- ❖ The GTTP is designed to phase out conventional fuel-based harbour tugs operating in Indian Major Ports and replace them with green tugs powered by cleaner and more sustainable alternate fuels.
- ❖ Phase 1 of the GTTP will begin on October 1, 2024, and continue until December 31, 2027.
- ❖ During this phase, four Major Ports—Jawaharlal Nehru Port Authority, Deendayal Port Authority, Paradip Port Authority, and V.O. Chidambaranar Port Authority—will procure or charter at least two green tugs each.

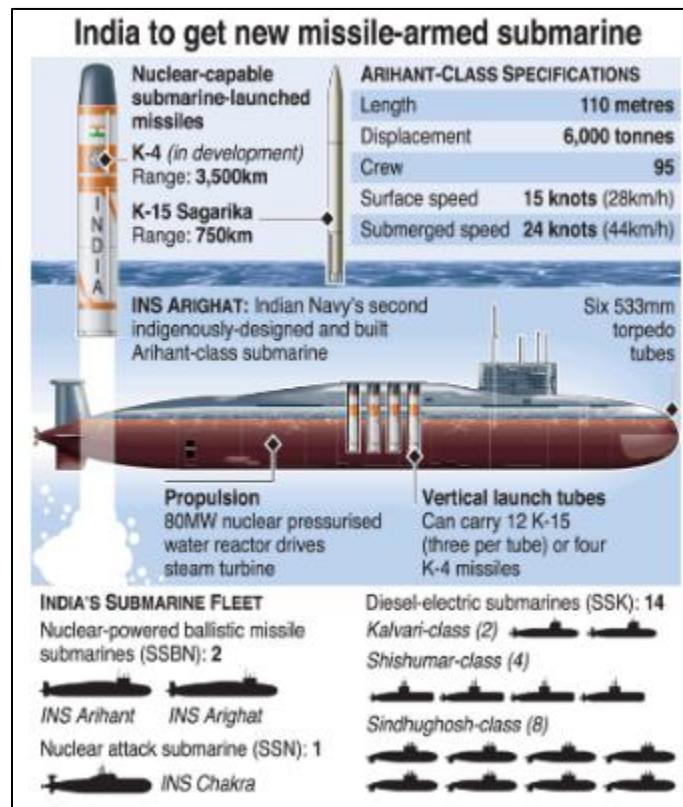
### **AYUSH in Ayushman Bharat scheme**

- ❖ The Union Government is working on the inclusion of an AYUSH package under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY).
- ❖ The term AYUSH stood for Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy.

- ❖ AB PM-JAY aims to provide the health coverage of ₹5 lakh per family per year for secondary and tertiary care hospitalisation.
- ❖ But public health is a state subject and the primary responsibility to ensure the availability of AYUSH treatment lies with State/UT governments.



## INS Arighat





- ❖ India is set to commission its second nuclear-powered submarine armed with nuclear missiles for strategic deterrence.
- ❖ The 6,000-tonne INS Arighat is constructed at the ship-building centre (SBC) at Vizag.
- ❖ The SSBN (naval parlance for nuclear-propelled submarines with nuclear-tipped ballistic missiles) will be commissioned soon.
- ❖ She will then join her sister INS Arihant, which became fully operational in 2018.
- ❖ India aims to have 18 diesel-electric submarines, four SSBNs, and six SSNs to counter threats.

### Online platforms for power sector

- ❖ The Union Power Ministry has launched three online platforms to enhance the efficiency, transparency, and effectiveness of power sector.
- ❖ The portals are named as Portal for Online Monitoring of Projects –
  - Portal for Online Monitoring of Projects—Thermal
  - Disaster Resilient Infrastructure for Power Sector (DRIPS) and
  - JAL VIDYUT DPR.

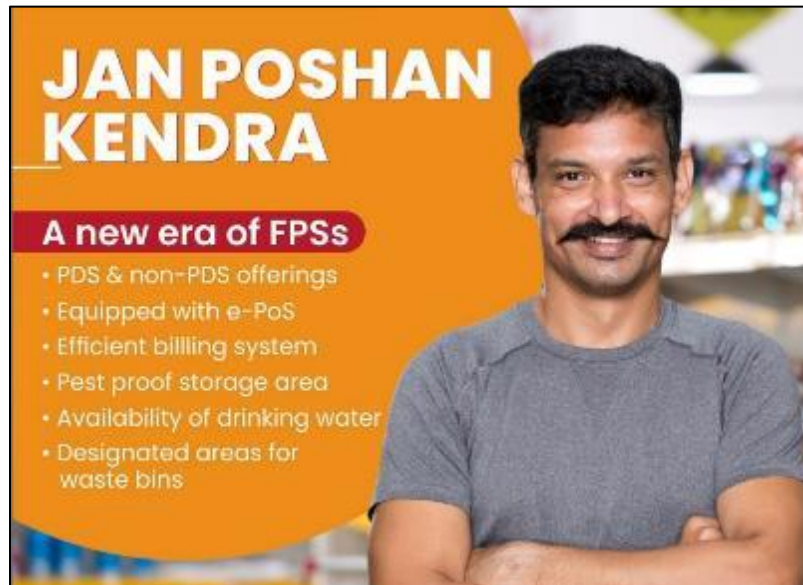


### Jan Poshan Kendra

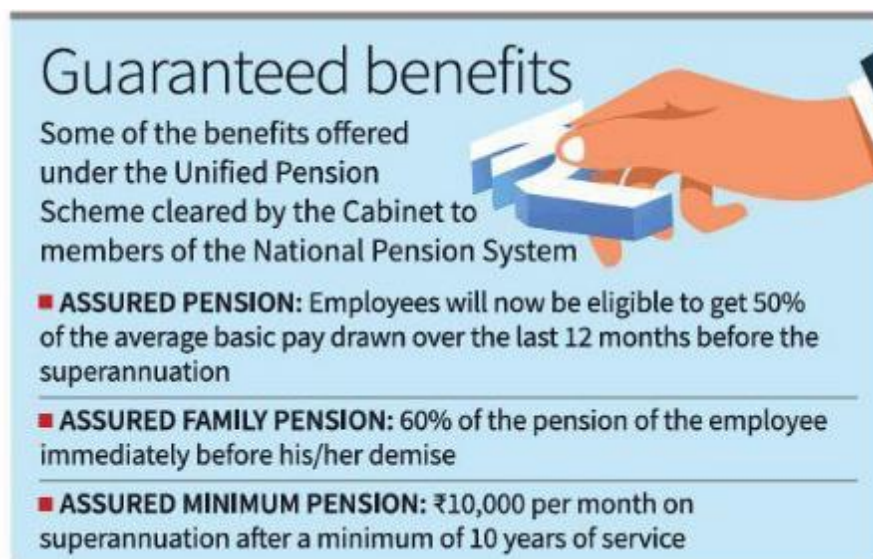
- ❖ Ration shops will soon have a new name as the Centre launched a pilot project to rechristen 60 FPS in various parts of the country as 'Jan Poshan Kendra'.
- ❖ The selected shops in Gujarat, Rajasthan, Telangana and Uttar Pradesh will provide a solution to the demand of ration dealers to raise their income level.



- ❖ The Kendras will offer a diverse range of nutrition-rich food items to consumers as well as provide an additional source of income to the fair price shops dealers.
- ❖ They will have provision for storing 50% products under the category of nutrition while the rest for keeping other household items.
- ❖ The Centre also launched FPS Sahay application, Mera Ration app 2.0, Quality Management System, Quality Manual Handbook.
- ❖ Approximately 5.38 lakh fair price shops are operational across India.



## Unified Pension Scheme



**Guaranteed benefits**

Some of the benefits offered under the Unified Pension Scheme cleared by the Cabinet to members of the National Pension System

- **ASSURED PENSION:** Employees will now be eligible to get 50% of the average basic pay drawn over the last 12 months before the superannuation
- **ASSURED FAMILY PENSION:** 60% of the pension of the employee immediately before his/her demise
- **ASSURED MINIMUM PENSION:** ₹10,000 per month on superannuation after a minimum of 10 years of service

- ❖ The Union Cabinet approved the Unified Pension Scheme (UPS) for government employees.
- ❖ To qualify for this, employees must have a minimum of 25 years of service.
- ❖ The scheme will benefit 23 lakh central government employees.
- ❖ Retirees will now receive 50 percent of their average basic pay over the last 12 months before retirement as a pension for a minimum qualifying service of 25 years.
- ❖ The Government is increasing its contribution from 14 percent to 18.5 percent.
- ❖ Employee contribution will not increase.
- ❖ In case of a pensioner's unfortunate demise, their family will receive 60% of the pension the employee was receiving.
- ❖ Rs 10,000 per month as pension, on superannuation after minimum 10 years of service, will be given.
- ❖ Lump-Sum Payment will be given at superannuation in addition to gratuity.
- ❖ Existing NPS / VRS with NPS as well as future employees will have an option of joining UPS.

### **PM Visit to Poland and Ukraine 2024**



- ❖ Indian Prime Minister visited Poland - the first visit by an Indian Prime Minister to the country in 45 years.
- ❖ Morarji Desai was the last Prime Minister to visit Poland in 1979.
- ❖ 2024 marks the 70 years of India - Poland diplomatic relations.
- ❖ Poland is India's largest trading partner in Central and Eastern Europe.

- ❖ Indian investments in Poland are estimated at around US\$3 billion.
- ❖ The Polish investments into India are around US\$1 billion.
- ❖ From Poland, Prime Minister has made 10-hour journey on a “Rail Force One” to Ukraine.
- ❖ He became the first Indian prime minister to visit Ukraine since its independence in 1991.
- ❖ This specially designed train had previously carried United States President Joe Biden from Poland to Kyiv in February 2023.

### **BHISHM Cubes**

- ❖ During the visit, the Indian prime minister presented four BHISHM (Bharat Health Initiative for Sahyog Hita & Maitri) Cubes to the Ukrainian government.
- ❖ The BHISHM Cubes are compact, portable medical units designed to provide first-line care in emergency situations.
- ❖ Each BHISHM Cube is a self-contained medical facility.
- ❖ The Cubes are stocked with essential medicines and equipment needed for immediate care.
- ❖ This includes supplies to treat injuries such as trauma, bleeding, burns, and fractures.

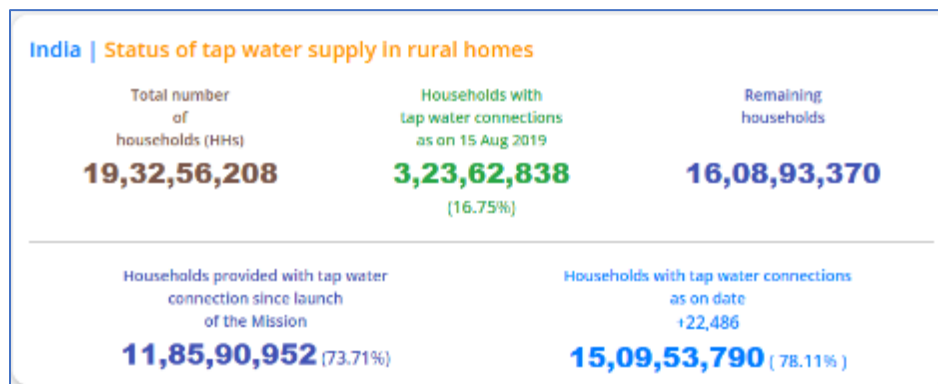


- ❖ The Cube comes equipped with surgical tools necessary for a basic Operation Room (OR).
- ❖ It is capable of performing 10-15 surgeries per day.

- ❖ A single Cube can manage approximately 200 cases, catering to diverse medical needs.

### 5 years of Jal Jeevan Mission

- ❖ The Jal Jeevan Mission (JJM) was launched on August 15, 2019.
- ❖ It is aimed at providing tap water supply to every rural household by 2024.
- ❖ At the time of its inception, only 3.23 crore (17%) of rural households had tap water connections.
- ❖ The mission aims to bridge this gap by providing nearly 16 crore additional households with tap water by 2024.
- ❖ As of August 25, 2024, it has successfully provided tap water connections to 11.85 crore additional rural households.
- ❖ It was bringing the total coverage to more than 15.07 crore households, which accounts for 78.11% of all rural households in India.
- ❖ States achieving 100% Tap Connectivity: Goa, Telangana and Haryana.
- ❖ Union Territories achieving 100% Tap Connectivity: Puducherry, Andaman and Nicobar Islands, Dadra & Nagar Haveli and Daman & Diu.



### Deen Dayal SPARSH Yojana

- ❖ Department of Posts has launched a philately scholarship scheme Deen Dayal SPARSH Yojana.
- ❖ It will help to promotion of aptitude and research in stamps as a hobby for generating interest regarding philately amongst students.
- ❖ It grants scholarship to those meritorious students of classes 6 to 9, whose academic records are good as well as who have adopted Philately as a hobby.
- ❖ The amount of scholarship will be ₹ 6000/- per annum at the rate of ₹ 500/- per month, which will be payable on quarterly basis.



## New portals under Mission Karmayogi



- ❖ The Amrit Gyan Kosh and Faculty Development portals were recently launched under Mission Karmayogi.
- ❖ The Amrit Gyan Kosh portal provides a shared knowledge bank with India-centric case studies.
- ❖ The Faculty Development portal focuses on training practitioners and faculty to improve knowledge delivery to civil servants.

## India-Nepal power trade



- ❖ India has allowed Nepal to export an additional 251 MW of electricity to the country.
- ❖ India's Designated Authority for Cross-Border Trade has approved an additional 251 MW of power exports from 12 hydropower projects in Nepal.
- ❖ With this, Nepal would be exporting 941 MW of hydropower from 28 projects.
- ❖ Earlier, Nepal was exporting 690 MW of electricity from 16 projects.



- ❖ Nepal had already become a net exporter of electricity and net revenue generator in the last fiscal year.
- ❖ India and Nepal had reached an agreement for the long-term power trade that envisages the sale of up to 10,000 MW of power from Nepal to India in the next 10 years.
- ❖ Nepal shares a border of over 1,850 km with five Indian States — Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand.

### **Continuous Emission Monitoring**

- ❖ Continuous Emission Monitoring System (CEMS) is a critical tool for accurate pollution monitoring and reporting, essential for industries across India.
- ❖ In 2014, Central Pollution Control Board (CPCB) mandated the installation of CEMS in 17 categories of highly polluting industries and common pollution control facilities.
- ❖ Recently CSIR-NPL has developed a certification scheme, NPLI CS and associated testing facilities for CEMS.
- ❖ The CEMS was certified by TUV/MECERT and the United States Environmental Protection Agency.
- ❖ The CSIR-NPL certification procedure aligns with the European standard EN-15267 (Parts 1, 2 and 3).



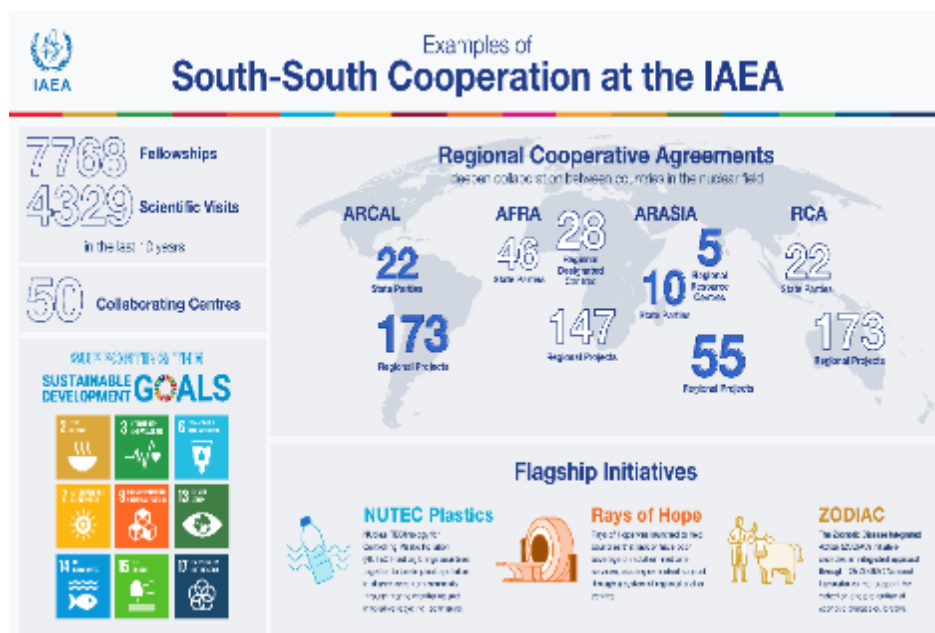
## INTERNATIONAL

### UK - India New Technology Security Initiative

- ❖ India and the UK launched a Technology Security Initiative aimed at ensuring telecommunications security.
- ❖ It also makes way to collaboration in key areas such as critical minerals, semi-conductors, artificial intelligence, quantum computing and health technology.
- ❖ The initiative builds on the cooperation agenda set out in the roadmap 2030 and will bring into sharper focus collaboration in critical and emerging technologies.
- ❖ Besides this, India has the initiative on Critical and Emerging Technology (iCET) with the US and the Trade and Technology Council with the European Union.

### IAEA – UNOSSC Initiatives

- ❖ The IAEA and the United Nations Office for South-South Cooperation (UNOSSC) will launch a new series of joint activities to enhance collaboration.
- ❖ An agreement was signed during the recent UN High Level Political Forum in New York between the both.
- ❖ Through the agreement, the IAEA will participate in new UNOSSC programmes, including its 'Data to Policy Network' and 'Solutions Lab' over the next year.
- ❖ The agreement will link the International Atomic Energy Agency (IAEA) more closely with an international community of South-South practitioners.



### **First Climate Change Law - South Africa**

- ❖ The South African President Cyril Ramaphosa has signed into law a broad climate change act.
- ❖ It will set caps for large emitters and require every town and city to publish an adaptation plan.
- ❖ It aims to enable South Africa to meet its emissions reduction commitments under the Paris climate agreement.
- ❖ South Africa is the world's most carbon-intensive major economy and among the top 15 greenhouse gas emitters.

### **Japan's Sado Gold Mine - UNESCO Status**

- ❖ The UNESCO World Heritage committee decided to register Japan's controversial Sado gold mine as a cultural heritage site.
- ❖ For this, Japan agreed to include it in an exhibit of its dark history of abusing Korean labourers during World War II.
- ❖ The mine on an island off the coast of Niigata in northern Japan operated for nearly 400 years.
- ❖ It was the world's largest gold producer before closing in 1989.
- ❖ Seoul has said some Koreans brought to Japan during its 1910-1945 colonization of the Korean Peninsula were put to forced labour at the mine.
- ❖ Another controversial Japanese site was granted UNESCO recognition in 2015.
- ❖ Gunkanjima, or Battleship Island, in Nagasaki prefecture, was a former coal mine site recognised as important to the Meiji Industrial Revolution in Japan.



## Monastery of Tell Umm Amer

- ❖ The World Heritage Committee (WHC) has decided to include the Palestinian site of Tell Umm Amer in both the UNESCO World Heritage Site List.
- ❖ It is also known as the 'Monastery of Saint Hilarion' lies in the Gaza Strip.
- ❖ The ancient Christian monastery was founded in the fourth century by Hilarion the Great (291-371 CE).
- ❖ He is considered by some to be the father of Palestinian monasticism.
- ❖ The present-day archaeological remains of the site span more than the four centuries, from the time of Hilarion to the Umayyad period.
- ❖ UNICEF refers to it as “the first monastic community in the Holy Land”, and “a hub of religious, cultural, and economic interchange”.
- ❖ The monastery was likely abandoned after a seventh century earthquake, only to be uncovered by local archaeologists in 1999.

## Jabiluka uranium site – Australia



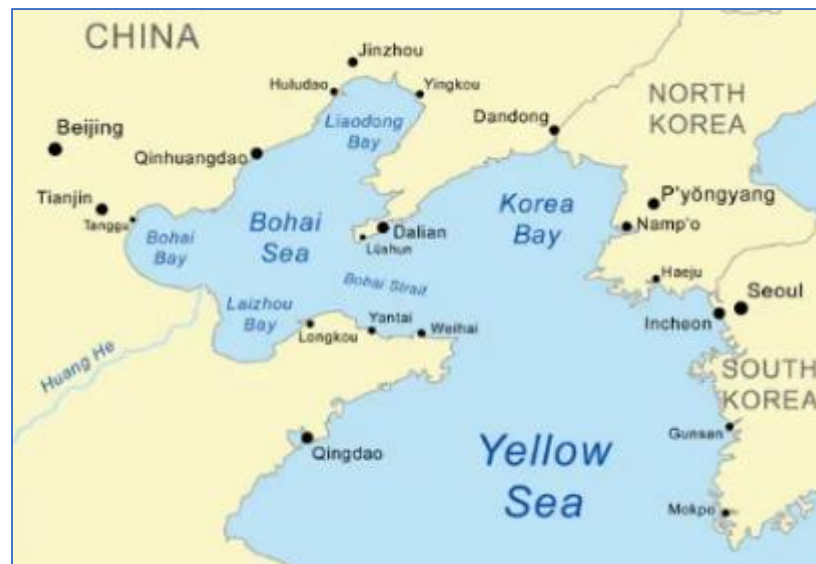
- ❖ Australia took steps to ban mining at an Indigenous site surrounded by Kakadu National Park.
- ❖ It is home to one of the world's largest deposits of high-grade uranium.
- ❖ The uranium deposit was discovered there in the early 1970s.
- ❖ The Jabiluka site became the focus of intense legal wrangling between the Mirarr people and mining companies.

## Second Thomas Shoal in South China Sea



- ❖ China and the Philippines have struck a deal to defuse tensions on a contested shoal in the South China Sea.
- ❖ It lays out provisional terms to replenish Filipino troops on the Second Thomas Shoal.
- ❖ The shoal lies about 200km (124 miles) from the western Philippine Island of Palawan and more than 1,000km (620 miles) from China's southern Hainan Island.

## Yellow sea - Bohai Gulf



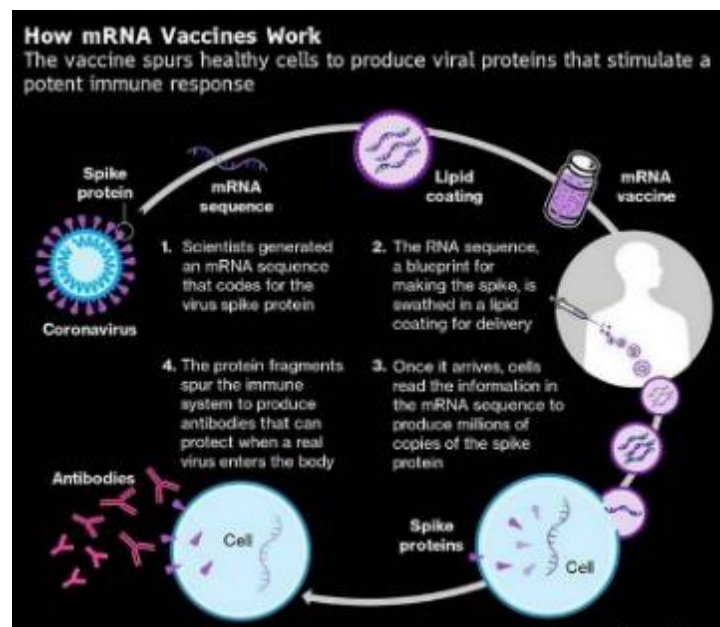
- ❖ China's Migratory Bird Sanctuaries along the Yellow Sea-Bohai Gulf (Phase II) were added to the UNESCO World Heritage List.
- ❖ It spans conservation zones in Hebei, Shandong, and Liaoning, as well as other provinces and cities.



- ❖ Bohai Gulf is the innermost gulf of the Yellow Sea on the coast of Northeastern and North China.
- ❖ The Bohai Gulf is enclosed by the Liaodong Peninsula (northeast) and the Shandong Peninsula (south).
- ❖ In earlier times it was called the Gulf of Chili or the Gulf of Pechili.
- ❖ The Yellow Sea is a marginal sea of the western Pacific Ocean.

### **H5N1 Vaccines Using mRNA**

- ❖ The World Health Organisation (WHO) has announced, a new project to develop vaccines for human bird flu infections, using cutting-edge messenger RNA technology.
- ❖ Argentinian Sinergium Biotech would lead the effort and had already begun developing candidate H5N1 vaccines.
- ❖ The bird flu H5N1 was first emerged in 1996, but since 2020 an exponential growth in outbreaks in birds has occurred in parallel to mammals, and a few humans.
- ❖ This has prompted fears the virus could spark a future pandemic.



### **Bolivia in Mercosur**

- ❖ Bolivia recently became a full member of Mercosur.
- ❖ The Southern Common Market is commonly known by Spanish abbreviation Mercosur, and Portuguese Mercosul.

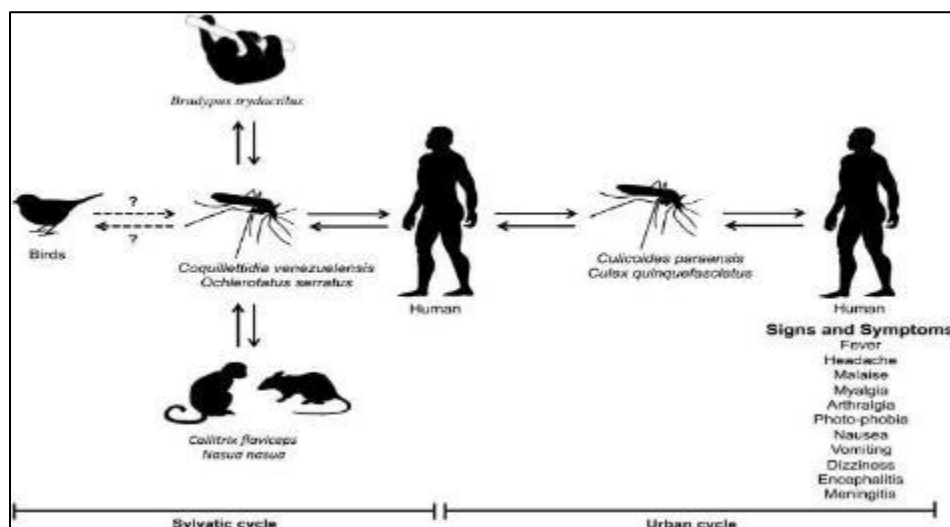
- ❖ This South American trade bloc was established by the Treaty of Asunción in 1991 and Protocol of Ouro Preto in 1994.
- ❖ Its full members are Argentina, Brazil, Paraguay and Uruguay.
- ❖ Venezuela is a full member but has been suspended since 1 December 2016.
- ❖ Its associate countries are, Chile, Colombia, Ecuador, Guyana, Peru, and Suriname.



### Quad Foreign Ministers Meeting 2024

- ❖ Recently, the Quad foreign ministers' meeting was held in Tokyo.
- ❖ The Quad is an informal diplomatic partnership between Australia, India, Japan, and the United States.
- ❖ It committed to supporting an open, stable and prosperous Indo-Pacific that is inclusive and resilient.

### First Ever Death by Oropouche Fever



- ❖ The world's first deaths from Oropouche fever have been recorded in Brazil.
- ❖ The virus spreads through bites from infected midges (tiny flies) and mosquitoes.
- ❖ The virus causing Oropouche fever, Orthobunyavirus oropoucheense, was first identified in Brazil in 1960.

### **G20 International Tax Cooperation**

- ❖ The G20 Finance Ministers and Central Bank Governors met in Rio de Janeiro, Brazil.
- ❖ It released a stand-alone Tax Declaration on international tax cooperation.
- ❖ The Declaration applauds domestic tax reforms by several G20 countries to tackle inequalities and promote fairer and more progressive taxation systems.
- ❖ It includes a vow to strengthen domestic reforms through peer support and the sharing of best practices.
- ❖ The Declaration calls for the swift implementation of the Crypto-Asset Reporting Framework (CARF) and revisions to the Common Reporting Standard (CRS) by jurisdictions.

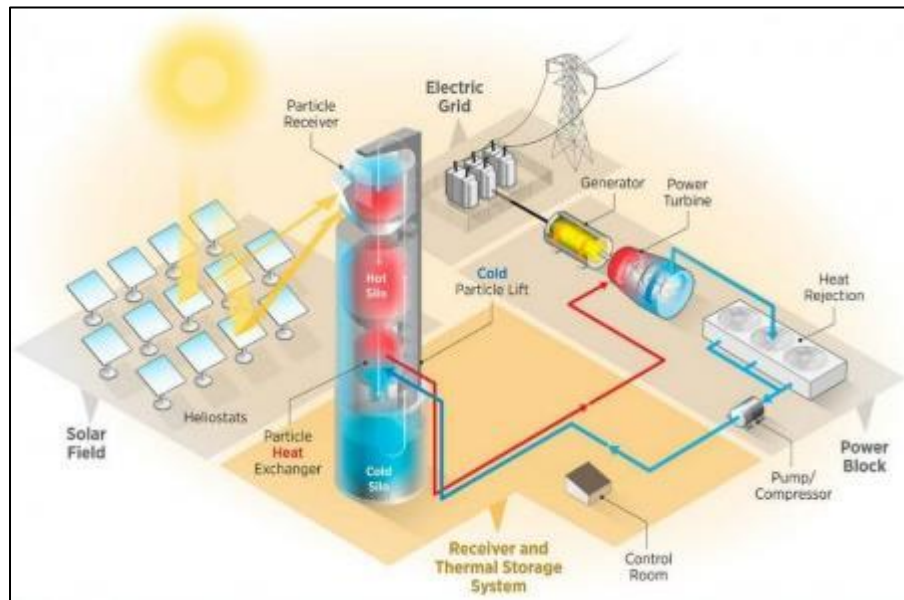
### **WBG guarantee platform**



- ❖ The World Bank Group Guarantees consolidates all guarantee products and experts from across the World Bank Group institutions at Multilateral Investment Guarantee Agency.
- ❖ It provides a simplified and comprehensive menu of guarantee solutions, enabling clients to select the instrument that best suits their needs.
- ❖ The platform streamlines processes, removes redundancies, and provides greater accessibility by de-risking investments in developing countries.
- ❖ Its goal is to boost the WBG's annual guarantee issuance to \$20 billion by 2030.

## Dual-tower solar thermal plant – China


- ❖ China has unveiled the world's first dual-tower solar thermal power plant.
- ❖ It utilises an innovative design to significantly improve energy efficiency.
- ❖ The plant features two 200-meter-tall towers, each surrounded by nearly 30,000 mirrors that form overlapping circles to focus sunlight onto the towers.
- ❖ The mirrors in the overlapping area can be utilized by either tower.
- ❖ The concentrated sunlight heats water inside the towers, generating steam that drives turbines to produce electricity.



## Africa - Urgent Mpox Outbreak 2024

- ❖ Monkeypox outbreak began in Democratic Republic of Congo but has now spread over nine other African countries including Burundi, Central African Republic, Rwanda and South Africa.
- ❖ The mpox outbreak was last reported during 2022-23 and has intensified since then.
- ❖ The infection is similar to smallpox which was effectively eradicated in 1980.
- ❖ But mpox has continued to make headlines in central and west Africa.
- ❖ Historically, the first human case of mpox was recorded in DRC in 1970.
- ❖ Mpox is a zoonosis, a disease that is transmitted from animals to humans.





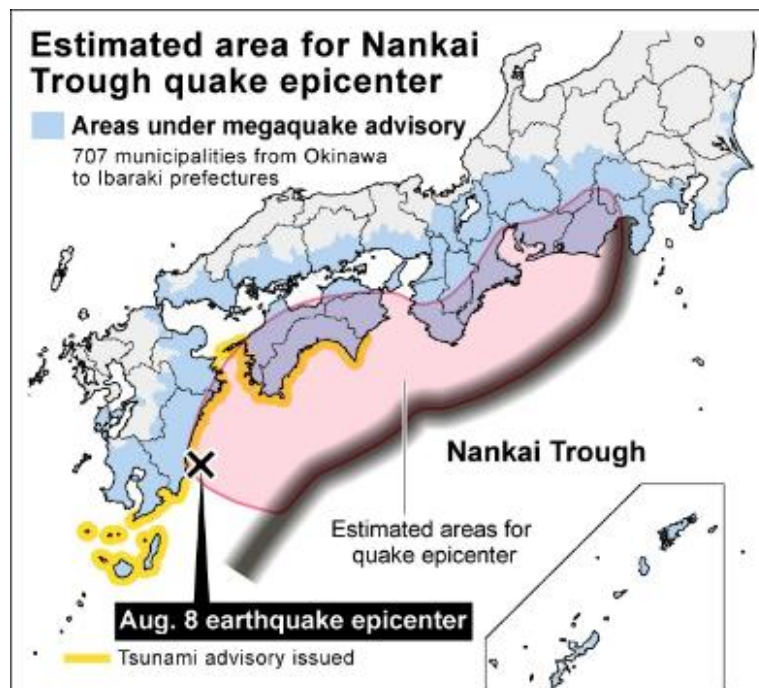
## MPOX OUTBREAK AWARENESS

A viral disease caused by monkeypox virus that's rare in humans. A single confirmed case is considered an outbreak.

**Important Information:**

<b>Transmission:</b> Direct contact with infected skin/other lesions in the mouth/genital area/respiratory droplets.
<b>Incubation period:</b> 3 to 17 days
<b>Symptoms:</b> Skin rash/mucosal lesion, fever, headache, swollen lymph nodes which can last 2-4 weeks
<b>Treatment:</b> Hydration, skin care & pain management
<b>Prevention:</b> Avoid contact with infected persons/ animals, use protective gear when handling suspected cases & wash hands frequently

## Megaquake advisory



- ❖ After a 7.1-magnitude earthquake shook the southern Japan, the country's meteorological agency issued its first-ever "megaquake advisory".
- ❖ The warning said the likelihood of strong shaking and large tsunamis is higher than normal on the Nankai Trough.



- ❖ Nankai Trough is a 900 km long subduction zone along Japan's southwest Pacific coast.
- ❖ The trough has produced large earthquakes roughly every 100 to 150 years.
- ❖ These tremors usually come in pairs, with the second often rupturing in the subsequent two years.
- ❖ The most recent "twin" earthquakes took place in 1944 and 1946.
- ❖ This advisory by the Japan's meteorological agency was just a warning not a prediction.

### **Survey of Lake Turkana**

- ❖ A comprehensive survey of Lake Turkana, has been conducted for the first time in 50 years.
- ❖ It is located in the remote northern region of Kenya.
- ❖ Lake Turkana stands as Africa's fourth-largest lake and the largest permanent desert lake in the world.
- ❖ This UNESCO World Heritage site is renowned for its unique biodiversity and cultural significance.
- ❖ Seasonal flooding from the Omo River is making up over 90% of its inflow.
- ❖ The lake hosts 79 fish species, including 12 endemics, and the largest population of Nile crocodiles.
- ❖ The last lake wide acoustic survey was done by Hopson in 1974.



## UN cybercrime treaty 2024

- ❖ The United Nations Cybercrime Convention which has been under negotiation for the past three years, was unanimously approved by UN members.
- ❖ It aims to "prevent and combat cybercrime more efficiently and effectively," notably regarding child sexual abuse imagery and money laundering.
- ❖ For the first time, it proposes a global-level cybercrime and data access-enabling legal framework.
- ❖ It establishes "a global criminal justice policy," to protect society against cyber-crime.
- ❖ It calls states to put in place legislation that will make it illegal to breach an information and communications system people don't have access to.
- ❖ The treaty would enter into force once 40 member nations will ratify it.



## US Antitrust Ruling Against Google

### KEY ANTITRUST PROBES AGAINST GOOGLE IN US/APAC

**UNITED STATES**

**Aug 2021**  
Antitrust bill 'Open App Markets Act' introduced that targets Google & Apple's app marketplaces

**July 2021**  
New suit from 36 US state AGs targets Google Play's business practices

**Oct 2020**  
Google sued by US DOJ & in 11 state AGs antitrust case over search & search advertising dominance

**AUSTRALIA**

**Feb 2021**  
New legislation forces Google & other digital platforms to pay local publishers for news content

**SOUTH KOREA**

**Sep 2021**  
\$177M penalty for allegedly abusing Android's market dominance to limit competition

**Aug 2021**  
New bill passed that limits Google & Apple's control over app store payments

### GOOGLE Vs CCI ANTITRUST INVESTIGATIONS SO FAR

**February 2018**  
A fine of Rs 135.86 crore on Google for 'search bias' and abusing its dominant position in online general web search and web search advertising services in India

**November 2020**  
New antitrust probe ordered into the issue of mandatory use of Google Play Store's payment system for paid apps and in-app purchases in India. Also being examined is whether Google Pay abused its dominance in the digital payments market

**June 2021**  
CCI orders an antitrust probe into allegations of Google abusing its Android OS dominance in India's smart television market

**April 2019**  
CCI opens an antitrust investigation against Google's alleged abuse of Android's dominance in India

**January 2022**  
Antitrust investigation opened against Google over alleged abuse of dominant position in news aggregation

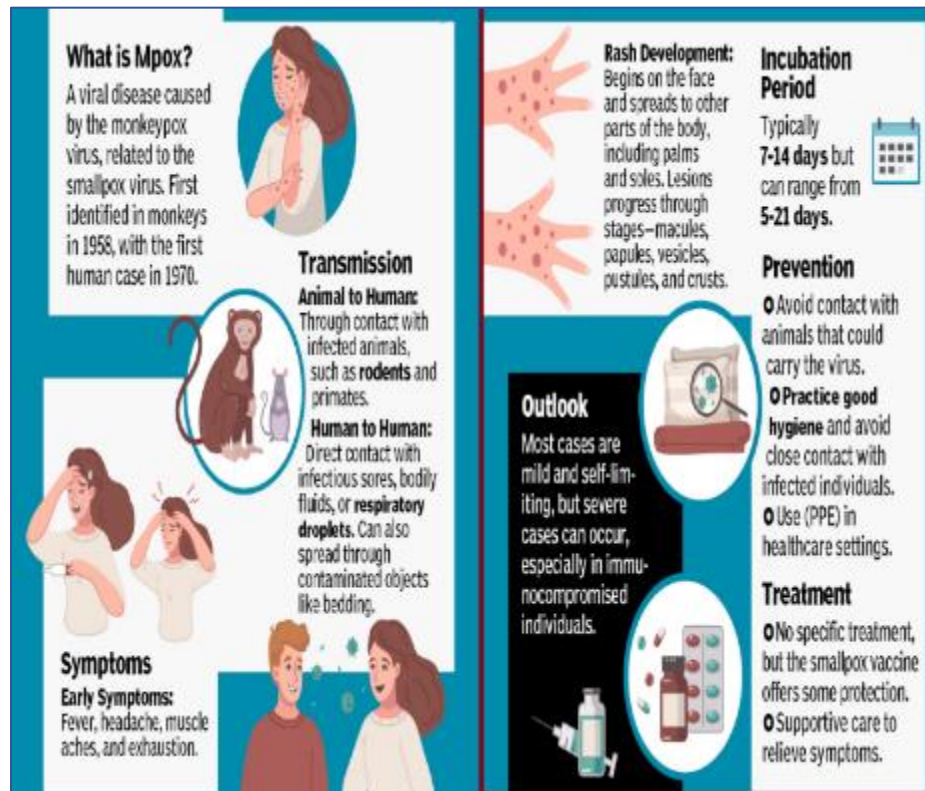
- ❖ Google's payments to make its search engine the default option on smartphone web browsers violate the US antitrust law.
- ❖ Google pays for this privilege and has shelled out more than \$26 billion for it in 2021.
- ❖ The court ruled that Google had monopoly power in the markets for general search services and general search text ads.
- ❖ It has also slammed Google for failing to preserve employees' chat messages that could have served as trial evidence.
- ❖ In India too, Google has faced allegations of anti-competitive practices.

### **Germany in U.N. Command**



- ❖ Germany joined the U.S.-led United Nations Command (UNC) in South Korea.
- ❖ Germany became the 18th nation in the group.
- ❖ UNC helps police the heavily fortified border with North Korea and has committed to defend the South in the event of a war.
- ❖ Current UNC members, among them Australia, Britain, Turkey and the United States, sent troops or contributed medical support during the 1950-53 Korean War.
- ❖ Established in 1950, the UNC was mandated to restore peace and enforce the armistice while serving as a channel of communication with North Korea.
- ❖ It is led by the commander of the U.S. military stationed in South Korea.
- ❖ It is not affiliated with the United Nations.

## Mpox - Health Emergency



- ❖ The World Health Organization (WHO) has declared mpox as a “public health emergency of international concern” (PHEIC).
- ❖ Mpox is caused by an orthopox virus.
- ❖ It was first detected in humans in 1970 and is endemic to countries in central and west Africa.
- ❖ More than 2,100 laboratory-confirmed cases of the disease, as well as 13 deaths, have been reported this year in the DRC and 11 other countries.
- ❖ WHO also reported that Sweden was the first country outside of Africa to report a case of the mpox Clade 1 variant.

## Croatia - Compulsory Military Service

- ❖ Croatia will reintroduce a two-month compulsory military service starting January 1 next year.
- ❖ The move comes amid heightened tensions in Europe following the Russian aggression against Ukraine.
- ❖ The conscription was suspended in 2008 when the country shifted to a volunteer-based system.





## 75<sup>th</sup> anniversary of Geneva Conventions



- ❖ 2024 commemorate the 75th Anniversary of the adoption of the Geneva Conventions of 1949.
- ❖ The Geneva Conventions are a set of international treaties that establish legal standards for humanitarian treatment during war.
- ❖ The first Geneva Convention was adopted in 1864 to protect wounded soldiers on the battlefield.
- ❖ The Four Conventions:
  - 1<sup>st</sup> Convention: Protects wounded and sick soldiers on land during war.
  - 2<sup>nd</sup> Convention: Extends protection to wounded, sick, and shipwrecked military personnel at sea.
  - 3<sup>rd</sup> Convention: Focuses on the treatment of prisoners of war.
  - 4<sup>th</sup> Convention: Protects civilians, including those in occupied territories, from inhumane treatment.



- ❖ These four Conventions were adopted on 12 August 1949.
- ❖ Two Additional Protocols were adopted in 1977 to strengthen protections in both international and non-international armed conflicts.
- ❖ A third protocol was added in 2005 to recognize the Red Crystal as an additional emblem alongside the Red Cross and Red Crescent.

## 11 New Nuclear Reactors - China

- ❖ China approved 11 new nuclear reactors across five sites to support its push to cut emissions.
- ❖ The total investment for all 11 units will be at least 220 billion yuan (\$31 billion) with construction taking about five years.
- ❖ China has more nuclear reactors under construction than any other nation in the world.
- ❖ It also approved 10 new reactors in each of the last two years.
- ❖ The country has 56 reactors currently in operation, with a combined capacity that equates to around 5% of total electricity demand.
- ❖ It is expected to surpass France and the US to be the world's leading atomic power generator by 2030.

Nuclear power generation by country			
Country	Nuclear generation, 2023 (TWh)	Total generation, 2023 (TWh)	Nuclear % of total generation
United States	775	4,249	18.3%
China	435	9,462	4.6%
France	336	514	65.3%
World total	2,678	29,479	9.1%

## Crisis in Kursk region

- ❖ The Ukrainian army launched a brave attack into the Kursk region of the Russian Federation.
- ❖ Ukraine established a military administration for the territory under its control on 15 August 2024.
- ❖ The Kursk region, located in the western Russia and bordering Ukraine, has a population of about 1.2 million.

- ❖ It is located at the confluence of the Kur, Tuskar, and Seym rivers.
- ❖ It lies along the upper Seym River, about 280 miles (450 km) south of Moscow.



### **Madeira Wildfires**

- ❖ The southern part of the Portuguese island of Madeira has been witnessing forest fires that have devastated more than 5,000 hectares of wilderness.
- ❖ It is the largest surviving laurel (*Laurus nobilis*) forests in the world.
- ❖ This is also deemed as a World Heritage Site by UNESCO.



### **India US pact for security of supplies**

- ❖ India and the US have signed a new Security of Supply Arrangement (SOSA).
- ❖ This agreement will prioritise supply of defence equipment and components to each other to meet urgent national security requirements.

- ❖ The agreement, even though not legally binding, will open new avenues for cross investments and partnerships between Indian and US companies
- ❖ India and the US are also negotiating another pact – the Reciprocal Defence Procurement Agreement (RDP).
- ❖ It will drastically increase opportunities for Indian manufacturers to engage with US defence majors.
- ❖ Once RDP is finalised, India will join a list of 26 countries accorded the status of being Defence Federal Acquisition Regulation Supplement (DFARS) compliant.
- ❖ Only these countries are qualified to supply significant components and parts for American military orders.

### **Global Development Compact 2024**

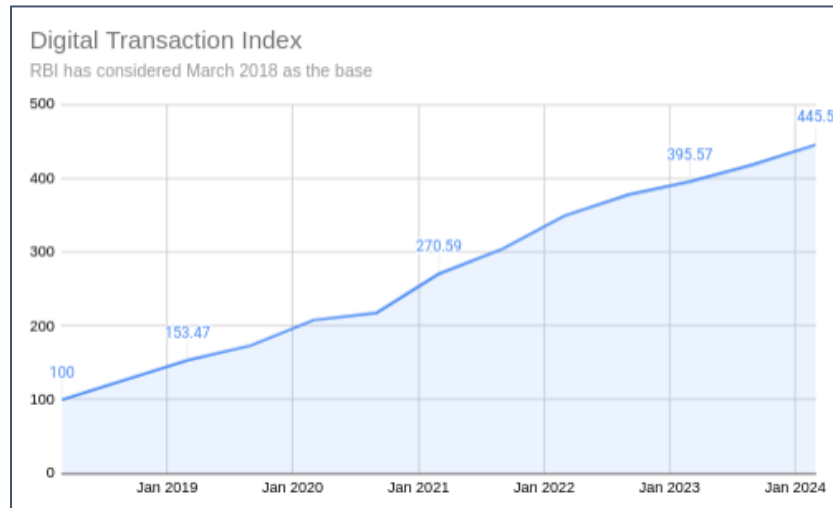


- ❖ India hosted the third edition of the Global South Summit.
- ❖ The summit was joined by 123 countries including heads of state and government of 21 nations.
- ❖ Indian Prime Minister has proposed the creation of a human-centric "Global Development Compact" for the Global South.
- ❖ It aims to facilitate trade, sharing of technologies and concessional financing based on India's growth journey.
- ❖ The 'Compact' will be in line with the priorities of developing countries even as he urged the Global South to work unitedly in confronting food and energy security crises and the challenge of terrorism and extremism.

## ECONOMY

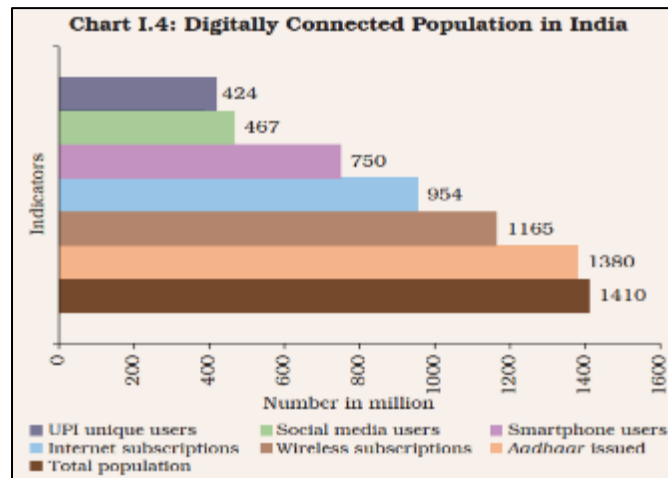
### Digital Payments 2024

- ❖ Digital payments across the country registered a 12.6 per cent on-year rise as on March 31, 2024.
- ❖ RBI's Digital Payments Index (RBI-DPI) stood at 445.5 at the end of March 2024.
- ❖ It was 418.77 in September 2023 and 395.57 in March 2023.



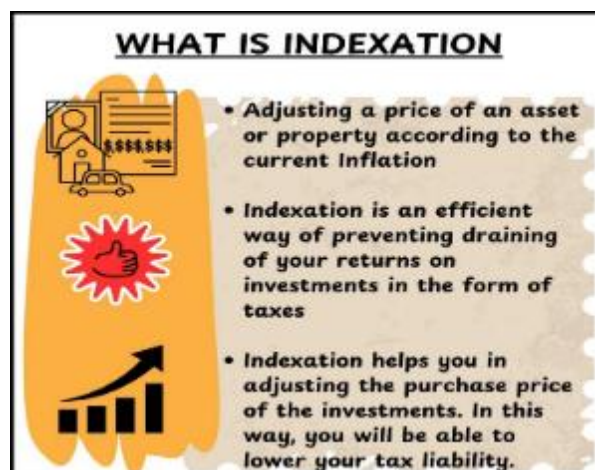
### Report on Currency and Finance 2023/24 – RBI

- ❖ The digital economy currently accounts for 10 per cent of the country's GDP and is expected to double to 20 per cent by 2026.
- ❖ Average cost of a data breach jumped 28 per cent in the last three years.
- ❖ The percentage of young borrowers has risen considerably, with 65 per cent of the total personal loans given to borrowers aged less than 35.
- ❖ India's internet penetration stands at 55.3 per cent, which is below the global average of 67.1 per cent.
- ❖ Internet subscriptions per 100 population in urban areas were more than two times higher compared to rural India with an all-India average of 68.2.
- ❖ Among the rural households, only 9.9 per cent have access to a computer.
- ❖ While the proportion is 32.4 per cent among the urban households.
- ❖ The average data consumption per-user per-month is 24.1 GB in 2023.



### Indexation on LTCG 2024

- ❖ The new LTCG regime proposed in the Union Budget does away with the indexation benefit available for calculation of LTCG on property, gold, and other unlisted assets.
- ❖ It reduced the long-term capital gains (LTCG) tax rate to 12.5% from 20%.
- ❖ It stated that this was to “ease computation of capital gains for the taxpayer and tax administration”.
- ❖ For properties and other assets purchased prior to 2001, the fair market value as on April 1, 2001 would be considered as the cost of acquisition.
- ❖ Indexation is the process of adjusting the original purchase price of an asset or investment in order to neutralise the impact of inflation on it.
- ❖ It involves revising upward the cost of acquisition of an asset based on the inflation over the period for which it was held.





## RBI's 5th Cohort Regulatory Sandbox



- ❖ RBI said five entities were selected for the test phase of the regulatory sandbox's theme-neutral fifth cohort that it had announced in October last year.
- ❖ The banking regulator received 22 applications for this cohort of the regulatory sandbox.
- ❖ A regulatory sandbox refers to live testing of new products or services in a controlled regulatory environment for which regulators may or may not permit certain relaxations for the limited purpose of testing.

## PCA framework for Urban Cooperative Banks

TRIGGER THRESHOLDS FOR PCA				
For NBFCs excluding core investment companies				
Indicator	RBI regulatory minimum	RISK		
		Threshold 1	Threshold 2	Threshold 3
CRAR	15%	12% to below 15%	Between 9% and 12%	Below 9%
Tier 1 capital ratio	10%	8% to 10%	Between 6% and 8%	Below 6%
Net NPA ratio	NA	6-9%	9-12%	Above 12%

Note: Based on current regulatory minimum  
PCA: Prompt corrective action; CRAR: Capital-to-risk weighted assets ratio

PCA actions	Specifications/ Mandatory action
<b>Risk threshold 1</b>	Restriction on dividend distribution/ remittance of profits; promoters/ shareholders to infuse equity and reduce leverage
<b>Risk threshold 2</b>	In addition to mandatory actions of threshold 1, restriction on branch expansion
<b>Risk threshold 3</b>	Besides mandatory actions of thresholds 1 & 2, appropriate restrictions on capital expenditure, other than for technological upgrade within board-approved limits; restrictions/reduction in variable operating costs

- ❖ RBI has issued a prompt corrective action (PCA) framework for primary (urban) co-operative banks.

- ❖ It aims to giving more focus on larger UCBs that require more intensive monitoring by optimal utilisation of supervisory resources.
- ❖ The PCA framework will replace the supervisory action framework (SAF) which was established as an early intervention tool to bring improvements in weak UCBs.
- ❖ The PCA framework has been made applicable to all UCBs in Tier 2, Tier 3 and Tier 4 categories, except UCBs under All Inclusive Directions (AID).

### **UPI Limit for Tax Payments**



- ❖ The Reserve Bank of India announced the UPI tax payment limit increase from the current limit to Rs 5 lakh per transaction.
- ❖ Currently, the transaction limit for UPI is Rs 1 lakh except for certain category of payments which have higher transaction limits.
- ❖ It has now been decided to enhance the limit for tax payments through UPI from Rs 1 lakh to Rs 5 lakh per transaction.

### **Rural Youth Employment Report – 2024**

- ❖ Nearly half of rural youth in India's primary source of income was from sales of agricultural produce.
- ❖ It is followed by daily wage labour and retail or wholesale trade
- ❖ Majority (70% - 85%) of those currently engaged in the workforce in some capacity said they were looking for a change in work.
- ❖ Driver or electrician job were popular among men respondents.
- ❖ Tailoring (64.6%) and beauty (23%) were popular among women respondents.
- ❖ 55% men and 40% women currently owning businesses also wanted to transition to a salaried job.

- ❖ Over 60 per cent male and 70 per cent females preferred to find work in or close to their villages, even when income was 20-30 per cent lower.



### **FPI investment in India 2023-24**

- ❖ The total number of registered FPIs in India reached 11,219.
- ❖ This marks a slight increase from the previous year, where the number stood at 11,081.
- ❖ The United States accounts for the highest share of Foreign Portfolio Investors (FPIs) investing in India during the fiscal year 2023-24.
- ❖ Out of the total registered FPIs, the United States led with 3,457 investors.
- ❖ It is followed by Luxembourg with 1,393 and Canada with 804.
- ❖ FPI in India during 2023-24 was the highest since 1992-93.

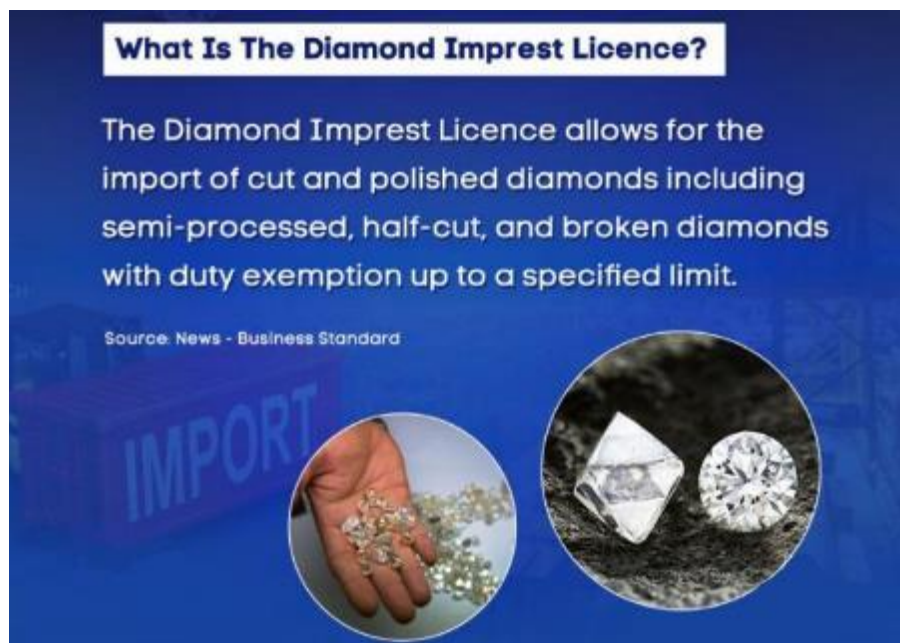
FDI	FPI
1. It is long-term investment	1. It is generally short-term investment
2. Investment in physical assets	2. Investment in financial assets
3. Aim is to increase enterprise capacity or productivity or change management control	3. Aim is to increase capital availability
4. Leads to technology transfer, access to markets and management inputs	4. FPI results in only capital inflows
5. FDI flows into the primary market	5. FPI flows into the secondary market
6. Entry and exit is relatively difficult	6. Entry and exist is relatively easy
7. FDI is eligible for profits of the company	7. FPI is eligible for capital gain
8. Does not tend be speculative	8. Tends to be speculative
9. Direct impact on employment of labour and wages	9. No direct impact on employment of labour and wages
	10. Fleeting interest in mgt.

### Michael Debabrata Patra committee



- ❖ The Reserve Bank of India (RBI) has constituted an Expert Committee under the chairmanship of deputy governor Michael Debabrata Patra.
- ❖ Purpose of the committees are
  - To benchmark the statistics regularly disseminated by it against global standards/best practices;
  - Study the quality of other regular data, where such benchmarks do not exist (e.g., sectors of national priority); and
  - Provide guidance on the scope for any further data refinement.

### Diamond Imprest License

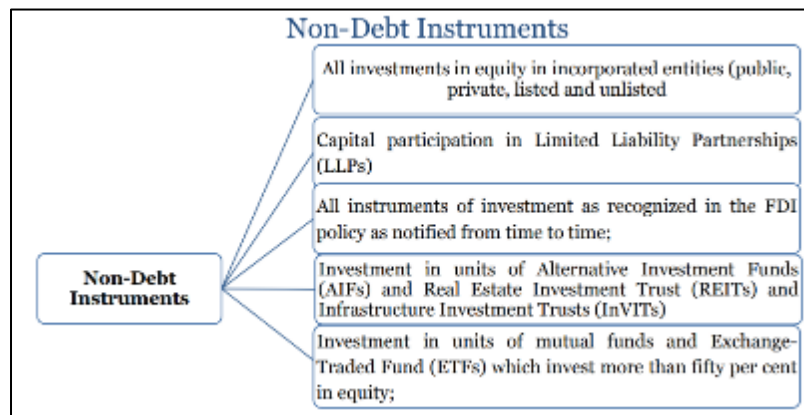




- ❖ The Ministry of Commerce and Industry has announced the introduction of the Diamond Imprest Licence for Gems and Jewellery Sector.
- ❖ It allows import duty exemption on cut and polished diamonds up to a specified limit.
- ❖ The gems and jewellery exporters were demanding for this licence.
- ❖ The licence allows eligible exporters to import cut and polished diamonds, including semi-processed, half-cut, and broken diamonds.
- ❖ Exporters can import diamonds up to 5 per cent of their average turnover from the past three years, with a requirement to add 10 per cent value.

### **Forex Management (Non-debt Instruments) Amendment Rules, 2024**

- ❖ The Ministry of Finance has amended Foreign Exchange Management (Non-debt Instruments) Rules, 2019 vide notification dated 16.08.2024.
- ❖ It aims to simplify cross-border share swaps and provide for the issue or transfer of Indian company equity instruments in exchange for foreign company equity instruments.
- ❖ This will facilitate the global expansion of Indian companies through mergers, acquisitions, and other strategic initiatives, enabling them to reach new markets and grow their presence worldwide.
- ❖ It brings further clarity on the treatment of downstream investments made by the Overseas Citizen of India (OCI)-owned entities on a non-repatriation basis, aligning it with the treatment of Non-Resident Indian (NRI)-owned entities.

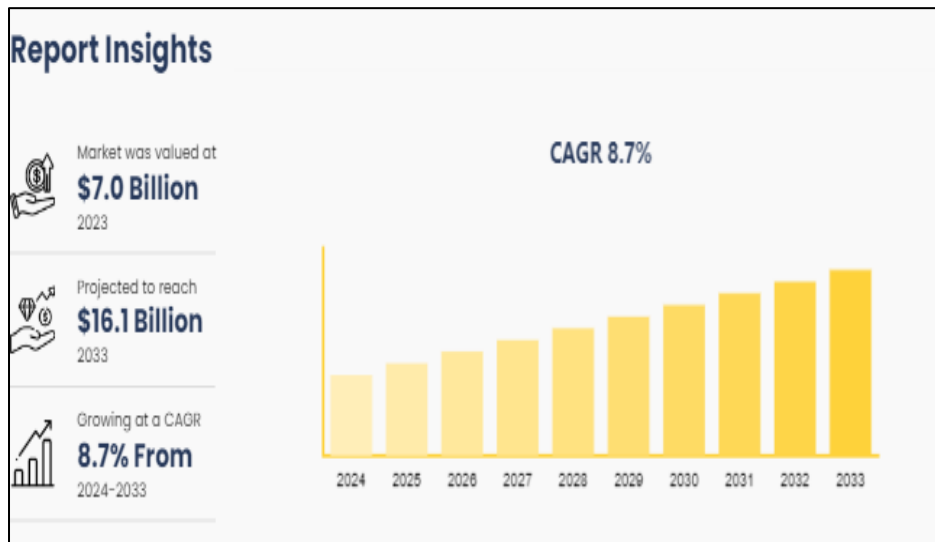


### **Seaweed Value Chain Development**

- ❖ Recently, NITI Aayog has laid down a comprehensive roadmap to promote the seaweed cultivation in India.



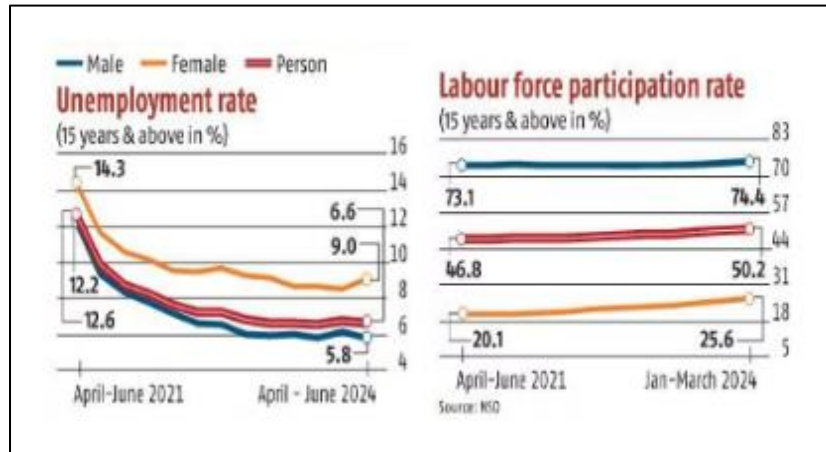
- ❖ It published a report titled “Strategy for the development of Seaweed Value Chain”.
- ❖ Seaweeds are the primitive, marine non-flowering algae without root, stem and leaves and play a major role in marine ecosystems.
- ❖ Large seaweeds form dense underwater forests known as kelp forests.
- ❖ India harvests approximately 33,345 tonnes (wet weight) of seaweeds annually from natural beds, primarily in Tamilnadu.
- ❖ India’s annual seaweed revenue, around Rs 200 crores, contributes less than 1% of global production.
- ❖ The government aims to increase the allied sector’s share of gross value added in agriculture to 9% in 2024-25 from 7.28% in 2018-19.
- ❖ In 2021, the global seaweed market stood at USD 9.9 billion.
- ❖ Major trading countries included China, Indonesia, the Philippines, the Republic of South Korea, and Malaysia.



### First quarter urban unemployment 2025

- ❖ The unemployment rate in urban areas for individuals aged 15 years and above was 6.6 per cent in April – June 2024 (Q1 FY25), remaining unchanged from the first quarter of FY24.
- ❖ India's unemployment rate for the quarter ended on June 30 declined from Q4 FY24 when the rate stood at 6.7 per cent.
- ❖ For males, the Unemployment Rate (UR) slightly decreased from 5.9 per cent in the previous year to 5.8 per cent.

- ❖ For females, it marginally declined from 9.1 per cent to 9.0 per cent.
- ❖ From April to June 2023, the UR for males was 5.9 per cent, for females was 9.1 per cent, and overall was 6.6 per cent.



## UPI Circle



- ❖ NPCI recently introduced a new feature called “UPI Circle.”
- ❖ It allows users to add their family and friends to pay using their account.
- ❖ The new function will help those who depend on others to manage their finances, eventually increasing the number of people making digital payments across India.
- ❖ The system consists of the primary user who is the account holder and controls the secondary user.
- ❖ Also, there are two types of delegation – full and partial.
- ❖ For full delegation, the monthly limit is set at Rs 15,000 per delegation and secondary users are limited to a transaction limit of Rs 5,000.

### **Credit Line On UPI**

- ❖ PhonePe launched Credit Line on UPI on its platform.
- ❖ It enables consumers availing credit lines from their banks to seamlessly link them to UPI on PhonePe for merchant payments.
- ❖ It provides the flexibility of short-term credit that helps them manage their monthly expenses better.

<b>BUY NOW, PAY LATER</b>	
<ul style="list-style-type: none"><li>&gt; Under a credit line, customers get a fixed credit line and pay interest to the bank only to the extent they use their credit limit</li><li>&gt; With RBI allowing banks to offer credit lines through UPI, customers can make purchases without immediately seeing any funds</li></ul>	<ul style="list-style-type: none"><li>&gt; Payments will take place at the end of a cycle and can only be made to shops, with the shopkeeper bearing the cost of credit in terms of fees</li><li>&gt; Banks including Axis, HDFC, ICICI, Indian Bank and PNB are live on this product</li></ul>

## **SCIENCE AND TECHNOLOGY**

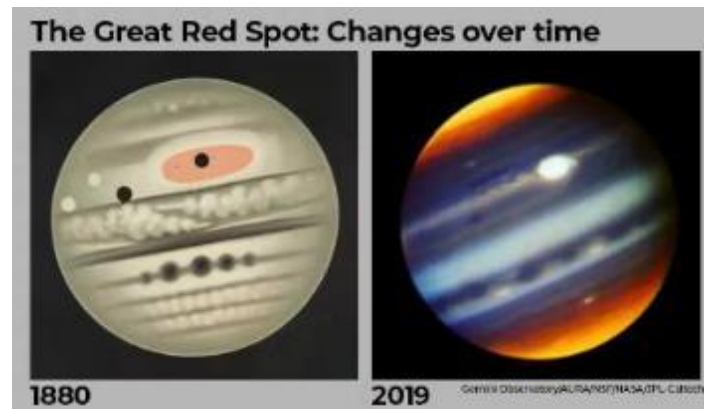
### **Water Traces in Moon Soil**

- ❖ Chinese lunar probe found traces of water in samples of the Moon's soil.
- ❖ The Chang'e-5 rover completed its mission in 2020, returning to Earth with rock and soil samples from the Moon.
- ❖ The lunar samples "revealed the presence of trace water".
- ❖ In 2020, water on the Moon was already confirmed by a NASA infrared detector.

### **Jupiter's Great Red Spot**

- ❖ The Great Red Spot, the single largest, is the longest-lived storm in the entire Solar System.
- ❖ The great eyeball of Jupiter is revolving to gaze balefully out upon the cosmos.
- ❖ The Great Red Spot has significantly diminished since the first definite records of its existence in 1831.

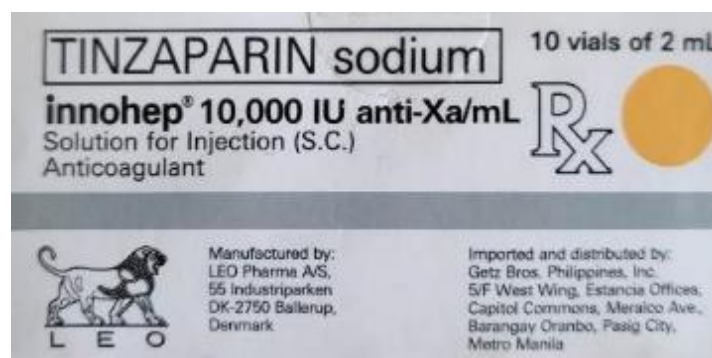
- ❖ In the late 19th century, the Great Red Spot spanned a whopping 39,000 Km across.
- ❖ Now, it's just over a third of that width at 14,000 Km.
- ❖ Earth's 12,742-kilometer diameter could still fit inside.
- ❖ A massive anticyclone currently a little bit larger than Earth, with winds that howl around in an anticlockwise direction at up to 680 Km (425 miles) per hour.



### **GROWTH-India telescope**

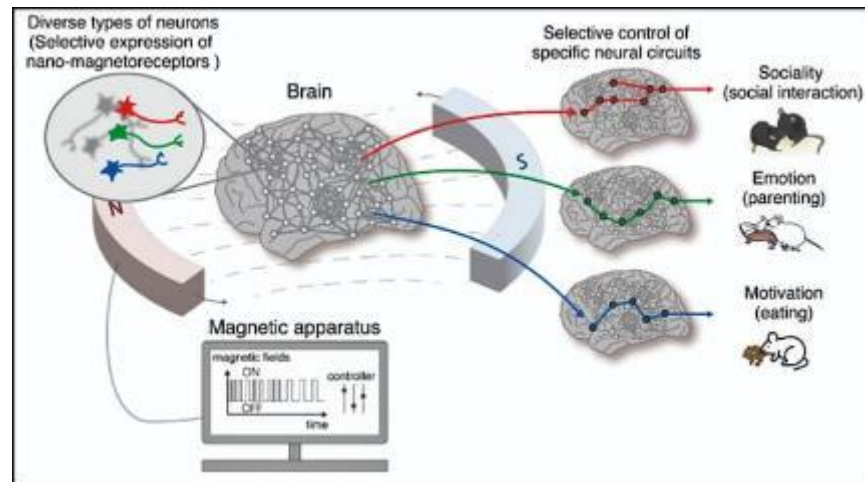
- ❖ The GROWTH-India telescope caught the building-sized asteroid on its closest approach to Earth.
- ❖ The telescope is stationed at the Indian Astronomical Observatory site at Hanle, Ladakh.
- ❖ This is 116m, building-sized asteroid on its closest approach to earth at just 10x lunar distance.
- ❖ GROWTH-India is India's first fully robotic optical research telescope.
- ❖ It is one of the world's highest Astronomical observatories at 4,500 meters.

### **Tinzaparin**



- ❖ Researchers found tinzaparin significantly reduced damage to human cells due to spitting cobra venom.
- ❖ The team also found the drug could reduce skin damage in mice injected with the venom.
- ❖ The Tanzania native, *Naja pallida* — the red spitting cobra venom can cause severe pain and permanent disability or fatal.

## Magnetism to mind-control Mice



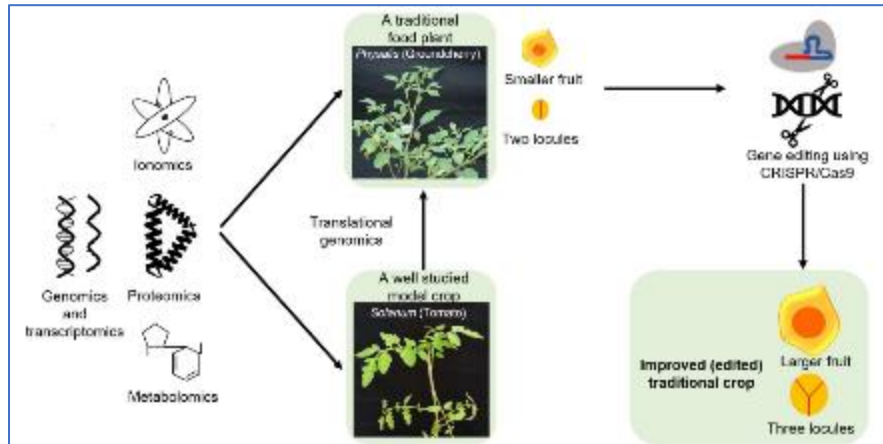
- ❖ In a world-first experiment, researchers have successfully demonstrated the ability to control specific brain regions in mice using magnetic fields.
- ❖ This breakthrough is known as Nano-MIND (Magnetogenetic Interface for Neuro Dynamics) technology.
- ❖ The Nano-MIND technology allows for wireless, remote, and precise modulation of specific deep brain neural circuits using magnetism.
- ❖ It opens up new possibilities for understanding and manipulating complex brain functions such as cognition, emotion, and motivation.

## Indian gene-editor

- ❖ The Scientists from the CSIR-Institute of Genomics and Integrative Biology, New Delhi, have developed an enhanced genome-editing system.
- ❖ It can modify DNA more precisely and more efficiently than the existing CRISPR-based technologies.
- ❖ Researchers are exploring Cas9 enzymes from *Francisella novicida* bacteria.
- ❖ While this Cas9, called FnCas9, is highly precise, it has a low efficiency as well.



- ❖ To enhance it without compromising its specificity modified and engineered new versions of FnCas9.
- ❖ Currently, Using CRISPR-Cas9, researchers can add, remove or alter specific DNA sequences in the genome of animals.

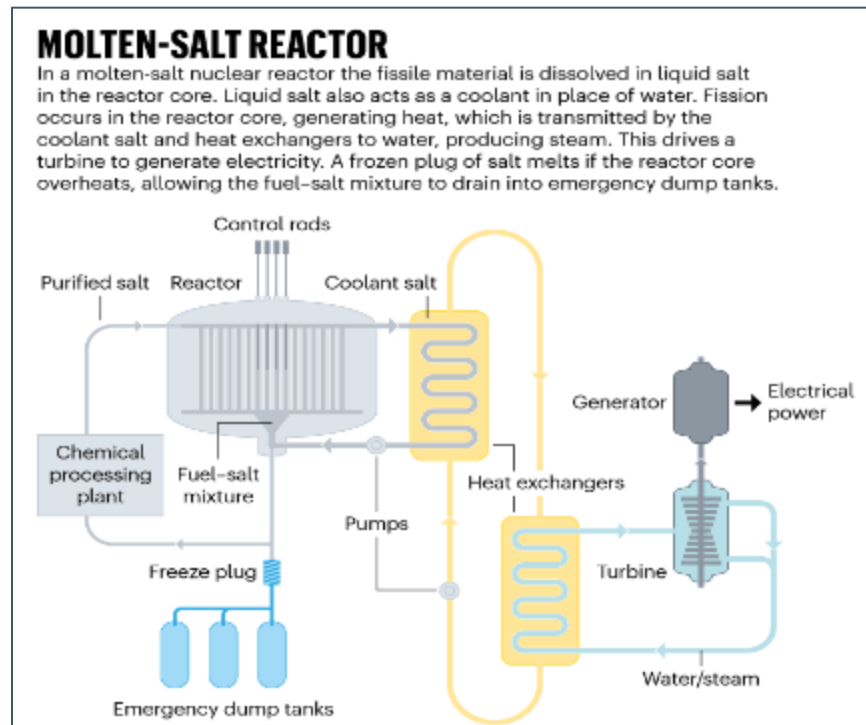


### Saturn and Comet A117uUD



- ❖ Scientists have found that Saturn has thrown Comet A117uUD out of the solar system in 2022.
- ❖ After coming into contact with Saturn, the comet A117uUD was flung into a highly elliptical orbit, sending it into interstellar space at 10,800 km/h.
- ❖ Interstellar space is the area between the stars, but it is far from empty.
- ❖ This is the 2<sup>nd</sup> comet observed being ejected from our solar system.
- ❖ The first comet to have been thrown out of the solar system was the Comet C/1980 E1 (Bowell) after an encounter with Jupiter.

## Thorium molten salt nuclear power station

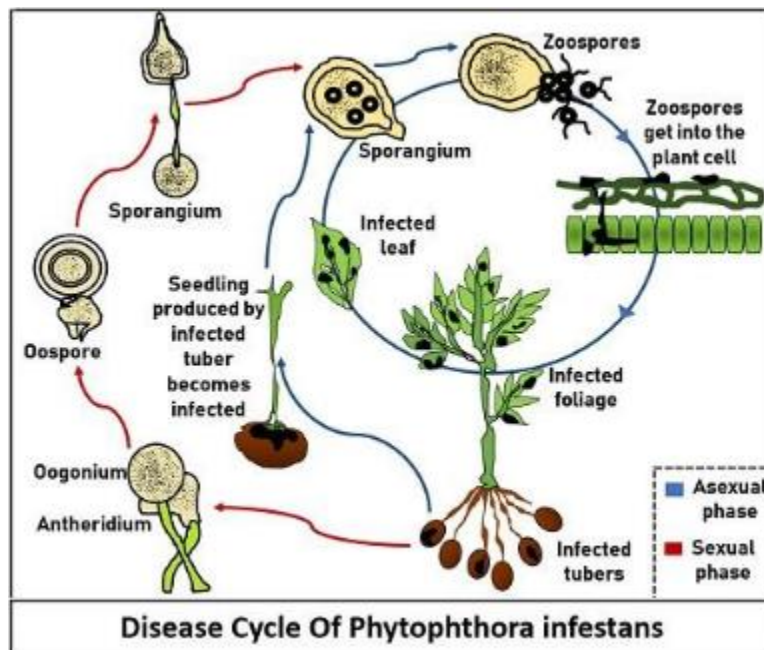


- ❖ China plans to start building the world's first molten salt reactor power station next year in the Gobi Desert.
- ❖ The reactor does not need water for cooling because it uses liquid salt and carbon dioxide to transfer heat and generate electricity.
- ❖ China has enough thorium reserves to meet its energy needs for 20,000 years.
- ❖ The world's first thorium-based molten salt reactor was built and operated at the Oak Ridge National Laboratory in the United States in the 1960s for four years.
- ❖ The United States has 93 nuclear power units, significantly more than China's 56.
- ❖ Currently, China is growing at a rate of six to eight nuclear reactors per year using self-developed new technologies.
- ❖ In fact, Beijing's plan is that by 2035, the number of advanced reactors in China will reach 150, surpassing the combined total of the United States and France.

## Late Blight Diseases

- ❖ The Central Potato Research Institute (CPRI) has issued an advisory for potato farmers about risk of late blight disease.
- ❖ Late blight disease, a fungal infection, is caused by *Phytophthora Infestans*.

- ❖ The disease is favoured by cool, moist weather conditions, making the current weather scenario conducive to its spread.




### 34 New Enormous Cosmic Radio Sources

- ❖ An Indian radio astronomers-led team announced the discovery of 34 new giant radio sources.
- ❖ Many of these GRSs are among the best known, with two of them pushing against the previously accepted theories regarding their environments.
- ❖ J0843+0513 and J1138+4540 is challenging the notion that GRSs grow only in low-density environments.

**MAKING WAVES**

- Indian radio astronomers use the Giant Metrewave Radio Telescope to discover 34 new giant radio sources, among the most distant objects of its type
- The study was recently published in the Astrophysical Journal Supplement Series of the American Astronomical Society
- The team of astronomers comprised two PhD students – Netai Bhukta (SKBU, India) and



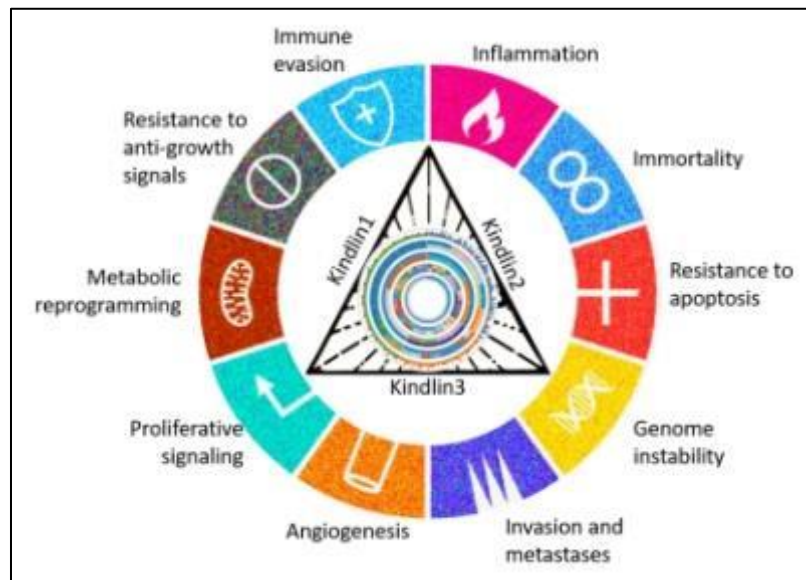
Souvik Manik (MCC, India), and two astronomers – Sabyasachi Pal (MCC, India) and Sushanta K Mondal (SKBU, India)

➤ The team's recent discovery was based on the TIFR GMRT Sky Survey Alternative Data Release 1

➤ They used TGSS for their research due to its low frequencies and sensitivity of the GMRT

- ❖ They used data from TIFR GMRT Sky Survey Alternative Data Release 1 at 150 MHz.
- ❖ Giant radio sources are likely to be the largest single structures in the universe, with end-to-end extents of millions of light years.
- ❖ They are driven by supermassive black holes with masses ten million to a billion times that of the Sun, residing at the centre of the host galaxy.

### Kindlins - Adapter Proteins



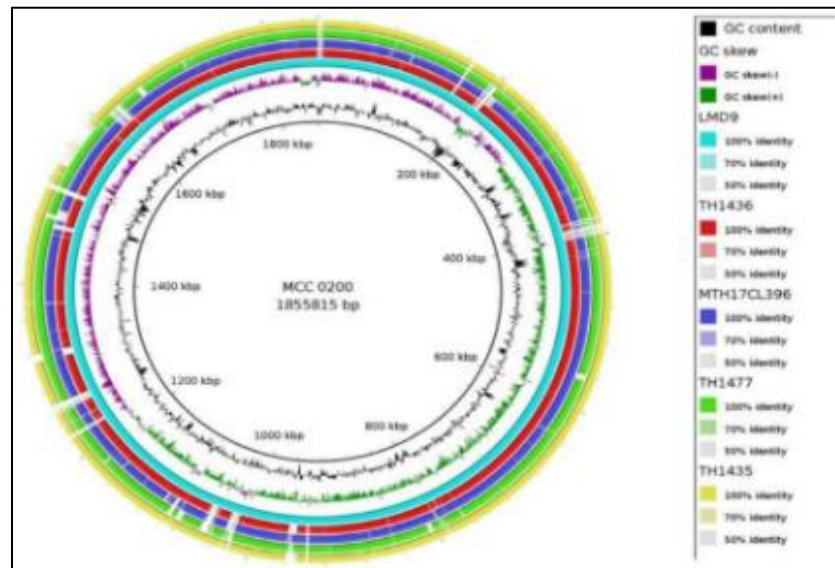
- ❖ Kindlins are the adapter proteins that exist inside the cells attached to the cell membranes of almost all types of cells in vertebrates.
- ❖ This protein is central to many signalling pathways, targeting it could lead to new cancer treatments that address multiple aspects of the disease at once.
- ❖ Kindlins may undergo mutations under the influence of innumerable chemical and physical carcinogens like nicotine, ultraviolet rays and many more.
- ❖ Mutated Kindlin can potentially disrupt global mechanical homeostasis within cells.
- ❖ Therefore, understanding the consequences of genetic alterations in Kindlins holds the key to unravelling the intricate mechanisms leading to the growth of cancer cells.

### Strain MCC0200

- ❖ Scientists at the Agharkar Research Institute (ARI) in India discovered a new strain of lactic acid bacteria, dubbed MCC0200.



- ❖ MCC0200 has a strong affinity for intestinal surfaces, which allows it to interact with host cells and promote gut health.
- ❖ In addition, MCC0200 has antioxidant properties, which can help to reduce the oxidative stress-induced damage.
- ❖ MCC0200 has the ability to assimilate cholesterol, which could help to lower serum cholesterol levels and reduce the risk of cardiovascular disease.



## Dark oxygen

- ❖ An unknown process is producing oxygen deep in the world's oceans, where it is too dark for photosynthesis.
- ❖ Scientists were conducting the experiments at a depth of 4 kms, they noticed the oxygen concentration in some places rapidly increased instead of decreasing.
- ❖ They measured the physical characteristics of the polymetallic nodules; they found their surfaces to have a voltage of up to 0.95 V.
- ❖ Splitting one water molecule requires 1.5 V.
- ❖ The researchers have suspected the voltage could build up if many nodules are close together, like the cells of a battery.
- ❖ Polymetallic nodules are lumps of iron, manganese hydroxides, and rock partially submerged in many parts of the ocean floor.
- ❖ If their concentration exceeds 10 kg per sq. m, mining them is considered to be economically feasible.
- ❖ The Clarion-Clipperton Zone is to be considered to have the world's highest concentration of polymetallic nodules.

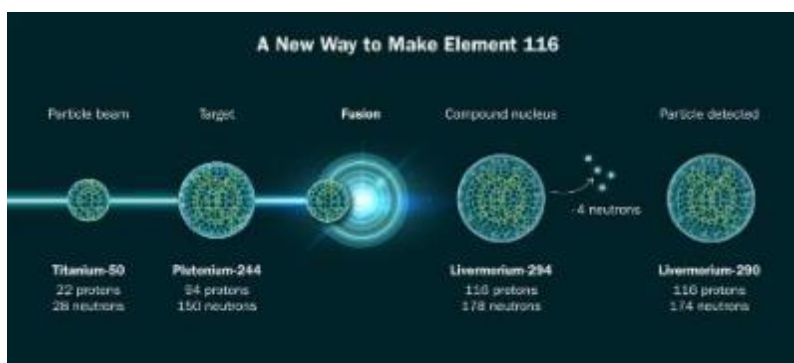


- ❖ It is including 6 billion tonnes of manganese and more than 200 million tonnes each of copper and nickel.
- ❖ China alone is expected to mine 17% of the Clarion-Clipperton Zone.



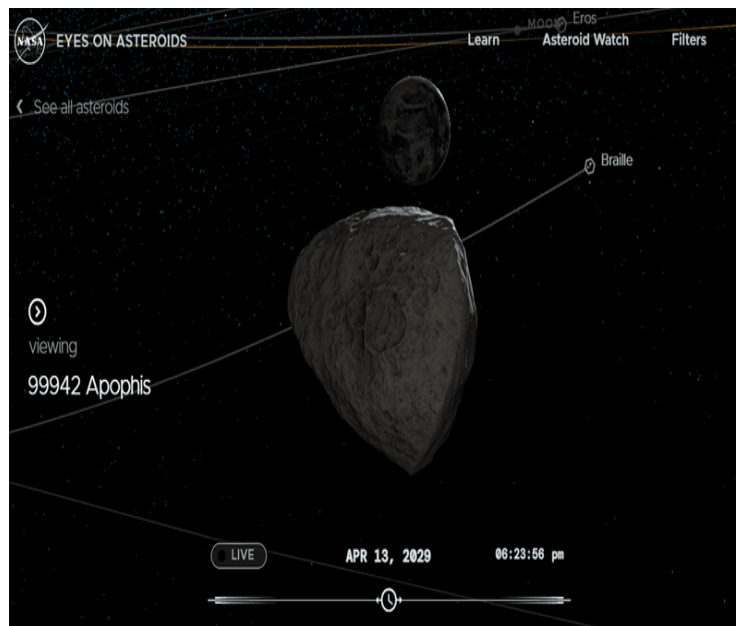
## Livermorium

- ❖ Scientists have successfully created the superheavy element 116 using a beam of titanium-50.
- ❖ Element 116, which is named livermorium, is part of the “superheavy” category of elements.
- ❖ These are elements that exist beyond the known elements in the periodic table and are typically very unstable.
- ❖ Titanium-50 was chosen because of its specific number of protons and neutrons.
- ❖ Previous superheavy elements were made using a different isotope, calcium-48.
- ❖ It has been considered a “magic” isotope due to its favourable properties for fusion.
- ❖ Creating a high-intensity beam of titanium-50 involved heating titanium metal to nearly 3000 degrees Fahrenheit.



## Mission to Apophis asteroid

- ❖ The European Space Agency (ESA) has announced a mission to study the Apophis asteroid when it passes by Earth at a very close distance in 2029.
- ❖ The mission is named as the Rapid Apophis Mission for Space Safety (Ramses).
- ❖ Roughly 375 m across, the asteroid Apophis will pass within 32 000 km from Earth's surface on 13 April 2029.
- ❖ An asteroid of such large size comes this close to the Earth only once in about 5,000 to 10,000 years.

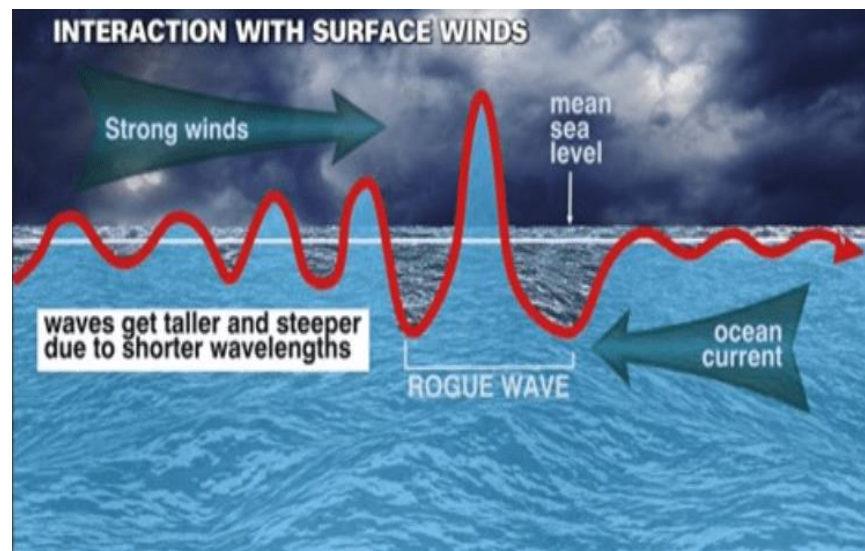


## Small Modular Reactors



- ❖ The Indian government is planning to team up with the private sector to study and test small modular reactors (SMRs).
- ❖ SMRs, of 10 MWe-300 MWe each, are smaller versions of their conventional counterparts.
- ❖ They can be installed without time and cost overruns, and can consume power locally at the SMR site.
- ❖ Their ability to integrate with RE can offer a resilient grid and manage the intermittency, the cost being around ₹4/kWh.

### Rogue Waves prediction

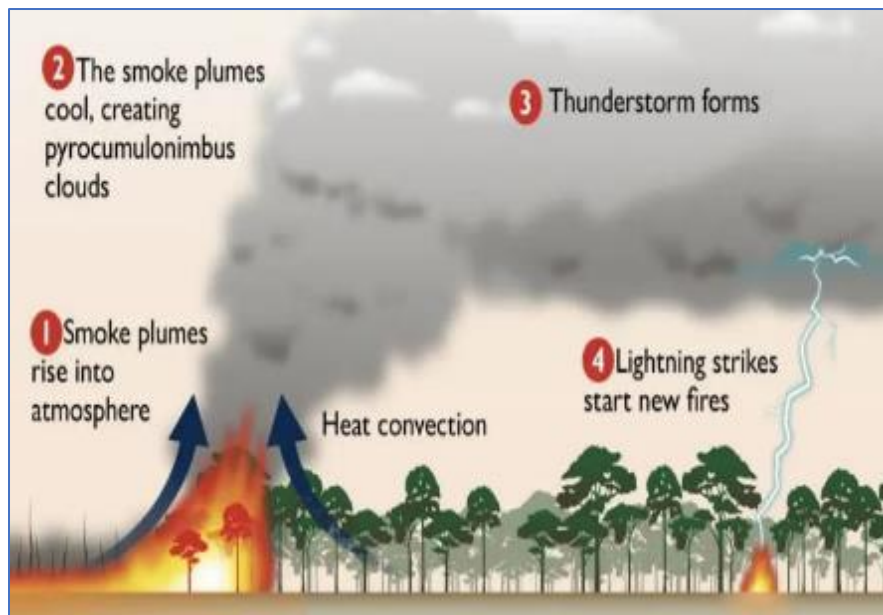


- ❖ Rogue waves are unusually large waves compared to ones which come before and after, pose a threat to ships, coastal and offshore infrastructure, and human lives.
- ❖ There is no method existed to forecast rogue waves until now.
- ❖ Using billions of data points collected by a network of 172 ocean buoys, an artificial intelligence has trained to distinguish wave patterns that preceded rogue waves, up to five minutes in advance.
- ❖ The WMO sea state code characterises sea state based on wave height on a scale of 0 (no waves) to 9 (waves over 14 m).

### Pyrocumulonimbus Cloud

- ❖ The wildfires are currently raging in the United States and Canada are so intense that they have created 'pyrocumulonimbus' clouds.
- ❖ They have the potential to spit out thunder and spark more fires.

- ❖ Before 2023, 102 pyrocumulonimbus were recorded globally in a single year on average - 50 of them were seen in Canada.
- ❖ They occur only when there is an extremely hot wildfire.
- ❖ Volcanic eruptions can also lead to the formation of pyrocumulonimbus clouds.
- ❖ For instance, these clouds were formed during the Australian bushfires of 2019-2020 when temperatures crossed 800 degrees Celsius.
- ❖ These clouds can reach heights of 50,000 feet and generate their own systems of thunderstorms.
- ❖ These clouds can produce lighting, but do not generate much rain.
- ❖ As a result, they can spark new wildfires many kilometres away from the main blaze.



### **Candida Auris**

- ❖ Candida auris, a formidable yeast infection, has been escalating its presence across the United States.
- ❖ This emerging fungus was first identified in 2009 and first detected in the US in 2016.
- ❖ It poses a significant global health threat due to its severe impact on hospitalized patients and its resistance to multiple antifungal treatments.




## WHY IT'S SUCH A BIG WORRY...

### What is Candida auris

- A type of fungus that can cause serious illness in hospitalised patients; infections can be difficult to treat
- First identified in 2009 in a patient in Japan. In recent years, it has emerged around the world. The US has reported over 600 such cases

Mortality rate in patients suffering from the infection was as high as 33%



- Another study published in Intensive Care Medicine in 2014 was conducted at 27 Indian ICUs; 6.5% of admitted patients suffered from fungal infection

## WHY IT'S SO DANGEROUS

➤ Candida auris is resistant to most anti-fungal medications	aggregates and persists for longer time in environment, in addition to its thermos-tolerant and salt-tolerant properties
➤ Affects immune-compromised patients and causes high mortality	➤ Mortality rate in patients infected by Candida auris can range from 33% to 72%
➤ Found in patient's environment and hands of healthcare workers, which indicates it's hospital-acquired	➤ The fungus is sensitive mostly to echinocandins, a new class of antifungal drug, which is very expensive
➤ The fungus forms non-dispersible cell	

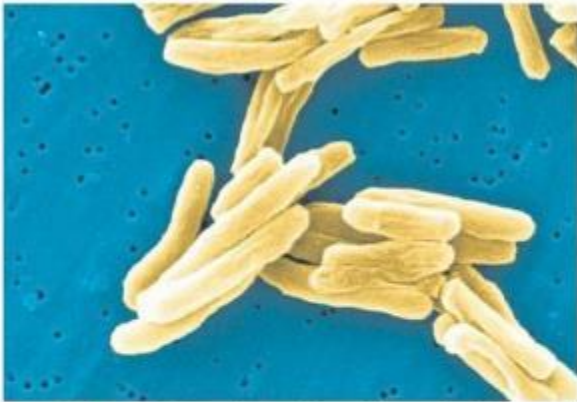
### New treatment for drug-resistant TB 2024

- ❖ India is getting ready to roll out BPaL (bedaquiline, pretomanid, and linezolid) regimen for all multi/extensively drug-resistant tuberculosis patients.
- ❖ This is a significant move in the country's battle against M/XDR-TB with the new regime.
- ❖ It is indicating good results in such countries including Pakistan, South Africa, Ukraine, etc.
- ❖ Currently, India has a 56% treatment success rate for MDR/RR-TB cases, and 48% for XDR-TB cases.
- ❖ In 2022, WHO has recommended the six-month regimens BPaL (bedaquiline + pretomanid + linezolid) and BPaLM (BPaL + moxifloxacin) as treatment options for most forms of drug-resistant TB.
- ❖ The estimated number of drug-resistant TB in India has been reduced by 21% from 1.4 lakh in 2015 to 1.1 lakh in 2022.



### BPaL regimen for pre-XDR TB shows promise

- Pre-XDR TB patients on BPaL regimen will consume over 500 tablets over 26 weeks compared with over 4,300 tablets over 18 months with the conventional treatment for drug-resistant TB
- Treatment adherence is high and outcomes are better when fewer drugs are used and for a shorter duration
- BPaL regimen to treat people with pre-XDR TB has been approved by WHO. India is yet to roll out BPaL regimen though it aims to reduce TB incidence by 80% and TB deaths by 90% by 2025
- As of date, nearly 70% of the 400 trial participants have completed the treatment lasting for 26 weeks and the cure rate is



**Severely diseased:** Most of the trial participants had advanced TB at the time of enrolment. PHOTO: JANICE HANEY CARR

well above 85%

- In the case of conventional DR-TB treatment, the cure rate is 60-65% even with strict treatment adherence
- The trial in India has found the three-drug BPaL

regimen to be safe

- Three cases of TB relapse have been seen, one per each arm. Final outcome will be known only after one year of follow-up

## Neutron Stars/strange dead stars

- ❖ Astronomers have uncovered ten mysterious neutron stars near the Milky Way's core.
- ❖ All are spinning rapidly and classified as pulsars.
- ❖ These enigmatic stars are nestled in a dense globular cluster 18,000 light-years away.
- ❖ They could possess bizarre and twisted forms due to their unique environment.
- ❖ These pulsars have been uncovered in the globular cluster Terzan 5.
- ❖ Hundreds of thousands of different stars that are 12 billion to 4.5 billion years old can be found there.
- ❖ Terzan 5 is one of the most crowded regions in the Milky Way, with at least 39 known pulsars already swarming it.
- ❖ Three new rare spider pulsars have also been seen in the region.
- ❖ They are Classified as "Redbacks" or "Black Widows," they cast a high-energy radiation "web" on stars that come too close.

- ❖ Redback spider pulsars are those that prey on companion stars with masses between 10 per cent and 50 per cent of the Sun's mass.
- ❖ Black Widow spider pulsars are those that prey on smaller stars with less than five per cent of the Sun's mass.

### **TENG technology**

- ❖ IIT Indore has delivered ten pairs of Tribo-Electric Nanogenerator (TENG) based shoe sole energy harvesting units to DRDO.
- ❖ These shoes are designed to harness energy from human motion, providing a sustainable power source for electronic devices.
- ❖ These shoes utilize advanced tribo-pairs to generate power with each step.
- ❖ The shoes are also equipped with sophisticated tracking technology, including RFID and a satellite-based GPS module for live location tracking.



### **Earth Terminator from ISS**

- ❖ NASA captured an image of the Earth's terminator from the ISS, 267 miles above the Pacific Ocean near New Zealand.
- ❖ The terminator, marking the boundary between day and night, highlights Earth's rotation and changing seasons.
- ❖ The ISS experiences 16 sunrises and sunsets daily.
- ❖ The terminator's shape varies with the equinoxes and solstices, displaying the Earth's axial tilt.
- ❖ The terminator, also known as twilight, is a moving line that divides Earth—or any other planet or celestial object—between daytime and nighttime.
- ❖ This line passes over Earth twice each day: once at sunrise and once at sunset.



## JUICE Mission



- ❖ The JUICE mission of the European Space Agency is set to complete a new manoeuvre and break two records.
- ❖ This is the first time the spacecraft will use two objects to carry out a gravity assist manoeuvre, and for the first time, it will also attempt Lunar-Earth flyby.
- ❖ The spacecraft will first go around the Moon and losing some of its speed.
- ❖ After 25 hours, it is expected to approach Earth.
- ❖ Because of Earth, it will slow down further and go towards Venus.

## Plastic-Eating Fungi

- ❖ Scientists in Germany have identified plastic-eating fungi.
- ❖ Of the 18 selected fungal strains, four efficiently utilise the plastics, especially the polyurethane which is used to make construction foam.
- ❖ Polyethylene, used in plastic bags and packaging, was much slower to degrade.

- ❖ Plastic is made from fossil carbon and if the mushrooms break it down, it's no different to us burning oil or gas and releasing CO<sub>2</sub> into the atmosphere.
- ❖ Some 390 million tonnes of plastic were produced worldwide in 2021, up from 1.7 million tonnes in 1950.
- ❖ But, less than 10% of plastic wastes only recycled worldwide.



## SSLV-D3 - EOS-08

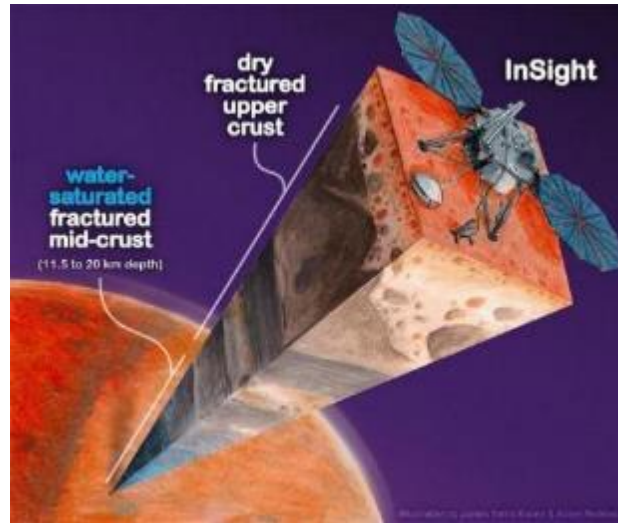


- ❖ ISRO launched the EOS-08 Earth Observation Satellite onboard the Small Satellite Launch Vehicle (SSLV)-D3 from Sriharikota.
- ❖ The SSLV-D3 is its third and final development flight.
- ❖ The SSLV is capable of launching Mini, Micro or Nanosatellites (10 to 500kg mass) into a 500 km planar orbit.



- ❖ The EOS-08 satellite is designed for Earth observation and carries advanced technology for various tasks such as disaster monitoring, environmental observation, and surveillance.
- ❖ It includes multiple payloads that can capture images in infrared, monitor UV radiation, and measure soil moisture and ocean winds.

### **Water reservoir in Mars 2024**



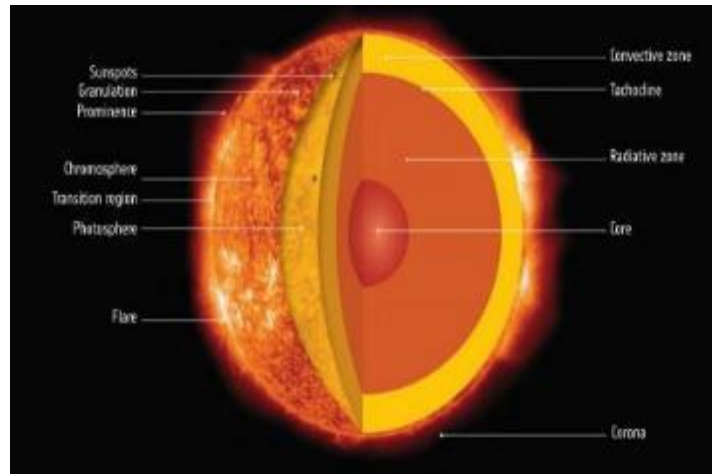
- ❖ Scientists have discovered a reservoir of liquid water on Mars - deep in the rocky outer crust of the planet.
- ❖ This is the first time liquid water has been found on the planet.
- ❖ Nasa's Mars Insight Lander has recorded four years of vibrations - Mars quakes - from deep inside the Red Planet.
- ❖ The analysis revealed reservoirs of water at depths of about six to 12 miles (10 to 20km) in the Martian crust.
- ❖ It is thought that Mars' water vanished when the planet lost its magnetic field and atmosphere billions of years ago.
- ❖ There is water frozen at the Martian poles and evidence of vapour in the atmosphere.

### **New Method to Predict Solar Cycle Amplitude**

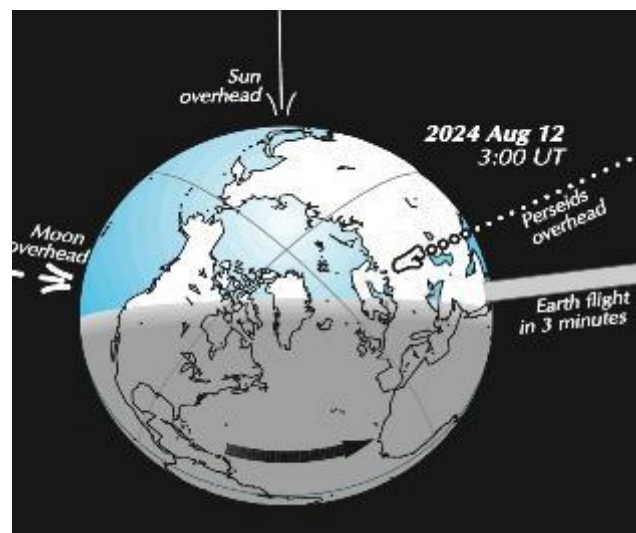
- ❖ Astronomers from the Indian Institute of Astrophysics (IIA) have found a new method to predict the amplitude of the upcoming solar cycle.
- ❖ The astronomers have discovered a new correlation using 100 years of solar data from the IIA's Kodaikanal Solar Observatory.



- ❖ Space weather is concerned with the varying conditions within the solar system and its heliosphere influenced by the sun and solar wind.
- ❖ The main components of space weather are the solar wind, coronal mass ejections, and solar flares.
- ❖ They discovered that the width of the supergranular cells on the solar surface during the minimum year of the solar cycle is related to the number of sunspots seen during the subsequent solar cycle maximum.
- ❖ This simple method can be used in space weather forecasting.



## Perseid Meteor Shower 2024

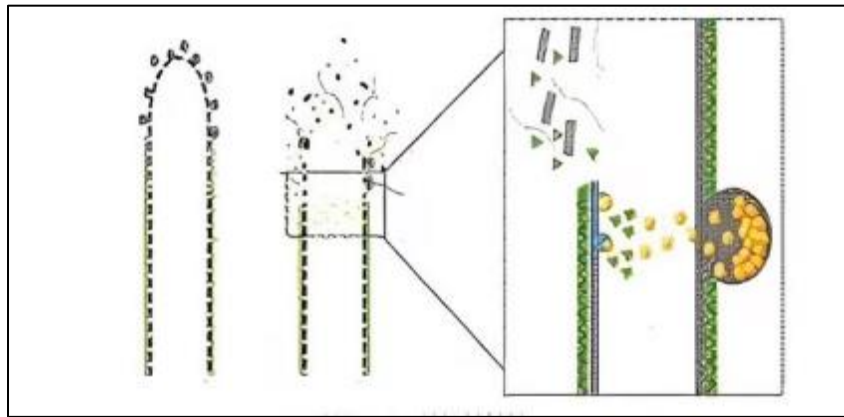


- ❖ The Perseids, one of the year's most prolific meteor showers, are raining dozens of "shooting stars".
- ❖ The Perseid meteor shower is active from July 17 to August 24, it was peak on the night of August 12, before dawn on August 13<sup>th</sup>.

- ❖ Under ideal conditions, 50 to 100 meteors can be seen per hour.
- ❖ So-called shooting stars are not really stars but tiny bits of rock plunging through Earth's atmosphere at more than 130,000 mph (210,000 km/h).
- ❖ The only satellite ever destroyed was the Olympus communications satellite during a Perseid outburst in 1993.

### **Porous composite xerogel**

- ❖ Researchers have created a porous composite xerogel dressing that incorporates silica nanoparticles (SiNPs) and calcium.
- ❖ It is designed to help the blood clot rapidly and provide relief for uncontrolled haemorrhage.
- ❖ Xerogel is a solid form of a gel achieved by drying it with minimal shrinkage.
- ❖ Xerogels are nontoxic, cost-effective, biocompatible, have high surface area, and high porosity.



### **AI watermark – OpenAI**

- ❖ OpenAI, the creator of ChatGPT, has developed a text watermarking tool that could help it comply with the Artificial Intelligence (AI) Act.
- ❖ The AI detection methods 99.9% effective and resistant to tampering methods like paraphrasing.
- ❖ OpenAI's anti-cheating tool modifies the way ChatGPT selects words to generate text
- ❖ It creates certain pattern, called watermarks, which is undetected by the human eye.
- ❖ But the company isn't sure about releasing the tool.



## Super Blue Moon 2024



- ❖ It is featured as a unique combination of a supermoon and a Blue Moon, making it an extraordinary celestial event.
- ❖ The term supermoon was introduced by astrologer Richard Nolle in 1979.
- ❖ A supermoon occurs when a full or new Moon coincides with the Moon's closest approach to Earth, known as perigee.
- ❖ This proximity makes the Moon appear larger and brighter than usual.
- ❖ The term "Blue Moon" has historically referred to the third full Moon in a season that has four full Moons, a relatively rare occurrence.
- ❖ The earliest recorded use of the term dates back to 1528.
- ❖ Only about 25% of full Moons are supermoons, and approximately 3% are Blue Moons.
- ❖ The next super Blue Moons are expected in January and March 2037.

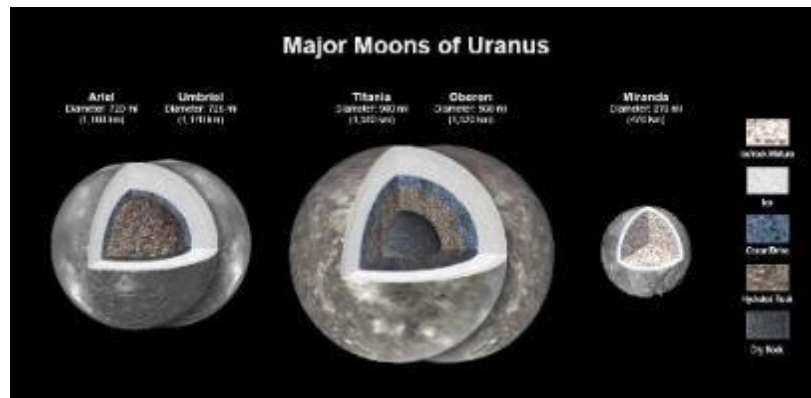
## Hypervirulent superbug



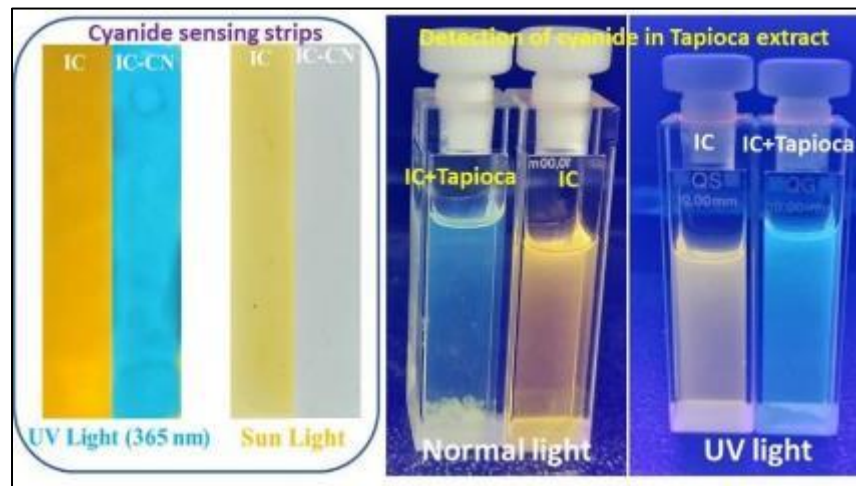
- ❖ Dangerous new strains of a "hypervirulent" superbug have been found in 16 countries, including the United States.
- ❖ The superbug, known as hypervirulent *Klebsiella pneumoniae* (hvKp), is a type of drug-resistant bacteria.
- ❖ It can cause rapidly progressing, deadly infections, even in people with healthy immune systems.
- ❖ It can be found in the environment as well as in the upper throat and gastrointestinal tract of various animals, including humans.

## Underground Ocean on Ariel

- ❖ Scientists discovered carbon dioxide ice on Ariel, one of Uranus' moons.
- ❖ It suggests that the presence of a liquid ocean beneath the moon's icy crust.
- ❖ Underground ocean could be undergoing chemical reactions, releasing carbon dioxide that then escapes to the surface through ice fissures.
- ❖ Alternatively, it was suggested that Uranus' magnetic field might be breaking down molecules to produce carbon dioxide ice.
- ❖ In addition to carbon dioxide, the scientists also detected carbon monoxide and traces of carbonates on Ariel.
- ❖ These minerals typically form when water interacts with rocks.
- ❖ Ariel is one of the 27 moons orbiting Uranus, the third largest planet in our solar system.



## New Cyanide Sensor



- ❖ Researchers from Kerala has achieved a new chemical sensing by developing a highly sensitive and selective cyanide sensor.
- ❖ The team has created a material capable of detecting the toxic cyanide at low concentration.
- ❖ It will enhance the safety of drinking water and food products.
- ❖ Cyanide, a potent toxin, is present in various plants, fruits, and microorganisms.
- ❖ WHO is limiting the cyanide concentrations to below 0.19 mg/L due to its lethal effects on humans and aquatic life.
- ❖ Cyanide exposure can occur through consumption of certain foods like cassava (tapioca) and even common items like apple and apricot seeds, sprouting potatoes, and almonds.



## Miniature CRISPR Tool



- ❖ Using the gene-editing tool CRISPR, scientists can precisely edit genomes to introduce desirable genetic traits or remove undesirable ones.
- ❖ However, there has been a critical obstacle: a commonly used form of the CRISPR system is too big for plant genomes.
- ❖ This system uses one of two proteins, Cas9 or Cas12, to target specific parts of the DNA.
- ❖ But they are too bulky for plant cells to accommodate.
- ❖ Researchers recently presented an alternative that could solve this major problem in plant genome editing.
- ❖ They developed a plant genome editor consisting of a protein called ISDra2TnpB, derived from bacteria called *Deinococcus radiodurans*.
- ❖ ISDra2TnpB is less than half the size of Cas9 and Cas12.

## Polaris Dawn Mission 2024

- ❖ SpaceX launched its Polaris Dawn mission with US billionaire Jared Isaacman and three others into space.
- ❖ The mission aims to reach an unprecedented orbital altitude for a commercial flight, potentially ascending 1,400 kilometers above Earth's surface.
- ❖ This would surpass the record set by the Gemini 11 mission and mark the highest Earth orbit flown by humans since the Apollo program.
- ❖ The mission faces unique challenges like, lack of an airlock on the Crew Dragon capsule.

- ❖ This is the company's attempt at the world's first private spacewalk.
- ❖ The 20-minute spacewalk, scheduled for the third day of the mission.
- ❖ It will take place 434 miles (700 km) above Earth.



### **mRNA Lung Cancer vaccine**

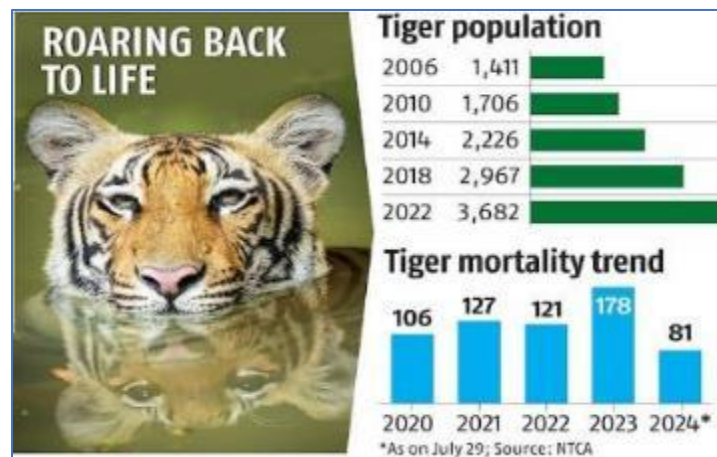


- ❖ The phase 1 trial for BNT116 is underway at 34 sites across seven countries, including the UK, US, and Germany.
- ❖ This is the world first mRNA-based lung cancer vaccine, developed by BioNTech.
- ❖ BNT116 aims to enable the immune system to target NSCLC tumour markers, attacking cancer cells while sparing healthy ones.
- ❖ Lung cancer is the top cause of cancer deaths worldwide, accounting for around 1.8 million deaths annually.
- ❖ mRNA (messenger RNA) is a molecule that contains the instructions or recipe that directs the cells to make a protein using its natural machinery.

## ENVIRONMENT

### Tiger deaths in India 2024

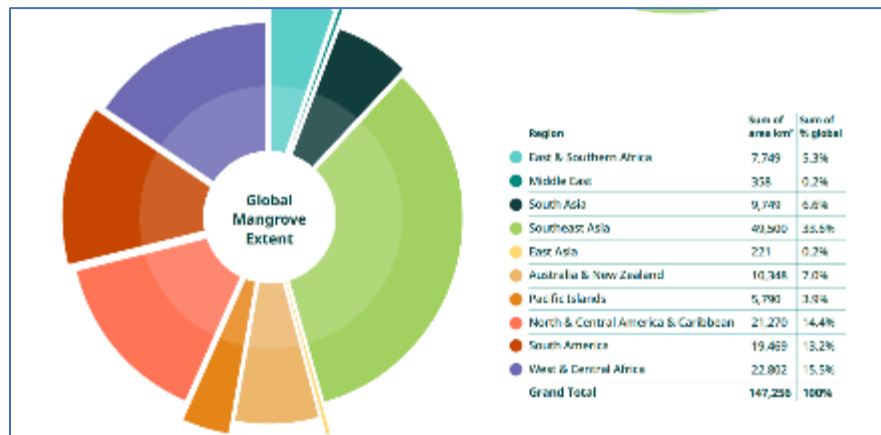
- ❖ The number of tiger deaths in India has significantly decreased, with 81 reported fatalities from January 1 to July 29, 2024.
- ❖ 114 fatalities recorded during the same period last year.
- ❖ This represents a 29 per cent decline in tiger deaths.
- ❖ The year 2023 was the worst for the tiger population, recording the highest number of mortalities in a decade with 178 tigers dying.
- ❖ A total of 628 tigers died in India during the past five years due to natural causes and other reasons, including poaching.
- ❖ Meanwhile, 349 people were killed in tiger attacks during this period, with Maharashtra alone recording 200 deaths.
- ❖ 96 tigers died in 2019, 106 in 2020, 127 in 2021, 121 in 2022, and 178 in 2023.



### State of the World's Mangroves' report 2024

- ❖ It is produced by the Global Mangrove Alliance (GMA).
- ❖ It maps 147,256 km<sup>2</sup> of mangroves in 2020, adding data for six new territories.
- ❖ Despite of the efforts, only 40% of the world's remaining mangrove forests are in protected areas.
- ❖ Some countries, like Malaysia and Myanmar, have less than 5% protection.
- ❖ Southeast Asia holds about one-third of the world's mangroves, with Indonesia alone accounting for 21%.
- ❖ Over 5,700 plant and animal species, across 21 phyla, have been recorded in Indian mangroves alone.

- ❖ In India, West Bengal holds the largest mangrove area followed by Gujarat, majorly located in the Gulf of Kutch and Gulf of Khambhat.
- ❖ India have perhaps the highest record of biodiversity of any country, with a total of 5,746 species. Of these, 4,822 species (84%) are animals.
- ❖ The Global Mangrove Alliance aims to double the protection to 80% by 2030.



### Jerdon's Courser status – Andhra Pradesh



- ❖ Jerdon's Courser, a critically endangered species, is exclusively endemic to Andhra Pradesh, specifically within the Sri Lankamalleswara wildlife sanctuary in Kadapa.
- ❖ It is locally called Kalivi Kodi.
- ❖ However, this elusive bird has not been visually spotted in over a decade.
- ❖ Kalivi Kodi was listed among the 50 rarest birds of the world.
- ❖ Once thought extinct, with no records after 1900, the species was miraculously rediscovered in 1986 near Reddipalli village in Kadapa.



## Impact of Tree Cover Increase

- ❖ The recent studies reported that more trees in open ecosystems like savannahs and grasslands have substantially reduced the number of native grassland birds.
- ❖ In the African Savannah in particular, the population of grassland birds has declined by more than 20%.
- ❖ Grasslands and savannahs cover nearly 40% of the earth's total landmass, and are home to many endemic and at-risk species of plants and animals.
- ❖ The cover of grassland habitats had shrunk by 34% while tree cover in these places had increased by 8.7%.
- ❖ A higher concentration of carbon dioxide in the air due to ongoing climate change also encourages deep-rooted woody plants in grasslands to proliferate.
- ❖ Increased atmospheric CO<sub>2</sub> is likely to promote trees over grasses because the C<sub>3</sub> photosynthetic pathway used by trees is favoured under high CO<sub>2</sub> conditions.
- ❖ Once trees become dominant in a system, they may further suppress grasses through shading and fire suppression.



## Four-Ringed Butterfly

- ❖ A four-ringed butterfly belonging to a family with most members in China has resurfaced in India after 61 years.
- ❖ The great four-ring (*Ypthima cantliei*) is a species of Satyrinae butterfly.
- ❖ It was last reported in 1957 from (eastern) Assam's Margherita.
- ❖ The family Nymphalidae has some 6,000 species of butterflies.
- ❖ Of this 35 *Ypthima* species recorded in India, 23 have been reported from the northeast.
- ❖ Arunachal Pradesh has more than 600 of the 1,327 species of butterflies recorded in India so far.





### **Methane mitigator by India**

- ❖ The first cultures of indigenous methane-mitigating agents, are discovered in rice fields and wetlands primarily in Western India.
- ❖ Methane is a potent greenhouse gas with 26 times the global warming potential of carbon dioxide.
- ❖ It is naturally counteracted by methanotrophs—methane-eating bacteria.
- ❖ *Methylococcus oryzae* bacterium is a novel genus and species.
- ❖ These bacteria oxidise methane, producing  $\text{CO}_2$  and  $\text{H}_2\text{O}$ , thereby preventing methane levels from skyrocketing.
- ❖ *Methylococcus oryzae* promotes rice plant growth, inducing early flowering and increasing grain yield.



### **Miombo forest Protection**

- ❖ The United Nations Food and Agriculture Organization (FAO) and the Italian Agency for Development Cooperation (AICS) have signed two agreements for the Miombo forest Protection.

- ❖ They will implement projects for protecting the miombo forest and facilitating trade in the border region between Mozambique and Zimbabwe.
- ❖ The first project was the Integrated Transboundary Sustainable Management of Miombo Forests.
- ❖ The second project is "Zim-Moza Agriculture Value Chain & Trade Development Project" (Zim-Moza ATDP).
- ❖ The Miombo is a biome that includes tropical and subtropical grasslands, bushlands, and savannahs.
- ❖ It also encompasses four bio-regions and is responsible for maintaining the Greater Zambezi, one of the most important transnational river basins.



### **Unprecedented Glacier Retreat**

- ❖ Recent glacier retreat across the Andes is unprecedented in the history of human civilization.
- ❖ Scientists carbon-dated bedrock that had been recently exposed by the retreated glaciers by measuring beryllium-10 and carbon-14 nuclide levels and found that concentrations were nearly zero.
- ❖ These glaciers are smaller than they've been since the last interglacial period, which ended about 115,000 years ago.
- ❖ The rock hadn't been exposed during the Holocene Era, which dates back 11,700 years.



### **New Peacock sanctuaries 2024**

- ❖ The Central Government has declared Adichunchanagiri in Karnataka and Choolannuar in Kerala as Peacock Sanctuary.
- ❖ The Sanctuaries offer a safe space where these birds can live and thrive without human disturbance.
- ❖ Peacock conservation involves protecting both the Indian blue peacock and the green peafowl.
- ❖ As per IUCN red list, the green peafowl classified as Near Threatened.



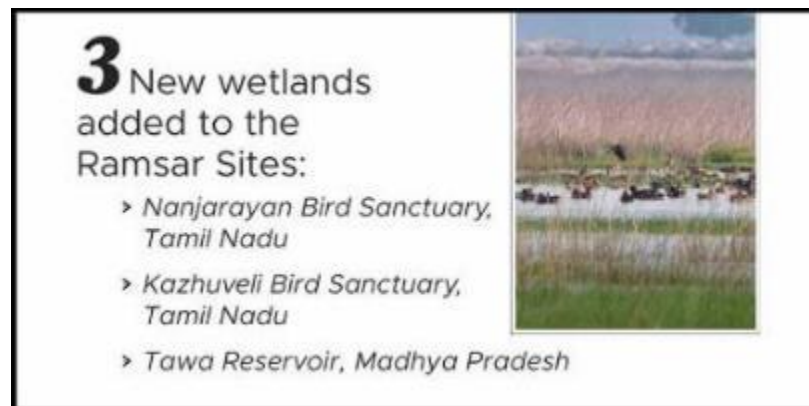
### **Neelakurinji - Threatened Species**

- ❖ Neelakurinji (*Strobilanthes kunthiana*), has been included on the IUCN (International Union for Conservation of Nature) official Red List of threatened species.

- ❖ The purplish flowering shrub blooms once in 12 years.
- ❖ This is the first ever Global Red List assessment for this flagship species of the montane grasslands of southwest India.
- ❖ Almost 40% of the habitat has been lost, the remaining is under pressure from invasion of exotic species such as eucalyptus and black wattle.



### New Ramsar sites 2024 - India



- ❖ Nanjarayan bird sanctuary in Tirupur and Kazhuveli bird sanctuary in Villupuram had recently received international recognition.
- ❖ With this new addition, the number of Ramsar sites in Tamil Nadu has increased to 18, highest among the states.
- ❖ Tawa Reservoir in Madhya Pradesh is also included in the Ramsar list.
- ❖ This takes our tally to 85 Ramsar sites, covering an area of 13,58,068 hectare in India.

- ❖ From 1982 to 2013, a total of 26 sites were added to the list of Ramsar sites in the country.
- ❖ From 2014 to 2024, the country has added 59 new wetlands to the list of Ramsar sites.
- ❖ Currently, Tamil Nadu harbours the maximum number of Ramsar sites (18 sites), followed by Uttar Pradesh (10 sites).
- ❖ The United Kingdom (175) and Mexico (142) have the maximum Ramsar sites.
- ❖ Bolivia spans the largest area, with the 148,000 sq. km. under the Convention's protection.

### **Warmest Waters in 400 Years**

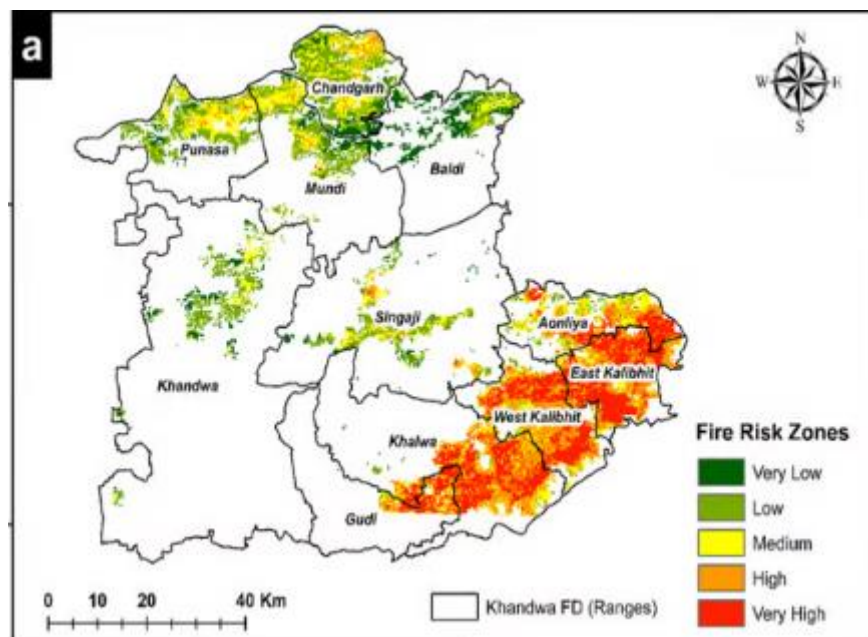
- ❖ Water temperatures in and around Australia's Great Barrier Reef have risen to their warmest in 400 years over the past decade.
- ❖ The reef stretches for some 2,400 km off the coast of the northern state of Queensland.
- ❖ Temperatures increased by an average of about 0.12 degrees Celsius (0.22 degrees Fahrenheit) for January to March from 1960 through 2024.
- ❖ The reef is home to a wide variety of natural life, with 600 types of coral and 1,625 fish species alone.
- ❖ Since 2016, the world-famous reef has suffered from five rounds of massive coral bleaching due to warming temperatures.





## Risk of Central India Forests

- ❖ Forests in Central India's Khandwa and North Betul divisions are at high risk of forest fires.
- ❖ The scientists noticed a slight increase in the number of fires, with about three more per year in Khandwa and one more in North Betul.
- ❖ 45 per cent of Khandwa's Forest and 50 per cent of North Betul's forest fall into high or very high fire risk zones.
- ❖ In Khandwa, these high-risk areas are mainly in the northern and southeastern parts, including the Khalwa, East Kalibhit, West Kalibhit, Chandgarh and Aonliya ranges.
- ❖ In North Betul, they are located in the northwestern and northeastern regions, such as Shahpur, Betul, Sarni and Bhaura.



## Gastrodia indica

- ❖ A unique orchid species, *Gastrodia indica*, was recently discovered in Fambonglho Wildlife Sanctuary, Sikkim.
- ❖ This orchid never opens its flower.
- ❖ This is the first known cleistogamous orchid in India.
- ❖ This discovery increases the number of *Gastrodia* species in India to ten.



### **Gymnema sylvestre (Gurmar)**

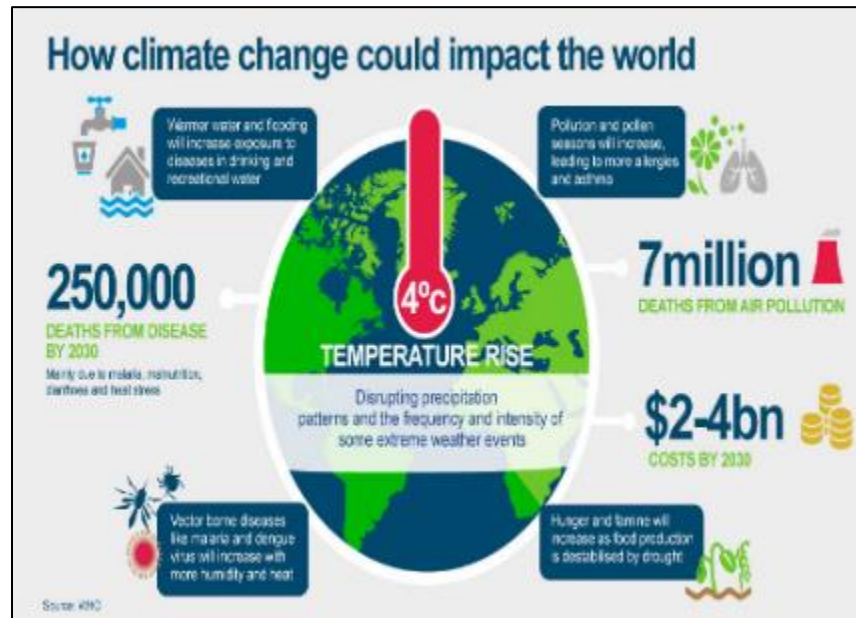


- ❖ Researchers have identified *Gymnema sylvestre*, commonly known as Gurmar, among several medicinal plants on Brahmayoni Hill in Gaya, Bihar.
- ❖ Gurmar is known as anti-diabetic herb.
- ❖ CSIR has already utilized this medicinal herb in developing the anti-diabetic drug BGR-34.
- ❖ Gurmar is known for its unique ability to reduce blood sugar levels due to the presence of gymnemic acid.

### **Earth's Rotational Dynamics**

- ❖ Scientists had found that the melting polar ice caps have caused the earth to spin slower.
- ❖ This can lead to minuscule changes in the actual duration of a day.
- ❖ This is because angular momentum — a product of the moment of inertia and angular velocity — is conserved no matter how the skater is spinning.
- ❖ As the ice sheets melt, the earth's oblateness increases and the region around the equator elongates slightly.
- ❖ The moment of inertia increases and the rotation rate gets smaller.

- ❖ The changing climate's effects on sea levels around the equator have slowed the rate of earth's rotation by around 1.3 milliseconds (ms) per century.
- ❖ A process called lunar tidal friction, or the moon pulling on the earth's oceans, has already been slowing the planet's rotation at about 2 ms per century.
- ❖ So, if right now the earth takes about 2 ms longer to complete one day than the time predicted by atomic clocks.
- ❖ A 100 years later a day will be about 4 ms longer.
- ❖ As the milliseconds added up, leap seconds were added to keep pace with the earth's rotation.



## Origin of forever chemicals



- ❖ American researchers have found a method to be able to trace the origin and the destination of forever chemicals.
- ❖ These chemicals that are scientifically known as per-and polyfluoroalkyl substances (PFAS).
- ❖ They are generally useful in applications such as water-proofing, heat resistance, detergents, food packaging and non-stick technologies.
- ❖ They are known to stay in the environment virtually forever and contribute to environmental degradation which adversely impacts the health of all organisms including human beings.

### Tagging of horseshoe crabs



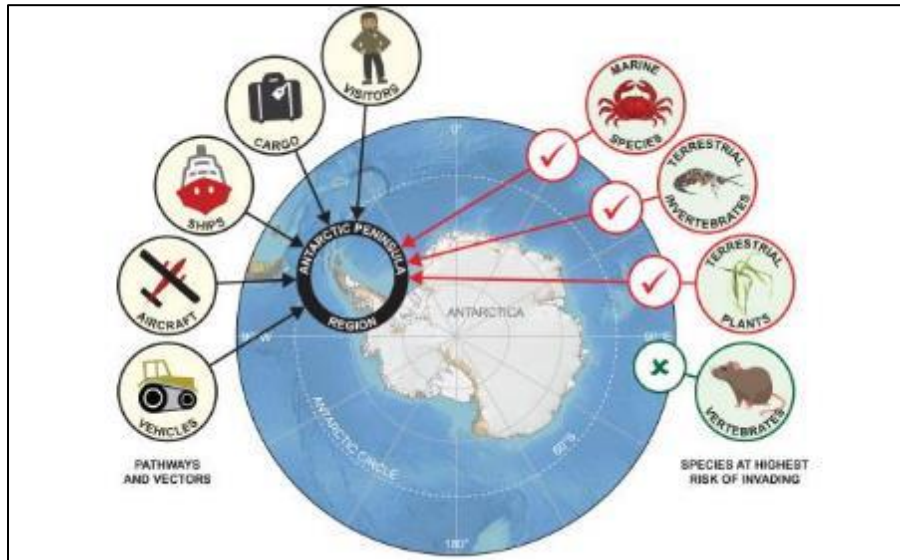
- ❖ The Zoological Survey of India (ZSI) and the Odisha Forest Department have joined hands to tag horseshoe crabs along the State's coast.
- ❖ It aims to understand the population and habitat utilisation for its conservation and management.
- ❖ Horseshoe crabs are one of oldest living creatures on the Earth, and a valuable species medicinally.
- ❖ India is home to two species of horseshoe crabs — *Tachypleus gigas* and *Carcinoscorpius rotundicauda* (mangrove).
- ❖ Horseshoe crabs are a Schedule 2 species under the Wildlife Protection Act, 1972.

### Non-Native Species in Antarctica

- ❖ Antarctic Peninsula is the area most vulnerable to the introduction of non-native species.
- ❖ Objects that wash ashore in Antarctica could carry non-native floral and faunal species.
- ❖ They can disrupt native species if they are able to survive the cold conditions.



- ❖ Macquarie Island exhibits the highest connectivity with Antarctica, followed by Kerguelen Islands and South Georgia.
- ❖ Australia (Tasmania) has demonstrated the lowest connectivity with Antarctica, closely followed by South Africa and Gough Island.



### **Mithun in Assam**

- ❖ Assam has recorded the Mithun (*Bos frontalis*) for the first time.
- ❖ Mithun is the state animal of Arunachal Pradesh and Nagaland.
- ❖ It is also found in the hills of Mizoram and Manipur.
- ❖ It is primarily reared for its meat.
- ❖ In 2019, India has a mithun population of 3,86,311.





## Study on Glacial Lakes 2024

- ❖ The National Glacial Lake Outburst Floods Risk Mitigation Programme (NGRMP) was approved by the Centre.
- ❖ There are nearly 7,500 glacial lakes in the Himalayan Mountain ranges located in India and some of them are being monitored via remote sensing.
- ❖ The National Disaster Management Authority (NDMA) has finalised a list of 189 “high-risk” glacial lakes for mitigation measures to reduce the risk.
- ❖ The Central Water Commission (CWC) in an October 2023 report stated that 902 glacial lakes and water bodies are being monitored via satellite.



## Slow Loris – Assam

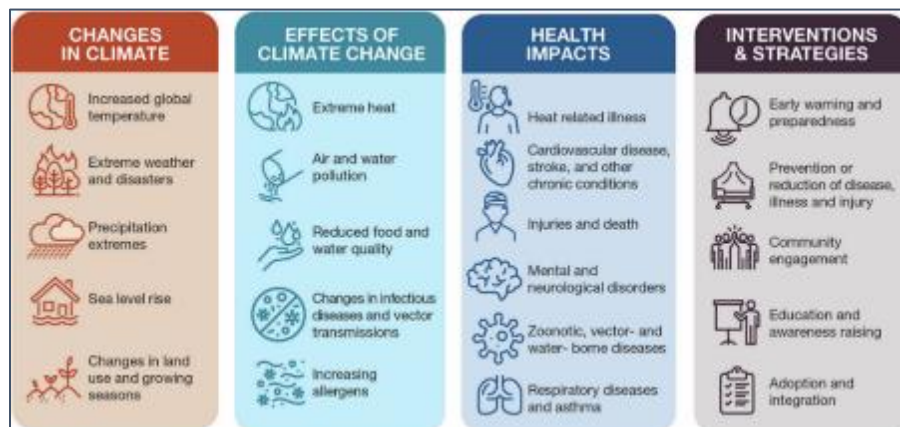
- ❖ A slow loris was rescued in Shantipur, near the Chirang-Bhutan border.
- ❖ This marks the first known instance of this elusive primate being spotted in the region.
- ❖ There are nine species of slow loris.
- ❖ They found exclusively in the South and Southeast Asia.
- ❖ Slow lorises are the world’s only venomous primates.
- ❖ Bengal slow loris (*Nycticebus Bengalensis*) is listed as Endangered in the IUCN Red List.



## REPORTS AND INDICES

### Impact of Climate Change on Education

- ❖ The Most low and middle-income countries are experiencing the climate-related school closures every year, increasing chances of learning loss and dropout.
- ❖ The Climate change has a negative impact on education indirectly through its displacement of people and the effects on people's livelihoods and health.
- ❖ Over the past 20 years, schools were closed in at least 75% of the extreme weather events, impacting five million people or more.
- ❖ In the United States, without air conditioning, a school year hotter by 1-degree Celsius, reduced test scores by 1%.
- ❖ During 2022, 32.6 million were internally displaced due to disasters.
- ❖ Rainfall shocks over the first 15 years of life in India.
- ❖ It negatively affected vocabulary at age five and mathematics and non-cognitive skills at the age of 15.



### Adolescents in a Changing World

- ❖ The report, released at the 77th World Health Assembly, was commissioned by PMNCH - The Partnership for Maternal, Newborn & Child Health.
- ❖ The failure by all stakeholders to substantially increase investment in programmes are targeted at improving adolescent well-being would result in a staggering economic cost.
- ❖ It led to global losses amounting to an estimated \$110 trillion (benefits foregone) from 2024 to 2050.
- ❖ This equates to \$4.1 trillion per year, or 7.7 per cent of the GDP of the countries included.

- ❖ This report covers about 80 per cent of the world's population.
- ❖ It is estimated that a broad package of health services for adolescents is likely to yield a return of \$9.6 for every dollar invested.
- ❖ While investing in education and training for adolescents is likely to yield a return of \$28.6 for every dollar invested.

**Table 1.1** *The five domains and sub-domains of adolescent well-being*

Good health and optimum nutrition	Connectedness, positive values and contribution to society	Safety and a supportive environment	Learning, competence, education, skills and employability	Agency and resilience
<ul style="list-style-type: none"> <li>&gt; Physical health and capacities</li> <li>&gt; Mental health and capacities</li> <li>&gt; Optimal nutritional status and diet</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Connectedness</li> <li>&gt; Values</li> <li>&gt; Attitudes</li> <li>&gt; Interpersonal skills</li> <li>&gt; Activity</li> <li>&gt; Change and development</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Safety</li> <li>&gt; Material conditions</li> <li>&gt; Equity</li> <li>&gt; Equality</li> <li>&gt; Non-discrimination</li> <li>&gt; Privacy</li> <li>&gt; Responsive</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Learning</li> <li>&gt; Education</li> <li>&gt; Resources, life skills and competencies</li> <li>&gt; Skills</li> <li>&gt; Employability</li> <li>&gt; Confidence</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Agency</li> <li>&gt; Identity</li> <li>&gt; Purpose</li> <li>&gt; Resilience</li> <li>&gt; Fulfilment</li> </ul>

## Time's World Greatest Places of 2024

- ❖ The TIME magazine recently published its prestigious list of the 'World's Greatest Places' for 2024.
- ❖ It comprises 100 extraordinary establishments "that stand out in their field and the world."
- ❖ Two Indian destinations have been featured on this list:
  - Manam Chocolate in Hyderabad
  - Naar in Himachal Pradesh
  - The Museum of Solutions (MuSo) in Mumbai.

## World Tariff Profiles 2024

All products										
Country/Territory	Year of MFN applied tariff	Binding coverage in %	Simple average		Duty free		Non ad valorem duties		Duties > 15 %	
			Bound	MFN applied	Bound	MFN applied	Bound	MFN applied	Bound	MFN applied
1	2	3	4	5	6	7	8	9	10	11
Guyana	2023	100	57.0	11.7	0	9.0	0	0.0	100.0	26.7
Haiti	2023	87.7	18.7	4.9	5.2	45.4	9.4	0.0	52.3	5.8
Honduras	2023	100	31.8	5.7	1.9	51.2	0	0	88.8	0.7
Hong Kong, China	2023	49.7	0	0	49.7	100.0	0	0	0	0
Iceland	2023	98.0	24.0	3.3	43.8	94.5	3.2	2.9	32.2	4.5
India	2023	74.3	50.8	17.0	2.2	1.8	0.0	4.1	71.5	30.9
Indonesia	2023	86.3	37.1	8.0	2.4	13.3	0	0.2	80.6	9.3
Israel	2023	75.6	22.3	1.3	10.7	83.5	6.8	3.0	20.9	2.4

- ❖ The 2024 World Tariff Profiles was published by the WTO, International Trade Centre (ITC), and UN Trade and Development (UNCTAD).
- ❖ India was the second country after the US in initiating and imposing anti-dumping duties among World Trade Organisation (WTO).
- ❖ Despite increasing the use of non-tariff measures in 2023, India's average tariffs fell to 17 per cent from 18.1 per cent in 2022.
- ❖ In 2023, India initiated 45 anti-dumping investigations and imposed duties in 14 cases.
- ❖ But the US started 64 investigations and imposed additional duties in 14 cases.
- ❖ India has a total of 133 anti-dumping measures affecting 418 products.
- ❖ In 2022, India led WTO members with 29 anti-dumping investigations.
- ❖ Average tariffs on non-agricultural imports dropped to 13.5 per cent in 2023 from 14.7 per cent in 2022.
- ❖ Agricultural tariffs also fell to 39 per cent from 39.6 per cent.

### **Global agriculture exports in 2023**

- ❖ India maintained its position as world's eighth largest exporter of agriculture products.
- ❖ Its agriculture exports in 2023 down to \$51 billion from \$55 billion in 2022.
- ❖ Collectively, the top ten exporters represented a 71.9 per cent share in world exports in 2023.
- ❖ India had imposed a ban on export of wheat in May 2022, non-basmati rice in July 2023 and on sugar from October 2023.
- ❖ The EU has maintained its top position in 2023 by exporting agriculture produce valued at \$836 billion compared to \$799 billion in 2022.
- ❖ The US, too, continued at the second spot in agriculture exports in 2023 with \$198 billion.
- ❖ Brazil retained the third spot with \$157 billion in 2023.
- ❖ China was the fourth largest agriculture exporter in 2023.
- ❖ Other countries among top ten agriculture exporters include Canada, Mexico, Indonesia and Australia.

### **WHO Study on Adolescent Girls 2024**

- ❖ One fourth of adolescent girls who have been in relationships have endured physical or sexual violence.

- ❖ WHO's report showed that 24% of them had been subjected to intimate partner violence at least once, with 16% reporting it in the past year.
- ❖ Rates were highest in Oceania followed by Africa, with 49% of girls reporting intimate partner violence in Papua New Guinea and 42% in Democratic Republic of Congo.
- ❖ The lowest rate was Europe where 10% reported incidents.
- ❖ According to the UN, 1 in 5 young women worldwide (19%) were married in childhood in 2022.

	Lifetime intimate partner violence prevalence (95% UI)	Past-year intimate partner violence prevalence (95% UI)
South Asia	29% (21-38)	21% (14-29)
Southeast Asia, east Asia, and Oceania		
East Asia	17% (9-29)	11% (5-23)
Southeast Asia	21% (14-31)	13% (8-21)
Oceania	47% (35-59)	33% (23-46)

### World Bank report on Middle-Income Trap







- ❖ The 'World Development Report 2024: The Middle-Income Trap' was released by World Bank.
- ❖ the 'Middle Income Trap' is described as countries typically encounter a "trap" when they reach 10 percent of the annual US GDP per capita, or middle of the range, equivalent to \$8,000 as of today.
- ❖ India is among over 100 countries that will face “serious obstacles” in the next few decades to become high-income countries.
- ❖ India could take as many as 75 years to attain one-quarter of the United States income per capita.
- ❖ China may take over 10 years to achieve this feat, and Indonesia close to 70 years.
- ❖ By 2023-end, 108 countries with a total population of six billion (75 per cent of the world) were classified as ‘middle-income’.
- ❖ They each had annual GDP per capital between \$1,136-13,845, and two out of three people still living in poverty.
- ❖ Since 1990, only 34 middle-income economies have managed to shift to high-income status.

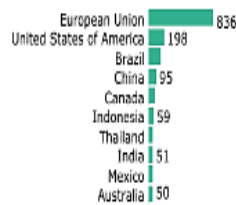
### **WTO's World Trade Statistics 2023**

- ❖ In 2023, world trade in goods and commercial services fell on average by 2% to US\$ 30.5 trillion, on a balance of payments basis.
- ❖ Trade in goods declined by 5% whereas services trade took an opposite trajectory, increasing by 9%.
- ❖ As a result, the share of goods in global trade decreased from 77.8% in 2022 to 75.3% in 2023.
- ❖ The share of services reached 24.7%, up from 22.2%.
- ❖ India improved to the 17th rank among the largest merchandise exporters in 2023.
- ❖ India ranked in 10<sup>th</sup> place in Fuels and mining products export. Iron and steel
- ❖ India ranked in 10<sup>th</sup> place in Iron and steel export and 8<sup>th</sup> rank in chemicals export.
- ❖ India ranked in 3<sup>rd</sup> place in Textiles export and 5<sup>th</sup> place in clothing export.

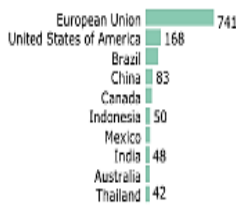
### Top 10 exporters of selected product groups and subgroups

2023, Value (US\$ billion)

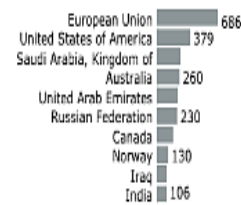
#### Agricultural products



#### Food



#### Fuels and mining products



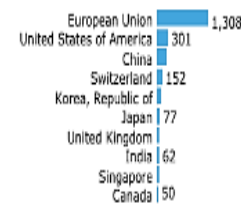
#### Manufactures



#### Iron and steel



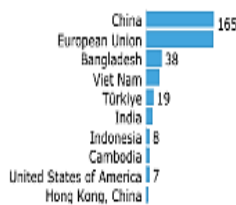
#### Chemicals



#### Textiles



#### Clothing



#### Office and telecom equipment



## Fortune's Global 500 list for 2024



- ❖ Reliance Industries has improved its ranking in Fortune's Global 500 list for 2024 to 86 from 88.
- ❖ The company has gained 69 places in the last three years from 155 of 2021.
- ❖ India has nine companies in the Fortune's Global 500 list this year.
- ❖ Five of them from the public sector – IOCL, LIC, ONGC, BPCL and SBI – and four from the private sector.
- ❖ Walmart topped the list for 11<sup>th</sup> consecutive year.

### **Top 10 richest global central banks – 2024**

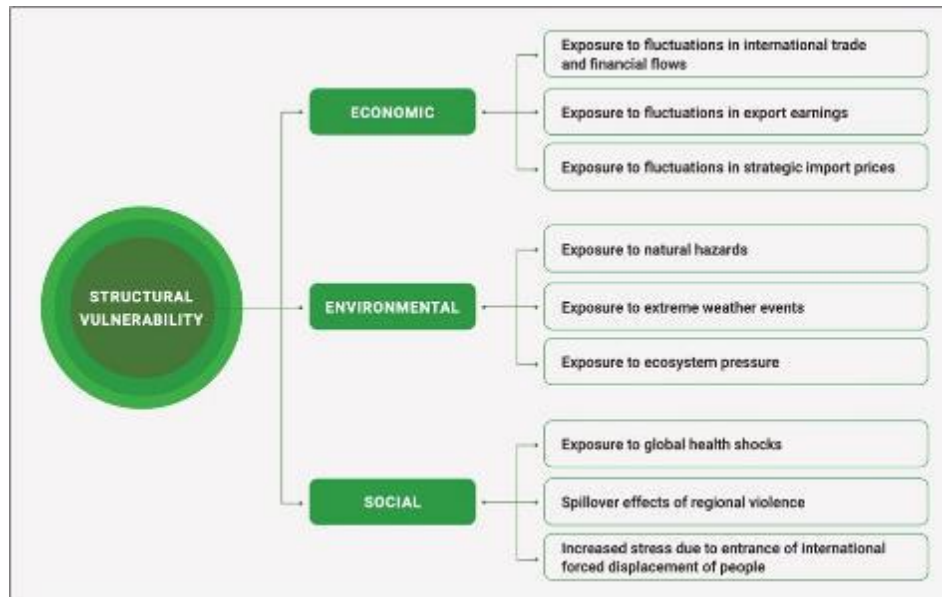
- ❖ The top 10 wealthiest central banks in the world by total assets, as compiled by Sovereign Wealth Fund Institute (SWFI).
- ❖ Federal Reserve System of North America topped in the list
- ❖ It is followed by People's Bank of China and Bank of Japan.
- ❖ India's Reserve Bank of India ranks 12th around the world.
- ❖ RBI balance sheet grew by 11.08% year on year to Rs 70.47 trillion as of March 31, 2024.

Rank	Name of the Bank	Country	Region
1	Federal Reserve System	USA	North America
2	People's Bank of China	China	Asia
3	Bank of Japan	Japan	Asia
4	Deutsche Bundesbank	Germany	Europe
5	Bank of France	France	Europe
6	Norges Bank	Norway	Europe
7	Bank of Italy	Italy	Europe
8	Bank of England	UK	Europe
9	Bank of Spain	Spain	Europe
10	Swiss National Bank	Switzerland	Europe

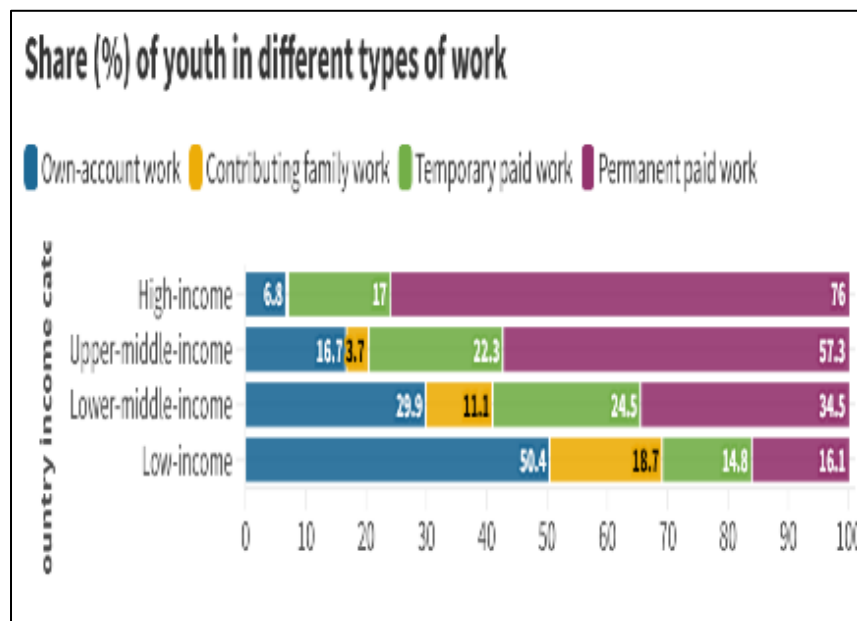
### **Multidimensional Vulnerability Index**

- ❖ The UN General Assembly has officially launched a new data-driven vulnerability index.
- ❖ It incorporates indicators linked to a state's structural vulnerabilities and lack of economic, environmental and social resilience.

- ❖ It would help small island states and developing nations gain access to low-interest financing.
- ❖ The "Multidimensional Vulnerability Index" (MVI) is set to act as a complement to GDP and other development metrics.
- ❖ Since the 1990s, small island developing states (SIDS) that are not poor enough in terms of GDP per capita to access low-interest development financing.

















## Global Employment Trends for Youth 2024



- ❖ The global youth unemployment has hit the lowest level for 15 years and is likely to continue to fall.
- ❖ The ILO's report was titled "Global Employment Trends for Youth 2024 (GET for Youth).
- ❖ Around 64.9 million people aged between 15 and 24 worldwide were unemployed last year.
- ❖ The youth unemployment rate of 14.5 per cent in 2023 in East Asia was a historical high.
- ❖ One in five (20.4%) youth in the region was in 'not in employment, education or training' status in 2023 in South Asia.
- ❖ By 2025, the youth unemployment rate in the region is expected to continue its decline to 13.7%.
- ❖ Youth unemployment rates were higher in 2023 than in 2019.
- ❖ The rates of young women and young men in 2023 were nearly equal (at 12.9 per cent for young women and 13 per cent for young men).
- ❖ The share of young adults working in a secure paid job is significantly higher in high-income countries (at 76% in 2023).

## Shanghai ARWU 2024

World Rank	Institution	India	National/Regional Rank	Total Score	Aimed
401-500	 Indian Institute of Science		1	0.0	
501-600	 Vellore Institute of Technology		2	0.0	
601-700	 Indian Institute of Technology Delhi		3-4	0.0	
601-700	 University of Delhi		3-4	0.0	
701-800	 Homi Bhabha National Institute		5-7	0.0	
701-800	 Indian Institute of Technology Roorkee		5-7	0.0	
701-800	 SRM INSTITUTE OF SCIENCE AND TECHNOLOGY		5-7	0.0	

- ❖ Vellore Institute of Technology (VIT) has been ranked as the second-best institute in India.



- ❖ It had topped among the private institutions in India in the Shanghai Academic Ranking of World Universities (ARWU) 2024.
- ❖ It has been ranked between 501 and 600 among world universities in the 2024.
- ❖ In the list of 1,000 top universities of the world, 15 universities from India have made it.
- ❖ IISc Bangalore has been listed in the 401-500 rank bracket globally while it tops the list of Indian universities.

### Income protection and early warning

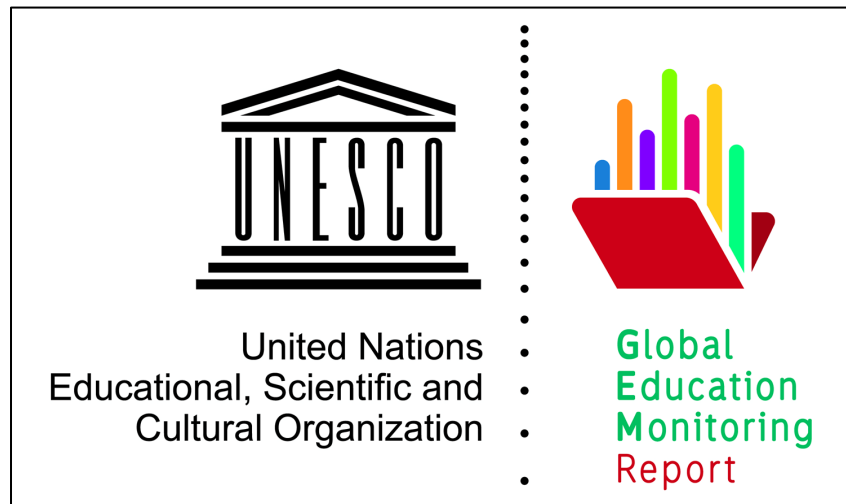
- ❖ The report “Income Protection and Early Warning Systems: How India is Building Climate Resilience” was released by the WEF.
- ❖ India lost 33.9 million hectares of crops due to excess rains and an additional 35 million hectares due to drought between 2015 and 2021.
- ❖ Several Indian sectors including agriculture suffered \$159 billion in economic losses in 2021 due to lost working hours from extreme climate impacts.
- ❖ By 2030, India is projected to see a substantial 5.8 per cent decline in working hours – equivalent to 34 million full-time jobs – due to heat stress.
- ❖ India was the first country in South Asia to create a heat action plan after an extreme heat wave in the city of Ahmedabad in 2010.

Year	Natural Disaster	Economic Loss	Insured Loss	Insurance Gap
2020	Cyclone Amphan	\$13 billion	\$1.5 billion	\$11.5 billion
2021	Cyclone Yaas	\$2.5 billion	\$200 million	\$2.3 billion
2021	Tamil Nadu Floods	\$1 billion	\$100 million	\$900 million
2022	Assam Floods	\$3 billion	\$300 million	\$2.7 billion
2023	Himachal Pradesh Floods and Landslides	\$1.5 billion	\$150 million	\$1.35 billion

### Global Education Monitoring Report 2024

- ❖ Over the past 20 years, schools were closed in at least 75% of the extreme weather events, impacting 5 million people or more.

- ❖ In sub-Saharan Africa, the gender parity has not been achieved at any level of education. More girls are out of school than boys.
- ❖ In reading, globally, for every 100 boys, there are 115 girls proficient at the end of lower secondary education.
- ❖ 81% of men and 75% of women owned a mobile phone in 2023.
- ❖ In 2018–23, the share of STEM graduates who were female was 35%.
- ❖ In India, rainfall shocks in the first 15 years of life negatively affected vocabulary at age five and mathematics & non-cognitive skills at age 15.



### 2024 Hurun India - Most Valuable family businesses

#	FAMILY NAME	VALUE
1.	Ambani Family <small>Telco India, Reliance</small>	₹25.75 lakh crore
2.	Bajaj Family <small>Bajaj Group</small>	₹7.13 lakh crore
3.	Kumar Mangalam Birla Family <small>Aditya Birla Group</small>	₹5.39 lakh crore
4.	Jindal Family <small>JSW Steel</small>	₹4.71 lakh crore
5.	Nadar Family <small>HCL Technologies</small>	₹4.30 lakh crore
6.	Mahindra Family <small>Mahindra &amp; Mahindra</small>	₹3.45 lakh crore
7.	Dani Family, Choksi Family, and Vakil Family <small>Asian Paints</small>	₹2.71 lakh crore
8.	Premji Family <small>Wipro</small>	₹2.57 lakh crore
9.	Rajiv Singh Family <small>DLF</small>	₹2.04 lakh crore
10.	Murugappa Family <small>Tube Investments of India</small>	₹2.02 lakh crore

- ❖ The Mukesh Ambani-led Ambani Family, with a value of Rs 25,75,100 crore topped the list.
- ❖ It is followed by Niraj Bajaj-led Bajaj Family (Rs 7,12,700 crore) and Kumar Mangalam Birla family (Rs 5,38,500 crore).
- ❖ However, the Adani-led energy conglomerate, with a value of Rs 15,44,500 crore did not feature in the top 10, as it is a first-generation family business.
- ❖ Among other first-generation families' list, Cyrus Poonawalla-led Poonawalla Family featured second with a value of Rs 2,37,100 crore.
- ❖ Divi Family and Reddy Family followed with a value of Rs 91,200 crore and Rs 88,800 crore each.

### Global Property Price Index 2024

- ❖ Mumbai is ranked second in the Knight Frank's Prime Global Cities Index.
- ❖ The city recorded an annual increase in its real estate prices at 13%.
- ❖ Mumbai and New Delhi (3<sup>rd</sup>) have recorded an annual increase in their real estate prices at 13% and 10.6% respectively.
- ❖ Bengaluru has witnessed a modest 3.7% rise.
- ❖ Globally, the capital of Philippines, Manila has topped in the Index with an increase of 26%.

Rank/City		12-month % change	3-month % change
1	PH Manila	26.0	16.4
2	IN Mumbai	13.0	2.5
3	IN Delhi	10.6	0.1
4	US Los Angeles	8.9	3.5
5	US Miami	7.1	1.8
6	KE Nairobi	6.6	2.0
7	ES Madrid	6.4	1.3
8	PT Lisbon	4.7	3.1
9	KR Seoul	4.6	5.0
10	US San Francisco	4.5	4.7

## STATES

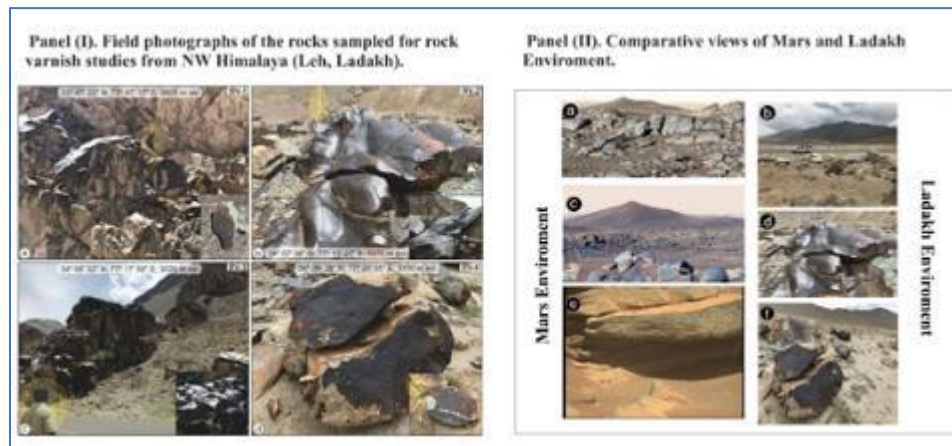
### Moidams of Assam

- ❖ India's Moidams of Assam was inducted as India's 43<sup>rd</sup> World Heritage Site.
- ❖ These are royal burial sites of the Ahom dynasty, which ruled over much of Assam and the North East from 1228 to 1826 AD.
- ❖ A moidam is a tumulus – a mound of earth raised over a grave – of Ahom royalty and aristocracy.
- ❖ Ahoms shifted capitals multiple times over their 600-year history.
- ❖ Charaideo is considered to be their first capital city established in 1253 AD by king Sukaphaa.
- ❖ After Sukaphaa was laid to rest in Charaideo in 1856, subsequent royals also chose it as their own resting place.
- ❖ While there are over 150 moidams in the region, only 30 are protected by the Archaeological Survey of India.
- ❖ The Moidams has propelled the nation at the 6<sup>th</sup> position globally for the most number of World Heritage Properties.

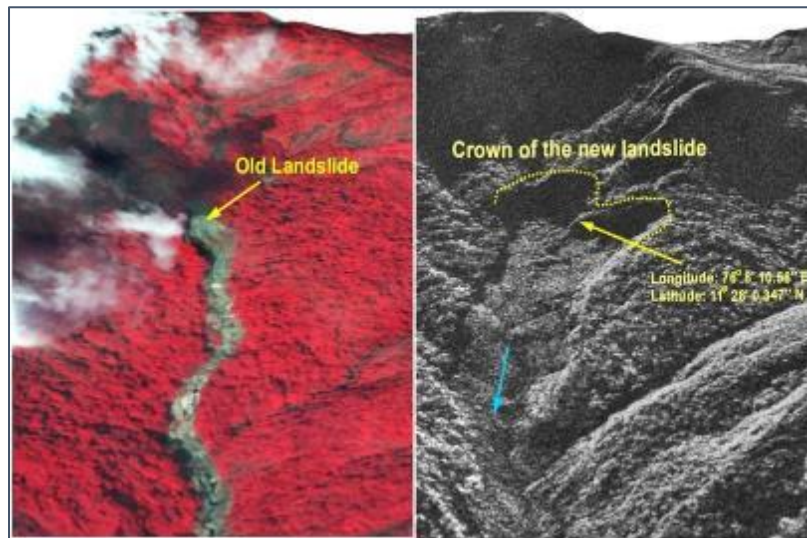


### Rock Varnish Layers in Ladakh

- ❖ Researchers have spotted Magnetofossils, in rock varnish layers in India's Ladakh.
- ❖ It is the fossil remains of magnetic particles produced by magneto tactic bacteria.
- ❖ This biotic processes in the formation of rock varnish indicate how life can exist in extreme environments.



## Landslides In Wayanad



- ❖ The massive landslides occurred at Meppadi in Wayanad district, Kerala due to extremely heavy rain.
- ❖ India accounts for about 8% of global fatalities due to landslides.
- ❖ During the period 2001-21, the landslides caused 847 deaths and displaced thousands.
- ❖ Sikkim has the largest land area (57.6%) that is landslide-prone.
- ❖ Kerala is the most vulnerable state with over 14% of its land mass in the “very high susceptibility” category.



### **Officer for ‘external cooperation’**

- ❖ The Kerala Government has recently decided to appoint IAS officer K Vasuki as ‘state’s secretary in charge of matters concerning external cooperation’.
- ❖ The seventh schedule, list 1 - Union list, item 10, specifies that foreign affairs and all matters which bring the Union into relation with any foreign country, are the sole prerogative of the Union Government.
- ❖ Article 253 lays that, the Parliament has power to make any law for implementing any treaty with any other country or any decision made at any international conference, etc.
- ❖ Article 293 provides territorial limits on borrowing power of the states.

### **GRIT think-tank**

- ❖ Gujarat Chief Minister announced the creation of the Gujarat State Institution for Transformation (GRIT).
- ❖ It is modelled after the NITI Aayog, to serve as a public policy think-tank for the state.
- ❖ GRIT will aid to systematically achieve the state's development goals.

### **Bailey bridge at Wayanad**



- ❖ The Indian Army’s Madras Engineer Group built a “Bailey bridge”, assembled at Chooralmala, to reach Mundakkai village.
- ❖ They have completed the construction of 190m long Bridge in record time- around 31 Hours.

- ❖ Major Sita Ashok Shelke was the only female army officer in that Indian Army unit.
- ❖ A Bailey bridge is a type of modular bridge that consists of pre-fabricated components.
- ❖ It was allowing for quick and efficient assembly on-site.
- ❖ During World War II, the Bailey bridge was developed by English civil engineer Donald Coleman Bailey.

### **All Crops under MSP**

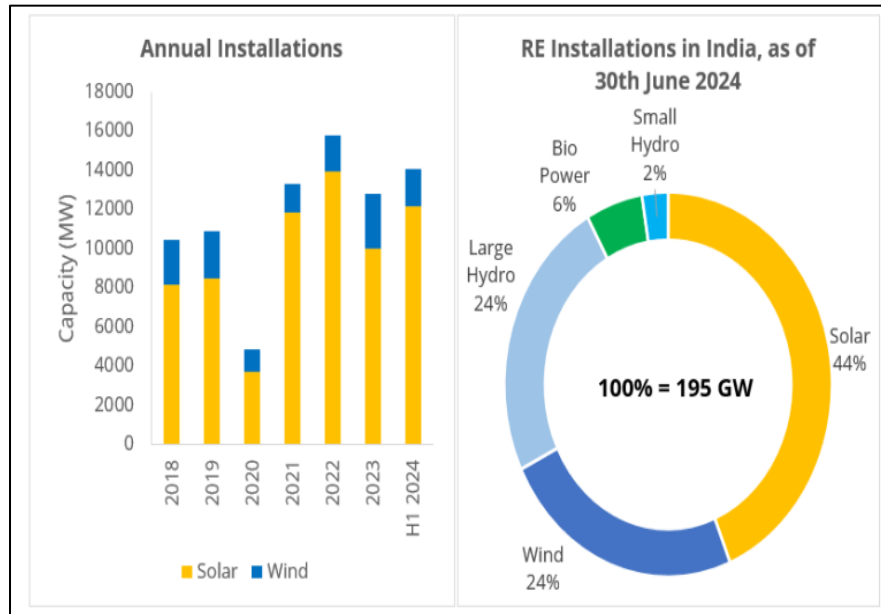
- ❖ Haryana government announced that 24 crops in the state would be procured on Minimum Support (MSP).
- ❖ Out of the 24, around 10 are crops which are not extensively grown in the state.
- ❖ This was making Haryana the first state in India to do this on such a wide scale.
- ❖ The procurement will cost the government around Rs 123.65 crore.
- ❖ Wheat, paddy and maize are the main crops that are largely procured by the government on MSP.



### **2-Child policy – Andhra Pradesh**

- ❖ The Andhra Pradesh government decided to abolish a rule that barred individuals having more than two children from contesting local body elections.
- ❖ The fertility rate in Andhra Pradesh is 1.5.
- ❖ The two-child policy was first introduced in united Andhra Pradesh in 1994.
- ❖ It prevented individuals with more than two children from contesting in the urban local body elections.

## Wind energy generation capacity 2023-24

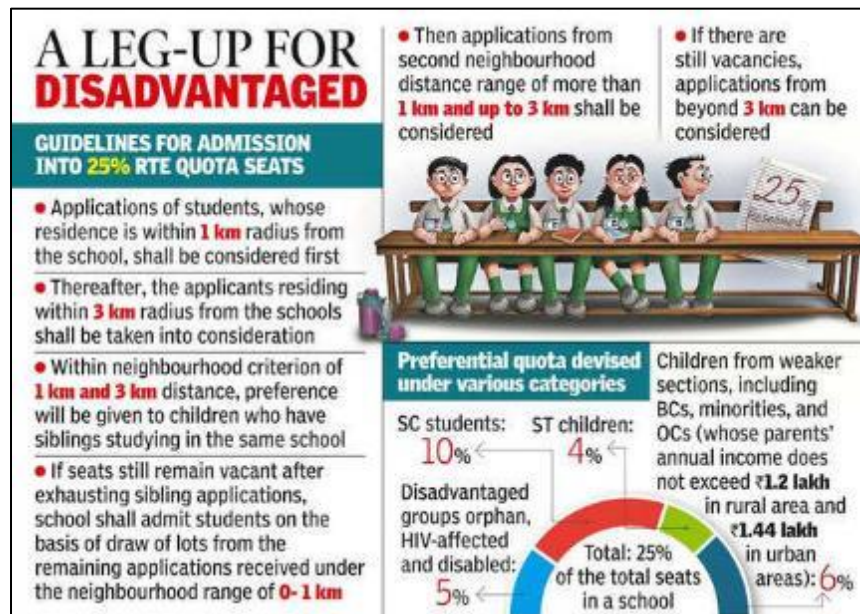


- ❖ Gujarat topped in the all-India wind energy generation capacity commissioned for the year 2023 -24.
- ❖ Karnataka secured second place and Tamil Nadu ranked third.
- ❖ Gujarat's wind power generation for financial year 2023- 24 is 1743.8MW.
- ❖ Karnataka's commissioned capacity is 724.66MW and Tamil Nadu's capacity is 586.37MW.

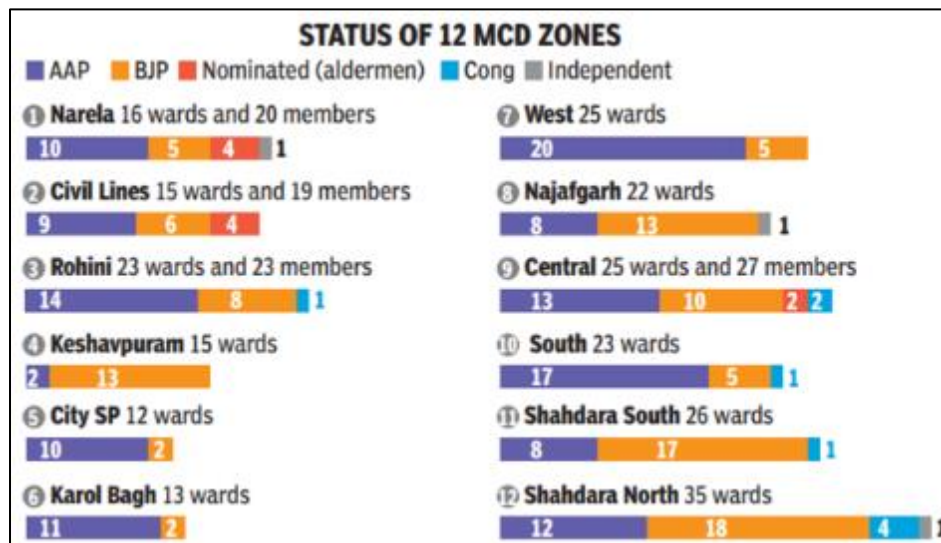
## Implementation of RTE in states

- ❖ The Centre appealed to the state governments to implement the provision of the Right to Education.
- ❖ RTE mandates 25 per cent of seats for the children from economically weaker sections in private unaided schools.
- ❖ The state governments such as Punjab, Kerala, Telangana and West Bengal have not implemented RTE provisions.
- ❖ The 86<sup>th</sup> Constitutional Amendment in 2022 introduced Article 21 A, ensuring free and compulsory education for children aged 6-14 years.
- ❖ Education budget was at Rs 68,000 crore in 2014 and has reached to Rs 1.20 lakh crore in 2024-25 budget.
- ❖ School Education and Literacy got Rs 73,008 crore, compared to Rs 72,473 crore in the revised estimate for 2023-24.

- ❖ Higher Education has got Rs 47,619 crore, down from the revised estimate of Rs 57,244 crore for 2023-24.



## Nomination of MCD Aldermen



- ❖ The Supreme Court held that the Delhi Lieutenant Governor (L-G) has the power to nominate 'aldermen' to the Municipal Corporation of Delhi (MCD) without the aid and advice of the Council of Ministers from the Delhi Government.
- ❖ Under the DMC Act, Delhi is divided into 12 zones.
- ❖ The Act also creates a 'Wards Committee' for each zone comprising elected representatives and the aldermen within that territory.



- ❖ The Delhi L-G under Section 3 the DMC Act is empowered to nominate 10 aldermen who must be above 25 years of age and “have special knowledge or experience in municipal administration”.
- ❖ The aldermen do not have the right to vote in the MCD meetings.
- ❖ Each of the 12 Wards Committees must elect a member to be a part of the MCD Standing Committee in their first meeting.
- ❖ Aldermen can vote in these elections and stand as candidates for being elected as a member of the Standing Committee.
- ❖ The mayor is the nominal head of the MCD, the Standing Committee effectively manages the functions of the corporation.
- ❖ The Committee cannot be constituted without the alderman participating in the voting process.

### Wainganga-Nalganga River linking project 2024

- ❖ The Maharashtra cabinet recently cleared the ambitious Nalganga-Wainganga River linking project.
- ❖ It is dubbed among the biggest in the country.
- ❖ The project entails lifting water from the Gosikhurd dam on Wainganga River in Bhandara.
- ❖ Then channels it into the Nalganga river in Buldhana through a 427-kilometre-long network of canals, pipelines, and lift irrigation.






## Juanga Tribe - FRA Act

### Rights for the dwellers

What the Forest Rights Act, 2006, entails

- Tenurial security over the forestland under occupation prior to December 13, 2005
- Recognition of community right over forest and forest products
- Protection and conservation of community forest resources
- Conversion of all forest villages and habitation located inside the forestland into revenue villages
- In situ rehabilitation of displaced persons evicted without compensation prior to December 13, 2005
- Recognition of ancestral domain (habitat) right to



Residents of Gunduribadi village in Odisha's Nayagarh district get ready for mapping their land boundaries for the Forest Rights Act implementation. • SPECIAL ARRANGEMENT

Particularly Vulnerable Tribal Groups

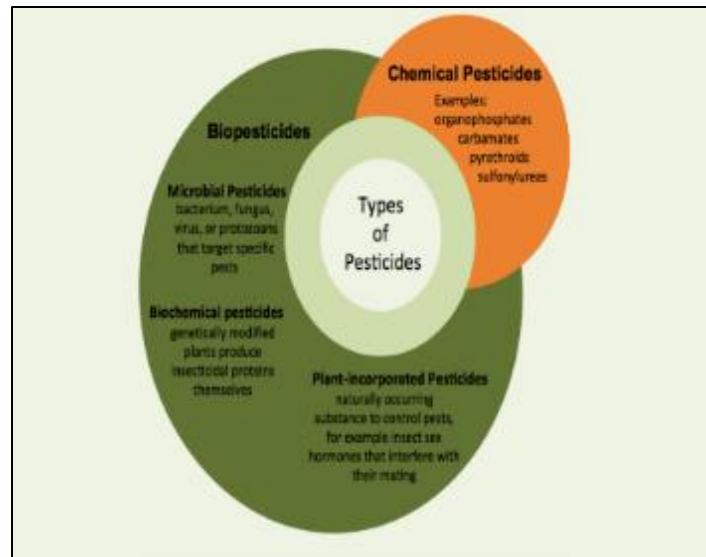
- Seasonal access to nomadic, pastoral and semi-nomadic communities over forestland
- Conversion of all leases granted by erstwhile governments, zamindars and king into permanent land records

- ❖ The Juangs of Jajpur in Odisha have become the fifth Particularly Vulnerable Tribal Group (PVTG) in the country.
- ❖ They are the second in the state to get habitat rights under the Forest Rights Act (FRA), 2006.
- ❖ The rights will provide the Juangs uninterrupted access and legal recognition to their ancestral land and resources.
- ❖ Habitat rights are given to PVTGs under section 3(1) (e) of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
- ❖ Juang tribals reside in 13 villages under Sukinda block of Jajpur.

## Usage of Chemical pesticides

- ❖ Uttar Pradesh with 21.4% share continues to be the country's biggest user of chemical pesticides.
- ❖ It is followed by Maharashtra (15.7%) and Punjab (9.5%).
- ❖ UP recorded the increase in its bio-pesticide use was even smaller at 3.4 MT (it went from 52.8 to 56.2 MT).
- ❖ Himachal Pradesh has reduced its chemical pesticide consumption by 193 MT (from 470 to 277 MT).
- ❖ It improved its bio-pesticide use marginally, by 0.23 MT (going from 0.37 to 0.60 MT).

- ❖ West Bengal (1,574 MT) was the last financial year's biggest bio-pesticide user.
- ❖ It was followed by Tamil Nadu (957 MT) and Chhattisgarh (787 MT).



### Ratnagiri 'protected monuments'

- ❖ Maharashtra government has notified geoglyphs and petroglyphs in Ratnagiri as 'protected monuments'.
- ❖ This is 'protected under the Maharashtra Ancient Monuments and Archaeological Sites and Remains Act, 1960.

**CONSERVATIONISTS CONCERNED OVER REFINERY**



Rock art in India is one of the oldest material evidence of the country's early human creativity. Typically found in the form of rock paintings, etchings, cup marks, and ring marks across India, (their) dense concentration on the laterite plateaus of the Konkan stands as the most remarkable open-air ensemble of prehistoric human expression in the region — **Unesco's description**

➤ Conservationists have expressed concerns over a proposed oil refinery in Barsu, Ratnagiri, warning that it could damage the geoglyphs in the area

➤ Officials noted that in June 2021, the state govt issued a two-month notice of its intention to declare the geoglyphs as protected monuments, and no objections were raised against the declaration.

- ❖ The group of petroglyphs at Deud, Ratnagiri, dates back to the Mesolithic era (roughly 20,000-10,000 years ago).
- ❖ Geoglyphs and petroglyphs are different types of ancient art forms, both involving the creation of images or designs on the earth's surface or rock surfaces.

### Justice Hema Committee Report

- ❖ The Justice Hema Committee was formed by the Kerala Government in 2017.
- ❖ This was based on a petition by the Women in Cinema Collective (WCC) to study the challenges faced by women in the film industry.
- ❖ The 233-page document provides a damning indictment of the discrimination and exploitation faced by women in the Malayalam film industry.

### Grazing Corridors Demand of Dhangars

**WHO ARE THE DHANGARS?**

*The ST population in Maharashtra was estimated at around 9.35 per cent in the 2011 census, comprising 48 tribes like Bhis, Gonds, Mahadeo Kolis, Pawras, Thakars and Warlis. The Katkaris, Kolams and Madia Gonds are classified as 'primitive tribal groups'*

<p>➤ The Dhangars claim to be the descendants of the original pastoral inhabitants of Maharashtra</p>	<p>and came to denote a heterogeneous group of distinct races who were sheep-rearers</p>	<p>madhikari), however, wrote to him that he had examined a genealogy of the Holkars, which claimed that they were Rathod Kshatriyas. The marriage took place in 1924</p>
<p>➤ According to British administrator R.E. Enthoven whose The Tribes and Castes of Bombay formed a part of the Ethnographic Survey of India, the Dhangars in the Deccan and Konkan lost their original tribal signification</p>	<p>➤ King Chhatrapati Shahu of Kolhapur, a Maratha, married his cousin to Yashwantrao Holkar, the crown prince of Indore. The Holkars were Dhangars by caste</p>	<p>➤ The Maharashtra government in May approved a demand to rename Ahmednagar district as Ahilyanagar after warrior-queen Ahilyadevi Holkar of Indore</p>
<p>➤ Shahu's religious advisor Gundopant Pishwkar (Dhar-</p>		

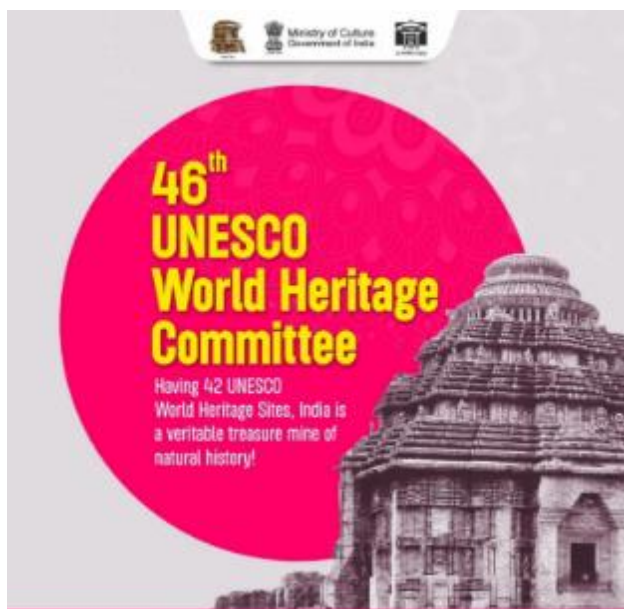
- ❖ The Dhangar community is a pastoral and nomadic tribal group in Maharashtra.
- ❖ They have intensified their efforts to reclaim traditional grazing lands due the shrinking spaces for their sheep and goats.
- ❖ They are renowned for their migratory shepherding practices and traditionally traverse vast distances to ensure the sustenance of their flocks.
- ❖ Much of their grazing land was lost in 1996 after the state government declared Dnyanganga wildlife sanctuary.
- ❖ The community seeks defined grazing corridors under the Forest Rights Act of 2006.



## PERSONALITIES, AWARDS AND EVENTS

### World Heritage Committee's 46<sup>th</sup> Session

- ❖ The 46<sup>th</sup> World Heritage Committee Session held at Bharat Mandapam in New Delhi.
- ❖ This year, UNESCO has added 25 new landmark sites to the World Heritage List during this event.
- ❖ Two major boundary modifications have also been formalised by the Committee.
- ❖ Among these, 13 new sites added including Japan's Sado Island Gold Mines, Thailand's Phu Phrabat Historical Park, South Africa's Nelson Mandela Legacy Sites for Human Rights, Liberation and Reconciliation, Italy's Via Appia and China's Beijing Central Axis amongst others.
- ❖ 19 of these sites have been inducted as Cultural Heritage Sites.
- ❖ While 4 have been inducted under the Natural category and two have been under the "Mixed" category.



### Hamas chief Ismail Haniyeh

- ❖ Top Hamas leader Ismail Haniyeh killed in attack on Iran residence.
- ❖ Haniyeh led Hamas's political operations from exile in Qatar.
- ❖ In the 1980s and 1990s, Haniyeh served several sentences in Israeli prisons.
- ❖ After Hamas's win in the 2006 legislative election, he became the Prime Minister of the Palestinian Authority government.

- ❖ However, it was short-lived as the next year he was dismissed from his position by President Mahmoud Abbas in 2007.
- ❖ Ten years later, in 2017, he was elected the head of Hamas's political wing.
- ❖ The same year, Haniyeh was named a "specially designated global terrorist" by the United States.



### Organ donation awards 2023

- ❖ The 14<sup>th</sup> Indian Organ Donation Day ceremony organized by the National Organ and Tissue Transplant Organization (NOTTO).
- ❖ Dr K Rambabu, state coordinator for Andhra Pradesh's Jeevandan programme, received the Jeevandan Award.
- ❖ ROTTO North-PGIMER, Chandigarh won the Best ROTTO Award.
- ❖ Telangana bagged the Award for Best SOTTO/State, while Tamil Nadu and Karnataka received the Award for second best SOTTO/ State.



- ❖ Manipur was conferred with Best Emerging State in North East Award.



- ❖ The states winning the Emerging States in Organ Donation Award were: 1) Andhra Pradesh 2) Madhya Pradesh, and 3) Jammu & Kashmir.
- ❖ Award for the best Non-Transplant Organ Retrieval Centres (NTORC) was received by Civil Hospital, Ahmedabad.
- ❖ Best Hospital in Private Sector with Highest Deceased Donation Award was received by Yashoda Hospital, Secundrabad.

### **Crew members for Axiom-4**

- ❖ India has shortlisted two astronaut-designates for the upcoming Axiom-4 mission to the International Space Station.
- ❖ The Indian astronauts Group Captain Shubhanshu Shukla and Group Captain Prasanth Balakrishnan Nair have been shortlisted.
- ❖ The Axiom-4 mission is the fourth private astronaut mission to the International Space Station.
- ❖ Among them, Mission Pilot Shubhanshu Shukla was finalized by Ax-4.
- ❖ The other 3 members are:
  - NASA astronaut Peggy Whitson
  - Polish Sławosz Uznański (ESA), and
  - Tibor Kapu of Hungary.



### **Yamini Krishnamurthy**

- ❖ Andhra Pradesh born Indian classical dance exponent Yamini Krishnamurthy passed away recently.
- ❖ She was a recipient of Padma Shri in 1968, Padma Bhushan in 2001 and Padma Vibhushan in 2016.
- ❖ She was also conferred the Sangeet Natak Akademi Award in 1977.

### **Rashtriya Hindi Vigyan Sammelan 2024**

- ❖ CSIR-AMPRI, Bhopal organized the "Rashtriya Hindi Vigyan Sammelan 2024".
- ❖ This was the fourth edition of the conference.
- ❖ It aims to offer a platform for researchers to present and discuss their work in Hindi, fostering the popularisation of science and technology through this language.
- ❖ Chancellor of Rabindranath Tagore University, Santosh Chaubey, was honoured with the Acharya Prafulla Chandra Ray Vigyan Samvardhan Samman for his exceptional contributions to science through Hindi literature and writing.

### **AIFF awards 2024**

- ❖ All India Football Federation (AIFF) held its annual awards after a gap of seven years.
- ❖ Lallianzuala Chhangte from Mumbai City FC has secured the AIFF Men's Player of the Year award for the second consecutive time.
- ❖ Indumathi Kathiresan became the first player from Tamil Nadu to win the AIFF Women's Player of the Year award.
- ❖ Other winners:

Category	Winner
Promising Men's Player of the Year	David Lalhlansanga
Promising Women's Player of the Year	Neha
Men's Coach of the Year	Khalid Jamil
Women's Coach of the Year	Sukla Dutta
Referee of the Year	Ramachandran Venkatesh
Assistant Referee of the Year	Ujjal Halder

### **Rashtriya Vigyan Puraskar 2024**

- ❖ The first-ever Rashtriya Vigyan Puraskar (RVP) awardees 2024 were announced recently.
- ❖ These awards honour individuals who have made distinguished contributions through impactful research, innovation, or discovery that benefits Indian communities or society.
- ❖ It was replacing the existing science awards, including the Shanti Swarup Bhatnagar Prize.

- ❖ Vigyan Ratna honours lifetime achievements and substantial contributions in any field of science and technology.
- ❖ Vigyan Shri recognizes distinguished contributions in any field of science and technology.
- ❖ Vigyan Yuva-Shanti Swarup Bhatnagar recognizes and encourages the young scientists under 45 years of age.
- ❖ This year's Vigyan Ratna was awarded to G. Padmanabhan for his work on the malaria parasites.
- ❖ Chandrayaan-3 Team was awarded with the Vigyan Team for their successful mission in 2023.
- ❖ Vigyan Shri was given to Annapurni Subramaniam, Jayant Bhalchandra Udgaonkar, Naba Kumar Mondal.
- ❖ Vigyan Yuva was awarded to Vivek Polshettiwar, Urbasi Sinha, Roxy Mathew Koll.

### **Buddhadeb Bhattacharjee**



- ❖ Buddhadeb Bhattacharjee, CPI(M) leader and former West Bengal Chief Minister, died recently.
- ❖ He served as Bengal Chief Minister from 2000 to 2011.
- ❖ Bhattacharjee made the Calcutta Book Fair a world-class event, almost single-handedly.
- ❖ Simultaneously, he established the Calcutta Film Festival.
- ❖ He gave up the membership of the party's state secretariat in 2018.
- ❖ The mortal remains were handed over to state government Medical College and Hospital for the research work.

### **Nobel Prize-Winning Physicist Tsung-Dao Lee**



- ❖ Chinese-American physicist Tsung-Dao Lee passed away recently.
- ❖ He has developed a model for studying various quantum phenomena known as the “Lee model”.
- ❖ In 1957, Prof. Lee was awarded the Nobel Prize in physics together with Chen-Ning Yang.
- ❖ He became the second-youngest scientist to receive a Nobel Prize.
- ❖ He won many other accolades including the Albert Einstein Award in Science, the Galileo Galilei Medal and the G. Bude Medal.

### **Rekha Sharma - NCW**

- ❖ National Commission for Women chief Rekha Sharma has stepped down from her role.
- ❖ Sharma has had a contentious tenure as the NCW chief for two terms and spent 9 years in total.
- ❖ She has been involved with NCW since 2015, taking on roles as a member and temporarily as chairperson before becoming chief.

### **Gandhian Shobhana Ranade**

- ❖ Renowned social worker Shobhana Ranade, who met Gandhi when she was 18, passed away recently.
- ❖ She had dedicated her life to uplifting the underprivileged, especially women and children.
- ❖ She was awarded with the Padma Bhushan in 2011.
- ❖ She played a role in setting up the Gandhi National Memorial Society (GNMS) and a National Institute for Training Women at the Aga Khan Palace in Pune in 1979.



### **T V Somanathan**

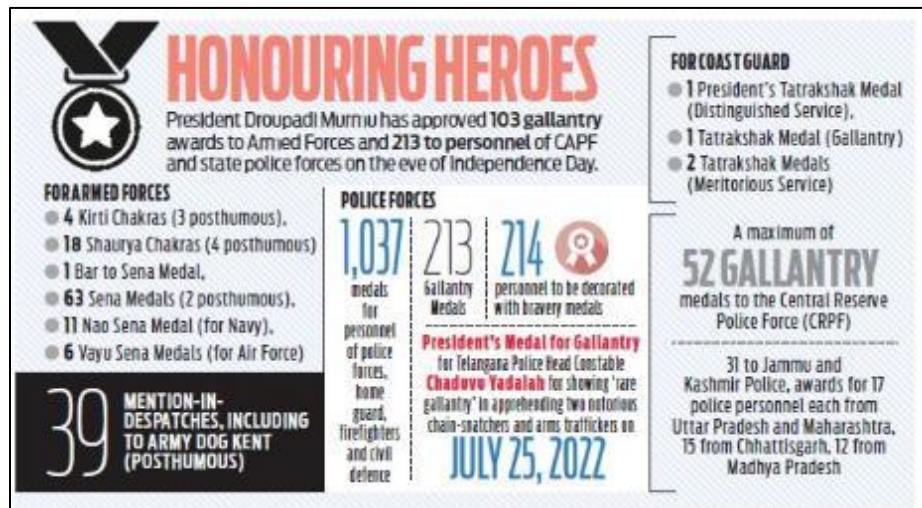
- ❖ Finance Secretary T V Somanathan was named as the new Cabinet Secretary by the government for a tenure of two years.
- ❖ He will succeed incumbent Rajiv Gauba, the longest serving Cabinet Secretary of the country.
- ❖ Till now, B D Pande has the longest tenure on the top post from November 2, 1972, to March 31, 1977.
- ❖ Somanathan will be the second finance secretary to have become the Cabinet secretary.
- ❖ The first finance secretary to have been elevated to this position was P K Kaul, in February 1985.

### **Gallantry awards 2024**

- ❖ A total of 1,037 police personnel was awarded Police Medals on the occasion of the 78th Independence Day.
- ❖ The list includes
  - One President's Medal for Gallantry,
  - 213 Police Medals for Gallantry,
  - 94 President's Police Medals for Distinguished Service, and
  - 729 Police Medals for Meritorious Service.
- ❖ The President's Medal for gallantry was given to Telangana Police Head Constable Chaduvu Yadaiah, who caught two chain snatchers despite being stabbed in 2022.



- ❖ Out of 213 Medal for Gallantry (GM), 208 GM have been awarded to Police Personnel, 31 personnel from J&K Police, 17 personnel each from Uttar Pradesh and Maharashtra, 15 personnel from Chhattisgarh, 12 from Madhya Pradesh, seven personnel each from Jharkhand, Punjab and Telangana.
- ❖ Vannia Perumal K and Abhin Dinesh Modak from Tamil Nadu were awarded President's Medals for Distinguished Service.
- ❖ Kannan N, Babu AG, Praveen Kumar Abhinapu and Feroze Khan Abdullah K from Tamil Nadu were awarded Medal for Meritorious Service.



**HONOURING HEROES**  
President Droupadi Murmu has approved 103 gallantry awards to Armed Forces and 213 to personnel of CAPF and state police forces on the eve of Independence Day.

FOR ARMED FORCES	POLICE FORCES	FOR COAST GUARD
<ul style="list-style-type: none"> <li>4 Kirti Chakras (3 posthumous).</li> <li>18 Shaurya Chakras (4 posthumous)</li> <li>1 Bar to Sena Medal.</li> <li>63 Sena Medals (2 posthumous).</li> <li>11 Nao Sena Medal (for Navy).</li> <li>6 Vayu Sena Medals (for Air Force)</li> </ul>	<p><b>1,037</b> medals for personnel of police forces, home guard, firelighters and civil defence</p> <p><b>213</b> Gallantry Medals</p> <p><b>214</b> personnel to be decorated with bravery medals</p> <p><b>President's Medal for Gallantry</b> for Telangana Police Head Constable <b>Chaduvu Yadalah</b> for showing 'rare gallantry' in apprehending two notorious chain-snatchers and arms traffickers on <b>JULY 25, 2022</b></p>	<ul style="list-style-type: none"> <li>1 President's Tatrakshak Medal (Distinguished Service).</li> <li>1 Tatrakshak Medal (Gallantry)</li> <li>2 Tatrakshak Medals (Meritorious Service)</li> </ul>

**39** MENTION-IN-DESPATCHES, INCLUDING TO ARMY DOG KENT (POSTHUMOUS)

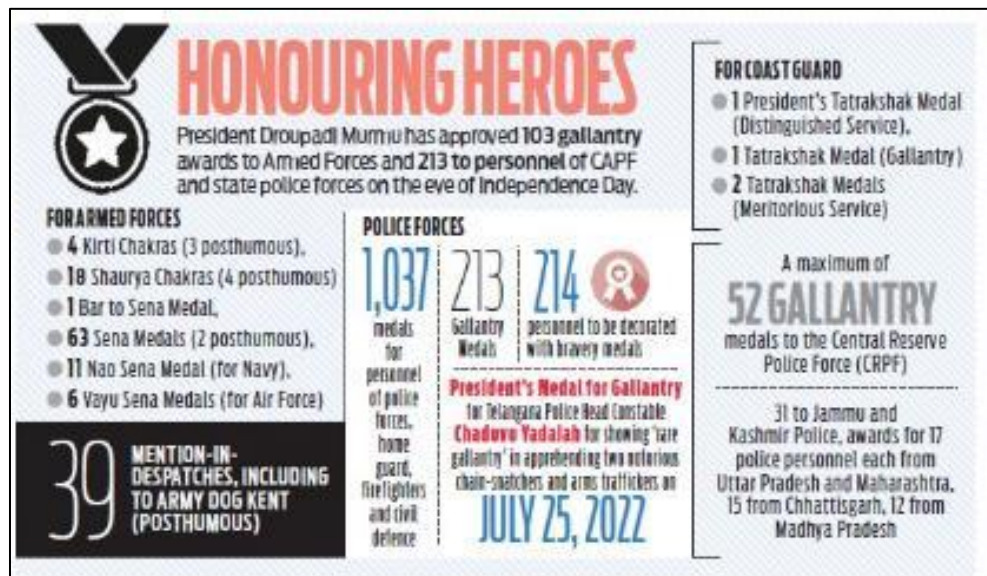
**A maximum of 52 GALLANTRY medals to the Central Reserve Police Force (CRPF)**

31 to Jammu and Kashmir Police, awards for 17 police personnel each from Uttar Pradesh and Maharashtra, 15 from Chhattisgarh, 12 from Madhya Pradesh

### Gallantry awards update - 2024

- ❖ President Droupadi Murmu has approved 103 gallantry awards for the Armed Forces and 213 for personnel of the Central Armed Police Forces and state police forces.
- ❖ In addition to these gallantry awards, a total of 1,037 awards were given, including those for distinguished and meritorious service.
- ❖ The Ministry of Defence announced the following:
  - Four kirti chakras (three posthumous),
  - 18 shaurya chakras (4 posthumous),
  - One bar to sena medal (gallantry),
  - 63 sena medals (gallantry, including two posthumous),
  - 11 nao sena medals (gallantry), and
  - Six vayu sena medals (gallantry).
- ❖ Sena medals are awarded to the Indian Army, while Nao sena and Vayu sena medals are for the Navy and Air Force.

- ❖ The President has also approved 39 mention-in-despatches, including one posthumous award to Army dog Kent, for contributions in military operations.
- ❖ Additionally, she has approved one President's tatrakshak medal (distinguished service), one tatrakshak medal (gallantry), and two tatrakshak medals (meritorious service) for Indian Coast Guard personnel.
- ❖ These honours recognise exceptional bravery and service.
- ❖ The Central Reserve Police Force (CRPF) has been conferred with a total of 52 Gallantry medals, the highest among all Central Armed Police Forces (CAPFs) and state police forces as well as five Shauryas.



### Former Foreign Minister Natwar Singh

- ❖ Former external affairs minister K Natwar Singh died recently.
- ❖ Natwar Singh was selected into the Indian Foreign Service in 1953.
- ❖ In 1984, he resigned from the service and contested the Lok Sabha elections.
- ❖ He won the election and served as a union minister of state until 1989.
- ❖ Natwar Singh again became a union minister in 2004 and resigned after 18 months.
- ❖ Between 1966 and 1971, he was India's ambassador to Pakistan.
- ❖ He had also authored several books including, 'The Legacy of Nehru: A Memorial Tribute' and 'My China Diary 1956-88'.
- ❖ His autobiography is titled 'One Life is Not Enough'.
- ❖ He was awarded the Padma Bhushan in 1984.



## 70<sup>th</sup> National Film Awards

Complete List of Winners: 70th National Film Awards 2024	
<p><b>Best Feature Film:</b> Aattam</p> <p><b>Best Actor:</b> Rishab Shetty</p> <p><b>Best Actress:</b> Nithya Menen and Manasi Parekh</p> <p><b>Best Director:</b> Sooraj Barjatya</p> <p><b>Best Supporting Actress:</b> Neena Gupta</p> <p><b>Best Supporting Actor:</b> Pawan Malhotra</p> <p><b>Best Feature Film Providing Wholesome Entertainment:</b> Kantara</p> <p><b>Best Debut:</b> Pouja, Pramod Kumar</p> <p><b>Regional Film Awards:</b></p> <p><b>Best Telugu Film:</b> Kartikeya 2</p> <p><b>Best Tamil Film:</b> Ponniyin Selvan – Part 1</p> <p><b>Best Punjabi Film:</b> Baaghi Dil Dhee</p> <p><b>Best Odia Film:</b> Daman</p> <p><b>Best Malayalam Film:</b> Saudi Velakka CG 225/2009</p> <p><b>Best Marathi Film:</b> Vaalvi</p> <p><b>Best Kannada Film:</b> KGF: Chapter 2</p> <p><b>Best Hindi Film:</b> Gulmohar</p>	<p><b>Special Mentions:</b></p> <p>Manoj Bajpayee: Gulmohar</p> <p>Sanjay Salil Chowdhury: Kalikhan</p> <p><b>Technical Awards:</b></p> <p><b>Best Action Direction:</b> KGF: Chapter 2</p> <p><b>Best Choreography:</b> Thiruchitrabalam</p> <p><b>Best Lyrics:</b> Pouja</p> <p><b>Best Music Director:</b> Pritam (Songs), AR Rahman (Background Score)</p> <p><b>Best Makeup:</b> Aparajito</p> <p><b>Best Costumes:</b> Kutich Express</p> <p><b>Best Production Design:</b> Aparajito</p> <p><b>Best Editing:</b> Aattam</p> <p><b>Best Sound Design:</b> Ponniyin Selvan – Part 1</p> <p><b>Best Screenplay:</b> Aattam</p> <p><b>Best Dialogues:</b> Gulmohar</p> <p><b>Best Cinematography:</b> Ponniyin Selvan – Part 1</p> <p><b>Best Female Playback:</b> Saudi Velakka</p> <p><b>Best Male Playback:</b> Brahmastara</p>

- ❖ Feature and non-feature films certified by the Central Board of Film Certification (CBFC) between January 1, 2022, and December 31, 2022, were eligible for contention.
- ❖ The Malayalam-language drama Aattam won the Best Feature Film award.
- ❖ Rishab Shetty won the Best Actor award for Kantara.
- ❖ The Best Actress honour was shared by Nithya Menen (Thiruchitrabalam) and Manasi Parekh.
- ❖ Ponniyin Selvan - Part1 won the most (4) awards - Best Tamil Film, Best Sound Design, Best Cinematography and Best Music Director (Background Music).
- ❖ Best Music Director award was given to Pritam (Songs), AR Rahman (Background Score).
- ❖ This is the 7<sup>th</sup> National Film Awards for AR Rahman.

## **Father of Agni missiles**

### **Renowned DRDO scientist Ram Narain Agarwal, Father of Agni Missiles, passes away**



- ❖ Ram Narain Agarwal, regarded as the 'father of Agni missiles' in India, died recently at Hyderabad.
- ❖ He had served as the Agni programme director and also as the director of ASL (Advanced Systems Laboratory) in Hyderabad.
- ❖ He led India's Agni missile programme from its inception in 1983 until his retirement in 2005.
- ❖ The Centre conferred him with Padma Shri in the year 1990 and Padma Bhushan in 2000.
- ❖ The Agni missile is the most ambitious of the five missiles sought to be developed under the Integrated Guided Missile Development Programme launched by the Union government in 1983.
- ❖ The others were Prithvi, Akash, Nag, and Trishul.

## **World Airline Awards 2024**

- ❖ Qatar Airways has reclaimed the top spot, earning the coveted title of the world's best airline in 2024.
- ❖ It was replacing Singapore Airlines, and pushing it to the second position, while Emirates secured third rank.
- ❖ India's Vistara – globally ranked 16th – has emerged as the best airline in India and South Asia for 2024.
- ❖ India has become the third-largest domestic airline market globally, with its capacity doubling from 7.9 million in 2014 to 15.5 million in April 2024.



Rank 2024	Airline Name	Global Hub	Rank 2023
1	Qatar Airways	Qatar	2
2	Singapore Airlines	Singapore	1
3	Emirates	UAE (Dubai)	4
4	ANA All Nippon Airways	Japan	3
5	Cathay Pacific Airways	Hong Kong	8
6	Japan Airlines	Japan	5
7	Turkish Airlines	Turkey	6
8	EVA Air	Taiwan	9
9	Air France	France	7
10	Swiss International Air Lines	Switzerland	12

## Leonard Hayflick

**02 HAYFLICK LIMIT DIAGRAM**

- Definition:** The **Hayflick limit** refers to the maximum number of times a normal somatic (non-reproductive) cell can divide before cell division stops.
- Discovery:** Identified by **Leonard Hayflick** in the early 1960s at the University of Pennsylvania.
- Cell Division Cap:** Human cells typically divide **40-60 times** before entering senescence.
- Aging Mechanism:** The accumulation of senescent cells contributes to the aging process in organisms.




**03 LIFESPAN IMPLICATIONS AND FUTURE RESEARCH**

**TELOMERES AND CELL DIVISION**

- Human Lifespan:** The ultimate Hayflick limit for humans is estimated to be around **125 years**.
- Beyond Limits:** No amount of diet, exercise, or genetic modification can extend life beyond this limit.
- The Role of Telomeres:** Telomeres are protective caps at the ends of chromosomes that shorten with each cell division. When telomeres reach a critical length, they signal the cell to stop dividing, contributing to aging.
- Future Research Directions:** Ongoing studies aim to explore the mechanisms behind the Hayflick limit and its implications for health and longevity. Researchers are investigating ways to mitigate the effects of cellular senescence and extend healthy lifespan.




- ❖ Biomedical researcher Leonard Hayflick passed away recently.
- ❖ He has discovered that normal somatic cells can divide (and thus reproduce) only a certain number of times.
- ❖ He has discovered that cell division in somatic (non-reproductive) cells stopped after roughly 40-60 times.
- ❖ This means that there is an in-built cellular clock in the human body (and that of other organisms) which determines how long one can live.
- ❖ This “ultimate Hayflick limit”, is around 125 years for humans, beyond which no amount of diet, exercise, or even genetic tweaking against diseases can extend the human lifespan.



## 24th Handicrafts Export Awards

- ❖ The Export Promotion Council for Handicrafts (EPCH) had organised its 24<sup>th</sup> Handicrafts Export Awards event.
- ❖ A total of 123 awards were conferred upon 62 winners of the year 2019-20 and to 61 winners of the year 2020-21.
- ❖ Also, one Lifetime Achievement Award was bestowed.
- ❖ The Awards, instituted in 1989, are presented across four broad categories:
  - The Top Export Award,
  - Platinum Performer Certificate,
  - Product Group-wise Awards,
  - Woman Entrepreneur Award,
  - Regional Awards.
- ❖ Muzafar Hussain from Jammu and Kashmir won the Lifetime Achievement Award.

## National Geoscience Awards – 2023

- ❖ The National Geoscience Awards (NGA) are prestigious awards instituted by the Ministry of Mines.
- ❖ It aims to recognize and celebrate extraordinary achievements and contributions in the field of geosciences.
- ❖ The awards for 2023 presented to 21 Geoscientists by the President of India.
- ❖ It consists of 12 awards which include 9 individual awards and 3 team awards.
- ❖ The National Geoscience Award for Lifetime Achievement 2023 was bestowed upon Prof. Dhiraj Mohan Banerjee.
- ❖ National Young Geoscientist Award 2023 was presented to Dr. Ashutosh Pandey.



## **Policy Makers' Forum' Summit**

- ❖ The First Policy Makers' Forum was held in New Delhi.
- ❖ During the event, the Indian Pharmacopoeia Online Portal and the Adverse Drug Reaction Monitoring System (ADRMS) software were released.
- ❖ They aim to digitize healthcare standards and improve the safety of medicines.
- ❖ Pharmacopoeia Portal is a new digital resource that makes drug standards easier to access for everyone, both in India and worldwide.
- ❖ The ADRMS will help to keep track of any problems people might have with medicines and medical devices.
- ❖ It's the first system of its kind in the country and allows both regular people and healthcare workers to report issues directly.



## SPORTS

### **Olympics 2024: Greenest Games Ever**



- ❖ Paris 2024 Olympics aims to hold the most eco-friendly Games ever.
- ❖ The organising committee has committed to reduce the event's carbon emissions by 50 per cent.
- ❖ It was lowering them from around 3.5 million tonnes at Tokyo 2020, Rio 2016, and London 2012, to 1.75 million tonnes for the upcoming Games.
- ❖ It completely relies on renewable energy sources, including geothermal and solar power.
- ❖ All Olympic venues are conveniently reachable via public transportation.
- ❖ The city has created 1,000 km of exclusive bicycle lanes and will offer 3,000 rentable bikes throughout the Games.
- ❖ It advocates for plant-based, locally-sourced, and sustainable food options.
- ❖ Paris is using the existing structures or temporary setups for 95 per cent of its Olympic events.

### **Vinesh Phogat disqualification**

- ❖ The Indian wrestler Vinesh Phogat was disqualified before the women's 50kg freestyle final at the Paris Olympics after failing to make weight.
- ❖ The disqualification means Phogat will not receive a medal.
- ❖ In the event of a disqualification of a finalist, no silver medal is awarded and the gold goes to the other finalist.

- ❖ Vinesh had scripted history by becoming the first Indian woman wrestler to reach the gold medal bout.
- ❖ Vinesh was found to be 100 grams over the weight limit during the morning weigh-in.
- ❖ As per the United World Wrestling's rule book's Article 11, "If an athlete does not attend or fail the weigh-in, he/she will be eliminated of the competition and ranked last, without rank."

### 100g too heavy

What the rules say on weigh-in and Vinesh's disqualification



Vinesh before the weigh-in.

- For each weight class, bouts are held over a two-day span
- Weigh-ins take place in the morning for wrestlers competing that day
- A wrestler who enters the final or repechage has to weigh-in on both days
- During the first weigh-in, wrestlers will have 30 minutes to make weight
- For the second weigh-in, the window is 15 minutes
- Wrestlers can get on the scale as many times as they wish
- Contestants are weighed with their singlets and nothing else
- Two kg weight tolerance is allowed for World Cup and other International tournaments
- However, Olympics follow a strict weight restriction
- Vinesh was 49.9kg on Tuesday morning and fought three bouts over the course of the day
- She registered a weight of 52.7kg after the semifinal
- On Wednesday morning, Vinesh weighed 50.1kg
- Despite last-ditch efforts from her coaches and support staff, Vinesh could not shave off the 100g

### Neeraj Chopra – Olympics 2024

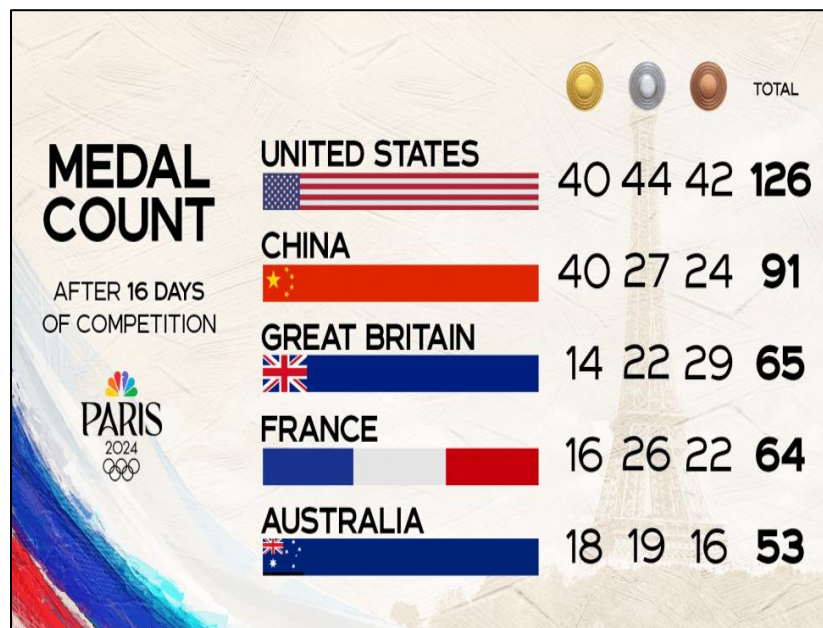
- ❖ Neeraj Chopra of Haryana won the silver medal in the men's javelin throw competition at the Paris 2024 Olympics.
- ❖ He became the first track-and-field athlete from India to win medals in the consecutive Olympics.
- ❖ Pakistan's Arshad Nadeem won the gold medal with an Olympic record-shattering 92.97m throw.

### Paris Olympics 2024 medal tally

- ❖ The U.S. and China will share the title for most golds in 2024 with 40 gold medals each.
- ❖ The U.S. won the total medal count with 126 (40 gold, 44 silver, and 42 bronze).



- ❖ China came in second in the total medal race with 91 (40 gold, 27 silver, and 24 bronze).
- ❖ India, with a total of 6 medals, including one silver and five bronze medals, got the 71st spot in the overall medal tally.
- ❖ It is lower than their 48th overall finish at the 2020 Tokyo Olympics with 7 medals, including one gold, two silver, and four bronze medals.
- ❖ This year's winners
  - Manu Bhaker - Bronze
  - Manu Bhaker and Sarabjot Singh – Bronze
  - Swapnil Kusale – Bronze
  - Indian hockey team – Bronze
  - Neeraj Chopra – Silver
  - Aman Sehrawat - Bronze





## IMPORTANT DAYS

### World Wide Web Day 2024 - August 01

- ❖ This day celebrates the creation of the World Wide Web (WWW) by the English scientist Tim Berners-Lee.
- ❖ He created it in 1989 while employed by the European Organisation for Nuclear Research (CERN).
- ❖ On August 6, 1991, info.cern.ch, the first website ever, went live.



### National Mountain Climbing Day 2024 - August 01

- ❖ It was initiated to honour Bobby Matthews and his companion Josh Madigan for successfully scaling all 46 peaks of the Adirondack Mountains, New York.
- ❖ In 1965, Lt Col Avatar. S. Cheema became the first Indian to climb Mount Everest.
- ❖ In 1984, Bachendri Pal became the first Indian woman to climb Mount Everest.

### World Breastfeeding Week - August 01 to 07

- ❖ It is celebrated to highlight the importance of nursing for a baby to ensure the best nutrition and overall health.
- ❖ This day promotes supportive policies that empower mothers, educate families, and increase awareness.

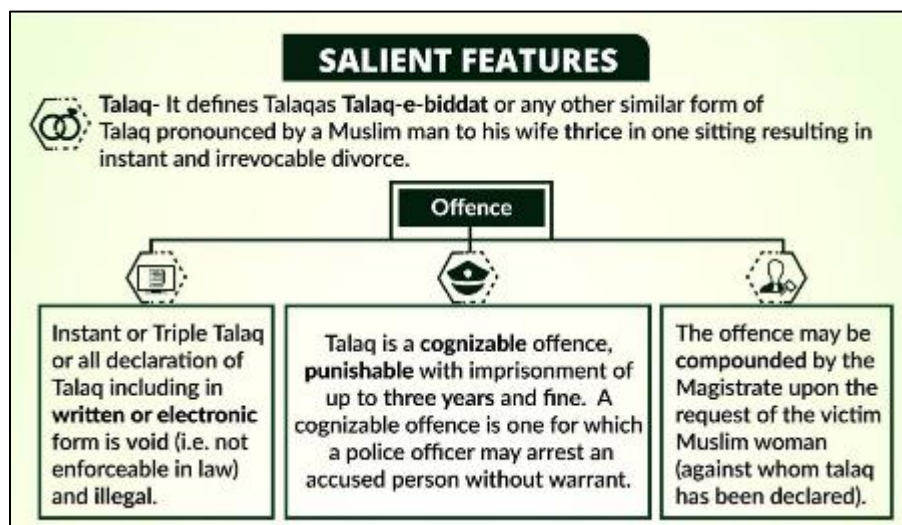
- ❖ This is a commemoration of the 1990 Innocenti Declaration.
- ❖ This year's theme is "Closing the gap: Breastfeeding support for all."

### World Lung Cancer Day 2024 - August 01

- ❖ It aims to raise awareness about lung cancer and its impact on individuals and communities worldwide.
- ❖ The day aims to educate the public about the risks, symptoms, and treatments of lung cancer, and to support those affected by the disease.
- ❖ Theme for this year is "Close the Care Gap: Everyone Deserves Access to Cancer Care".

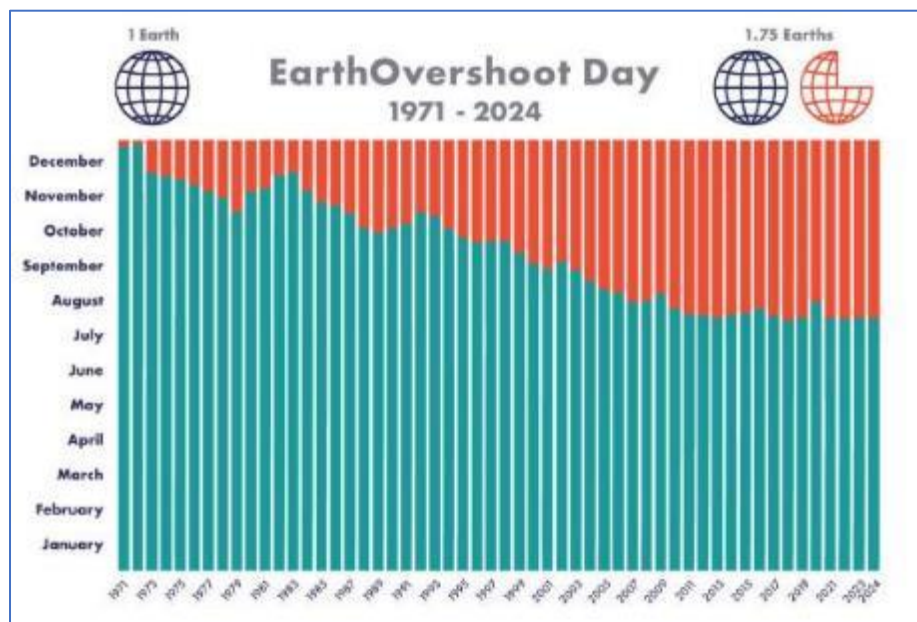


### Muslim Women rights Day 2024 - August 01



- ❖ The day commemorates the adoption of the law prohibiting triple talaq, which took effect on August 1, 2019.
- ❖ It was commemorated for the first time in 2021.
- ❖ It was the case of Shayara Bano vs Union of India that laid the foundation stones for this law.
- ❖ Talaq-e-biddat, also referred to as triple talaq, is a method of immediate divorce that permits a Muslim man to end his marriage by uttering the word “talaq” thrice in any manner.

### Earth Overshoot Day 2024 - August 01



- ❖ This day is calculated by Global Footprint Network.
- ❖ This day marks the date when humanity’s demand for ecological resources and services in a given year exceeds what Earth’s ecosystems can regenerate in that year.
- ❖ Humanity is currently using nature 1.7 times faster than our planet’s ecosystems can regenerate.

### 14th Indian Organ Donation Day 2024 - August 03

- ❖ It is observed to increase awareness about organ donation amongst the people.
- ❖ The Indian Organ Donation Day has been observed since 2010 in the country.
- ❖ Earlier, this day used to be observed every year on 27 November.

- ❖ From 2023 onwards, it is observed on 3rd August.
- ❖ On this day in 1994, the first successful deceased donor heart transplant was conducted in India.
- ❖ On 8th July 1994, the Transplantation of Human Organs Act 1994 was enacted in India.
- ❖ The Union Ministry of Health and Family Welfare has declared July as the month of organ donation in the country.



### **10th National Handloom Day 2024 - August 03**

- ❖ It aims to recognise the efforts and skills of the community of weavers engaged in this sector.
- ❖ On this day in 1905, the Swadeshi movement launched to encourage Indigenous industries and in particular handloom weavers.
- ❖ In 2015, the Centre decided to observe this day every year.
- ❖ The 15-day long exhibition – 'VIRAASAT' -- has been organised to mark the 10th National Handloom Day this year.

### **National Bone and Joint Day 2024 - August 04**

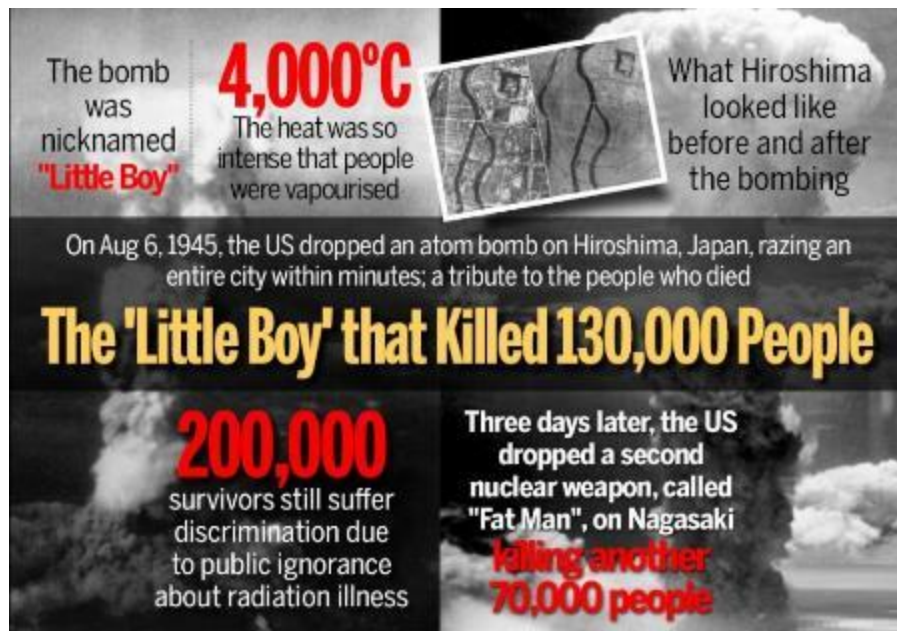




- ❖ It aims to raising awareness about bone and joint health.
- ❖ It was initiated by the Indian Orthopaedic Association (IOA) in 2021.
- ❖ The day emphasises mobility and bone strength, and the crucial role bones and joints play in maintaining an active and healthy lifestyle.

### **Hiroshima Day 2024 - August 06**

- ❖ This year, the world is commemorating the 79<sup>th</sup> anniversary of the day.
- ❖ It observes the tragic anniversary of the atomic bombing of Hiroshima, Japan, by the United States during World War II in 1945.
- ❖ The bombing, conducted by the B-29 bomber, nicknamed “Little Boy,” exploded approximately 600 meters above Hiroshima.
- ❖ The explosion resulted in the deaths of an estimated 140,000 people.



### **National Javelin Day 2024 - August 07**

- ❖ The Athletics Federation of India designated this date to honour Neeraj Chopra's historic gold medal win in the javelin throw at the Tokyo Olympics.
- ❖ This celebration recognises his achievement and promotes the sport of javelin throwing across the nation.
- ❖ On August 7, 2021, Neeraj Chopra made history by throwing the javelin 87.58 meters in the men's Javelin Throw final at the Tokyo Olympics.



- ❖ This victory marked India's first-ever gold medal in track and field events at the Olympics.



### **Nagasaki Day 2024 - August 09**

- ❖ On August 9, 1945, the U.S. dropped a second atomic bomb, "Fat Man," on Nagasaki.
- ❖ This event led to Japan's surrender on August 15, 1945, effectively ending the World War II.
- ❖ This day aims to remember the victims and promote the peace and nuclear disarmament.
- ❖ It was serving as a crucial educational opportunity to raise awareness about the devastating consequences of nuclear warfare.



### **August Kranti Day 2024 - August 08**



- ❖ August Kranti Day, or Quit India Movement Day, commemorates the historic launch of the Quit India Movement on August 8, 1942.
- ❖ On August 8, 1942, during the All-India Congress Committee session in Bombay, the Quit India Resolution was adopted.
- ❖ It resulted in the deaths of at least 1,000 Indians, as well as the arrests of about 60,000 by the end of 1943.
- ❖ By March 1943 the Quit India Movement was definitively over.
- ❖ In 2024, as India celebrates the 82nd anniversary of the Quit India Movement.

### **International Day of World's Indigenous People 2024 - August 09**

- ❖ The day is intended to raise awareness about the needs of indigenous peoples.
- ❖ It also gives Indigenous peoples the opportunity to communicate their thoughts and issues on a worldwide scale.
- ❖ The United Nations General Assembly (UNGA) declared this special day in 1994.
- ❖ This year's theme is "Protecting the Rights of Indigenous Peoples in Voluntary Isolation and Initial Contact".

### **World Lion Day 2024 - August 10**

- ❖ It aims to increase public knowledge of wild lion conservation and protection.
- ❖ World Lion Day was first established in 2013 by Big Cat Rescue.

- ❖ The total population of wild lions in Africa could be around 20,000 and 25,000 individuals in 2023.
- ❖ In 2015, there were an estimated 523 lions in the Gir Forest, but this number increased to 674 in 2020.
- ❖ As per IUCN Red list, Asiatic Lion is Endangered and African Lion is Vulnerable.



### **World Steelpan Day 2024 - August 11**

- ❖ This day presents a chance to set ambitious goals for expanding the steelpan worldwide while honouring its Caribbean heritage.
- ❖ Steelpan is an extraordinary musical creation that emerged from the heart of Trinidad and Tobago.
- ❖ The theme of 2024 is “From Roots to Recognition: Steelpan’s Journey to Global Acclaim”.

### **ICoAS Foundation Day 2024 - August 09**

- ❖ The Indian Cost Accounts Service (ICoAS) celebrated its Foundation Day with the theme ‘ICoAS @ Viksit Bharat’.
- ❖ T. V. Somanathan has released an e-Book titled ‘Indian Cost Accounts Service: An Overview’, detailing ICoAS achievements.



### **World Biofuel Day 2024 - August 10**

- ❖ The day commemorates the successful operation of an engine on peanut oil by German engineer Sir Rudolf Diesel on August 9, 1893.
- ❖ It aims to highlight the importance of biofuels in reducing greenhouse gas emissions, promoting energy security, and supporting rural development.
- ❖ Biofuel are the fuel derived from the biomass of plants or animal wastes.
- ❖ The theme for 2024 is “Sustainable Biofuels: Fuelling a Greener Future.”

### **World Elephant Day 2024 - August 12**

- ❖ This annual event was dedicated to raise the awareness about the plight of the elephants and advocating for their conservation.
- ❖ Patricia Sims of Canada and the Elephant Reintroduction Foundation of Thailand joined and established this day on August 12, 2012.
- ❖ The theme of 2024 is “Personifying Prehistoric Beauty, Theological Relevance, and Environmental Importance.”

### **International Youth Day 2024 - August 12**

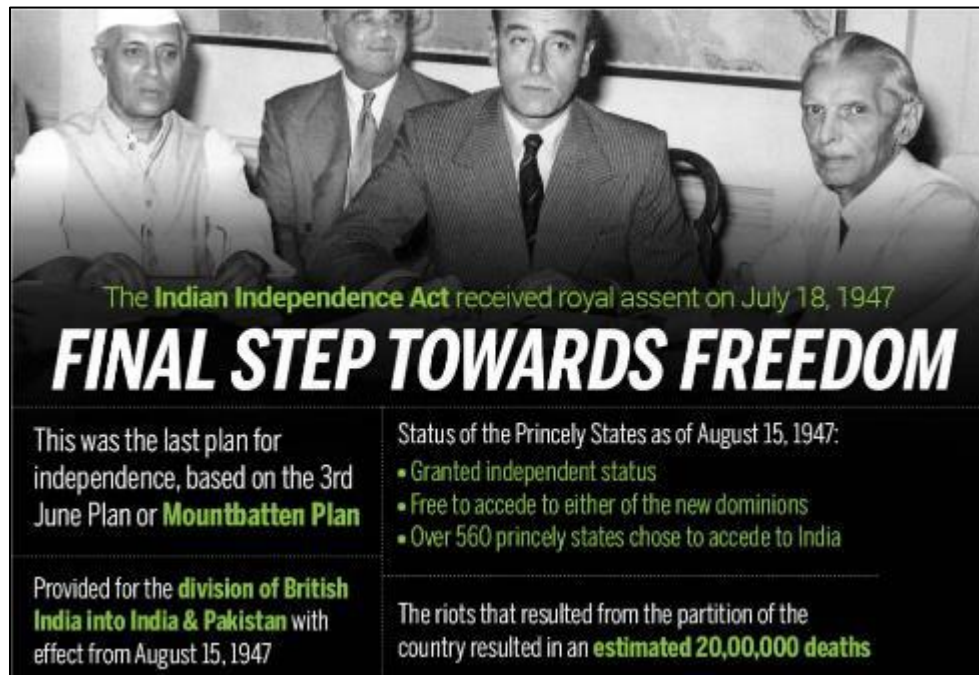
- ❖ The United Nations has declared in 1999 that August 12 would be the annual International Youth Day.
- ❖ It was based on a suggestion to the UN General Assembly made by the World Conference of Ministers Responsible for Youth in Lisbon on December 17, 1999.
- ❖ It was first celebrated on August 12, 2000.
- ❖ The theme of this year is 'From Clicks to Progress: Youth Digital Pathways for Sustainable Development'.

### **Partition Horrors Remembrance Day 2024 - August 14**

- ❖ It aims to pay tribute to those who lost their lives and were displaced during the country's partition in 1947.
- ❖ At a press conference on 3 June 1947, Lord Mountbatten announced the date of independence – 14 August 1947.
- ❖ On 18 July 1947, the British Parliament passed the Indian Independence Act that finalized the arrangements for partition and abandoned British suzerainty over the princely states.
- ❖ During the migration riots erupted between Sikhs - Muslims – Hindus.



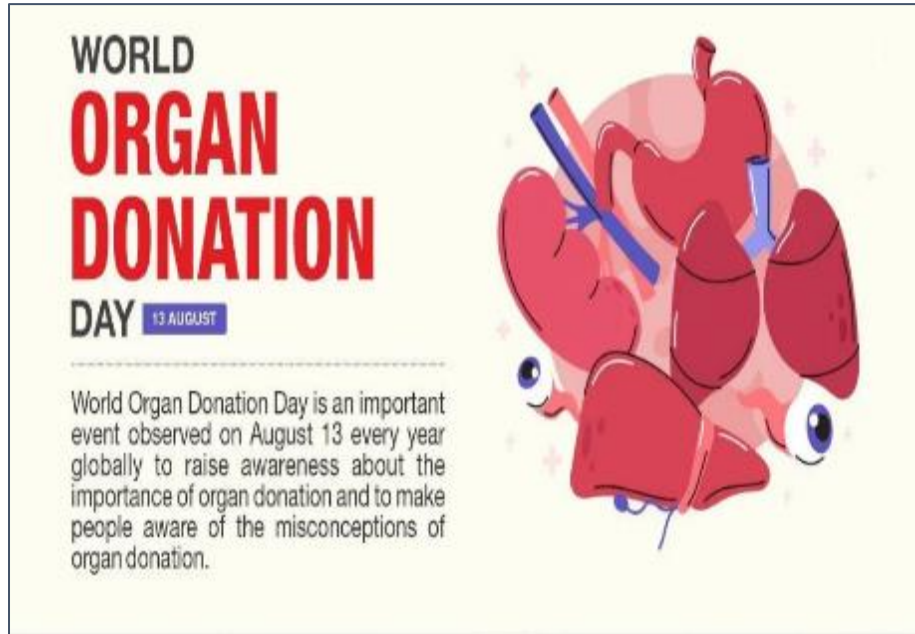
- ❖ Total migration across Punjab during the partition was estimated at 12 million people.
- ❖ Total migration across Bengal during the partition was estimated at 3.3 million.
- ❖ According to the 1951 Census of India, 2% of India's population were refugees (1.3% from West Pakistan and 0.7% from East Pakistan).
- ❖ Around 1.3 million Muslims who left western India but did not reach Pakistan.
- ❖ The corresponding number of missing Hindus/Sikhs along the western border is estimated to be approximately 0.8 million.



### **World Organ Donation Day 2024 - August 13**

- ❖ It aims to raise awareness about the importance of organ donation and encourage individuals to consider becoming donors.
- ❖ As per UNOS, about 1,03,993 people need a lifesaving organ transplant.
- ❖ Ronald Lee Herrick was the first person to donate his organ.
- ❖ In 1954, he donated his kidney to his twin brother, and Dr Joseph Murray was the doctor who carried out this successful organ transplantation process.
- ❖ This year's slogan is "Be the Reason for Someone's Smile Today!".



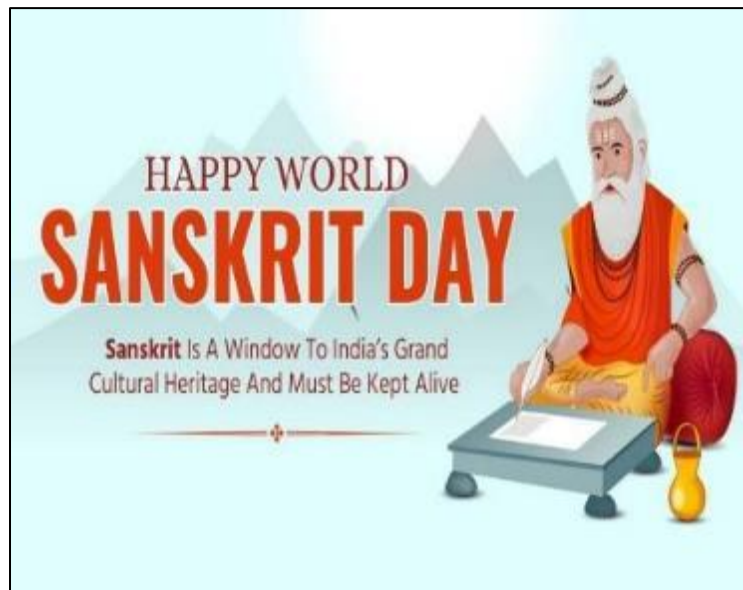


### **World Humanitarian Day 2024 - August 19**

- ❖ It aims to honour humanitarian workers who risk their lives to provide aid and assistance to people in need.
- ❖ The day is observed to commemorate the 2003 bombing of the United Nations headquarters in Baghdad, Iraq, which killed 22 people.
- ❖ The day is also an occasion to raise awareness of global humanitarian efforts.
- ❖ This day encourage the global action to support those affected by crises, such as natural disasters, conflicts and other emergencies.
- ❖ The theme for 2024 is Act for Humanity.

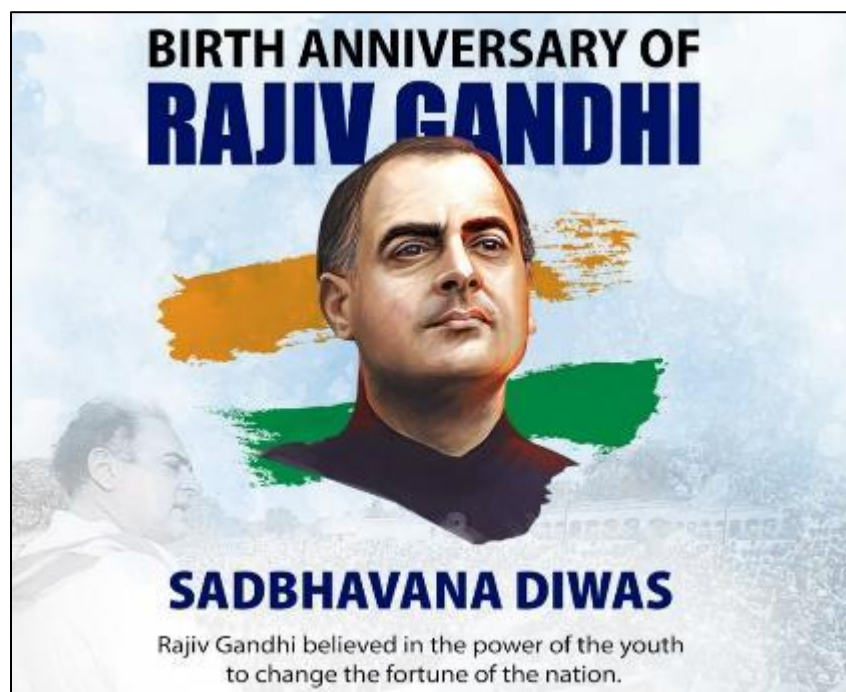
### **World Sanskrit Day 2024 - August 19**

- ❖ In 1969, the Government of India declared this Day to commemorate the 2500th anniversary of the birth of Pāṇini, a Sanskrit grammarian.
- ❖ In 2019, UNESCO declared this day as the International Day.
- ❖ Pāṇini is considered the father of Sanskrit grammar.
- ❖ His work, the Ashtadhyayi, is a comprehensive treatise on Sanskrit grammar that is still used today.
- ❖ The theme of 2024 is 'Vedic Heritage and Tradition'.

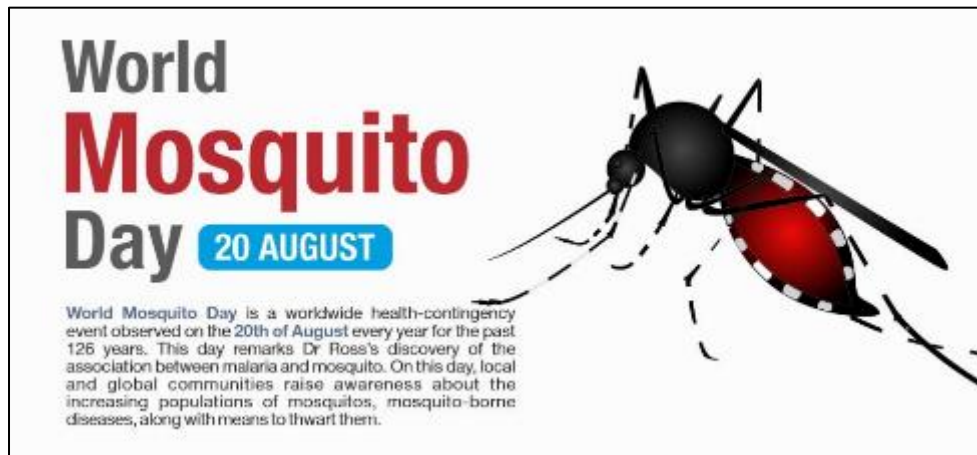


### **Harmony Day or Sadbhavana Diwas – August 20**

- ❖ This day is dedicated to promoting the peace, harmony, and goodwill among all citizens of India.
- ❖ It commemorates the youngest Prime Minister, Rajiv Gandhi's birth anniversary.
- ❖ He was known for his forward-thinking and modern approach to governance.
- ❖ He served as the sixth Prime Minister of India from 1984 to 1991.



## **World Mosquito Day 2024 - August 20**



- ❖ This day aims to raise the awareness about the various diseases mosquitoes can transmit, such as malaria, yellow fever, dengue, and chikungunya.
- ❖ On August 20, 1897, Sir Ronald Ross made a groundbreaking discovery when he found the malaria parasite in the stomach of a female Anopheles mosquito.
- ❖ The theme for 2024 will be "Accelerating the fight against malaria for a more equitable world".

## **World Senior citizen Day 2024 - August 21**

- ❖ It aims to acknowledge the contributions of senior citizens and to raise awareness about the issues they face globally.
- ❖ The celebration took place for the first time in 1991.
- ❖ It was officially founded by the former President of the United States of America, Ronald Reagan.
- ❖ India's elderly population is expected to reach 193.4 million by 2031.

## **National Space Day 2024 - August 23**

- ❖ India celebrated its first National Space Day on August 23, 2024.
- ❖ It was commemorating the one-year anniversary of the successful landing of Chandrayaan-3 on the lunar surface.
- ❖ On this day ISRO achieved a successful landing of the Vikram Lander on the moon.
- ❖ This mission made India the fourth country to land on the moon and the first to land near the southern polar region.

- ❖ The theme of 2024 is “Touching Lives while Touching the Moon: India’s Space Saga”.



### **International Day for the Remembrance of the Slave Trade and its Abolition 2024 - August 23**

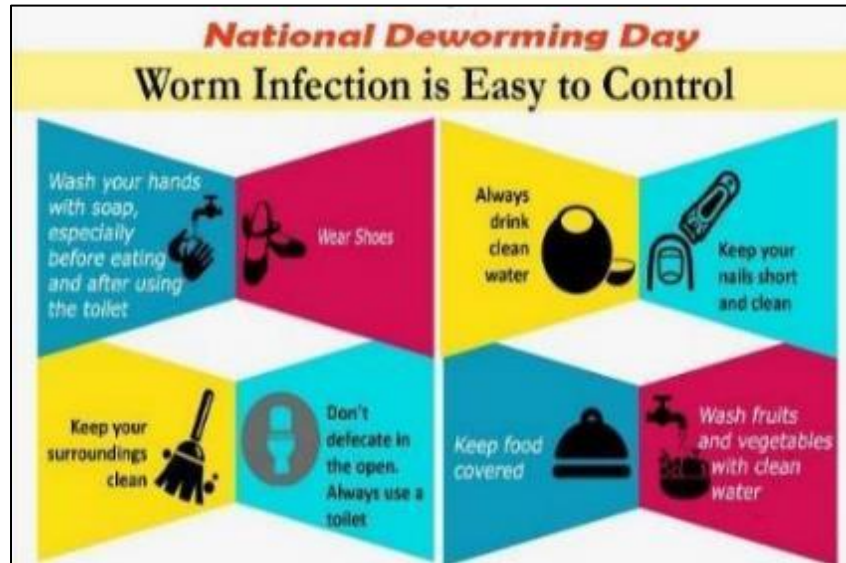
- ❖ This day was intended to inscribe the tragedy of the slave trade in the memory of all peoples.
- ❖ It was first celebrated in a number of countries, in particular in Haiti (1998) and Gorée Island in Senegal (1999).
- ❖ But the international recognition for this day was set up by UNESCO in 2016.
- ❖ The Slavery Abolition Act 1833 was passed by the British Parliament and received royal assent on August 1, 1834.
- ❖ Roughly 12 million slaves were shipped between 1500-1800.
- ❖ By 1804, Haiti became the first slavery-free country in the world.

### **National Deworming Day 2024 - August 23**

- ❖ This day was established in February 2015.
- ❖ It aims to deworm all children (both enrolled and unenrolled) from 1 to 19 years of age.
- ❖ As many as 22 crore children in the age bar between 1 to 14 are estimated to be at risk of worm infections.



- ❖ The theme of this year's programme is 'Eliminate STH: Invest in a healthier future for children'.
- ❖ This day was organised twice a year in February and August.



## National Sports Day 2024 - August 23



INDIA'S TALLY IN THE 3 OLYMPICS

**DHYAN CHAND** PLAYED

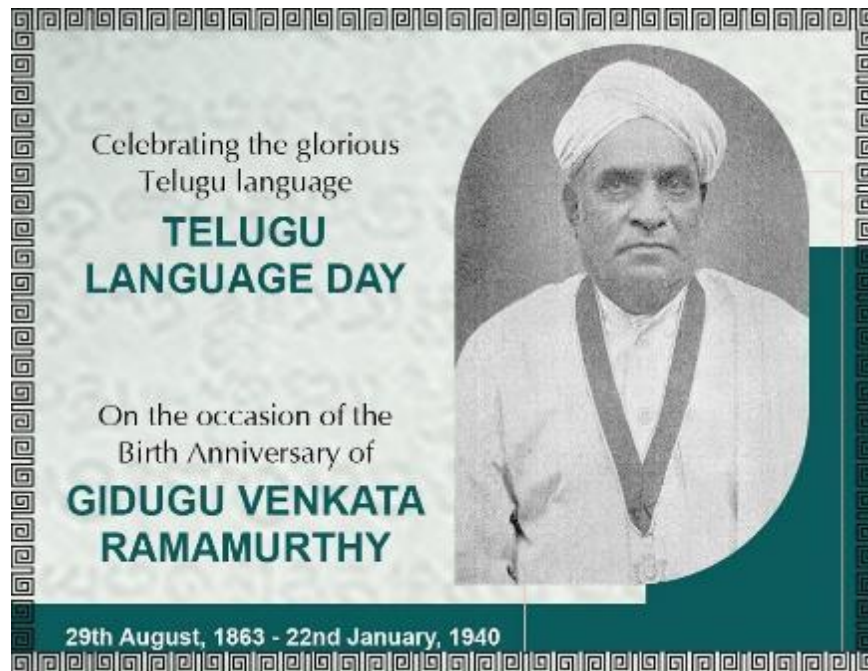
1928	1932	1936
Austria 6-0	Japan 11-1	Hungary 4-0
Belgium 9-0	USA 24-1	USA 7-0
Denmark 5-0		Japan 9-0
Switzerland 6-0		France 10-0
Netherlands 3-0		Germany 8-1

- ❖ It was first celebrated in 2012.
- ❖ This day honors the Major Dhyan Chand's contributions to Indian hockey on his birth anniversary.
- ❖ He is credited with leading India to three consecutive Olympic gold medals in 1928, 1932, and 1936.
- ❖ He represented India in 185 matches and scoring over 400 goals.
- ❖ To honour his contribution, India's highest sporting award, the Rajiv Gandhi Khel Ratna Award, was renamed the Major Dhyan Chand Khel Ratna Award in 2021.



### **Telugu Language Day 2024 - August 29**

- ❖ It aims to celebrate the beauty, diversity, and significance of the language.
- ❖ This date coincides with the birthday of the renowned Telugu poet, Gidugu Venkata Ramamurthy.
- ❖ Telugu is the fourth most spoken language in India, with 8.11 crore speakers, which is 6.7% of the total population of India.
- ❖ Telugu is one of the six classical languages in India.
- ❖ The language is known as the “The Italian of the EAST”.



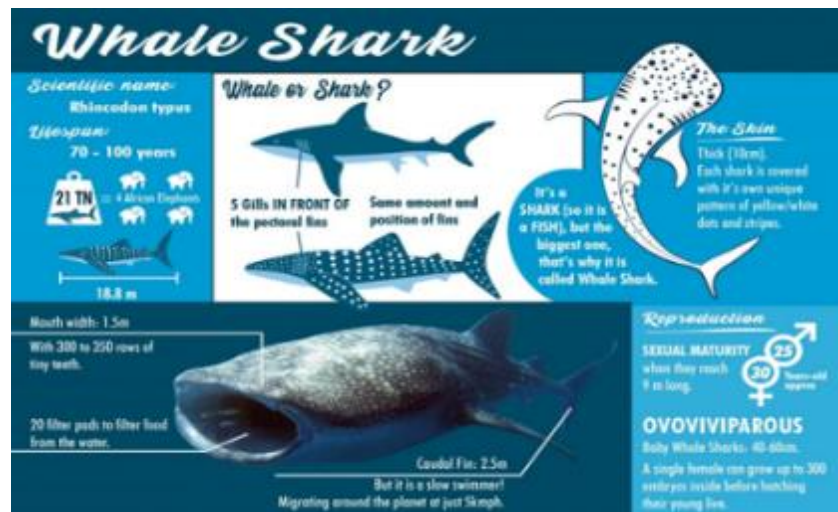
### **International Day against Nuclear Tests 2024 - August 29**

- ❖ The main aim of observing this day is to increase awareness about the impacts of nuclear tests and nuclear explosions.
- ❖ It also aims to increase awareness about a nuclear-weapon-free world.
- ❖ The U.S.A. is the only country to have used nuclear weapons.
- ❖ This day commemorates the closure of the Semipalatinsk Nuclear Tests site in 1991.

### **International Whale Shark Day 2024 - August 30**

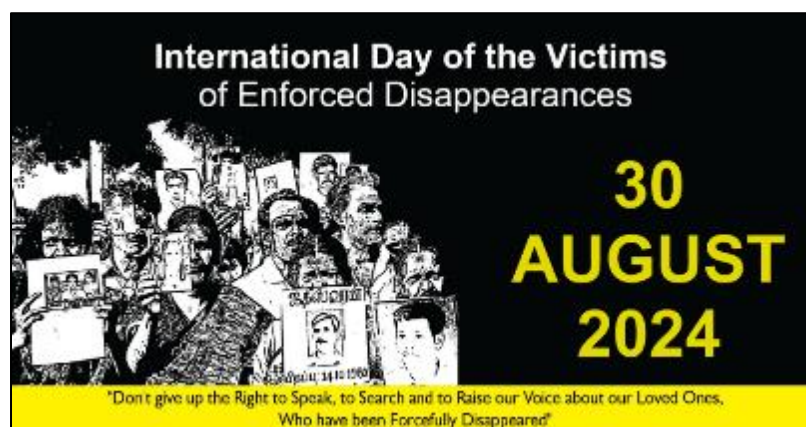
- ❖ This day aims to raise awareness about the plight of whale sharks, the largest fish in the world.

- ❖ The whale shark (*Rhincodon typus*) is the largest fish on Earth and a keystone species in marine ecosystems.
- ❖ It can grow to a length of approximately 18 metres and weigh as much as 21 tonnes.
- ❖ It is listed as Endangered in International Union for Conservation of Nature (IUCN) Red List.



## International Day of the victims of Enforced disappearance 2024 - August 30

- ❖ It draws attention to the fate of individuals imprisoned at places and under poor conditions unknown to their relatives and/or legal representatives.
- ❖ The International Convention for the Protection of All Persons from Enforced Disappearance was adopted by the UN General Assembly in 2006.
- ❖ By the end of 2023, more than 239,700 missing persons were registered by the Family Links Network.



## **World Water Week - August 25/29**

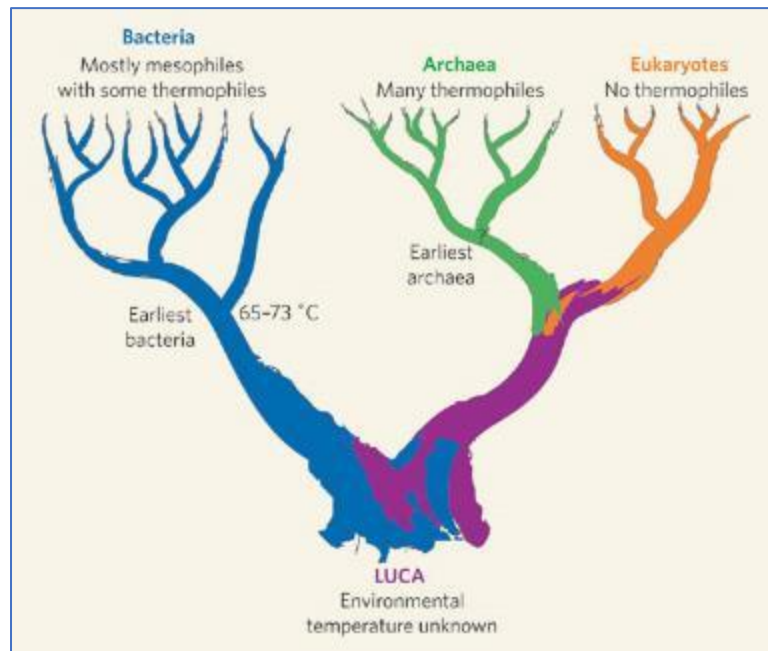


- ❖ It aims to be an inclusive, cooperation for people who want to use water as a tool to change the world and promote opportunities for effective water cooperation.
- ❖ It is organized every year since 1991 by Stockholm International Water Institute (SIWI).
- ❖ The theme for 2024 is 'Bridging Borders: Water for a Peaceful and Sustainable Future'.

## **MISCELLANEOUS**

### **Last Universal Common Ancestor**

- ❖ Researchers are tracing the origins of life on Earth back to a single ancestor that emerged approximately 4.2 billion years ago.
- ❖ Scientists have pinpointed the emergence of the last universal common ancestor (LUCA) by analysing the genomes of present-day organisms.
- ❖ Earth itself is approximately 4.5 billion years old, indicating life originated when the planet was still in its infancy.
- ❖ The emergence of oxygen occurred relatively late in the planet's evolutionary timeline, possibly as recent as 3 billion years ago.
- ❖ Evidence in the form of microbial fossils dates back 3.48 billion years.
- ❖ LUCA was a complex organism, not too different from modern prokaryotes.
- ❖ But it possessed an early immune system, showing that even by 4.2 billion years ago.



### Most-favored brand 2024 – Kantar



- ❖ Parle continues to be the most-favoured FMCG brand in a recent analysis by market research firm Kantar.
- ❖ It was emerging as the most-chosen in-home trademark for a record 12 years in a row.
- ❖ It is followed by Britannia, Amul, Clinic Plus and Tata Consumer Products.



## Indian Siris tree



- ❖ The century-old Indian Siris tree in East Godavari district, Andhra Pradesh, recently collapsed during the Godavari floods.
- ❖ By early 2024, the lone tree was dubbed as the most photographed tree on the banks of river Godavari in Andhra Pradesh.
- ❖ Indian Siris, also known as Albizia lebbek, is a tropical tree native to India and Southeast Asia.
- ❖ It belongs to the Fabaceae family and is a deciduous tree.

## Machine learning framework - 'LEAP'



- ❖ Researchers at the Indian Institute of Technology, Guwahati (IIT-G) have developed an innovative machine learning framework named 'LEAP'.



- ❖ It marks a significant advancement in the field of Electronic Design Automation (EDA) used in the semiconductor industry.
- ❖ It is a critical component in the \$600 billion semiconductor industry.

### Artificial sweetener sucralose

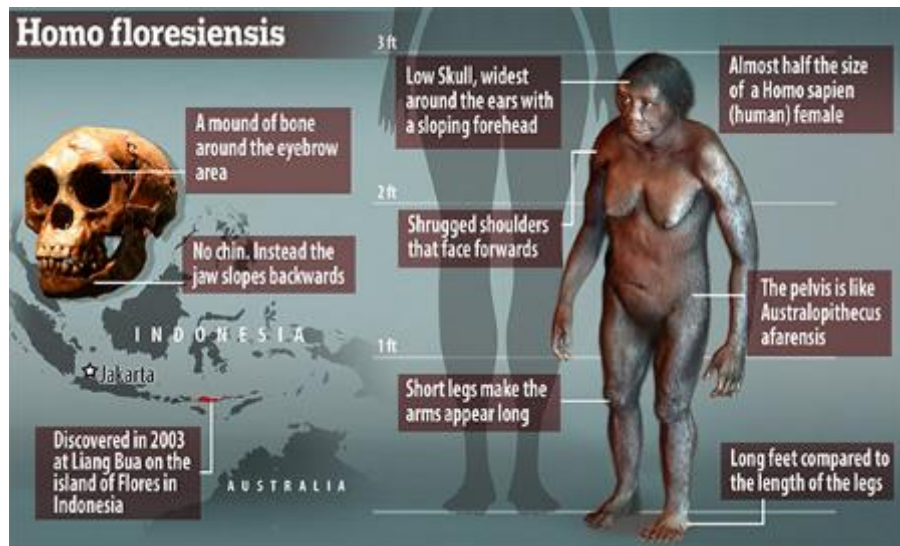


- ❖ Recent study shows that small amounts of sucralose do not impact blood glucose levels.
- ❖ It also indicates a slight improvement in body weight (BW), waist circumference (WC), and body mass index (BMI).
- ❖ Sucralose is one of the most popular non-nutritive or artificial sweeteners and sugar substitute.
- ❖ There are two types of sweeteners, nutritive and non-nutritive.
- ❖ Nutritive ones like fructose can add calories and are not suitable at all for people with diabetes.
- ❖ Sucralose is not metabolised by the body, so it adds no calories.

### Homo floresiensis

- ❖ Researchers discovered three hominin fossils dating to 700,000 years from Mata Menge in the So'a Basin of central Flores of Indonesia.
- ❖ With this, Scientists have come up with two theories to describe their origin.
- ❖ The first argues that Homo floresiensis was a dwarfed descendant of early Asian Homo erectus.

- ❖ An extinct human species, Homo erectus may have lived between 100,000 and 1.6 million years ago.
- ❖ The second theory suggests that Homo floresiensis is a descendant of a more ancient hominin from Africa like Homo habilis or the famous 'Lucy' (Australopithecus afarensis).
- ❖ They were also smaller in stature and existed before Homo erectus.
- ❖ The new study found that the three fossils had slightly smaller jaws and teeth than Homo floresiensis.
- ❖ This suggests that their small body size evolved early in the history of Flores hominins.
- ❖ These hominins likely witnessed a drastic body size reduction from large-bodied Asian Homo erectus sometime between 1 and 0.7 million years ago.



### **Ancient Solar Calendar - Turkey**

- ❖ Archaeologists have discovered the world's oldest, 12,000 years old calendar.
- ❖ The ancient carving of the sun, moon, and various constellations sits on a pillar in Göbekli Tepe in southern Turkey.
- ❖ Researchers believe that ancient people used this so-called lunisolar calendar to mark the changing of the seasons.
- ❖ Apparently, it even recorded a falling comet.
- ❖ The Göbekli Tepe site is home to the world's oldest known manmade structures.
- ❖ They predate Stonehenge of England by over 6,000 years.



### Master clock system for railways

- ❖ In a first, the Indian Railways will develop a master clock system for synchronising time with the applications and systems across its network.
- ❖ It will help to keeping uniform time across all systems and applications involved in train operations arose following difficulties in accident.
- ❖ Under the existing system, the Zonal Railways across the country use various systems, sourcing time from different sources.
- ❖ The time for the master clock system will be sourced from the Navigation with Indian Constellation (NAVIC) or the National Physical Laboratories (NPL).



### **Biggest diamond in over a century**

- ❖ The largest diamond found in more than a century has been unearthed at a mine in Botswana.
- ❖ The huge 2,492-carat diamond is the second-biggest ever discovered in a mine.
- ❖ It is the biggest diamond found since 1905.
- ❖ Botswana is the second-biggest producer of natural diamonds behind Russia.

