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TNPSC BITS

- ❖ BCCI secretary Jay Shah is all set to replace the incumbent Greg Barclay as the new chairman of the International Cricket Council (ICC).
- ❖ The World Bank introduces a new kind of nine-year bond, \$225 million note to help raise funds for reforestation in the Amazon.
- ❖ Diana Pundole was becoming the first Indian woman to claim the MRF Saloons title at the National Car Racing Championship 2024 held in Chennai.
- ❖ The Union government is set to spotlight and support talented individuals on the global stage through the inaugural 'Create in India Challenge - Season 1' at the World Audio Visual & Entertainment Summit (WAVES).
- ❖ Maharashtra becomes first state to adopt centre's Unified Pension Scheme for its employees.
- ❖ The National Association of Software and Service Companies, or Nasscom, has appointed Sindhu Gangadharan, as its chairperson.
- ❖ The Indian Institute of Management, Bangalore (IIM-B) signed MoU to establish India's first Global Centre of Excellence focused on the Private Equity (PE) and Venture Capital (VC).
- ❖ India is set to sign the Biodiversity Beyond National Jurisdiction (BBNJ) agreement, also known as the High Seas Treaty, at the upcoming United Nations General Assembly.
- ❖ Apple Inc has announced that Indian-origin Kevan Parekh will take over as its chief financial officer (CFO) from January.
- ❖ Prime Minister inaugurated three new Vande Bharat Express in Chennai Central to Nagercoil, Madurai to Bengaluru Cantonment and Meerut City to Lucknow route
- ❖ Amazon is introducing its generative AI chatbot Rufus to India-based customers soon.
- ❖ India's Siemens Healthineers developed indigenous RT-PCR testing kit for Mpox.
- ❖ The Indian Council of Medical Research (ICMR) and Panacea Biotec Limited have announced the initiation of the first ever phase 3 clinical trial for a dengue vaccine – DengiAll in India.
- ❖ The Indian Chamber of Commerce (ICC) has successfully launched the All-India Initiative on Creative Economy (AIICE) in Delhi.
- ❖ The 8th Dharma Dhamma conference was organised by the India Foundation in collaboration with Gujarat University in Ahmedabad.
- ❖ The Indian Air Force (IAF) sent its Sarang Helicopter Display Team to participate in the first edition of the Egypt International Airshow 2024.



- ❖ IIT Gandhinagar has set up the Centre for Narmada River Basin Management (cNARMADA) to conduct the Condition Assessment and Management Plan (CAMP) of the Narmada River basin.
- ❖ Soumya Swaminathan has released 'The Scientist Entrepreneur: Empowering Millions of Women', an autobiography written by activist Kalpana Sankar.
- ❖ A five-year-old Teghbir Singh from Ropar, Punjab, has become the first youngest Asian to summit Mount Kilimanjaro, Africa's highest peak at 5895 m.
- ❖ Indian team has won a silver medal at the Maruhaba Cup at the Asian Surfing Championships 2024 in Maldives.
- ❖ Satish Kumar, a 1986 batch railway mechanical engineer, has been appointed the new Railway Board chairman and chief executive officer (CEO).
 - He is the first Dalit to head this organisation in its 119-year history.
- ❖ The Madras Medical College (MMC) is among the six institutions selected for the "ICMR Centre for Advanced Research (CAR): Rural Healthcare Transformation (RAHAT) project".
- ❖ Reliance Jio is developing a suite of tools and applications that span the entire artificial intelligence (AI) lifecycle called 'JioBrain'.
- ❖ Joseph Francis A. Pereira, a Christian from Pakistan, has become the first person in Goa to receive Indian citizenship under the Citizenship Amendment Act (CAA).
- ❖ The Himachal Pradesh Assembly has passed a Bill to raise the minimum age of marriage for women from 18 to 21 years.
- ❖ Andhra Pradesh GM Karthik Venkataraman won the title of the 61st India Chess Championship organised by the Haryana Chess Association.
- ❖ Recently released Uttar Pradesh's Digital Media Policy 2024 allows it to pay up to Rs 8 lakh per month to an empanelled influencer to publicise its schemes.
- ❖ Typhoon Shanshan hits Japan with torrential rainfalls.
- ❖ Prime Minister laid the foundation stone for the Vadhvan Port in Maharashtra's Palghar district.
- ❖ First indigenously developed Pollution Control Vessel of ICG, 'Samudra Pratap' is recently launched in Goa.
- ❖ The second India-Singapore Ministerial Roundtable (ISMR) was recently held in Singapore.
- ❖ The Second Meeting of the Joint Russian- Indian Commission on the Cooperation in the Field of Emergency Management was held in Moscow.
- ❖ Berkshire Hathaway has reached \$1 trillion in valuation and became the first US non-Tech company to reach this milestone.



- ❖ Google DeepMind's India unit is developing an Indic language AI project called Morni (Multimodal Representation for India).
 - It aims to encompassing 125 Indian languages and dialects to build inclusive and equitable Indic AI.
- ❖ Tamil Nadu signed a memorandum of understanding (MoU) with Google to set up the AI laboratories in the State.
- ❖ Nokia is signed a MoU with the Tamil Nadu government to expand its Fixed Networks R&D operations in Chennai, at an outlay of ₹450 crore, and create 100 jobs.
- ❖ WHO has declared Dhulikhel Municipality of Kavrepalanchok district as Nepal's first 'healthy city' and second healthiest city in Asia.
- ❖ RailTel Corporation of India Ltd (RailTel) has been awarded the ISO 14001:2015 certification, a globally recognized standard for Environmental Management Systems (EMS).
- ❖ The Union Ministry of Youth Affairs & Sports launched "Retired Sportsperson Empowerment Training" (RESET) Programme to empower them with necessary knowledge and skills and making them more employable.
- ❖ The Skyscraper Day takes place on 3rd September each year.
 - It is celebrating the impressive feats of architecture and engineering that define modern skylines.
- ❖ Anna University has granted the patent for the airborne-based intelligent autonomous landing system for mini-Unmanned Aerial Vehicles that come with accurate identification of geographical location of landing sites from the plurality of images captured.
- ❖ American renewable energy firm Ohmium would set up its unit in Chengalpattu district to produce green hydrogen and to manufacture electrolyzer by investing ₹400 crore.
- ❖ The Ministry of Finance has added 4 new companies -SJVN, Solar Energy, NHPC, and RailTel into the list of Navratna Companies of India.
- ❖ Former Supreme Court lawyer and eminent scholar AG Noorani died recently.
- ❖ WWF-India has launched an initiative that involves counting of vultures and raising awareness on the critically endangered bird species.
- ❖ The US-India Strategic Partnership Forum has announced the third edition of the India-US Defense Acceleration Ecosystem (INDUS-X) Summit at the Stanford University.
- ❖ Rubina Francis clinched a bronze in the women's 10m air pistol SH1 event in Paralympic 2024.



- ❖ Preethi Pal became the first Indian woman to win two Paralympic medals in track and field events, after won the bronze in the women's 200 T35 class and bronze in the women's 100m T35 class at Paris 2024.
- ❖ The President of France Emmanuel Macron was presented with the Olympic Order for recognition of his unstinting support for the success of the Olympic Games Paris 2024.
- ❖ For the first time in India, Kerala's outgoing Chief Secretary, Dr V Venu, handed over the post to his wife, Sarada Muraleedharan.
- ❖ Kerala Tourism was honored with the prestigious Pacific Asia Travel Association (PATA) Gold Award for its groundbreaking digital marketing campaign titled 'Holiday Heist'.
- ❖ Australia has become the latest country to allow employees the "right to disconnect" from work.
- ❖ Reliance Industries Limited (RIL) has become the first Indian company to surpass ₹10 lakh crore in annual revenue, reaching ₹10,00,122 crore (USD 119.9 billion) for FY 2023-24.
- ❖ The Japanese filmmaker Hayao Miyazaki has won the 2024 Ramon Magsaysay Award, commonly called Asia's Nobel Prize.
- ❖ Union Agriculture and Farmers' Welfare Ministry has launched an integrated Agri investment Portal named Krishi Nivesh and AgriSURE Fund at Pusa.
- ❖ The iconic Lord's stadium in London will be hosting the ICC World Test Championship 2025.
- ❖ SpaceX is going to launch 4 people on historic Fram2 mission over Earth's poles in late 2024.
- ❖ President Droupadi Murmu unveiled the new flag and insignia of the Supreme Court to commemorate the 75th year of its establishment.
 - Prime Minister released a commemorative postage stamp celebrating 75 years of the Supreme Court of India.
- ❖ IIT Madras backed start-up has designed India's first abrasive waterjet machine which can be used for cutting combustible materials without generating heat.
 - This can be used in the semiconductor, aviation, defence and diamond industries.
- ❖ NLC India Limited has bagged the Top Rankers Excellence Award for Best CSR Practices at the 24th National Management Summit.
- ❖ Eaton signed an MoU with Tamil Nadu to set up an R&D and global engineering center in Chennai, investing Rs. 200 crores.



- ❖ India's Sharad Kumar (Bihar) and Mariappan Thangavelu (Tamilnadu) won the silver and bronze medals, respectively, in the men's high jump T63 class at the Paris 2024 Paralympics.
- ❖ The Supreme Court of India has organised a two-day National Conference of the District Judiciary in New Delhi.
- ❖ Trilliant Networks, Inc., an American company that deals with advanced metering infrastructure and smart grid, among others, is set to invest ₹2,000 crore in Tamil Nadu.
- ❖ Assurant, a Fortune 500 Insurance and Finance company, will be setting up its first Global Capability Centre (GCC) in Chennai.
- ❖ The Ministry of Women and Child Development won the National Award for e-Governance 2024 (Gold) for the Poshan Tracker initiative.
- ❖ Siddhartha Agarwal became the oldest (49) Indian swimmer to swim across the English Channel (between England and France).
- ❖ Anuya Prasad from Jaipur of Rajasthan won the gold medal in the women's air pistol event at the World Deaf Shooting Championship in Hannover, Germany.
- ❖ R Vithya Ramraj from Tamilnadu smashed PT Usha's 39-year-old record in the women's 400m hurdles with a time of 53.23 sec at the 63rd National Open Athletics Championships, held at Bengaluru.
- ❖ Sharath Kamal from Tamilnadu was named the first Indian ambassador of the International Table Tennis Federation (ITTF) Foundation.
- ❖ Vaccine maker Bharat Biotech International Ltd launched Hillchol (BBV131), a novel single-strain oral cholera vaccine (OCV).
- ❖ The Tamil Nadu government signed Memoranda of Understanding (MoU) with Lincoln Electric, Vishay Precision, and Visteon for investment proposals to the tune of ₹ 850 crore.
- ❖ The 22nd edition of the bilateral maritime exercise between India and France, the Varuna exercise was hosted by French Navy in the Mediterranean Sea.
- ❖ The centre has notified the international trans-shipment hub at Galathea Bay in the Andaman & Nicobar Islands as a 'Major Port'.
- ❖ The Government of Maharashtra has hosted the 27th Edition of the National Conference on E-Governance (NCeG) in Mumbai.
- ❖ Bihar's Rajgir is going to host the upcoming Women's Asian Champions Trophy, 2024.
- ❖ Super Typhoon Yagi hits Vietnam with heavy wind and rain.
- ❖ The Union Ministry of Education has organized an international conference titled "Spectrum of Literacy" in New Delhi.



- ❖ India's first silicon carbide manufacturing facility is being set up at EMC Park in Info Valley, Bhubaneswar, Odisha.
- ❖ India, Maldives, Mauritius and Sri Lanka have signed the Charter and an MoU for the establishment of the Colombo Security Conclave (CSC) Secretariat in Colombo.
- ❖ The Economic Times World Leaders Forum (WLF) was held in New Delhi.
- ❖ Under the aegis of National One Health Mission, comprehensive national mock drill, "Vishanu Yuddh Abhyas" (Virus War Exercise), was conducted in Ajmer district of Rajasthan to assess pandemic preparedness.
- ❖ Prime Minister Narendra Modi became the first Indian Prime Minister to travel to Brunei on a bilateral visit.
- ❖ Gujarat government approved a proposal of Kaynes to set up a semiconductor unit in Sanand with 6.3 million chips per day capacity.
- ❖ Tamil Nadu state legal services Authority has received UNICEF award for the exemplary work of the One Stop Crisis Teams (OSCT) to rescue, assist in prosecution and rehabilitation of survivors in case of Bonded Labour and Trafficking.
- ❖ The Uttar Pradesh government will construct a Vedic-3D Museum at the main building of the Sampurnanand Sanskrit University, Varanasi.
- ❖ IIT Delhi recently inaugurated its Abu Dhabi campus as the first-ever full IIT campus outside India.
- ❖ India's first-ever Thiruvalluvar centre in the world will be set up in Singapore to enhance cultural ties between the two countries.
 - An Invest India office will also be established in the city-state to boost trade and investment.
- ❖ India is set to bid for the 2030 Youth Olympics, a precursor to the country's ambition to host the 2036 Olympics.
- ❖ "Mumbai Samachar - 200 Not Out", a documentary film, was released to mark the remarkable 200-year journey of Asia's oldest newspaper.
- ❖ In a bid to boost foreign investment, China will soon permit the establishment of wholly foreign-owned hospitals in nine regions, including the capital, Beijing.
- ❖ The Atal Innovation Mission - CSIRO, Australia is inviting applications from India and Australia for the Climate Smart Agritech cohort of the India Australia Rapid Innovation and Start-up Expansion (RISE) Accelerator program.
- ❖ The United Arab Emirates has successfully completed the Arab world's first nuclear power plant, the Barakah Nuclear Energy Plant.
- ❖ An Indian Navy P8i Poseidon aircraft has participated in the India – France bilateral naval exercise 'Varuna' held at in the Mediterranean Sea.



- ❖ The United Kingdom and India have officially launched the United Kingdom-India Infrastructure Financing Bridge (UKIIFB) initiative to strengthen their financial and professional services collaboration.
- ❖ HDFC Bank has unveiled GIGA, a new financial suite tailored specifically for gig workers and freelancers.
- ❖ For the 1st time in India, Star Health and Allied Insurance has introduced an insurance policy in Braille to empowering visually impaired individuals in India.
- ❖ The maiden Joint Commanders' Conference (JCC) was held at Lucknow under the theme 'Sashakt and Surakshit Bharat: Transforming Armed Forces'.
- ❖ The 2024 Edition of the Chief Science Advisers' Roundtable (CSAR) was taking place at the headquarters of UNESCO, Paris.
- ❖ Indian Coast Guard (ICG) participated in the 20th Heads of Asian Coast Guard Agencies Meeting (HACGAM) at Incheon, South Korea.
- ❖ Gensol Engineering have emerged as the lowest bidder for the EPC of India's first biomass to green hydrogen project.
 - This project will process 25 tonnes of bio-waste daily, producing 1 tonne of green hydrogen using advanced gasification technology over 18 months.
- ❖ Jabil Inc. and Rockwell Automation are set to invest ₹2,666 crore in industrial projects in Tiruchi and Kancheepuram districts of Tamil Nadu.
- ❖ The Tamil Nadu Pollution Control Board, as part of its Meendum Manjappai campaign, is hosting a 'Bag-Athon' challenge aimed at creating innovative and cost-effective cloth bags to replace single-use plastic carry bags.
- ❖ T. Vellaiyan, founder of the Tamil Nadu Vanigar Sangagalin Peravai (Federation of Traders' Unions) passed away recently.
- ❖ Eminent English professor K. Chellappan, who won the Sahitya Akademi award for his translation of Rabindranath Tagore's Gora into Tamil, passed away recently.
- ❖ Amit Shah was re-elected as the Chairperson of Parliamentary Committee on Official Language.
- ❖ Veteran sports administrator Randhir Singh was unanimously elected president of the Olympic Council of Asia (OCA).
- ❖ India became the second-biggest 5G handset market during the first half of 2024, overtaking the US.
- ❖ The 20th edition of India-USA Joint Military Exercise YUDH ABHYAS-2024 has commenced at Rajasthan.
- ❖ President Emmanuel Macron has named EU Brexit negotiator Michel Barnier as France's new Prime Minister after more than 50 days of caretaker Government.



- ❖ Algeria's membership in the BRICS New Development Bank (NDB) has been officially approved and became the institution's ninth member.
- ❖ Union Bank of India becomes 1st major bank to become signatory of Partnership for Carbon Accounting Financials (PCAF).
- ❖ The two-day first International Solar Festival was held in New Delhi.
- ❖ Telangana has signed an MoU with the World Trade Centres' Association for the establishment of a World Trade Centre in the proposed AI City near Hyderabad.
- ❖ India's ancient activity, yogasana was included as a demonstration event at the 2026 Asian Games to be held in Aichi-Nagoya, Japan.
- ❖ In a first, India and the United Arab Emirates (UAE) signed a Memorandum of Understanding (MoU) for civil nuclear cooperation.
- ❖ The site for the new national Queen Elizabeth II Memorial has been announced by the UK government as St James's Park, London.
- ❖ Archer Harvinder Singh and sprinter Preethi Pal was participated as India's flag-bearers at the Paris 2024 Paralympics closing ceremony.
- ❖ Indian boxer Deepali Thapa has made history by becoming the first-ever Asian Schoolgirl Champion in Al Ain, UAE.
- ❖ Nepal has become the 101st country to join the International Solar Alliance (ISA) as a full member.
- ❖ India hosted the 2nd Asia Pacific Ministerial Conference on Civil Aviation in New Delhi.
- ❖ Syria has defeated India and won the 4th Intercontinental Cup Football Championship 2024, held at Hyderabad.
- ❖ The SEMICON India 2024 event was held in Greater Noida, Uttar Pradesh.
- ❖ July 6 has been chosen as the World Rural Development Day by UNGA in commemoration of the date of establishment of the "Center on Integrated Rural Development for Asia and the Pacific (CIRDAP)" on July 6, 1979.
- ❖ Tamil Nadu government has decided to change the venue of the proposed Mangrove Conservation Centre to Pichavaram in the Cuddalore district instead of Muthupet.
- ❖ India maintained the top spot as the leading source market for Sri Lanka tourism in the first 8 months of 2024.
- ❖ Union Cabinet gave its approval to the proposal of Department of Rural Development for the implementation of the Pradhan Mantri Gram Sadak Yojana -IV (PMGSY-IV) during Financial Year 2024-25 to 2028-29.
- ❖ The Central Drugs Standard Control Organization (CDSCO) has approved Siemens Healthineer's indigenous IMDX Mpox Detection RT-PCR test for the viral disease.



- ❖ Abu Dhabi National Oil Company (ADNOC) and ExxonMobil partnership is to develop the world's largest low-carbon hydrogen facility.
- ❖ Prasanthi Ram, an Indian origin lecturer from the University of Nanyang technological University has won the Singapore literature prize for English fiction for her short story - 'Nine Yard Sarees'.
- ❖ Lockheed Martin and Tata Advanced Systems Limited (TASL) collaborated for establishing a Maintenance, Repair and Overhaul (MRO) facility in India to support of C-130J Super Hercules transport aircraft as well as other global C-130J fleets.
- ❖ Three years after exiting India, Ford Motor Company announced the revival of its manufacturing facility in Maraimalai Nagar near Chennai to roll out cars for the export market.
- ❖ The Open Network for Digital Commerce (ONDC) launched Saarthi, a reference application designed to assist businesses in creating their own customised buyer-side apps, co-developed with Bhashini.
- ❖ The Indian Navy had participated in the 16th edition of Exercise Kakadu 2024 alongside more than 30 nations with the theme of 'Regional Cooperation through Trusted and Proven Partnerships.'
- ❖ Suzlon Energy Ltd has won an order of 1,166 MW, the largest wind energy order in India from NTPC Green Energy Ltd.
- ❖ ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA) has developed a mobile app 'Rangeen Machhli' for providing crucial information about ornamental fisheries to fish farmers and aquarium shop owners.
- ❖ The Indian Army contingent is participating the 5th edition of India-Oman Joint Military Exercise AL NAJAH in Oman.
- ❖ The 79th session of the UN General Assembly (UNGA 79) has opened on 10 September 2024 and will conclude on 30 September 2024.
- ❖ Chief Minister and DMK president M.K. Stalin have unveiled the logo for the 75th anniversary celebrations of the party, which was launched on September 17, 1949.
- ❖ All India Official Language Conference was organized on the occasion of Hindi Diwas at Bharat Mandapam, New Delhi.
- ❖ Rajbhasha Kirti Award was conferred to Department of Administrative Reforms and Public Grievances.
- ❖ Nibe Space (NSPL), a subsidiary of Nibe, announced its vision to establish India's first multi-sensor, all-weather and the high-revisit Earth observation satellite constellation.



- ❖ BRICS Literature Forum 2024 was held in Kazan, Russia under the theme “World Literature in the New Reality: Dialogue of Traditions, National Values, and Cultures.”
- ❖ NPCI has raised the UPI transaction limit to ₹5 lakh for sectors like tax payments, healthcare, education, and financial investments, effective September 16, 2024.
- ❖ The World Health Organization has granted its first authorization for use of a vaccine against mpox in adults.
- ❖ To improve the infrastructure and facilities at government schools across Tamil Nadu, the State Bank of India (SBI) has contributed ₹1.37 crore to the 'Namma School Namma Ooru Palli' programme.
- ❖ The 3-day 4th Global Renewable Energy Investor's Meet (RE-INVEST) 2024 was held in Gujarat's Gandhinagar.
- ❖ Typhoon Bebinca (named by Japan) has made landfall in Shanghai, the strongest storm to hit China's biggest city since 1949.
- ❖ The third edition of the INDUS-X Summit was held in the United States.
- ❖ UNEP's scientific assessment report projects that global stratospheric ozone will return to 1980 levels around 2040.
- ❖ India holds bilateral meetings with the USA, Brazil, Germany, the UK, Japan, Spain, and UAE on the sidelines of the G20 Agriculture Ministerial Meeting in Brazil.
- ❖ The Government of India in consultation with the RBI has notified the National Bank for Financing Infrastructure and Development (NaBFID) as a “public financial institution”.
- ❖ Indian Immunologicals (IIL) and Indian Council of Medical Research (ICMR) have signed a memorandum of agreement (MoA) for clinical development of the country's first codon de-optimised live attenuated Zika vaccine.
- ❖ The National Virology Institute in Pune confirmed the Nipah infection as the cause of death of a man in Malappuram district, marking the resurgence of the deadly zoonotic disease.
- ❖ OpenAI recently released two new ChatGPT models, namely o1 and o1-mini models with advanced reasoning capability.
- ❖ The 4th edition of Global Bio-India 2024 was organized by Department of Biotechnology in New Delhi.
- ❖ Rashtriya Ispat Nigam Limited (RINL) has been honored with the National Energy Leader Award by the Confederation of Indian Industry – Green Business Centre (CII-GBC) for the sixth consecutive year.



- ❖ On the occasion of 30th World Ozone Day, Union Ministry of Environment, Forest and Climate Change, organized a dialogue on the theme of “Montreal Protocol: Advancing Climate Action”.
- ❖ DRDO has successfully conducted the first phase of developmental field firing trials of the Indian Light Tank Zorawar.
- ❖ India hosted the 2nd Formal Meeting of the COP9 Bureau and the 3rd Formal Meeting of the Fund Approval Committee under the UNESCO International Convention against Doping in New Delhi.
- ❖ The Indian Air Force is participating in Exercise Eastern Bridge VII, held at Air Force Base Masirah, Oman.
- ❖ Indian and Oman Army forces are participating in the bilateral exercise- Exercise AL NAJAH-V in Oman.
- ❖ Vice President of India has inaugurated 'Constitution Temples' at the vocational training centres in 434 Industrial Training Institutes (ITIs) in Maharashtra.
- ❖ India's Anmol Kharb (17) clinched her first international title in women's singles as she beat Denmark's Amalie Schulz in the Belgian International badminton tournament.
- ❖ The Union Ministry for MSME inaugurated the Centre for Rural Enterprise Acceleration through Technology (CREATE) setup at Leh, Ladakh.
- ❖ Indian hockey Team have won the Asian Champions Trophy 2024, held at China, for a fifth time by defeating China.
- ❖ Scotland's Glasgow is chosen as the host of 2026 Commonwealth Games.
- ❖ India hosted its first multinational air exercise 'Tarang Shakti 2024' with around 30 countries participation in Sullur, Tamil Nadu.
- ❖ The Odisha government approved a proposal to transfer 95 per cent of the equity shares of Gopalpur Port to Adani Ports and Special Economic Zone (APSEZ).
- ❖ The National Disaster Management Authority and the Army Southern Command organized the two-day national symposium - Exercise AIKYA in Chennai.
- ❖ The Department of Fisheries has designated the ICAR-Central Marine Fisheries Research Institute as a Centre of Excellence for seaweed cultivation.
- ❖ India's first CO₂ to Methanol Pilot Plant was inaugurated in Pune, Maharashtra, with a capacity of 1.4 tons per day.
 - This conversion captures carbon emissions from industrial sources like power plants or directly from the air.
- ❖ The Swachhata Hi Seva 2024 Campaign was held from 17th September to 02nd October to celebrates the 10th anniversary of the Swachh Bharat Mission.
 - This year's theme is “Swabhav Swachhata - Sanskaar Swachhata”.



- ❖ The 20th Maritime State Development Council (MSDC) was held in Goa with significant advancements in India's maritime sector.
- ❖ Union Cabinet approved the plan to setup a new Indian Institute for Immersive Creators (IIIC) on the lines of IITs, IIMs.
- ❖ Indian Navy's lieutenant Commodore Roopa A and Lieutenant Commodore Dilna K, would embark on the 'extraordinary expedition' as part of the second Navika Sagar Parikrama onboard the INSV Tarini soon.
- ❖ The Sharjah Investment Forum (SIF) 2024 has unveiled World's First AI-Powered Trade Licence Service.
- ❖ The Department of Drinking Water and Sanitation (DDWS), Ministry of Jal Shakti, has organized the International WASH (Water, Sanitation, and Hygiene) Conference 2024 in New Delhi.
- ❖ China and Nepal are holding 10-day joint exercises 'Mt Everest Friendship 2024' in China's Chongqing city.
- ❖ The third edition of World Food India 2024 was held in New Delhi.
- ❖ Dhruvi Patel, a Computer Information System student from the USA, has been declared the winner of Miss India Worldwide 2024.
- ❖ The United States (US) International Development Finance Corporation (DFC) has announced an investment of USD 70 million in India's private sector to strengthen key priorities of both governments.
- ❖ The two-time world boxing champion Nikhat Zareen joined the Telangana Police as a Deputy Superintendent of Police (Special Police).
- ❖ The United States Federal Reserve has cut the benchmark interest rate - the Federal Funds Rate - by 50 basis points, or half a percentage point.
- ❖ Delhi's Indira Gandhi International Airport (IGIA) has climbed to 24th place in the latest ranking of global "Megahub" airports, up from its previous 25th position.
- ❖ Indian cricketer Jasprit Bumrah has become the 10th Indian bowler to reach the illustrious milestone of 400 international wickets.
- ❖ The South Korea's Ambassador to Austria Ham Sang-wook has been elected as the president of the 68th General Conference of the International Atomic Energy Agency (IAEA).
- ❖ Taiwan will recognise the same-sex marriages between Taiwanese-Chinese nationals, giving couples the right to register their unions.
 - Same-sex marriage has been legal in Taiwan since 2019, making it the first country in Asia to legalize same-sex marriage.
- ❖ Tamil Nadu is set to open two more mini TIDEL parks — one in Thanjavur (1st in delta) and another in Salem.



- ❖ Prime Minister has laid the foundation stone for the PM Mega Integrated Textile Regions and Apparel Park in Maharashtra's Amravati.
- ❖ The second edition of the Global Food Regulators Summit was held in New Delhi.
- ❖ The 14th edition of the Hockey India Sub Junior Men National Championship is taking place in Chandigarh.
- ❖ Tata Steel successfully commissioned India's largest blast furnace at Kalinga Nagar in Jajpur district, Odisha.
- ❖ The union government has approved a joint venture (ASHVINI) between NPCIL and NTPC to build four 700 MWe nuclear power plants at Mahi Banswara in Rajasthan.
- ❖ India's third home-built 700 MWe nuclear power reactor has achieved criticality and is set to start commercial electricity generation soon.
- ❖ ICMR has received the prestigious 2024 UN Inter-Agency Task Force Award for achievements in advancing multi-sectoral action on the prevention and control of non-communicable diseases and mental health.
- ❖ The Union health ministry has proposed mandatory display of "non-skippable" anti-tobacco health spots of at least 30 seconds and audio-visual disclaimer on ill-effects of tobacco use for 20 seconds on OTT platforms.
- ❖ The USA has hosted the Quadrilateral Security Dialogue, or Quad summit, which comprises India, the United States, Australia and Japan.
- ❖ India will host the World Audio Visual & Entertainment Summit (WAVES) in February 2025.
- ❖ The 19th Divya Kala Mela was recently launched in Visakhapatnam.
- ❖ ISRO, IN-SPACe, and NSIL have signed 75 technology transfer agreements (TTAs) with non-governmental entities (NGEs).
- ❖ The Ministry of Electronics and IT launched the India Graphene Engineering and Innovation Centre (IGEIC) under the Graphene Aurora Program (GAP).
- ❖ Kaziranga and other protected habitats of the one-horned rhinoceros in Assam recorded an 86% drop in poaching of the herbivore since 2016.
- ❖ The US and India has reached an agreement to work together on setting up a semiconductor fabrication plant in India.
- ❖ Telugu actor Chiranjeevi has been recognized as the Most Productive Indian Film Star by Guinness World Records, with a 46-year career, 537 songs, and 24,000 dance moves.
- ❖ Indian wrestler Sangram Singh created history by winning MMA (Mixed Martial Arts) fight in his debut match at the Gama International Fighting Championship in Tbilisi, Georgia.



- ❖ Two Russian astronauts, Oleg Kononenko and Nikolai Chub, have left the International Space Station breaking the record for the longest stay at 374 days.
 - Kononenko also set the record for the longest cumulative time in space at 1,111 days in orbit.
- ❖ Madras High Court Acting Chief Justice D. Krishnakumar administered the oath of office to three judicial officers R. Poornima, M. Jothiraman and Augustine Devadoss Maria Cleto as additional judges of the High Court for a period of two years.
- ❖ Playback singer P. Susheela and poet Mu Metha will get the Kalaignar Memorial Kalaithurai Vithakar Viruthu for 2023 to mark the centenary of former CM M. Karunanidhi.
- ❖ The Tamil Nadu government is planning to create a London's Hyde Park-like low-maintenance urban park in Guindy.
- ❖ The Indian scientists have developed a sustainable pheromone dispenser with a controlled release rate which could act as an innovative solution to substantially reduce the costs of pest control and management.
- ❖ The International Center for Research and Ethics in Artificial Intelligence (ICAIRE) was classified as a Category 2 (C2) centre under UNESCO's auspices.
- ❖ The Kiran Rao directorial Laapataa Ladies ("Missing Women") became India's official entry for the Best International Feature Film category at the 97th Academy Awards or the Oscars.
- ❖ Harini Amarasuriya (54) was sworn in as the 16th prime minister of Sri Lanka.
 - She is the third woman politician from Sri Lanka to hold the office of the prime minister.
- ❖ The two ration shops made of cargo containers Sponsored by the WWF-India to be opened soon near Valparai to avoid elephant's attack.
- ❖ The Gingee Fort in Villupuram district has been nominated for UNESCO's World Heritage Site list as part of the Maratha Military Landscapes proposal, which includes 11 other forts.
- ❖ The fifth edition of Goa Maritime Symposium (GMS) 2024 was hosted by the Indian Navy in Goa.
- ❖ The Comptroller and Auditor General (CAG) of India assumed chairmanship of the Asian Organisation of Supreme Audit Institutions (ASOSAI) for 2024-2027.
- ❖ The UN Framework Convention on Climate Change has announced that Ibrahima Cheikh Diong of Senegal, has been appointed as the first director of the Fund for Responding to Loss and Damage.
- ❖ Indian Air Force and the Royal Air Force of Oman participated in the joint military exercise 'Exercise Eastern Bridge VII' held at Oman.

- ❖ DRDO and IIT Delhi has developed light weight bulletproof jackets named ABHED (Advanced Ballistics for High Energy Defeat).
- ❖ The Pradhan Mantri Janjatiya Unnat Gram Abhiyan has chosen Mana village in the Joshimath block of Chamoli district for implementation.
 - This initiative aims to provide quality education and facilities to tribal students.
- ❖ Every year on 22nd September World Car-Free Day celebrated to encouraging motorists to give up their cars for a day for reducing air pollution.
- ❖ The World Bollywood Day is observed annually on September 24th to celebrate the rich heritage and global influence of Indian cinema.
- ❖ On September 27, 2024, Google celebrates its 26th anniversary.

TAMIL NADU

New municipalities of Tamilnadu 2024

- ❖ Tamil Nadu govt upgraded Sriperumbudur and Mamallapuram town panchayats into second-grade municipalities.
- ❖ Along with this, Thiruvaiyaru in Thanjavur district has also been upgraded to a second-grade municipality.
- ❖ The state has 25 municipal corporations, 138 municipalities and 490 town panchayats under the control of the municipal administration department.

நகராட்சி நிர்வாகம் மற்றும் குடிநீர் வழங்கல் துறை,

- பூதிபெரும்புதூர், திருவையாறு, மாமல்லபுரம் பேரூராட்சிகளை
- நகராட்சி மன்றங்களாக அமைத்துருவாக்குதல்- தரமுயர்த்துதல் தொடர்பாக அறிவிக்கை வெளியிட்டுள்ளது.
- 2023-2024 ஆம் நிதியாண்டிற்கான மானிய கோரிக்கை விவாதத்தின் மீதான பதிலுரையில் மாண்புமிகு நகராட்சி நிர்வாகத்துறை அமைச்சர் அவர்கள்,
- பேரூராட்சிகள் தரம் உயர்த்தப்படும் என்று அறிவித்ததை தொடர்ந்து இந்த நடவடிக்கை எடுக்கப்பட்டுள்ளது.

Private hospitals under MRMBS

- ❖ The Health Department has initiated the process of empanelling private hospitals under Dr. Muthu Lakshmi Reddy Maternity Benefit Scheme (MRMBS).
- ❖ The scheme provides financial assistance to the poor pregnant women mandated delivery at government institutions till 2017.
- ❖ Thereafter, the government has approved extension of the scheme to those who availed themselves of free health services at private medical college hospitals.
- ❖ In 2018, it was co-branded with the government of India's Pradhan Mantri Matru Vandana Yojana (PMMVY).
- ❖ In its present form, the scheme extends the financial assistance to the tune of ₹18,000 that included two maternal nutritional kits each worth ₹2,000.



Nurturing motherhood
An overview of Dr. Muthulakshmi Reddy Maternity Benefit Scheme

1.20 cr. Total number of beneficiaries [2006-2024]
₹10,841.14 cr. Amount distributed

Under MRMBS, maternity assistance of ₹18,000, including two nutrition kits worth ₹2,000 each, is provided

Revised scheme and conditionalities of Dr. MRMBS-PMMVY 2.0 co-branding from 2024-2025

Cash	Nutrition kit
<ul style="list-style-type: none"> First instalment of ₹6,000 at fourth month of pregnancy Second instalment of ₹6,000 after fourth month of delivery Third instalment of ₹2,000 after ninth month of delivery 	<ul style="list-style-type: none"> First kit worth ₹2,000 during third month of pregnancy Second kit worth ₹2,000 will be provided during sixth month of pregnancy

General eligibility criteria for co-branding of Dr. MRMBS and PMMVY 2.0

- 1 Women belonging to Scheduled Castes
- 2 Women belonging to Scheduled Tribes
- 3 Women who are partially (40%) or fully disabled
- 4 Women who hold below poverty line (BPL) ration cards
- 5 Women whose net family income is less than ₹8 lakh per annum
- 6 Beneficiaries of Tamil Nadu Magalir Urimal Thogai Thittam

Solar power output by TANGEDCO



- ❖ TANGEDCO has absorbed 43.2 million units (Mu) of solar power into the grid, marking the highest ever so far.
- ❖ Solar power generation has peaked at 5,648 megawatts (MW).
- ❖ The all-time high peak generation of 5,979 MW was recorded on August 9.
- ❖ Tamil Nadu has an installed capacity of 8,574 MW of solar power, with 1,462 MW connected to the grid in 2023-24.
- ❖ It is including 200 MW of rooftop solar systems.

19th century stamp paper



- ❖ The stamp paper discovered in Palani dates back to the 19th century.
- ❖ It was written by Chinnoppalamma, the wife of Velayudam Chinna Naicken, the last Zamindar of Palani-Balasamudram.
- ❖ Reportedly, Naicken was taken to a prison in Chennai where he died under mysterious circumstances.
- ❖ To maintain the large farmlands of the Zamindar, she nominated 23 managers.
- ❖ There are two seals of the EIC. One seal contains the price of the stamp paper — two annas (the word 'two annas' is written in four languages — Tamil, English, Urdu and Telugu).
- ❖ The other seal contains the seal of the treasury that sold the paper.
- ❖ All transactions were carried out by the treasury of the EIC.
- ❖ The entire letter is written in Tamil and the date of the stamp paper is mentioned as February 21, 1818.

Cauvery water annual share 2024

- ❖ With this month's Cauvery realisation touching around 76 thousand million cubic feet (tmc ft), Tamil Nadu is on the verge of receiving its annual share of the river water: 177.25 tmc ft.
- ❖ As of August 28, 2024, the State received approximately 174.7733 tmc ft, since June 1, 2024.
- ❖ In June and July, the figures of realisation were 2.25 tmc ft and 96.54 tmc ft, respectively.
- ❖ A perusal of the data of realisation for August since 1974 would reveal that the average figure for the 50-year-long period (1974-2023) was 62 tmc ft.



Borrowings in first quarter of 2024-25

- ❖ Tamil Nadu government's gross market borrowings stood at ₹21,000 crore in the first quarter (April-June) of 2024-25.
- ❖ In the first quarter of 2023-2024, the State government had a gross market borrowing of ₹25,000 crores.
- ❖ The State government borrows from the market through the issue of bonds known as State Development Loans (SDLs).
- ❖ In the April-June 2024 period, the Andhra Pradesh government was the top borrower at ₹27,000 crore, followed by Tamil Nadu.
- ❖ State's Own Tax Revenue (SOTR) constitutes over 70% of its total revenue receipts.
- ❖ SOTR increased 3.13% in the first quarter of 2024-25 to ₹37,605.43 crore from ₹36,461.89 crore in the same period last year.
- ❖ Tamil Nadu's overall revenue receipts stood at ₹55,467.63 crore in the first quarter of 2024-25.

Gross market borrowings		Outstanding liabilities from SDLs	
Year	Amount (in ₹ crore)	Year	Amount (in ₹ crore)
Fiscal 2023-24*	53,000	At end of Mar. 2024	6,00,992.9
Fiscal 2022-23	87,000	At end of Mar. 2023	5,18,367
Fiscal 2021-22	87,000	At end of Mar. 2022	4,50,364.5
Repayment of market borrowings		Total outstanding liabilities	
Year	Amount (in ₹ crore)	Year	Amount (in ₹ crore)
Fiscal 2023-24*	21,320	At end of Mar. 2024	8,34,543.5
Fiscal 2022-23	21,278.30	At end of Mar. 2023	7,41,497.7
Fiscal 2021-22	14,500	At the end of Mar. 2022	6,67,974.9

Dhaincha green manure

- ❖ The distribution of green manure has commenced under the newly launched Chief Minister's Mannuyir Kaathu Mannuyir Kaappom (MKMK) Scheme recently.
- ❖ The Department of Agriculture is distributing 20 kg of green manure per acre to farmers at 50% subsidy.



- ❖ The manure, dhaincha (Thakkai Poundu), typically costs ₹100 in the open market.
- ❖ It is available at block-level agriculture extension offices for ₹50.
- ❖ Dhaincha can contribute up to eight tonnes of biomass per acre.
- ❖ When dhaincha decomposes, it secretes weak organic acids that are highly beneficial to the rice ecosystem.

- ❖ In addition to the biomass it provides, the root nodules formed by it fix atmospheric nitrogen.

Chennai Formula 4 car race

SPEED WAY

The Indian Racing Festival (IRF) will host its Inaugural night street race from August 30 to September 1, 2024. Here are some highlights:

- The Indian Racing League (IRL) and the Formula 4 Indian Championship (F4IC) are the two championships conducted under the Indian Racing Festival banner
- The Indian Racing League (IRL) is country's only 4-wheel racing league featuring six city-franchise-based teams
- It's world's first gender-neutral racing championship series, promoting inclusivity and competitive spirit
- Formula 4 is an open-wheel, single-seater racing category intended for junior drivers

Formula 4 India Championship (F4IC) Format

- 16 drivers
- 8 Teams
- 16 cars (each team runs 2 cars)
- 5 Rounds
- All the cars are run by MP Motorsports
- India's only FIA Certified single seater series

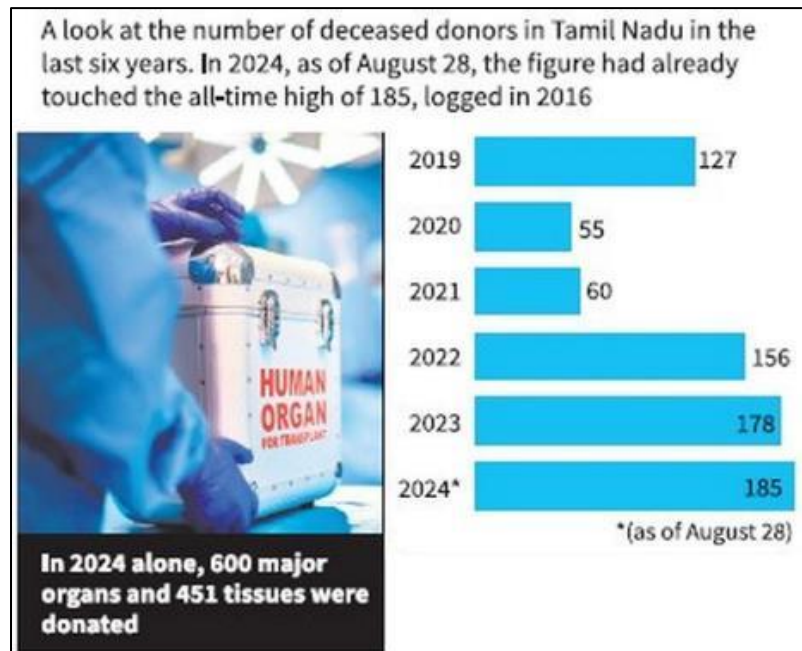
TRACK DETAILS

The 3.5km Chennai Formula Racing Circuit features 19 turns, multiple chicanes, and tricky elevations, providing a thrilling and challenging experience for drivers and fans alike

- ❖ Australian Hugh Barter made a history as the first winner of the Formula 4 race held around the streets of Chennai.
- ❖ This is the country's first-ever night racing event, in Chennai.
- ❖ Chennai is the first city in South Asia to hosted a Formula 4 street race at night.
- ❖ It is noteworthy that the race was held on the longest street circuit in South Asia.
- ❖ This is the world's first gender-neutral racing championship, promoting inclusivity and competitive spirit in motorsports.

TN organ donations in 2024

- ❖ Within eight months in 2024, Tamil Nadu has already touched its previous all-time high of 185 deceased donors from 2016.
- ❖ The State has recorded 185 deceased donors as of August 28.
- ❖ Last year, Rajiv Gandhi Government General Hospital recorded 26 deceased donors.
- ❖ It has recorded 24 donors so far this year.



Naan Mudhalvan - Uyarvukku Padi program

- ❖ The Tamilnadu State government is conducting special camps across the State for the class XII students to ensure that they clear the board exam and pursue higher education.
- ❖ The special camps will be organised by the School State Project Directorate in each district under the Naan Mudhalvan's scheme (Uyarvukku Padi).
- ❖ The special camp will be organised for the students, who failed to register for pursuing higher education in Engineering, Polytechnic, Arts, Science and Vocational colleges in the State.
- ❖ Spot admissions will also be made for the students based on the vacancies in the colleges.
- ❖ Of 3,97,809 Class XII students during 2022-23, 2,39,270 students have enrolled in higher education and 45,440 students have applied for higher education.
- ❖ 1,13,099 students have either not applied or not provided sufficient details of enrolment.
- ❖ In 2023-2024, of the 3,31,540 Class XII students, 1,97,510 students have applied for higher education.
- ❖ 1,34,030 students have either not applied or not provided sufficient details of application.



Multi modal facility complex

- ❖ Tamil Nadu government issued a revised administrative sanction to implement the Integrated Development of Multi-Modal Facility Complex (MMFC) with Kuralagam at Broadway, Chennai.
- ❖ An estimated 1,100 buses could use the 10-storeyed complex.
- ❖ It would also have para-transit facilities, parking for over 400 cars and 800 two-wheelers.

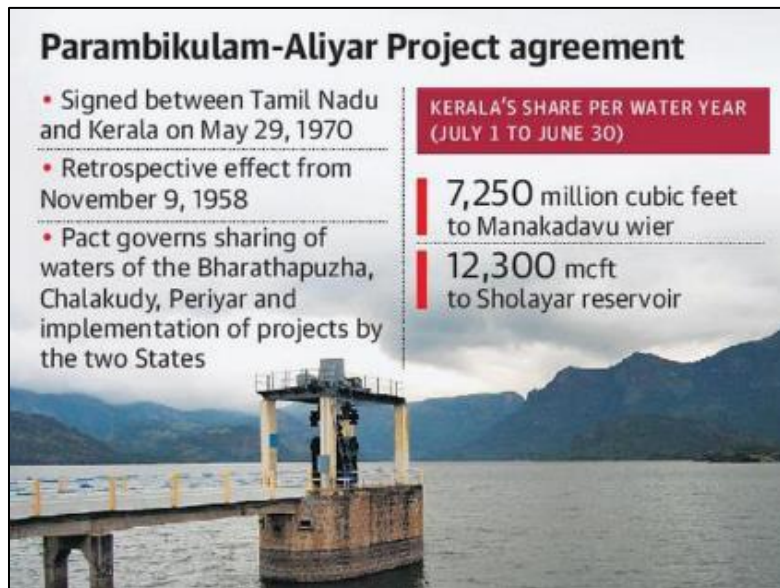
Bus depots, terminus to be modernised

- **MTC and TNIDB collaboration:** Saidapet, Adyar, Tiruvanmiyur, T Nagar, Tambaram, Poonamallee, Central, Villivakkam, Vallalar Nagar, Vyasarpadi, Toll Gate and Tiruvottiyur
- **CMRL:** Anna Nagar West depot, Broadway terminus, and the depot-cum-terminus each in Vadapalani, Mandaveli and KK Nagar
- **CMDA:** Tondiarpet, Kannadasan Nagar, Mullainagar, Thiru Vi Ka Nagar, Periyar Nagar and Ambattur

Parambikulam Aliyar Project pact

- ❖ This project aims to transforming the drought-prone areas in Coimbatore, Tiruppur, and Erode districts of Tamil Nadu, and Palakkad district of Kerala.

- ❖ The project accomplishes the diversion and integration of eight west-flowing rivers: six in the Anaimalai Hills (Anamalaiyar, Sholayar, Thunacadavu, Nirar, Peruvuripallam, and Parambikulam) and two (Aliyar and Palar) in the plains.
- ❖ On May 29, 1970, the two States signed an agreement with retrospective effect from November 1958.
- ❖ Apart from Parambikulam, eight other dams are part of the network, the combined capacity of which is about 31.5 thousand million cubic feet (tmc ft).
- ❖ Hydro power stations have a total capacity of 210 MW.
- ❖ In 2019, Chief Minister-level conference on inter-state water agreements had agreed to renew the pact.
- ❖ If Kerala agrees to the diversion of 2.5 tmc ft from the Anamalaiyar to Tamil Nadu along with the Nirar-Nallar multi-purpose straight-cut scheme, the problem of water shortage in the western districts can be minimised.



New Policy for Wind Power Projects 2024

- ❖ The Tamil Nadu Repowering, Refurbishment & Life Extension Policy for Wind Power Projects – 2024 has been released recently.
- ❖ It aims to encourage developers to replace old wind turbines and promote optimum utilisation of wind energy resources.
- ❖ TN having a substantial renewable energy generation capacity of 22,754 MW as on 30 June, 2024.
- ❖ The Wind energy generation in Tamil Nadu commenced in 1986 with machine capacities ranging from 55 kW to 600 kW.

National Institute of Wind Energy has estimated repowering potential of the country to be 25,406 MW. In this Tamil Nadu's share is 7,386.5 MW.	
Below 0.5 MW	1,181 MW
0.5 to 1 MW	2,919 MW
1 to 1.5 MW	1,813 MW
1.5 to 2 MW	1,473.5 MW
Total	7,386.5 MW

Women directors in active companies – Tamilnadu



- ❖ The number of women directors in active companies had grown three-fold in the last decade in the country.
- ❖ But in Tamil Nadu, it witnessed a four-fold increase.
- ❖ In Tamil Nadu, there are around 68,000 women directors associated with active companies in August 2024, as against 15,550 in 2014.
- ❖ In India, there are 8.83 lakh women directors associated with active companies in August 2024, compared to 2.58 lakh in 2014.
- ❖ There are two women judges on the Supreme Court Bench.
- ❖ 106 women judges are working in various High Courts.
- ❖ The Madras High Court has 11 women judges.

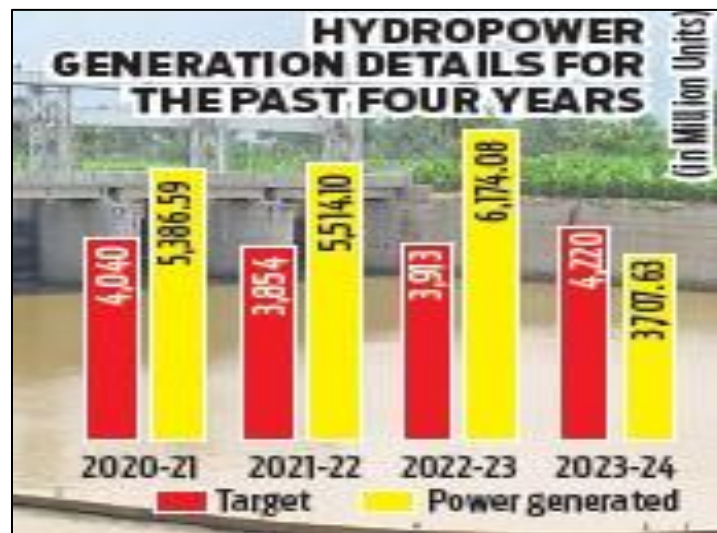
Cyber Security Policy 2.0

- ❖ Cyber Security Policy 2.0 was recently released by the Tamil Nadu government.
- ❖ It superseded the Tamil Nadu Cyber Security Policy 2020 issued in September 2020.

- ❖ It lists out steps for ensuring the protection of assets of the government through guidelines, Standard Operating Procedures (SOP) for audit, compliance and monitoring of cyber threats and attacks.
- ❖ The policy aims to protect information assets of government (infrastructure, software, citizen services).
- ❖ This will maximize their availability to government and citizens and to create an institutional mechanism to monitor the established infrastructure.



Tamil Nadu Small Hydel Policy – 2024

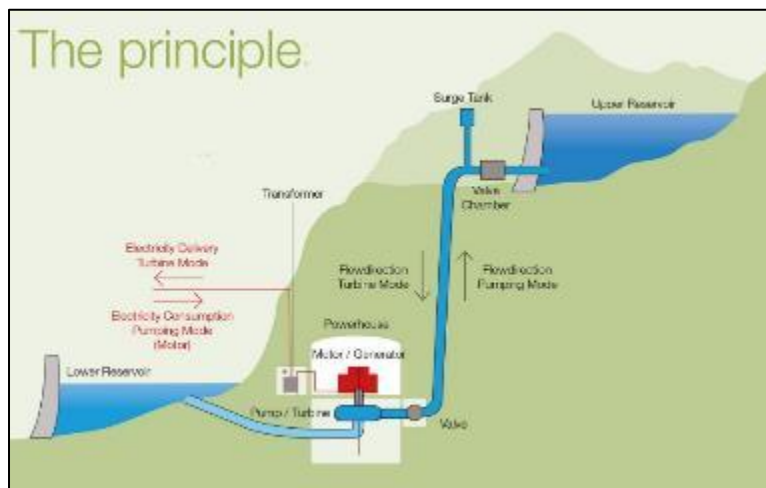


- ❖ In a first, the Tamil Nadu government has approved a new policy on small hydel power projects.
- ❖ The policy was drafted by Tamil Nadu Green Energy Corporation Ltd. (TNGECL).
- ❖ It is encouraging private developers to generate electricity for self-consumption or third-party sale.

- ❖ Small hydel projects ranging from 100 kW to 10 MW (with unit size of 5 MW each) showcased a significant opportunity to enhance local energy production and support rural electrification.

Pumped Storage Projects Policy 2024

- ❖ The State government has released the Tamil Nadu Pumped Storage Projects Policy (PSP) 2024.
- ❖ It aims to harness the potential of PSPs to support sustainable energy growth, meet renewable energy targets, attract investments, integrate renewable energy into the grid.
- ❖ Tamil Nadu has an installed wind energy capacity of over 9,000 MW and installed solar energy capacity exceeding 7,800 MW.
- ❖ State's total installed green energy capacity is 22,628 MW.
- ❖ Tamil Nadu Green Energy Corporation Limited (TNGECL) shall be the Designated Nodal Agency for implementing this policy.



Conocarpus tree in Neelankarai (Chennai)

- ❖ The State Forest Department has decided to study the implications of the *Conocarpus*, whose pollen is hazardous to the human respiratory system.
- ❖ The *Conocarpus* trees are planted in Neelankarai beach to create greenery.
- ❖ Gujarat, Telangana and Andhra Pradesh have already banned the planting of *Conocarpus*, which is native to African coasts.
- ❖ It is alleged that, the pollen grains from the *Conocarpus* cause a rise in the cases of cough, cold, asthma and other respiratory disorders.



Eye donations in Tamil Nadu 2024

GIFT OF SIGHT	
> After death, eyes must be removed within 6 hours	covered with cotton; fan should be switched off, air-conditioner can be on till harvest
> Eye leaves no scar and takes 10-15 mins	
> Eye donation gives sight to two people (1 blind person=1 eye)	> Only cornea is transplanted, not the entire eyeball; other parts of the eye used for research purposes
> Eyes have to be	

- ❖ Tamil Nadu contributes 25 per cent of eye donations nationwide.
- ❖ The state received 5,422 eye donations in 2021-22, 8,274 in 2022-23 and 9,400 in 2023-24.
- ❖ 92.85% of the donated corneas were utilised for transplantation.
- ❖ In the last three years, spectacles were provided for 4,87,469 school students after screening them through Rashtriya Bal Swasthya Karyakram.

Investment proposals of ₹900 crore

- ❖ The Tamilnadu State government has signed memoranda of understanding (MoU) with six companies for investment proposals to the tune of ₹900 crore.
- ❖ They would provide employment to about 4,100 people in Chennai, Coimbatore, and Madurai.

- ❖ The companies include Nokia, PayPal, Microchip, Infineon and etc.

சாண் பிளாஸ்டிக்ஸ்கோவில் பார்க்கப்பட்ட முதலீடுகள்	
நோக்கியா	முதலீடு: ரூ. 150 கோடி வேலையம்மு: 100
மைக்ரோசிம்	முதலீடு: ரூ. 250 கோடி வேலையம்மு: 1500
சுட்டி இன்ஜினியரிங் சிஸ்டம்ஸ்	முதலீடு: ரூ. 150 கோடி வேலையம்மு: 300
பேயால்	வேலையம்மு: 1000
இன்யினிக்ஸ்	முதலீடு: ரூ. 50 கோடி வேலையம்மு: 700
அம்மை லாப்டாப்ஸ்	வேலையம்மு: 500

Achievements of the School Education Department

பள்ளிக்கல்வித்துறை படைத்த சாதனைகள்!
அரசுப் பள்ளிகளில் கல்வித் தரத்தினை மேம்படுத்த, ரூ.551.411 கோடியில் 28,794 பள்ளிகளில் திறன்மிகு வகுப்பறைகள் (Smart Class Rooms) உருவாக்கப்பட்டு வருகின்றன.
பேராசிரியர் அன்புமகன் பள்ளி மேம்பாட்டுத் திட்டத்தின் மூலம் ரூ.1,086 கோடியில் 614 பள்ளிகளில் 3,238 வகுப்பறைகள், 21 அறிவியல் ஆய்வகங்கள், உள்கட்டமைப்புகள் மேம்படுத்தப்பட்டுள்ளது.
அரசு உதவிபெறும் மேல்நிலைப் பள்ளிகளில் உயர் தொழில்நுட்ப ஆய்வகங்களை நிறுவ ரூ.41.856 கோடி ஒதுக்கீடு செய்யப்பட்டு, பணிகள் நடைபெற்று வருகிறது.
மாதம் 1,000 ரூபாய் வழங்கும் "புதுமைப்பெண்" மற்றும் "தமிழ்ப் புதல்வன்" திட்டத்தின் கீழ், 6 இலட்சத்திற்கும் மேற்பட்ட மாணவ மாணவியர் பயன் பெறுகின்றனர்.
நான் முதல்வன் திட்டத்தின் கீழ், 10 இலட்சம் மாணவர்கள் பயனடைந்துள்ளனர்.
காலை உணவுத் திட்டத்தின் மூலம் 20 இலட்சத்திற்கும் மேற்பட்ட குழந்தைகள் பயனடைந்துள்ளனர்.
"தமிழ்நாடு முதலமைச்சர் திறனாய்வுத் தேர்வு" மூலம் 1,000 மாணவ மாணவியருக்கு மாதம் ரூ.1,000 வீதம் இளநிலை பட்டப்படிப்பு வரை வழங்கப்படுகிறது.

- ❖ The National Institute of Ranking Framework (NIRF) report was released recently by Union Ministry for Education.
- ❖ Tamil Nadu housed 165 of the 926 colleges across the country.
- ❖ Under the Perasiriyar Anbazhagan School Development Scheme, efforts towards ensuring infrastructure facilities in 614 government schools was taken up since 2022 at a total cost of ₹1,086 crore.

- ❖ Over 8,200 high-tech labs were being set up in State-run schools at a total cost of ₹394 crore.
- ❖ Since 2021-22, smart classrooms were established in over 28,700 government-run and State-aided schools across Tamil Nadu.
- ❖ Over 20 lakh children benefited from the Chief Minister's Breakfast Scheme.

Increase of death gratuity

- ❖ Tamil Nadu government has recently increased the maximum limit of death-cum-retirement gratuity (known as DCRG) from ₹20 lakh to ₹25 lakh.
- ❖ The revision is to take retrospective effect from January 1 this year.
- ❖ This is in line with the recommendations of the Seventh Central Pay Commission.
- ❖ The Government of India was to the effect of 25% with retrospective effect from January 1, 2024.
- ❖ However, it is applicable to only those who get a basic pay of at least ₹84,000 a month would get the retirement or death gratuity.
- ❖ The majority of employees in old pension scheme would not be eligible to receive the enhancement.
- ❖ The pension and gratuity were dealt with by two different Acts and rules – the Tamil Nadu Pension Rules, 1978 and the Payment of Gratuity Act, 1972.

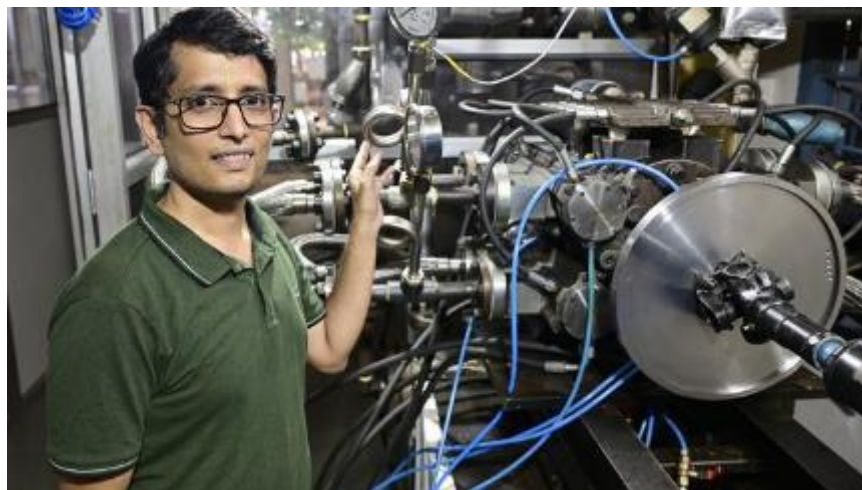
GRATUITY CALCULATION FOR VARIOUS CATEGORIES	
For employees covered under the Gratuity Act: <ul style="list-style-type: none"> ■ Formula for calculation: $\text{Gratuity} = (n \times b \times 15) / 26$ n = Tenure of service completed in the company b = Last drawn basic salary + dearness allowance ■ Example: <ul style="list-style-type: none"> ● If you have worked for XYZ company for 15 years ● Last drawn basic salary with dearness allowance: ₹30,000 ● Gratuity amount $= (15 \times 30,000 \times 15) / 26$ $= ₹259,615$ 	For employees not covered under the Gratuity Act <ul style="list-style-type: none"> ■ Formula for calculation: $\text{Gratuity} = (15 \times \text{your last drawn salary} \times \text{the working tenure}) / 30$ ■ Example: <ul style="list-style-type: none"> ● Basic salary: ₹30,000 ● Continuous service: 7 years ● Gratuity amount $= (15 \times 30,000 \times 7) / 30$ $= ₹105,000$

Radio-collar for Nilgiri Tahr



- ❖ The Tamil Nadu Forest Department has fixed a tracking device on Nilgiri tahr in Anamalai Tiger Reserve for study purpose.
- ❖ Earlier, a Nilgiri tahr was radio-collared in the Mukurthi National Park.
- ❖ The tracking device with GPS (global positioning system) emitted signals and showed the location of the radio-collared individual for every 12 hours.
- ❖ The device could generate signals in this frequency for more than two years.
- ❖ The radio-collaring and monitoring is one of the nine components of the Project Nilgiri Tahr.
- ❖ It is monitoring the species with the tracking device will help the project team understand their home range and other behavioural patterns.

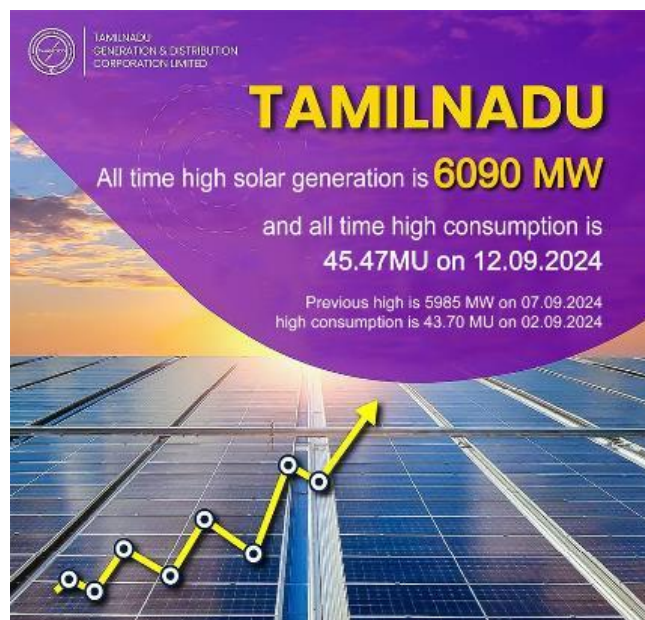
1 GT in CO2 reduction by 2035



- ❖ IIT Madras has established a research group that is targeting over 1 Giga Ton (GT) in cumulative CO2 emission reduction by 2035.
- ❖ The Consortium aims to be a critical contributor to India's Net Zero journey by providing valuable R&D assistance to Indian industries in low carbon energy transition pathways.
- ❖ This research group was established at IIT-Madras, with funding from the 'Institute of Eminence' initiative of the Government of India.

Solar energy generation and consumption 2024

- ❖ Tamil Nadu's solar energy generation and consumption reached a new high recently.
- ❖ Solar energy generation touched 6,090 MW, surpassing the previous high of 5,985 MW achieved on September 7.
- ❖ The solar energy consumption has reached 45.47 million units, surpassing the previous record of 43.70 million units achieved on September 2.
- ❖ Tamil Nadu has an installed solar energy capacity of over 7,800 MW.
- ❖ So far in September this year, the cumulative solar generation in the State stood at 521.73 million units.
- ❖ The State's current peak power demand is around 18,115 MW, and the daily consumption, about 400 million units.
- ❖ So far in 2024-25, the maximum power demand is 20,830 MW.
- ❖ The maximum daily consumption is 454.320 million units.



State Planning Commission report on LEZ

- ❖ Tamil Nadu's State Planning Commission has come out with a report on 'Low Emission Zoning – A Toolkit for Chennai'.
- ❖ It is collaborated with the British Deputy High Commission, Chennai, through the UK Partnering for Accelerated Climate Transitions (UK PACT) program.
- ❖ A LEZ is an area in which use of more polluting vehicles are restricted based on vehicle emission standards and levying charges on non-compliant vehicles.
- ❖ The primary objective of an LEZ should be to bring down ambient pollution concentrations to improve public health and deliver compliance with legal limit values.
- ❖ Chennai is India's fourth largest city, with a population of around 9 million.
- ❖ The city is expanding rapidly, with some of the peripheral areas seeing annual population increases of around 50%.

Green goals

Some of the key highlights of the T.N. State Planning Commission's report, 'Low Emission Zoning – A Toolkit for Chennai'

■ Low-Emission Zone (LEZ) is an area where use of more polluting vehicles is restricted by way of having in place vehicle emission standards and levying charges for non-compliance

■ Implementing an LEZ is usually the most cost-effective and efficient way to reduce emissions from the most polluting vehicles in areas having a high population density



■ Chennai is a rapidly growing city, and action needs to be taken to mitigate air pollution

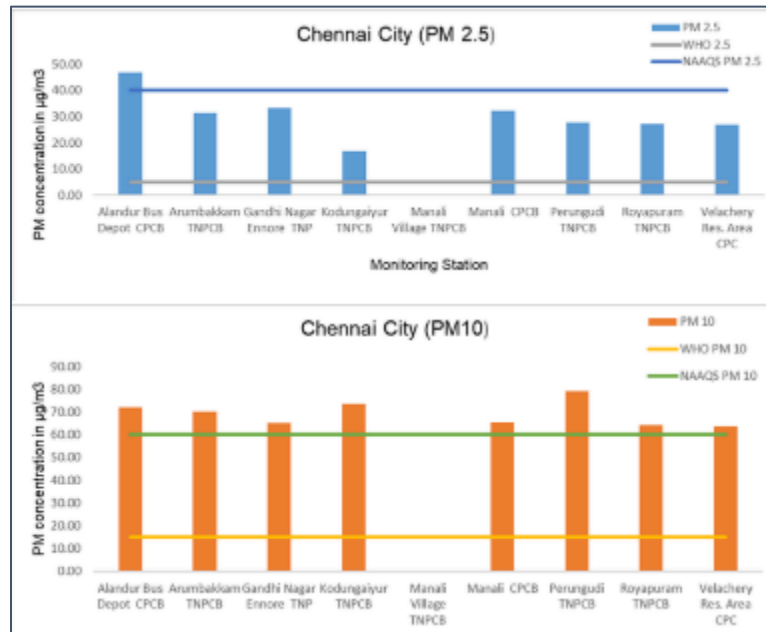
■ In the short-term, in Chennai, promotion and development of alternatives to personal transport should be explored

■ A long-term victory would be to introduce LEZs once alternative transport modes become efficient and reliable

Chennai's air pollution 2024

- ❖ The report titled 'Spare the Air 2.0' compared the air quality to World Health Organization (WHO) guidelines.
- ❖ The annual average level of PM2.5 is six to seven times higher in six cities, including Chennai.

- ❖ In Chennai, the monthly average trend indicated that PM_{2.5} levels are four to seven times higher.
- ❖ The PM₁₀ levels are up to six times higher than WHO annual guidelines.
- ❖ The annual average NAAQS standard for PM₁₀ is 60 µg/m³, while the WHO standard is 15 µg/m³.
- ❖ For PM_{2.5}, the NAAQS standard is 40 µg/m³, compared to the WHO standard of 5 µg/m³.



Social Justice Day 2024

- ❖ Tamilnadu observed the birth anniversary of the social reformer Periyar, as 'Day of Social Justice' every year.
- ❖ The 146th birth anniversary of Dravidar Kazhagam founder 'Periyar' E.V. Ramasamy was observed recently.
- ❖ Periyar led the Dravidian Movement, which sought to dismantle the oppressive customs and traditions that perpetuated social inequality.
- ❖ He was the founder of the Self-Respect Movement and the socio-cultural organization Dravidar Kazhagam.
- ❖ Through his weekly magazine Kudi Arasu, Periyar voiced his opposition to political and social injustices.



CM Research Fellowship 2024

- ❖ The state government has sanctioned ₹50 lakh for giving a fellowship of ₹1 lakh each to 50 students with the disabilities under the Chief Minister's Research Fellowship.
- ❖ The fellowship would support their research for their Ph.D. program.
- ❖ Only students with disabilities, pursuing Ph.D., are eligible.
- ❖ There is no bar on the income and candidates should pursue Ph.D. either part-time or full time at any recognised educational institution in the country.

Statue of archaeologist John Marshall

- ❖ The Tamil Nadu government will install a life-size statue of British archaeologist John Marshall to mark 100 years of the discovery of the Indus Valley Civilisation.
- ❖ Marshall was the director-general of the Archaeological Survey of India (ASI) from 1902 to 1928.
- ❖ During this time the Harappa and Mohanjodaro, two main cities that comprise the Indus Valley Civilisation, were discovered.
- ❖ 100 years ago, on 20th September 1924, Sir John Marshall had announced the discovery of the Indus Valley Civilisation.

Organ Donation Day in Tamil Nadu - September 23

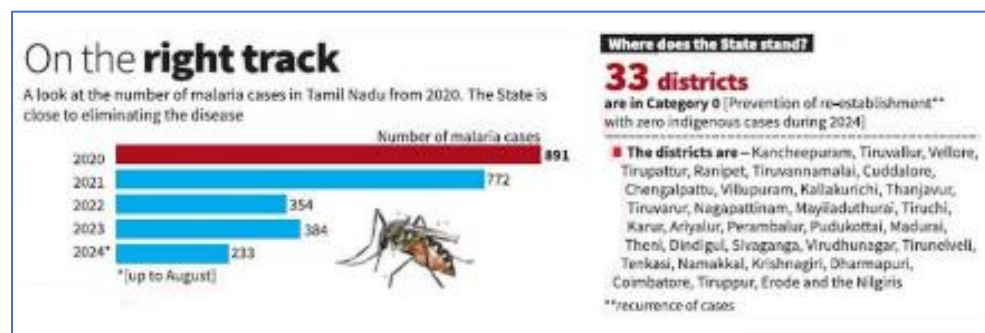
- ❖ The practice of observing September 23 as Organ Donation Day began in Tamil Nadu after the tragic death of 15-year-old AP Hitendran in 2008.
- ❖ Since the inception of the deceased donor organ transplant programme in 2008, there were 1,998 donors in the State.
- ❖ A total of 7,207 major organs, including 892 hearts, 912 lungs, 1,794 liver, 3,544 kidneys, 42 pancreas, 15 small bowels and seven hands, were utilised so far.
- ❖ A total of 4,204 tissues were retrieved and utilised, he said.
- ❖ CM had announced State honours for the mortal remains of deceased donors on September 23, 2023.
- ❖ Since then, the honours were accorded to 272 deceased donors from whom 1,461 organs were retrieved.
- ❖ The state has retrieved 7,200 organs from 1,988 donors over the past 16 years.

Realization of Cauvery water 2024

- ❖ Tamil Nadu's realisation of Cauvery water has exceeded the 200-tmcft-mark in the current water year, beginning on June 1.
- ❖ As on September 23, the cumulative realisation was around 201 thousand million cubic feet (tmc ft), compared to the prescribed quantum of about 115 tmc ft.
- ❖ The State has received an excess of approximately 86 tmc ft during the lapsed period of the water year.



Malaria elimination goal 2024



- ❖ Tamil Nadu is a step closer to eliminating malaria with 33 districts in the State recording zero indigenous cases in 2024.
- ❖ The State has been working towards eliminating malaria by 2030, adopting the national framework step by step from 2014.
- ❖ There were no deaths due to the disease from 2020 till August 2024.
- ❖ The number of cases reported a year has been steadily declining in the State — from 891 cases in 2020.
- ❖ The number has dropped to 233 in 2024 (till August).
- ❖ Chennai Corporation's contribution to the total number of malaria cases in the State has dipped from 80% in 2020 to 45% in 2023; and 40% so far in 2024.
- ❖ Almost 50,000 cases were reported every year during 1990 to 1998.

NATIONAL

Vigyan Dhara scheme

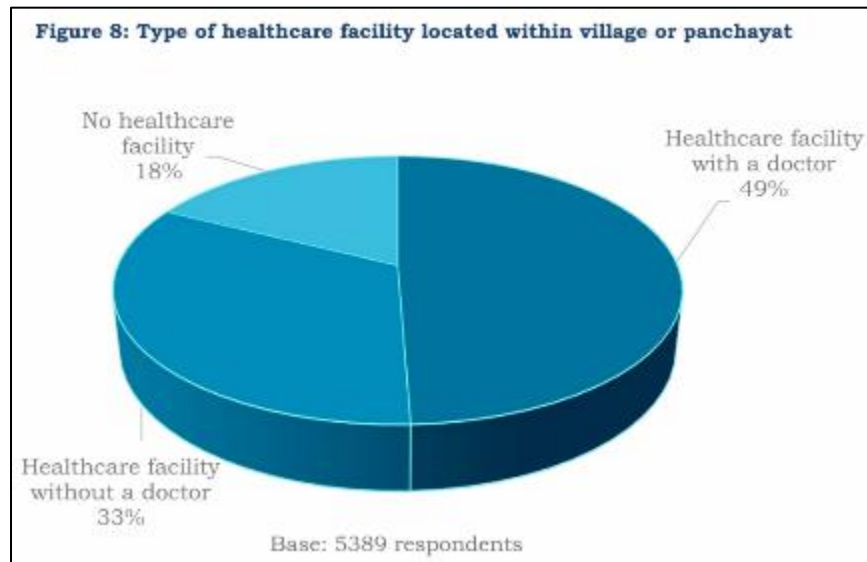
- ❖ The Union Cabinet decided to merge several existing science promotion programs being run by the Department of Science and Technology (DST) under a new initiative called Vigyan Dhara.
- ❖ It merges schemes including the INSPIRE programme that works to attract young talent to science research.
- ❖ Vigyan Dhara has three broad components
 - Science and technology institutional and human capacity building
 - Research and development; and
 - Innovation, technology development and deployment.
- ❖ Cabinet also approved the Bio E3-Biotechnology for Economy, Environment, and Employment policy to foster high-performance biomanufacturing.
- ❖ The Bio E3 Policy will promote a future that is more sustainable, innovative, and responsive to global challenges.



State of Healthcare in Rural India 2024

- ❖ The survey was jointly undertaken by the non-government organisation (NGO) Transform Rural India and Development Intelligence Unit.
- ❖ Only about half of the rural households in the country have government health insurance.

- ❖ 34% lack any health insurance coverage at all, and 61% of those surveyed lack life insurance.
- ❖ Only 12.2% households of the survey have access to subsidised medicines from Pradhan Mantri Jan Aushadhi Kendras, while 21% lack a commutable medical store.
- ❖ One in five reported no drainage system in their villages.
- ❖ Only 23% had a covered drainage network system in their villages.
- ❖ 43% of households did not have any scientific system of waste disposal and they ended up with dumping their waste everywhere.
- ❖ Only 11% burn the dry waste and convert their wet waste into compost.
- ❖ 28% reported that the local panchayat has made plans to collect household waste.
- ❖ Only 10% of the households rely on neighbourhood support in the absence of family caregivers.
- ❖ Key caregivers for pregnant women include husbands (62.7%), mothers-in-law (50%), and mothers (36.4%).



Blueberry imports from Poland

- ❖ The government has mandated that the antioxidants-rich fruit imported from Poland be sourced from orchards registered with that country's National Plant Protection Organization (NPPO).
- ❖ The certificates must include a declaration confirming that they are free from *acalitus vaccinii* (blueberry bud mites pest) and *pseudomonas viridiflava* (blossom blight disease).

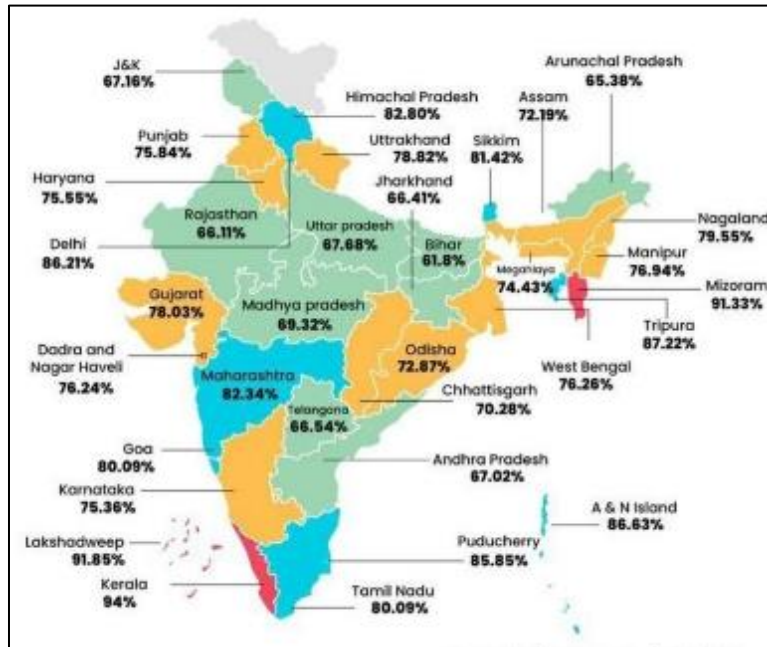
- ❖ NPPO is a country-level institution that works to curb the spread of pests and protect agriculture.
- ❖ India is a signatory of the International Plant Protection Convention (IPPC) under the Food and Agriculture Organization of the United Nations.
- ❖ The blueberry market in India is currently valued at around \$60 million.



Definition of Literacy and Full Literacy

- ❖ The Centrally Sponsored New India Literacy Programme (NILP) has implemented during five years from the FYs 2022-23 to 2026-27.
- ❖ The scheme aims to cover a target of 5.00 crore non-literates in the age group of 15 years and above.
- ❖ For this, the Ministry of Education (MoE) has defined 'literacy,' and what it means to achieve 'full literacy.'
- ❖ It has stated that the literacy may be understood as the ability to read, write, and compute with comprehension.
- ❖ It includes to identify, understand, interpret and create along with the critical life skills such as digital literacy, financial literacy etc.
- ❖ Full literacy is to be considered equivalent to 100% literacy.
- ❖ Achieving 95% literacy in a State/UT that may be considered as equivalent to fully literate.
- ❖ According to the Census 2011, India faces a significant literacy challenge, with 25.76 crore non-literate individuals in the 15 years and above age group.
- ❖ It was comprising 9.08 crore males and 16.68 crore females.

- ❖ The Saakshar Bharat programme has certified 7.64 crore individuals as literate between 2009-10 and 2017-18.
- ❖ Still approximately 18.12 crore adults in India remain non-literate.



Guidelines for Effective Public Grievance Redressal

- ❖ The Centre has issued comprehensive guidelines for a time-bound handling of public grievances.
- ❖ The grievances can be filed by citizens on an integrated user-friendly CPGRAMS www.pgportal.gov.in portal.
- ❖ The timelines for effective grievance redressal have been reduced to 21 days from 30 days.
- ❖ In cases where grievance redressal is likely to take longer, citizens shall be given an interim reply.

GREAT scheme

- ❖ The 8th Empowered Programme Committee (EPC) has approved 4 Start-Ups with a grant of approx. INR 50 Lakhs, each.
- ❖ This was made under the 'Grant for Research & Entrepreneurship across Aspiring Innovators in Technical Textiles (GREAT)' scheme.
- ❖ It also approved a grant of approx. INR 20 Cr. to 5 Education Institutes to introduce courses in Technical Textiles.

- ❖ This was made under the 'General Guidelines for Enabling of Academic Institutes in Technical Textiles'.
- ❖ The approved Start-Up projects are focused on key strategic areas of Composites, Sustainable Textiles, and Smart Textiles.



UDAN scheme version 5.4



- ❖ The Ministry of Civil Aviation (MoCA) has launched version 5.4 of the Ude Desh ka Aam Nagrik (UDAN) scheme.
- ❖ The bids for routes that were earlier cancelled would be invited under UDAN 5.4 as fresh bids.

- ❖ This is further expected to provide connectivity on unserved and underserved routes in the country.
- ❖ UDAN was launched in 2016 to improve air connectivity to remote or unserved areas.
- ❖ Additionally, the MoCA also launched guidelines for seaplane operations in India.

12 Industrial Smart Cities in 10 States

<p>THE PROJECTS</p> <p>▶ 5 along Amritsar-Kolkata industrial corridor</p> <ul style="list-style-type: none"> ■ Rajpura-Patiala (Punjab) ■ Khurpia (Uttarakhand) ■ Agra (Uttar Pradesh) ■ Prayagraj (Uttar Pradesh) ■ Gaya (Bihar) <p>▶ 2 along Delhi-Mumbai industrial corridor</p> <ul style="list-style-type: none"> ■ Jodhpur-Pali (Rajasthan) ■ Dighi (Maharashtra) 	<p>▶ 1 each along industrial corridors of Vizag-Chennai; Hyderabad-Bengaluru; Hyderabad-Nagpur; and Chennai-Bengaluru</p> <ul style="list-style-type: none"> ■ Koppaathy (Andhra Pradesh) ■ Orvakal (Andhra Pradesh) ■ Zaheerabad (Telangana) ■ Palakkad (Kerala) <p>▶ The name of one city was not revealed as the 'Model Code of Conduct' is in force in poll-bound states</p>
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- ❖ The centre approved the setting up of 12 industrial smart cities under the National Industrial Corridor Development Programme (NICDP).
- ❖ The project spans across 10 states and is strategically planned along six major corridors.
- ❖ NICDP is expected to generate significant employment opportunities, with an estimated 1 million direct jobs and up to 3 million indirect jobs being created through planned industrialization.

National Medical Register Portal 2024

- ❖ The Health Ministry recently launched National Medical Register (NMR) Portal.
- ❖ All MBBS doctors who are already registered on the Indian Medical Register (IMR) must register again on the NMR.
- ❖ NMR will be a comprehensive dynamic database for all allopathic (MBBS) registered doctors in India.
- ❖ The uniqueness of NMR is that it is linked with the Aadhaar ID of the doctors, which ensures the individual's authenticity.

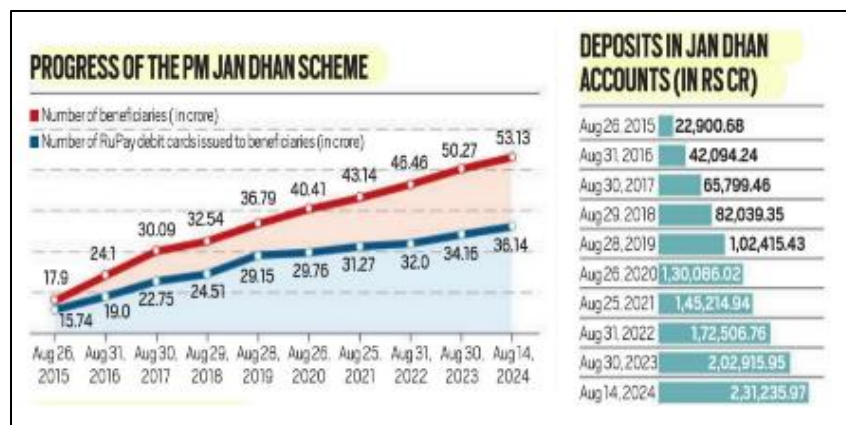
- ❖ After the NMC verification, a unique NMR ID would be issued.

National Medical Register (NMR)

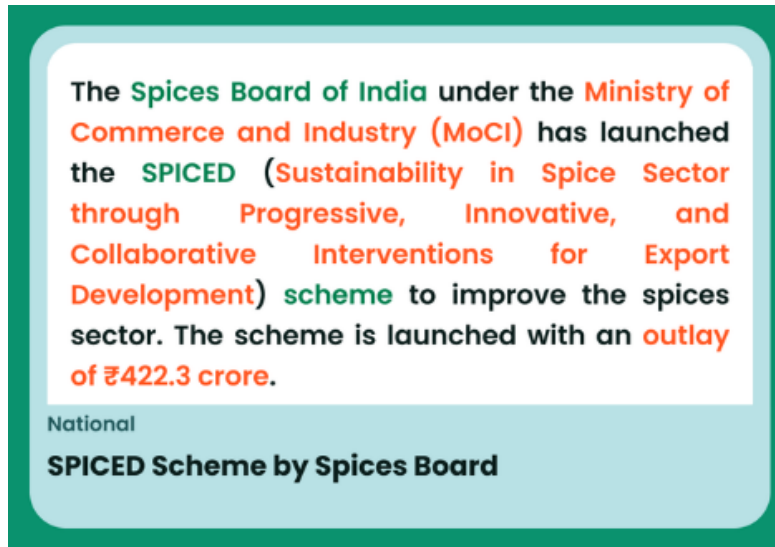
- Section 31(1) of the NMC Act, 2019 provides that the EMRB shall maintain a National Register containing the name, address, and all recognized qualifications possessed by a licensed medical practitioner.
- This will be a dynamic database for all allopathic registered doctors in India. Some data will be visible to the public, and others will only be visible to EMRB in NMC, SMC, NBE, Medical Institutions, including INIs and RMPs, as per the requirements.

10 Years of PMJDY

- ❖ The year 2024 marks the tenth year of the Pradhan Mantri Jan-Dhan Yojana (PMJDY).
- ❖ Under the scheme, a basic savings bank deposit (BSBD) account can be opened in any bank branch or Business Correspondent (Bank Mitra) outlet.
- ❖ As of Aug 14, 2024, there were over 53.14 crore beneficiaries.
- ❖ 66.6% of these accounts are in rural and semi-urban areas, with women accounting for 55.6% of all accounts.
- ❖ These accounts now hold deposits totalling Rs 2.31 lakh crore, reflecting a 15-fold rise in eight years.
- ❖ Around 8.4% of accounts with zero balances and approximately 20% of accounts being inactive.



SPICED Scheme



- ❖ The Spices Board of India has launched this transformative scheme.
- ❖ It aimed at significantly enhancing the export of spices and value-added spice products.
- ❖ It also focused on improving the productivity of cardamom and upgrading the post-harvest quality of spices for exports.
- ❖ SPICED stands for “Sustainability in Spice Sector through Progressive, Innovative and Collaborative Interventions for Export Development.”

Bharat Zero Emission Trucking policy 2024

- ❖ The Government of India has launched the “Bharat Zero Emission Trucking (ZET) Policy Advisory” document.
- ❖ It aims to guide India toward a sustainable future by promoting zero-emission trucking, aligning with national goals of energy security and carbon neutrality.
- ❖ ZETs are vehicles powered by clean energy sources like electricity or hydrogen, producing no tailpipe emissions.
- ❖ They can lower carbon emissions by 44% to 79% compared to diesel trucks.

SHe-Box Portal

- ❖ The Union Ministry of Women and Child Development has launched the SHe-Box portal.
- ❖ It aims to tackle the workplace sexual harassment and ensure safer work environments for women across India.

- ❖ It will streamline the process of reporting and addressing complaints of sexual harassment in both government and private sectors.
- ❖ This portal serves as a central hub to collect information about Internal Committees (ICs) and Local Committees (LCs) that handle sexual harassment complaints.



Vehicle Scrappage Policy 2024

- ❖ Commercial and passenger vehicle manufacturers have offer discounts for the purchase of new vehicles against the scrapping of older vehicles with a valid Certificate of Deposit.
- ❖ The program is valid from September 1, 2024, and will run for a period of two years or until further notice.
- ❖ The country needs 1,000 vehicle scrapping centres and 400 automated fitness test centres.
- ❖ Uttar Pradesh currently leads the nation with the highest number of operational Registration and Vehicle Scrapping Facility (RVSF) centres.
- ❖ The Centre launched the National Vehicle Scrappage Policy in August 2021.
- ❖ It aims to phase out the unfit and polluting vehicles and also promote a circular economy.
- ❖ Under the new policy, the Centre had said the states and Union Territories (UTs) will provide up to 25 per cent tax rebate on road tax for vehicles that are purchased after scrapping old vehicles.
- ❖ The vehicle scrappage policy has come into effect from April 1, 2022.

Agricultural Infrastructure Fund 2024

- ❖ The Union Cabinet has expanded the scope of the Agricultural Infrastructure Fund (AIF).
- ❖ The scheme, worth ₹1 lakh crore, would be redesigned to include the financial support for Farmers' Producers Organisations (FPOs) to enhance their financial security and creditworthiness.
- ❖ The Centre said the AIF would be more attractive now and strengthen the farm-related infrastructure facilities in the country.
- ❖ Rs.47,575 crore has been sanctioned for 74,508 projects under AIF till date.

NITI Aayog repots on edible oil



- ❖ The report is titled 'Pathways and Strategies for Accelerating Growth in Edible Oils Towards the Goal of Atmanirbharta'.
- ❖ Utilising one-third of the total rice fallow area across 10 States for oilseed cultivation can increase the production of edible oils by 1.03 million Tonnes (MT) and reduce India's import reliance by 7.1%.
- ❖ Estimates suggest a potential increase of up to 3.12 MT in oilseed output.
- ❖ It has also recommended increasing palm cultivation in the country for extracting palm oil to meet the cooking oil deficit.
- ❖ Cultivation of linseed, sesame and mustard in Madhya Pradesh and Chhattisgarh that could increase the edible oil production to 0.85 MT.
- ❖ Similarly, Bihar and Jharkhand hold the potential to reach 0.62 MT by introducing linseed, sunflower, safflower, and mustard.

- ❖ The per capita consumption of edible oil in the country has reached 19.7 kilogram per year.
- ❖ In 2022-23, India has imported 16.5 MT of edible oils, with domestic production fulfilling only 40-45% of the country's requirements.

Rule 170 of Drugs Act

- ❖ The Supreme Court recently stayed a Central government notification, whereby Rule 170 of the Drugs and Cosmetics Rules, 1945, was omitted.
- ❖ The rule, introduced in 2018, is designed to prevent misleading advertisements of AYUSH products.
- ❖ Rule 170 aims to govern the manufacture, storage, and sale of medicines in the country.
- ❖ It is made "specifically for controlling inappropriate advertisements of Ayurvedic, Siddha and Unani medicines".
- ❖ The rule prohibits AYUSH drug manufacturers from advertising their products without approval and allotment of a unique identification number from the state licensing authority.
- ❖ Like allopathic medicines, manufacturers of AYUSH drugs also have to seek a license from the drug controller.
- ❖ As per the Drugs and Cosmetics Act, phase I, II, and III trials for approval of new allopathic medicines to be conducted before a drug is cleared for marketing.
- ❖ However, such trials are not necessary for AYUSH drugs.



Project NAMAN

- ❖ The Indian Army launched the first phase of Project NAMAN.
- ❖ It is designed to provide dedicated support and services to Defence pensioners, veterans, and their families.
- ❖ In the first phase of Project NAMAN, 14 Common Services Centres have been established at key locations across India.
- ❖ It is including New Delhi, Jalandhar, Leh, Dehradun, Ahmedabad, Bangalore and etc.
- ❖ The project is set to expand significantly and aims to establish approximately 200 centres nationwide over the next 2 to 3 years.

India Post Payments Bank (IPPB)

- ❖ India Post Payments Bank celebrates 7th Foundation Day on September 01.
- ❖ It was first started as a pilot project on January 30, 2017 in Ranchi (Jharkhand) and Raipur (Chhattisgarh).
- ❖ IPPB was launched on September 1, 2018.
- ❖ IPPB has successfully disbursed over Rs 45,000 crore in Direct Benefit Transfers (DBT) to beneficiaries under various government schemes.
- ❖ India Post have extensive network of over 161,000 post offices and 1,90,000 postal employees during the last seven years.

Schemes for improving farmers' lives and livelihoods



- ❖ The Union Cabinet has approved seven schemes to improve farmers' lives and increase their incomes at a total outlay of Rs 14,235.30 Crore.

- ❖ The seven schemes are
 - Digital Agriculture Mission: Based on the structure of Digital Public Infrastructure.
 - Crop science for food and nutritional security
 - Strengthening Agricultural Education, Management and Social Sciences
 - Sustainable livestock health and production
 - Sustainable development of Horticulture
 - Strengthening of Krishi Vigyan Kendra
 - Natural Resource Management.

23rd Law Commission of India

- ❖ The Centre has notified the constitution of the 23rd Law Commission.
- ❖ The term of the Commission will be for period of three years till 31st August 2027.
- ❖ The Commission will have a full-time chairperson and four full-time members including a member-secretary.
- ❖ It will identify laws that have become obsolete and can be repealed, carry out audits of laws that affect the poor and give its views on any law.
- ❖ The 23rd Commission has been asked to examine the impact of globalisation on food security, unemployment and recommend measures for the protection of the interests of the marginalised.
- ❖ The chairperson and members could be serving judges of the Supreme Court or High Courts or “other category of persons”.
- ❖ Usually, the chairperson of the commission is a retired judge.
- ❖ The 22nd Law Commission was chaired by former Karnataka High Court Chief Justice Ritu Raj Awasthi.
- ❖ The 22nd Law Commission’s term came to an end on August 31.

LAW COMMISSION

- › It helps the **government review the functioning of laws**, suggests repealing obsolete legislation, and makes recommendations on matters referred to by the government.

The commission is usually chaired by a **retired judge of the Supreme Court** or a High Court and has legal scholars as members.

- › **Serving judges can also be appointed** to the commission, according to the notification on the appointment of the new panel.

e-Shram Portal Registrations

- ❖ The Ministry of Labour & Employment (MoLE) launched the eShram portal on 26th August 2021.
- ❖ In the span of three years since its launch, eShram has registered more than 30 crore unorganised workers.
- ❖ The eShram portal was launched as a "One-Stop-Solution" for the country's unorganised workers.
- ❖ It aims to facilitate access of various social security schemes being implemented by different Ministries/ Departments to unorganised workers.
- ❖ It serves as a facilitator to ensure the seamless access of various Government schemes to the unorganised workers.



Benefits for Unorganised workers registering on e-SHRAM Portal

-  e-SHRAM Card received after registration will be accepted across the country.
-  Accidental Insurance coverage through PMSBY for a year.
-  Rs. 2 lakh in case of accidental death and permanent disability.
Rs. 1 lakh in case of partial disability.
-  Social Security benefits will be delivered through e-SHRAM Portal.
-  Helpful for Central & State Government while providing assistance during calamities/pandemic.

e-Shram
Shramev Jayate
NATIONAL DATABASE OF UNORGANISED WORKERS

Registration Process on e-SHRAM Portal

- Registration has commenced on e-SHRAM Portal from 26th August, 2021. All Unorganised Workers can self-enroll through www.eshram.gov.in
- Assistance is also being provided through over 4 lakh CSC/SSK centers all across the country.
- Selected Post Offices are also providing assistance to Unorganised Workers in registration.

Digital Agriculture Mission

- ❖ The Union Cabinet approved the Rs 2,817-crore Digital Agriculture Mission for the creation of Digital Public Infrastructure (DPI) in the farm sector.
- ❖ It aims to create Digital Public Infrastructure in the agriculture sector is similar to the government's flagship e-governance initiatives in other sectors.
- ❖ The three major components of DPI are envisaged under the Digital Agriculture Mission:
 - AgriStack,
 - Krishi Decision Support System (DSS), and
 - Soil Profile Maps.



Initiatives for LGBTQI+ Community

- ❖ There are no restrictions for persons of the Queer community to open a joint bank account.
- ❖ They can also nominate a person in queer relationship as a nominee to receive the balance in the account, in the event of death of the account holder.
- ❖ The Reserve Bank of India had also issued a clarification on this matter to all the Scheduled Commercial Banks.
- ❖ Same-sex relationships nominate each other as beneficiaries and open joint bank accounts since September 2021 in some banks.



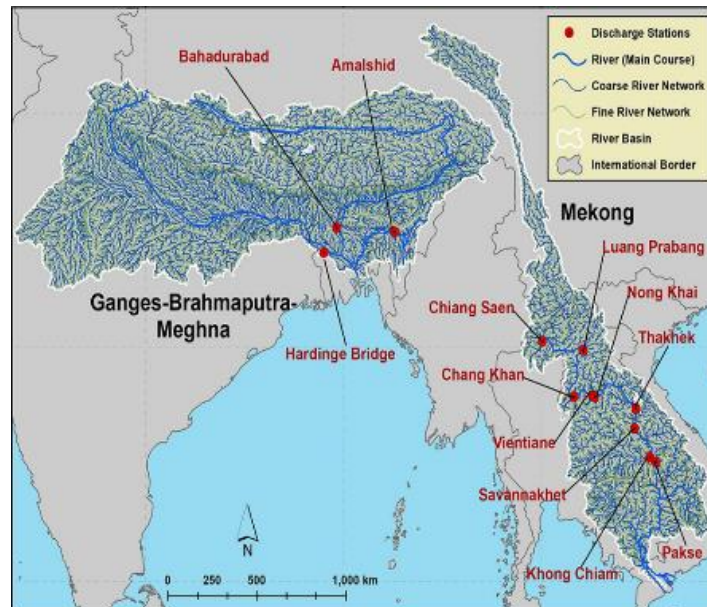
India's first quantum computer

- ❖ The National Quantum Mission has finally received the nod to speed up the growth of quantum technology in India.
- ❖ Various start-ups in the field could receive grants of 10 to 50 crore.

- ❖ The initiative also plans on launching India's first quantum computer with the power of 6 qubits within the next couple of months.
- ❖ The National Quantum Mission has a corpus of around Rs. 6,000 crores to fund the rise of quantum computing in India.
- ❖ The goal of the mission is to establish a quantum computer with a computation of 20-50 qubits in the next three years.
- ❖ Also, it will establish 50-100 qubits in the next five years and 50-1000 qubits in the next 10 years.



Highest water security risks in Indian Rivers



- ❖ Ganges, Indus and Brahmaputra basins showed the lowest levels of governance and environmental performance.

- ❖ Overall, India got a middle-rank in governance, potentially increasing the water security risks.
- ❖ The country was ranked “very low” in terms of environmental performance and “very high” in hazard category.
- ❖ Some Indian basins, such as the Krishna, Ganges and Indus, present a very high level of risk.
- ❖ Some 32,900 cubic kilometres per year of water requirements face very high risk.

VisionNxt Initiative

- ❖ Union Ministry of Textiles launched the ‘VisionNxt Fashion Forecasting Initiative’ of National Institute of Fashion Technology (NIFT).
- ❖ It is a bilingual web portal and the India-specific Fashion Trend Book ‘Paridhi 24x25’.
- ❖ NIFT VisionNxt is India’s first-ever initiative that combines AI and EI to generate fashion trend insights and forecasts.
- ❖ Its mission is to identify, map, and analyse geo-specific trends, reflecting the positive plurality, cultural diversity, and socio-economic nuances of India.

Indian Ocean Biodiversity Ocean Information System

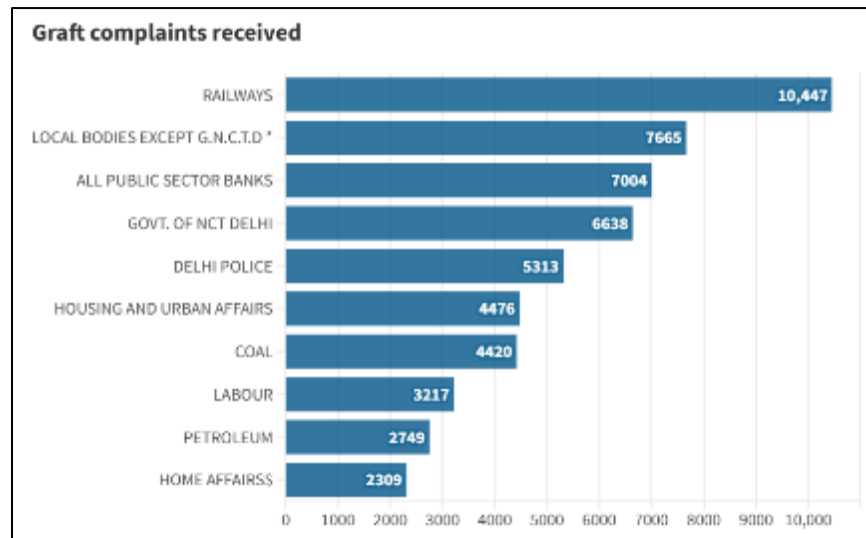


- ❖ The Centre for Marine Living Resources and Ecology (CMLRE), has conducted a national-level workshop on the Indian Ocean Biodiversity Information System (IndOBIS) at Kochi.

- ❖ IndOBIS is the Indian regional node of the global Ocean Biodiversity Information System (OBIS).
- ❖ OBIS is one of the largest global repositories of information on marine species, containing millions of records from thousands of datasets contributed by the researchers, governments, and organisations worldwide.
- ❖ It provides detailed information on species distribution across the world's oceans, including data on their occurrence, habitats, and environmental parameters.

Maximum graft complaints in 2023

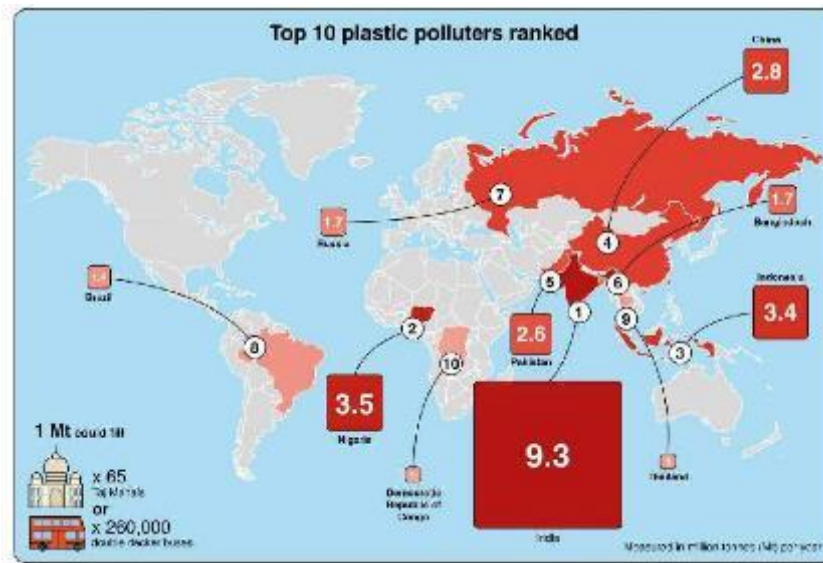
- ❖ Of the total corruption complaints received by the Central Vigilance Commission (CVC) last year, the highest number of complaints was against railway employees.
- ❖ It is followed by those in Delhi's local bodies and public sector banks.
- ❖ As many as 74,203 graft complaints were received against all the categories of officers/employees in 2023.
- ❖ 66,373 were disposed of and 7,830 were pending.
- ❖ The highest 10,447 complaints were made against railway employees, followed by 7,665 against staffers of "local bodies except GNCTD"
- ❖ As many as 7,004 corruption complaints were received against employees of public sector banks in 2023.
- ❖ Of these, 6,667 were disposed of and 337 were pending.



World's top plastic polluter

- ❖ India is responsible for around one-fifth of global plastic emissions of around 9.3 million metric tonnes (Mt) per year.

- ❖ After India, it's Nigeria and Indonesia that hold the second and third position in the plastic emissions, with 3.5 Mt and 3.4 Mt, respectively.
- ❖ India's official waste generation rate is about 0.12 kilograms per capita per day,
- ❖ Before this, China was identified as the top global polluter, but the country has dropped to fourth position.
- ❖ The global plastic waste emissions reached 52.1 Mt in 2020.
- ❖ Notably, 69% of global plastic waste emissions, or 35.7 Mt per year, originate from 20 countries.

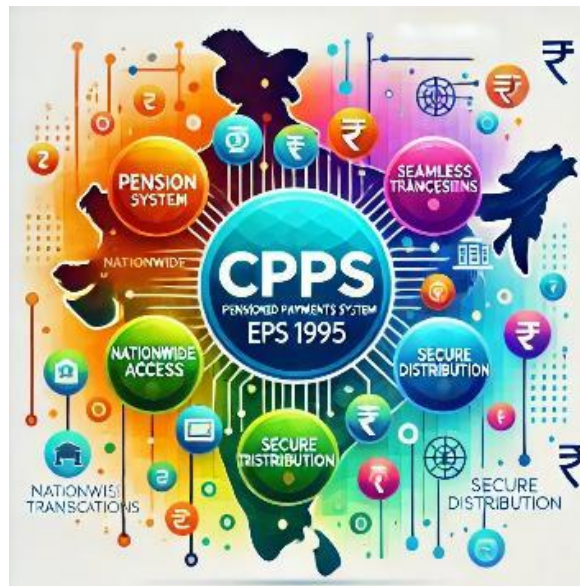


Supreme Court on Judges' Elevation 2024

- ❖ The Supreme Court (SC) has ruled that a High Court (HC) Chief Justice cannot individually reconsider a recommendation for a judge's elevation.
- ❖ This can only be done by the High Court Collegium acting collectively.
- ❖ The High Court collegium has the chief justice of the High court with two other senior most judges.
- ❖ The high court collegium only sends the recommendation to the Supreme Court collegium on judicial appointments.
- ❖ The final decisions are taken by a collegium of the CJI and two seniors most judges of the SC.
- ❖ This collegium of the three senior-most SC judges also decides transfers of HC judges in the country.

<p>• What is Collegium System? It is a system of transfer and appointment of judges that has evolved through judgments of the Apex court.</p>	<p>• Appointment of CJI Step 1: The senior most just of SC is considered to hold the office. Step 2: Recommendation of Outgoing CJI is considered Step 3: The Union Minister of Law sends the recommendation to the PM who advises President to matter of appointment.</p>
<p>• When was it Introduced? Introduced in 1993 – The Second Judges Case. Formed in the consultation with the 2 senior-most judges in the SC.</p>	<p>• Transfer of Judges In the matter of Transfer – the opinion of the CJI is deemed "determinative". The consent of other judges is not required There can be acting CJ in High court for not more than a month</p>
<p>• How many Judges are comprised? In 1998 – Supreme Court expanded the Collegium into 5 member body. • Supreme Court Collegium headed by CJI & 4 other senior most judges of Apex Court • High Court Collegium Chief Justice & 4 other Senior most judges of that court</p>	

Centralized Pension Payment System



- ❖ The Union Labour Ministry has cleared a proposal for the Centralised Pension Payment System (CPPS).
- ❖ It is applicable for about 78 lakh pensioners under the Employees' Pension Scheme, 1995.
- ❖ The new system enables pension disbursement through any bank, any branch across the country.
- ❖ This facility will be launched as part of EPFO's ongoing IT modernisation project Centralised IT Enabled System (CITES 2.01) from January 1, 2025.

Changes in NSS Schemes



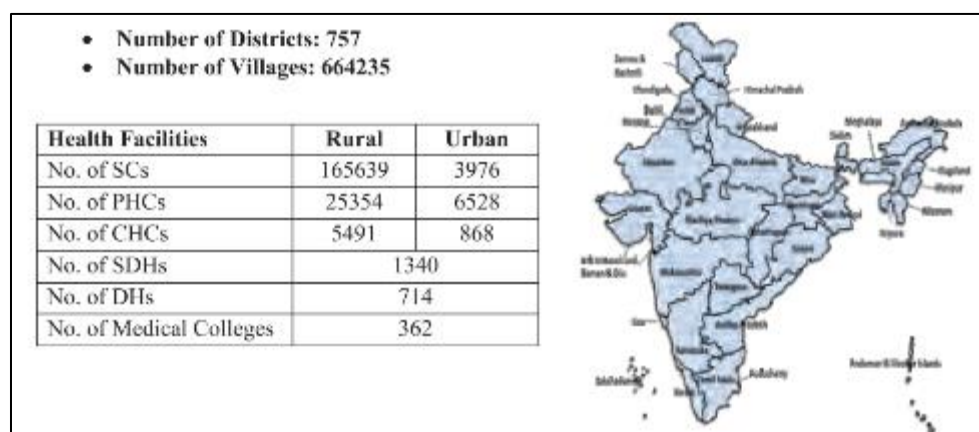
- ❖ The Department of Economic Affairs has introduced new guidelines for the regularisation of irregularly opened savings accounts under the National Small Savings Schemes (NSS) through Post Offices.
- ❖ For NSS-87 Accounts, opened before April 2, 1990, first account will earn the current scheme rate and the second will earn the current Post Office Savings Account (POSA) rate plus 2 per cent of the balance.
- ❖ Beginning October 1, 2024, both accounts will receive zero per cent interest.
- ❖ Accounts opened after April 2, 1990, the first account will earn the current scheme rate and the second will earn the current POSA rate.
- ❖ Beginning October 1, both accounts will receive zero per cent interest.
- ❖ If someone has more than two accounts, no interest will be paid; however, the principal amount will be returned.
- ❖ POSA interest will be paid until the minor turns 18. Afterward, the applicable interest rate will be applied.
- ❖ Maturity will be calculated from the minor's 18th birthday.
- ❖ If one has more Than One PPF Account, the primary account will earn the scheme rate if deposits are within the annual limit.
- ❖ The balance from any secondary accounts will be merged into the primary account.
- ❖ Excess amounts will be refunded with 0% interest.

- ❖ Active NRIs with PPF accounts that did not require residency details will earn POSA interest until September 30, 2024.
- ❖ Post this date, the interest will be 0%.
- ❖ Sukanya Samriddhi Accounts opened by grandparents (not legal guardians) must transfer guardianship to a legal guardian or natural parents.
- ❖ If more than two accounts are opened in violation of the scheme guidelines, the extra accounts will be closed.

New Flag and Insignia of Supreme Court

- ❖ President Droupadi Murmu unveiled the new flag and insignia of the Supreme Court of India.
- ❖ This event is commemorating the 75th anniversary of the Supreme Court's establishment.
- ❖ The new flag is blue and prominently features the Ashoka Chakra, the Supreme Court building, and the Constitution of India.
- ❖ The insignia includes the phrase "Yato Dharmastato Jayah" inscribed in the Devanagari script.
- ❖ It translates to "Where there is Dharma, there is victory".
- ❖ The new flag and insignia were conceptualized and designed by the National Institute of Fashion Technology (NIFT) Delhi.

Health Dynamics Report 2022-23



- ❖ There is nearly 80 percent shortage of specialist doctors at community health centres (CHCs) across rural India.
- ❖ The country has more than 1 lakh 69 thousand Sub-Centres, approximately 32,000 Primary Health Centres, and 6,359 Community Health Centres.

- ❖ Additionally, there are 1,340 Sub-Divisional and District Hospitals, 714 District Hospitals, and 362 Medical Colleges.
- ❖ Only 4,413 specialist doctors of the requisite 21,964 needed in CHCs in March 2023 were available - a shortfall of 17,551 or 79.9 percent.
- ❖ There are 5,491 rural CHCs in 757 districts of the country.
- ❖ The availability of specialists at 868 CHCs in urban areas was slightly better at 56 percent.
- ❖ There are 27,304 doctors and specialists employed across 714 district hospitals in the country, against a sanctioned strength of 33,964.
- ❖ It means that nearly 20 percent of these seats are vacant.
- ❖ India's doctor-population ratio now is 1:836—higher than the WHO prescribed ratio of 1 doctor per 1000 population.

Health Cover for All 2024



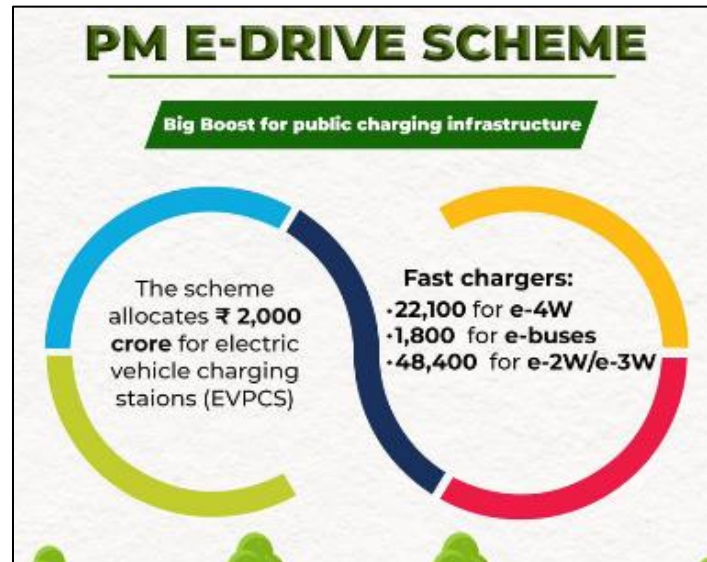
World's Largest
Health Insurance Scheme Becomes Bigger!

-  Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) to provide Health Coverage to **all Senior Citizens of 70 years & Above** irrespective of their Income
-  **4.5 Crore families** with **6 crore senior citizens** to be benefitted
-  **₹ 5 Lakh** free health cover per family
-  Issuance of a **new Distinct Card** under AB PM-JAY
-  **Additional top-up of ₹ 5 Lakh** to seniors **aged 70+** belonging to families under AB PM-JAY

- ❖ The Union government has approved health coverage to everyone who is 70 and above under the national insurance scheme Ayushman Bharat.
- ❖ The Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) will benefit 4.5 crore families with six crore senior citizens.
- ❖ The free cover is worth ₹ 5 lakh and will be on a family basis.
- ❖ All senior citizens of the age 70 years and above irrespective of their socio-economic status would be eligible to avail the benefits of AB PM-JAY.

- ❖ The eligible senior citizens would be issued a new distinct card under AB PM-JAY.
- ❖ Senior citizens of the age 70 years and above belonging to families already covered under AB PM-JAY will get an additional top-up cover up to ₹ 5 lakh per year for themselves.

PM E-Drive scheme



- ❖ The Union Cabinet has approved “PM-eBus Sewa-Payment Security Mechanism (PSM) scheme” and “PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme”.
- ❖ PSM scheme will support the deployment of more than 38,000 electric buses (e-Buses) from FY 2024-25 to FY 2028-29.
- ❖ ₹3,679 crore will be provided as subsidies for purchasing e-two wheelers, e-three wheelers, e-ambulances, e-trucks, and other emerging electric vehicles (EVs) under the PM E-Drive scheme.
- ❖ The heavy industries ministry will implement the scheme and provide subsidies to both the buyer and manufacturer e-vouchers through a dedicated portal.

Joint Doctrine for Amphibious Operations

- ❖ Chief of Defence Staff General Anil Chauhan released the Joint Doctrine for Amphibious Operations during the Chiefs of Staff Committee (COSC) meeting.
- ❖ The Doctrine is a keystone publication which will provide guidance to the Commanders for conduct of Amphibious Operations in today’s complex military environment.


- ❖ The amphibious capability empowers the Armed Forces to conduct a multitude of operations in the Indian Ocean Region, both during war and peace.
- ❖ Earlier they released the Joint Doctrine for Cyberspace Operations.

INS Malpe and INS Mulki

- ❖ The Indian Navy has launched two anti-submarine warfare (ASW) shallow water crafts, named Malpe and Mulki.
- ❖ These vessels are part of the Eight Anti-Submarine Warfare Shallow Water Craft project.
- ❖ They are the fourth and fifth ships to be launched under the program.
- ❖ They are equipped with indigenously developed underwater sensors designed to detect and neutralize enemy submarines and underwater threats.

Digital identities to fisheries workers

- ❖ The Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY) was launched as a sub-scheme of the Pradhan Mantri Matsya Sampada Yojna (PMMSY)
- ❖ It will provide digital identities to around three crore stakeholders by creating a registry of fish workers and enterprises engaged in the fisheries value chain across the country.
- ❖ PMMSY was launched in 10th September 2020.
- ❖ The country's fish production has increased to 175.45 lakh tonnes in 2023-24 from 95.79 lakh tonnes in 2013-14
- ❖ The Centre working to increase the seafood exports to ₹1 lakh crore annually from around ₹60,000 crore in the last financial year.

Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)	Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)
<ul style="list-style-type: none"> ● Cabinet approves Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana for formalization of fisheries sector and supporting fisheries micro and small enterprises ● Investment of over Rs. 6,000 crores over next 4 years from FY 2023-24 to FY 2026-27 in all States/Union Territories 	
Benefits <ul style="list-style-type: none"> ● Creation of National Fisheries Digital Platform to provide 40 lakh small and micro-enterprises work based identities ● Support to 6.4 lakh micro-enterprises and 5,500 fisheries cooperatives, providing access to institutional credit 	Benefits <ul style="list-style-type: none"> ● Gradual shift from conventional subsidies to performance based incentives in fisheries ● Address issues of aquaculture crop losses due to disease through insurance coverage ● Enhance export competitiveness through value addition, value realization and value creation ● Improved quality of fish and fishery products in domestic market ● Projected to create 1.7 lakh new jobs, with a special emphasis on employing 75,000 women

Mission Mausam



MISSION MAUSAM

Cabinet approves 'Mission Mausam' to create a more weather-ready and climate-smart Bharat with an outlay of Rs.2,000 crore over 2 years

BENEFITS

- ♦ A multi-faceted and transformative initiative to tremendously boost India's weather and climate-related science, research and services
- ♦ Will help better equip stakeholders, including citizens and last-mile users, in tackling extreme weather events and the impacts of climate change
- ♦ Mission focus to include improving observations and understanding for providing highly accurate and timely weather and climate information across temporal and spatial scales
- ♦ Mission to be implemented by 3 institutes of the Ministry of Earth Sciences:
 - India Meteorological Department
 - Indian Institute of Tropical Meteorology
 - National Centre for Medium-Range Weather Forecasting

- ❖ The Union Cabinet has approved 'Mission Mausam' with an outlay of ₹2,000 crore over two years.
- ❖ The aim of the programme will be to bolster the research and development, and capacity in atmospheric sciences, weather surveillance, modelling, forecasting, and management.
- ❖ The following Three institutes of the Ministry of Earth Sciences will primarily implement Mission Mausam.
 - The India Meteorological Department,
 - The Indian Institute of Tropical Meteorology, and
 - The National Centre for Medium-Range Weather Forecasting.

Renaming of Port Blair

- ❖ Port Blair, the capital city of Andaman and Nicobar Islands, will now be known as 'Sri Vijaya Puram'.
- ❖ The city of Port Blair is the entry point of the Andaman and Nicobar Islands.
- ❖ It was named after Archibald Blair, a naval surveyor and lieutenant in the Bombay Marine.
- ❖ Blair was the first officer to carry out a thorough survey of the Andaman Islands.

- ❖ After joining the Bombay Marine in 1771, Blair set out on a survey mission along the coasts of India, Iran, and Arabia next year.
- ❖ In December 1778, Blair left for his first surveying voyage to the Andamans from Calcutta, along with two ships, Elizabeth and Viper.
- ❖ Historical records suggest that the Andaman Islands were used as a strategic naval base by the 11th century Chola emperor, Rajendra I.
- ❖ It was used to carry out an attack on Srivijaya, which is in present day Indonesia.
- ❖ As per an inscription found at Thanjavur dated to 1050 CE, the Cholas referred to the island as Ma-Nakkavaram land, which possibly led to the modern name of Nicobar under the British.



Delhi Declaration on Civil Aviation



- ❖ The Declaration was adopted unanimously after the 2nd Asia Pacific Ministerial Conference in New Delhi.
- ❖ This comprehensive framework is aimed at enhancing the regional cooperation, addressing the emerging challenges and fostering sustainable growth in the civil aviation sector in the Asia-Pacific region.
- ❖ India has emerged as the third-largest domestic aviation market in the world, after the US and China.

BHASKAR platform



- ❖ The Department for Promotion of Industry and Internal Trade (DPIIT) is set to unveil Bharat Startup Knowledge Access Registry (BHASKAR) soon.
- ❖ It is a new digital platform designed to enhance and support India's start-up ecosystem.
- ❖ It will help unlock the potential of India's startup ecosystem, fostering innovation, entrepreneurship, and job creation.
- ❖ India is the third-largest startup hub globally after the U.S. and China and it has over 1,46,000 recognized startups.

Indian Cyber Crime Coordination Centre

- ❖ The Centre has launched 4 new initiatives under the Indian Cyber Crime Coordination Centre (I4C) on its foundation day (September 10).
- ❖ It aims to make the fight against cybercrime more robust, effective and successful.
- ❖ The I4C scheme was approved in 2018 and dedicated to the nation in 2020.
- ❖ The 4 new initiatives are:

- Cyber Fraud Mitigation Centre.
- 'Cyber Commandos' Program.
- Samanvay Platform (Joint Cybercrime Investigation Facilitation System).
- Cyber Suspect Registry



Operation Sadbhav

- ❖ India has launched Operation Sadbhav to provide humanitarian assistance and disaster relief (HADR) to Laos, Myanmar and Vietnam.
- ❖ These countries have been hit by severe flooding caused by Typhoon Yagi.
- ❖ India has committed \$1mn worth of flood relief assistance to Vietnam and \$1,00,000 worth of assistance to Laos.
- ❖ Typhoon Yagi (named by Japan), which has been termed the strongest tropical cyclone, hit Asia in 2024.

Vision for India as Green Hydrogen Hub

- ❖ The second edition of the International Conference on Green Hydrogen (ICGH-2024) was held in Delhi.
- ❖ During the event, an ambitious vision has unveiled to make India a global hub for green hydrogen production, utilization, and export.
- ❖ Earlier, the National Green Hydrogen Mission, launched in 2023, is a critical step toward realizing this ambition.
- ❖ India's non-fossil fuel capacity has increased nearly 300% over the last decade.
- ❖ The solar energy capacity has seen an astounding 3000% growth in the same period.



Indian Navy's 'Vinetra'

- ❖ A state-of-the-art submarine escape training facility, named "Vinetra" (Trainer) was commissioned at INS Satavahana in Visakhapatnam.
- ❖ The facility, designed to enhance the escape capabilities of crew members from distressed Kalvari-class submarines.
- ❖ Kalvari-class submarines are a series of diesel-electric attack submarines built for the Indian Navy.
- ❖ The first submarine in this class, INS Kalvari, was commissioned in 2017.
- ❖ Other submarines in the class include INS Khanderi, INS Karanj, INS Vela, INS Vagir, and INS Vagsheer.

Maritime Dispute Resolution Centre

- ❖ The Indian International Maritime Dispute Resolution Centre (IIMDRC) was launched at the 20th Maritime State Development Council (MSDC) meeting.
- ❖ An Indian Maritime Centre (IMC), a Policy Think Tank, was also launched at the event.
- ❖ The IIMDRC will serve as a specialised platform and offer merit-based and industry-governed solutions to resolve maritime disputes efficiently.
- ❖ It will also aid to addressing the multi-modal, multi-contract, multi-jurisdictional, and multi-national nature of maritime transactions.

India's own Carbon Market

- ❖ The market will be created once the Carbon Credit Trading Scheme (CCTS), notified in June 2023, comes in force.
- ❖ As per the Bureau of Energy Efficiency (BEE), CCTS will likely take effect by 2026.
- ❖ CCTS is a market-based mechanism to reduce or limit emissions.
- ❖ Its genesis lies in India's commitment to meet its Nationally Determined Contributions - emissions reduction target for 2030 committed under the Paris Agreement of 2016.
- ❖ One of India's targets is to reduce the "emissions intensity of its GDP by 45 per cent from 2005 levels by 2030".
- ❖ In 2021, India also declared the target of becoming a net-zero emitter by 2070.
- ❖ The Carbon Border Adjustment Mechanism (CBAM) is a tariff to be imposed by the European Union from 2026.



Six initiatives of union Government

- ❖ The Launching Programme of various Initiatives/Portals as part of 100 Days Achievements of Ministry of Parliamentary Affairs was organized recently.
- ❖ They are:
 - National e-Vidhan Application-NeVA 2.0
 - NeVA Mobile App version 2.0

- NYPS Portal 2.0
- NYPS for Eklavya Model Residential Schools (EMRSs)
- Subordinate Legislation Management System (SLMS)
- Consultative Committee Management System (CCMS)



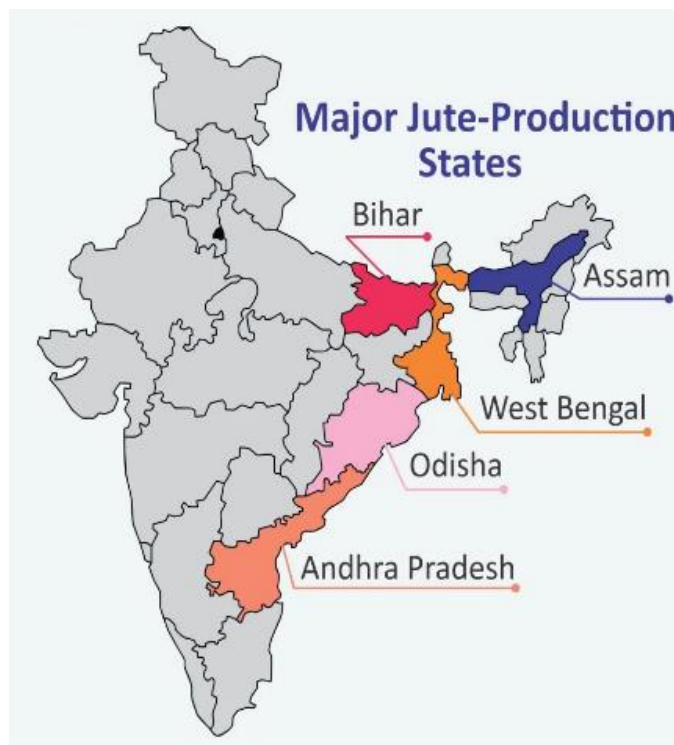
Vande Metro train service

- ❖ Prime Minister has flagged off India's first 'Vande Metro' service, which will run between Bhuj and Ahmedabad.
- ❖ The train has been officially renamed "Namo Bharat Rapid Rail".
- ❖ This will stop at nine stations and cover the 360-kilometre distance.



Decline in Jute Production 2024

- ❖ Jute production is expected to drop by 20% this financial year.
- ❖ This season cultivation was affected in West Bengal and Assam because of natural calamities this year.
- ❖ Floods had damaged the crop in some areas, impacting production.
- ❖ Jute exports had the potential for ₹4,500 crore annually.
- ❖ It was ₹3,000 crore last financial year and was projected to be almost ₹3,500 crore during the current fiscal.
- ❖ It was estimated that one tonne of jute plant would give 495 litres of ethanol.



3rd National Lok Adalat of the year

- ❖ The National Legal Services Authority organised the 3rd National Lok Adalat of the year 2024 in the Taluks, Districts and High Courts of 27 States/UTs.
- ❖ Around 1,14,56,529 cases (One crore fourteen lakh fifty-six thousand five hundred twenty-nine) have been settled at the National Lok Adalat.
- ❖ The approximate value of the total settlement amount in these cases was 8482.08 crores.



Simultaneous Elections in India

WHAT HAS BEEN SAID ABOUT THE IDEA		
<p>NITI AAYOG A 2016 paper, co-authored by Bibek Debroy and Kishore Desai, noted....</p> <ul style="list-style-type: none"> • Separate elections lead to massive recurring expenditures as well as prolonged deployment of forces • It suggested holding elections in two cycles with an interregnum of 30 months • It pegged cost of simultaneous polls at ₹4,500 crore, while the cost of 2014 Lok Sabha polls alone was ₹3,870 crore 	<p>STANDING COMMITTEE In 2015, the House panel on personnel, public grievances, law and justice said...</p> <ul style="list-style-type: none"> • Elections could be held in two phases • Polls to some assemblies can be held in Lok Sabha midterm and remaining assemblies could be held at the end of Lok Sabha term 	<p>LAW COMMISSION In 1999, the Law Commission in its 170th report on Reform of Electoral Laws said...</p> <ul style="list-style-type: none"> • Holding simultaneous polls would be ideal, but a workable formula is required to be in the Constitution • The holding of a separate election to assemblies should be an exception and not the rule • Another law panel report, in 2018, said simultaneous polls don't alter balance of power between Union and the states

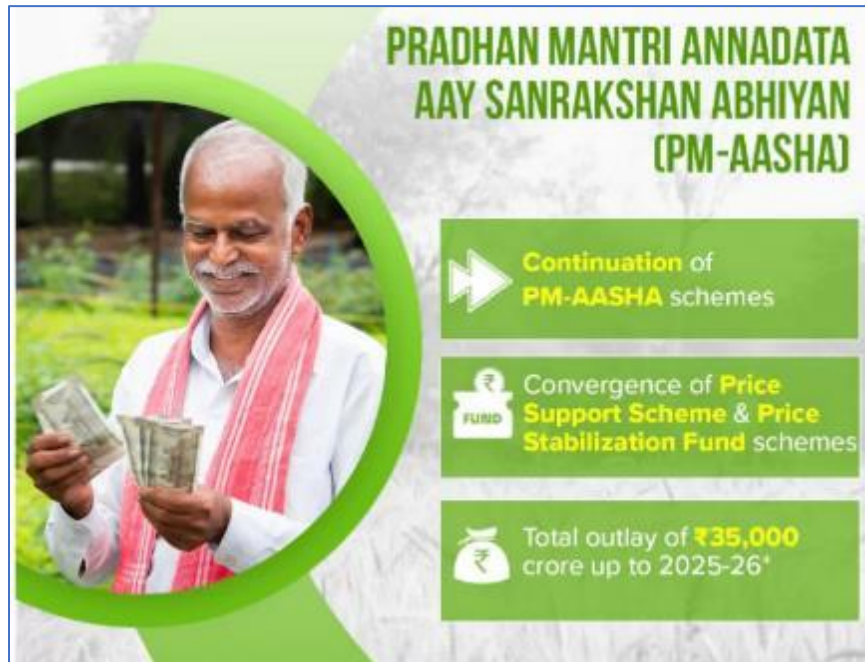
- ❖ The Union Cabinet has 'unanimously' approved the Kovind panel's report on simultaneous polls.
- ❖ The Committee recommended a series of constitutional amendments to facilitate simultaneous elections at the central, state, and local levels.
- ❖ The One Nation, One Election project hinges on two Constitution Amendment Bills being passed by Parliament.
- ❖ The first Constitution Amendment Bill to transition to a simultaneous election system will require a 'special majority' of both the Lok Sabha and Rajya Sabha.
- ❖ The second Constitution Amendment Bill will ensure that all local body elections (for municipalities and panchayats) are held within 100 days of the simultaneous elections.



- ❖ For this, the amendment shall also require to be ratified (agreed to) by the Legislatures of not less than one-half of the States in the country.
- ❖ This is because “local government” is a subject under the State List in the Seventh Schedule, which means only states have the power to pass laws on this subject.
- ❖ The scheme proposed by the Kovind Committee, if a state Assembly or Lok Sabha is dissolved before the end of its ‘full’ five-year term, a ‘mid-term’ election will take place.
- ❖ But, the newly elected state Assembly or Lok Sabha will only serve for the remaining period before the next simultaneous elections are scheduled to take place.
- ❖ This period between a mid-term election and a scheduled simultaneous election will be known as the “unexpired term”.
- ❖ During India's first four general elections (1951-52, 1957, 1962, 1967), the electorate voted for their respective state assemblies as well.
- ❖ Later, the process was ended due to formation of new states and reorganisation of others.
- ❖ In 1968-89, some legislative (state) assemblies were dissolved and led to ONOE being discontinued completely.

Revamping of PM-AASHA scheme

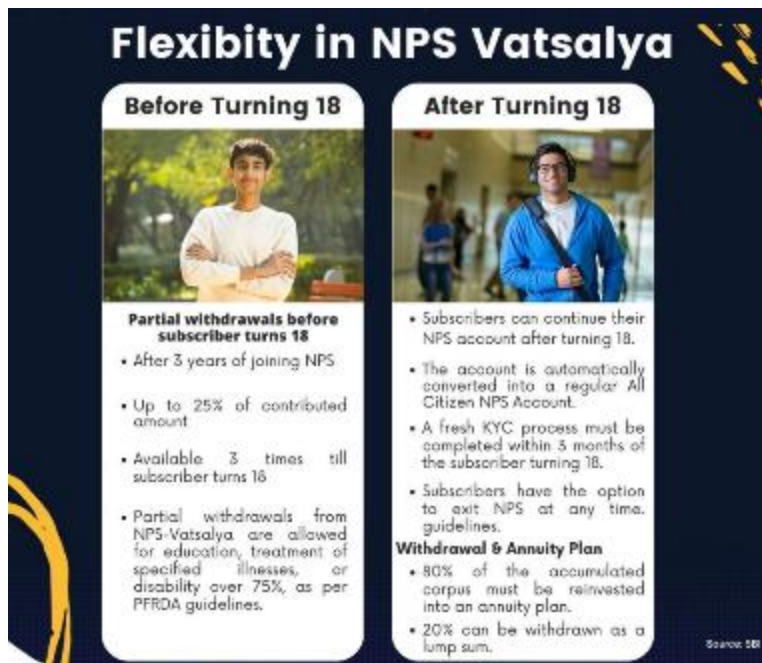
- ❖ The Union Cabinet approved the continuation of the Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA).
- ❖ It aims to ensure the fair prices for farmers and to regulate price fluctuations in essential commodities for consumers.
- ❖ This extension will incur a financial outlay of Rs 35,000 crore during the 15th Finance Commission cycle, up to 2025-26.
- ❖ The government has converged the Price Support Scheme (PSS) and Price Stabilisation Fund (PSF) schemes under PM-AASHA to serve the farmers and consumers more effectively.
- ❖ This integration aims to provide farmers with remunerative prices for their crops, stabilising the market prices of essential commodities, thus making them affordable for consumers.
- ❖ The revamped PM-AASHA now includes components like:
 - Price Support Scheme (PSS)
 - Price Stabilisation Fund (PSF)
 - Price Deficit Payment Scheme (PDPS)
 - Market Intervention Scheme (MIS)





**PRADHAN MANTRI ANNADATA
AAY SANRAKSHAN ABHIYAN
(PM-AASHA)**

- Continuation of **PM-AASHA** schemes
- Convergence of **Price Support Scheme & Price Stabilization Fund** schemes
- Total outlay of **₹35,000** crore up to 2025-26*

NPS Vatsalya



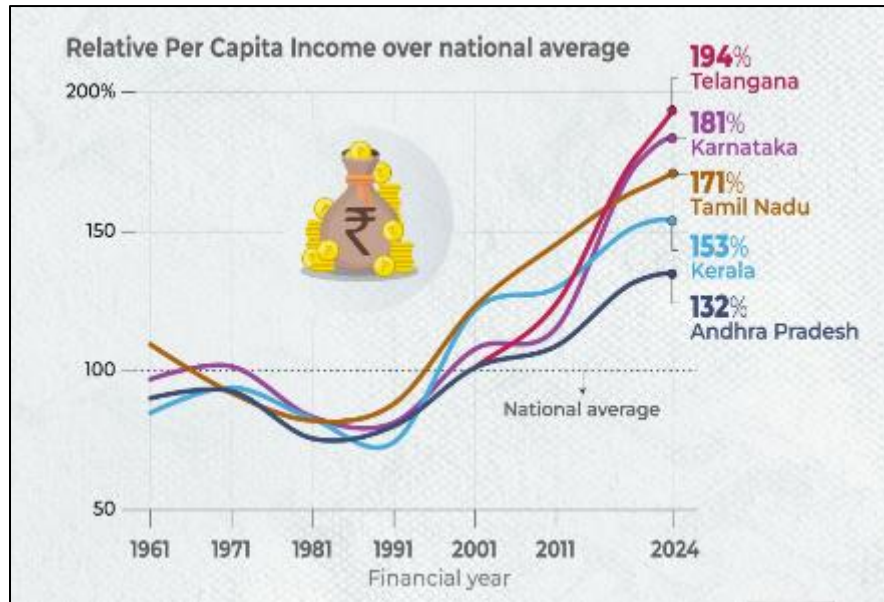
Flexibility in NPS Vatsalya

Before Turning 18	After Turning 18
 <p>Partial withdrawals before subscriber turns 18</p> <ul style="list-style-type: none"> After 3 years of joining NPS Up to 25% of contributed amount Available 3 times till subscriber turns 18 Partial withdrawals from NPS-Vatsalya are allowed for education, treatment of specified illnesses, or disability over 75%, as per PFRDA guidelines. 	 <ul style="list-style-type: none"> Subscribers can continue their NPS account after turning 18. The account is automatically converted into a regular All Citizen NPS Account. A fresh KYC process must be completed within 3 months of the subscriber turning 18. Subscribers have the option to exit NPS at any time, guidelines. <p>Withdrawal & Annuity Plan</p> <ul style="list-style-type: none"> 80% of the accumulated corpus must be reinvested into an annuity plan. 20% can be withdrawn as a lump sum.

Source: SBI

- ❖ NPS Vatsalya is a pension scheme focused on minors.
- ❖ It enables parents and guardians to contribute a minimum of rs 1,000 per year towards securing a child's financial future.
- ❖ When the minor reaches the age of 18, parents have the option to convert the account to a standard NPS account.

States Contribution in GDP

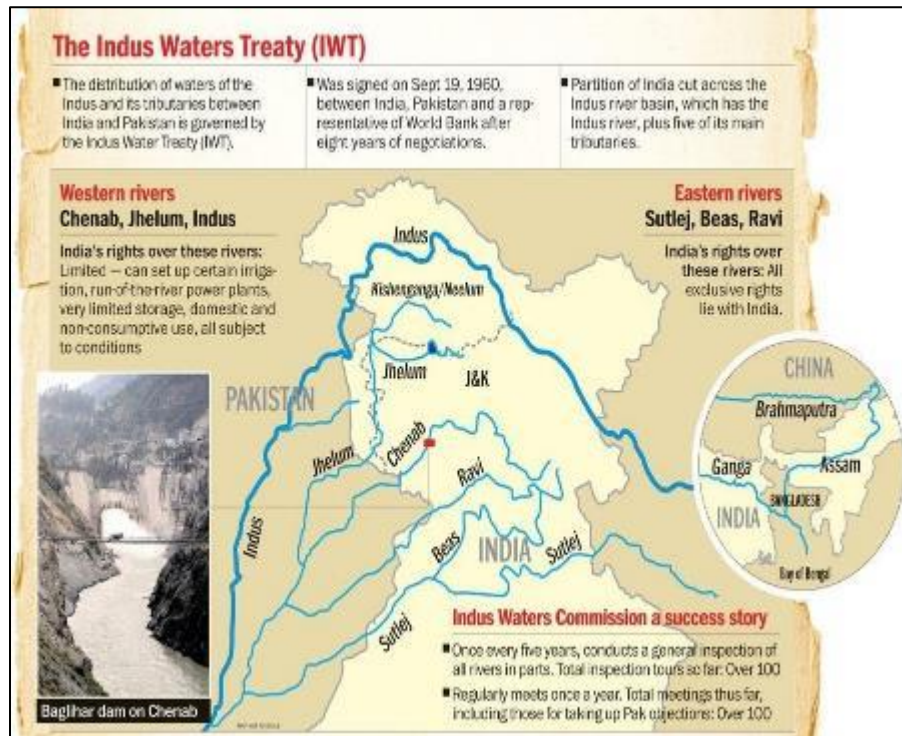


- ❖ Southern states have outperformed northern states in GDP contribution and per capita income.
- ❖ Karnataka, Andhra Pradesh, Telangana, Kerala, and Tamil Nadu collectively contribute 30 per cent of the country's GDP.
- ❖ Maharashtra continues to be the largest contributor to India's GDP, although its share has dropped to 13.3 per cent from over 15 per cent previously.
- ❖ Maharashtra's per capita income has risen to 150.7 per cent of the national average as of March 2024.
- ❖ Uttar Pradesh's share dropped from 14 per cent in 1960-61 to 9.5 per cent.
- ❖ Bihar, the third-most populous state, contributes just 4.3 per cent.
- ❖ West Bengal, once a top contributor with 10.5 per cent of GDP in 1960-61 now accounts for only 5.6 per cent.

Modification of the Indus Waters Treaty

- ❖ India has again sent a formal notice to Pakistan, for the "review and modification" of the treaty.
- ❖ The treaty between India and Pakistan was signed on September 19, 1960, for the use of water available in the Indus and its tributaries.
- ❖ It was signed in Karachi by then Prime Minister Jawaharlal Nehru and then Pakistan President Mohammed Ayub Khan.
- ❖ This was held after nine years of negotiations arranged by the World Bank.

- ❖ India enjoys the “unrestricted use” of the three “Eastern Rivers [Beas, Ravi, Sutlej] and Pakistan got control of the three “Western Rivers” [Indus, Chenab, Jhelum].



Funds for space missions

Four space projects green-lit

The Union Cabinet deared funds of more than ₹22,750 crore for the developmental costs of four major space programmes. Highlights

1 CHANDRAYAAN-4

With a budget of **₹2,104.06 crore**, the remote mission will aim to bring rock samples from the lunar surface back to Earth after a soft landing and is slated for launch in 2027

2 VENUS ORBITER MISSION

A budget of **₹1,236 crore** was approved for VOM, which involves sending an orbital spacecraft to study the planet and has set a target of March 2028

3 BHARATIYA ANTARIKSH STATION

The project, which saw a net additional funding of **₹11,170 crore**, expands the coverage of the Gaganyaan mission. It aims to establish an Indian space station that will orbit 400km above the Earth's surface

4 NEXT GENERATION LAUNCH VEHICLE

A budget of **₹8,240 crore** was approved for NGLV which will be capable of high payload, and will be cost-effective and reusable



- ❖ The Union Cabinet approved the following four important space ISRO in the near future:
 - India's lunar mission Chandrayaan-4;
 - The development of Venus Orbiter Mission (VOM);
 - Bharatiya Anatriksh Station (BAS) and
 - The development of Next Generation Launch Vehicle (NGLV).
- ❖ In total, the Cabinet has cleared funds of more than ₹22,750 crore for the developmental costs of these four programmes.
- ❖ India's first scientific mission to Venus, which aims to enable scientists to better understand the Venusian atmosphere, and geology.

Bio-RIDE Scheme

- ❖ The Union Cabinet has approved the Biotechnology Research Innovation and Entrepreneurship Development (Bio-RIDE) scheme.
- ❖ It aims to accelerate research, enhance product development, and bridge the gap between academic research and industrial applications.
- ❖ It will offer grants and incentives for cutting-edge research and development in areas such as synthetic biology, bio-pharmaceuticals, bio-energy, and bio-plastics.
- ❖ Bio-RIDE combines two existing schemes with a new component called, 'Bio-manufacturing and Bio-foundry'.
- ❖ They are
 - Biotechnology Research and Development (R&D) and
 - Industrial and Entrepreneurship Development (I&ED).

Bio-RIDE Scheme	
Budget: Rs 9197 crore (2021-22 to 2025-26)	COMPONENTS <ul style="list-style-type: none">a) Biotechnology Research and Development (R&D)b) Industrial & Entrepreneurship Development (I&ED)c) Biomanufacturing and Biofoundry
Purpose: Support advanced biotech R&D	Objectives: Promote bio-entrepreneurship, innovation, industry-academia collaboration, sustainable biomanufacturing, research funding, and human resource development

Production of various Horticultural Crops 2023-24

- ❖ The Department of Agriculture and Farmers' Welfare has released the Third Advance Estimates of 2023-24 of Area and Production of various Horticultural Crops.
- ❖ The horticulture production in the country in 2023-24 (Third Advance Estimates) is estimated to be about 353.19 million Tonnes.
- ❖ It is decrease of about 22.94 Lakh Tonnes (0.65%) over 2022-23 (Final Estimates).
- ❖ Increase in production of Fruits, Honey, Flowers, Plantation Crops, Spices and Aromatics & Medicinal Plants is seen over 2023-24.

Total Horticulture	2022-23	2023-24 (2nd Adv. Est.)	2023-24 (3rd Adv. Est.)
Area (in Million Ha)	28.44	28.63	28.98
Production (in Million Tonne)	355.48	352.23	353.19

White Revolution 2.0

- ❖ The Operation Flood, launched in 1970, has ushered in the White Revolution and transformed the dairy sector in India.
- ❖ Dairy cooperatives procured 660 lakh kg of milk per day in 2023-24.
- ❖ The government wants to increase this to 1,007 lakh kg/ day by 2028-29.
- ❖ There are about 1.7 lakh dairy cooperative societies (DCSs), which cover around 2 lakh villages (30% of the total number of villages in the country), and 22% of producer households.
- ❖ These cooperative societies procure about 10% of the country's milk production and 16% of the marketable surplus.
- ❖ In the states of Gujarat, Kerala, and Sikkim, and the Union Territory of Puducherry, more than 70% of villages are covered by dairy cooperatives.
- ❖ In the states of Uttar Pradesh, Uttarakhand, and Madhya Pradesh, and the UT of Jammu & Kashmir coverage is only 10-20%.

- ❖ In West Bengal, Assam, Odisha, Jharkhand, Chhattisgarh, Himachal Pradesh, and the smaller states of the Northeast, less than 10% of villages are covered.
- ❖ The national per capita availability of milk is 459 grams/ day, which is higher than the global average of 323 g/ day.
- ❖ This number varies from 329 g in Maharashtra to 1,283 gram in Punjab.
- ❖ India is the world's top milk producer, with production having reached 230.58 million tonnes during 2022-23.
- ❖ In 1951-52, the country produced just 17 million tonnes of milk.

White Revolution 2.0 led by Cooperatives

OBJECTIVE

To Increase Milk Procurement of **Dairy Cooperatives by 50% from Present Level Over Next Five Years** by Providing Market Access to Dairy Farmers in Uncovered Areas and Increasing the Share of Dairy Cooperatives in Organised Sector.

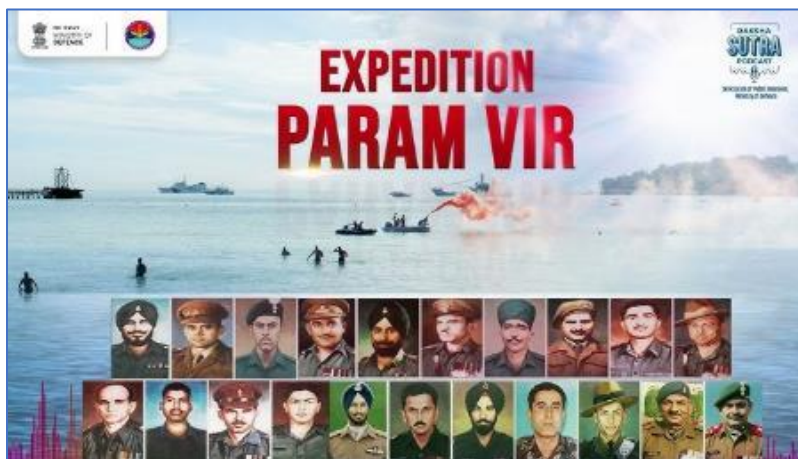


Fencing Myanmar border



- ❖ The Union government has approved ₹31,000 crore to fence the Myanmar border.
- ❖ The 1,643-km Myanmar border runs along the States of Arunachal Pradesh (520 km), Nagaland (215 km), Manipur (398 km) and Mizoram (510 km).
- ❖ The Union Home Ministry earlier this year scrapped the Free Movement Regime (FMR) along the Myanmar border.
- ❖ It allows people residing close to the border to venture 16 km into each other's territory without any documents.

Expedition Param Vir



- ❖ The Andaman & Nicobar Command Tri-service launched 'Expedition Param Vir'.
- ❖ It is a first-of-its-kind Open Water Swimming Expedition to the 21 Islands of the Andaman & Nicobar archipelagos named after the Param Vir Chakra (PVC) Awardees.
- ❖ The team swam to all 21 islands, more than 300 kms, over a period of five months.
- ❖ The 11-member expedition team was led by Wing Commander Paramvir Singh.

6th Food Safety Index 2024

- ❖ This ranking was released by the Food Safety and Standards Authority of India (FSSAI).
- ❖ Kerala has once again secured the top position in the State Food Safety Index (SFSI) 2024.
- ❖ This marks the second consecutive year that Kerala has topped the index.
- ❖ Tamil Nadu, which had slipped to the third position last year, secured second position this time.

- ❖ Jammu and Kashmir, Gujarat, and Nagaland follow in the top five.
- ❖ In 2022, Tamil Nadu had topped the Index, replacing Gujarat at the number one slot.



INSPIRE – MANAK Program

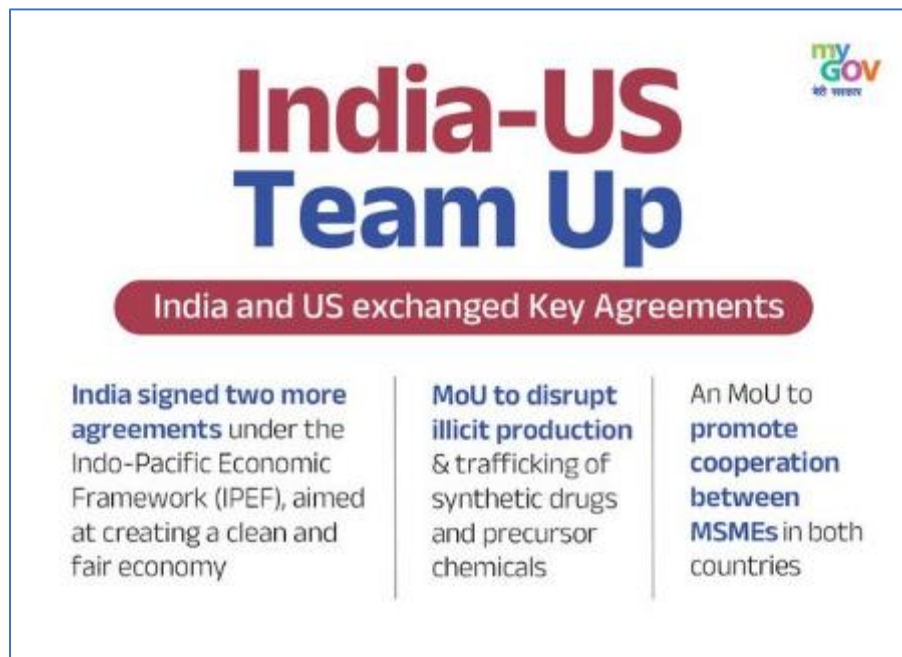
- ❖ The 11th National Level Exhibition and Project Competition (NLEPC) of INSPIRE–MANAK winners were felicitated in New Delhi.
- ❖ Notably, 52% of the participants were girls, is further underlining the inclusive nature of the initiative.
- ❖ It is a flagship scheme under the Department of Science and Technology (DST) with the National Innovation Foundation (NIF) – India.
- ❖ The scheme promotes creativity and innovation, helping students address societal needs and become responsible citizens and leaders.



Amrit Catla Fish

- ❖ A genetically-improved variety of catla fish (*Labeo catla*) unveiled at Central Institute of Freshwater Aquaculture (CIFA) in Bhubaneswar.
- ❖ It has demonstrated its ability to reach an average weight of 1.8 kg in polyculture systems, compared to 1.2 kg for local strains in one year.
- ❖ It aims to enhance fish seed quality and income of fish farmers.
- ❖ During the event, the 'Rangeen Machhli' app, a digital platform for the ornamental fisheries sectors was also launched.

Key IPEF Agreements



- ❖ India has signed three Key agreements under the Indo-Pacific Economic Framework (IPEF).
- ❖ These agreements are focusing on the pillars of Clean Economy, Fair Economy, and an overarching IPEF administrative framework.
- ❖ Framework of IPEF was launched on May 23, 2022, in Tokyo.
- ❖ IPEF is an initiative aimed at enhancing economic cooperation and engagement among its 14 member countries.
- ❖ The framework is structured around four key pillars -Trade (Pillar I), Supply Chain Resilience (Pillar II), Clean Economy (Pillar III), and Fair Economy (Pillar IV).

PM-JUGA Scheme

- ❖ The Union Cabinet has approved the “Pradhan Mantri Janjatiya Unnat Gram Abhiyan”.
- ❖ It aims to improve the socio-economic conditions of tribal communities through scheme convergence.
- ❖ It will bring sustainable agricultural practices to all Forest Rights Act (FRA) patta holders “to enable them for maintenance and conservation of forest”.
- ❖ As of June 2024, more than 24 lakh FRA titles have been granted to people and communities from Scheduled Tribes (ST) and other traditional forest-dwelling groups.
- ❖ It covers over 1.9 crore acres of forest land across the country.
- ❖ However, of the 50.5 lakh claims filed under the FRA, 34.83% have been rejected and 15.9% remain pending.
- ❖ The 63,000 tribal-majority villages targeted under the PMJUGA are situated in 2,740 blocks across 549 districts across India.



Pradhan Mantri Janjatiya Unnat Gram Abhiyan

- Mission Aims at Saturation coverage of **tribal majority villages** and **tribal villages** in Aspirational Districts
- It will cover more than **63,000 villages** benefiting more than **5 crore tribal people**
- Total outlay of the scheme is **Rs. 79,156 crore**
- Mission comprises of **25 interventions** to be implemented by **17-line ministries** to achieve following goals:
 - › **Goal-1:** Developing Enabling Infrastructure
 - › **Goal-2:** Promotion of Economic Empowerment
 - › **Goal-3:** Universalization of Access to Good Education
 - › **Goal-4:** Healthy lives and Dignified Ageing

Food Import Rejection Alerts Portal

- ❖ Food Safety Standards Authority of India (FSSAI) has developed an online portal- Food Import Rejection Alert (FIRA).
- ❖ It aims to notify the public and relevant food safety authorities about food import rejections at Indian borders.
- ❖ It will generate alerts on a food consignment rejected by India due to poor safety standards.
- ❖ The portal will facilitate rapid exchange of information among authorities worldwide on food safety and health risks stemming from rejected food.
- ❖ Recently FSSAI has rejected over 1,500 imported food items.



Cancer multi-omics data portal

- ❖ An India-specific cancer multi-omics data portal has been launched by Indian Cancer Genome Atlas (ICGA).
- ❖ It provides open access to clinically correlated information from Indian cancer patients.
- ❖ It includes DNA, RNA, and protein profiles of breast cancer patients, linked with clinical outcomes.
- ❖ It aims to help the researchers and clinicians develop personalised treatment protocols.

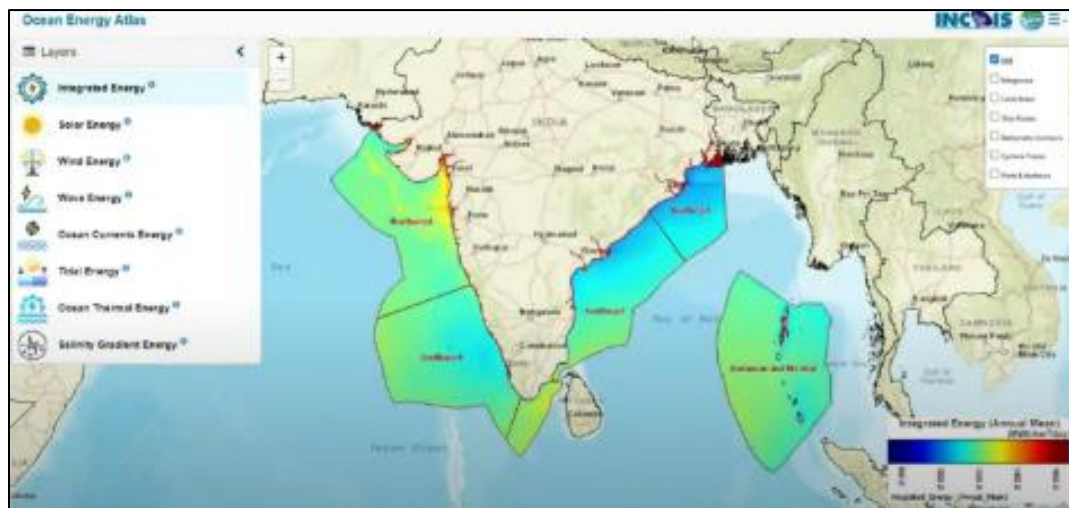
‘Ek Ped Maa Ke Naam’ App

- ❖ The Union government has launched ‘Ek Ped Maa Ke Naam’ app.
- ❖ This app aims to promote environmental conservation while celebrating the bond between mothers and their children.
- ❖ It is a unique platform where users can plant and dedicate a tree in honour of their mothers.
- ❖ The app automatically records the location, latitude, longitude, and timestamp of the dedicated tree.

Robotic Dog - Indian Army

- ❖ The Army has procured and inducted 100 robotic mules (multi-utility legged equipment) to support and movement to forward areas, especially in the higher altitudes.
- ❖ A new tent for high-altitude areas is under evaluation for the deployment at temperatures up to -40 degrees Celsius.
- ❖ The robotic mule is a high-endurance, agile and durable all-weather ground robot for use in a broad range of unstructured urban and natural environments for defence applications.

Integrated Ocean energy atlas



- ❖ The Researchers at the Hyderabad-based Indian National Centre for Ocean Information Services (INCOIS) have developed the Integrated Ocean Energy Atlas.
- ❖ It maps sites along India’s coastline with the potential to generate energy from blue renewable sources like tidal waves and currents.

- ❖ It provides estimated values of renewable energy that can be generated from either individual or integrated blue renewable sources at potential sites along the coast.
- ❖ Indian Exclusive Economic Zone (EEZ) holds the potential to generate about 9.2 lakh terawatt hours (TWh) from multiple blue renewable energy sources.
- ❖ India has a vast coastline of over 7,000 km that offers ample scope for the energy generation.


Kavach 4.0 in India

- ❖ As per the Union railway ministry, 10,000 locomotives & 9,000 km of railway tracks would equip with the Kavach 4.0 in the first phase.
- ❖ The nationwide implementation is aimed by December 2030.
- ❖ When the train is running at 130 kmph, the KAVACH automatically reduced the speed to 120 kmph through the caution zone and restored it back to 130 kmph after exiting.
- ❖ The train will be stopped 50 m from a red signal without the driver's intervention.
- ❖ The driver didn't use the horn, but KAVACH automatically sounded it while passing the level crossing gate.
- ❖ The train will automatically be stopped at a red signal even when the driver has attempted to cross it.

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

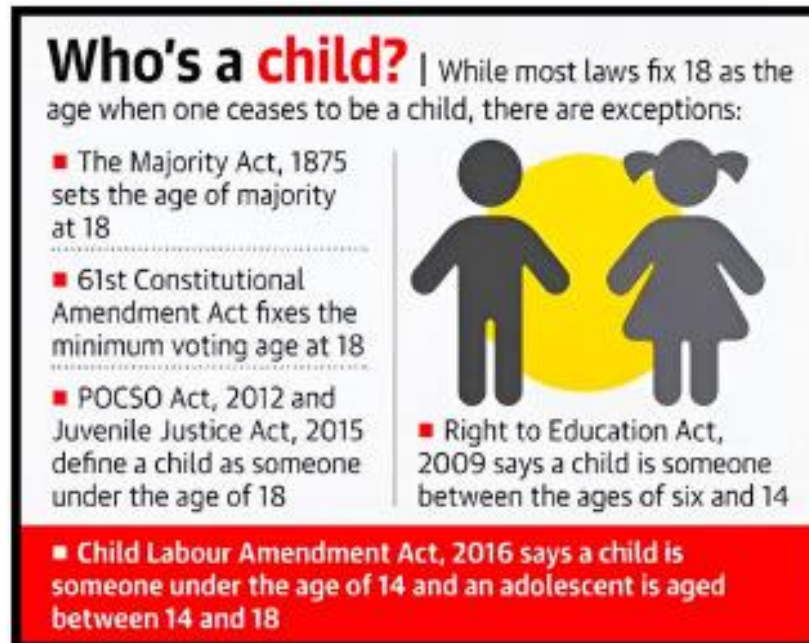


- Improved location precision
- Improved braking curves
- Radio Frequency Identification tag data and radio protocol upgradation for compatibility with LTE (long-term evolution)

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

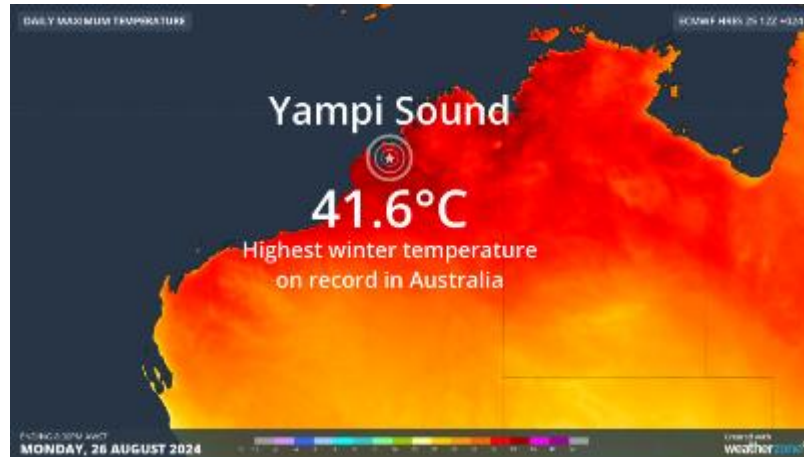
Child Sexual Exploitative and Abuse Material



- ❖ The Supreme Court recently held that viewing in private, downloading, storing, possessing, distributing or displaying the pornographic acts involving children attract criminal liability under the POCSO Act.
- ❖ This verdict has overturned a contentious Madras High Court decision from earlier this year.
- ❖ The Madras High Court had previously held that “mere possession” of such material did not violate the law unless the individual had actively “used a child or children for pornographic purposes.”
- ❖ But the SC concluded that not only physical possession but also “constructive possession” would also fall under Section 15 of the POCSO Act, even if the person did not actively produce or distribute the content.
- ❖ Constructive possession is the power to control the material, combined with knowledge of that control.

INTERNATIONAL

Historic Winter Temperature – Australia



- ❖ Australia registered a record-high winter temperature, 41.6 degrees Celsius in part of northwest coast.
- ❖ It is higher than the previous record by 0.4 C.
- ❖ The previous record of 41.2C was set in August 2020 at nearby West Roebuck.
- ❖ About 18 percent of Australia is desert and searing heat is common year-round away from temperate zones.
- ❖ From January to July, the global temperatures were 0.7C above the 1991-2020 average.

Largest Cargo Drone – China

- ❖ Chinese aviation tested a flight of an unmanned civilian drone capable of carrying up to 3.2 metric tons of cargo.
- ❖ The aircraft can operate as high as 7,300 metres (24,000 feet) and fly as far as 2,200 kms (1,367 miles).
- ❖ Cargo drones promise shorter delivery times and lower transport costs.

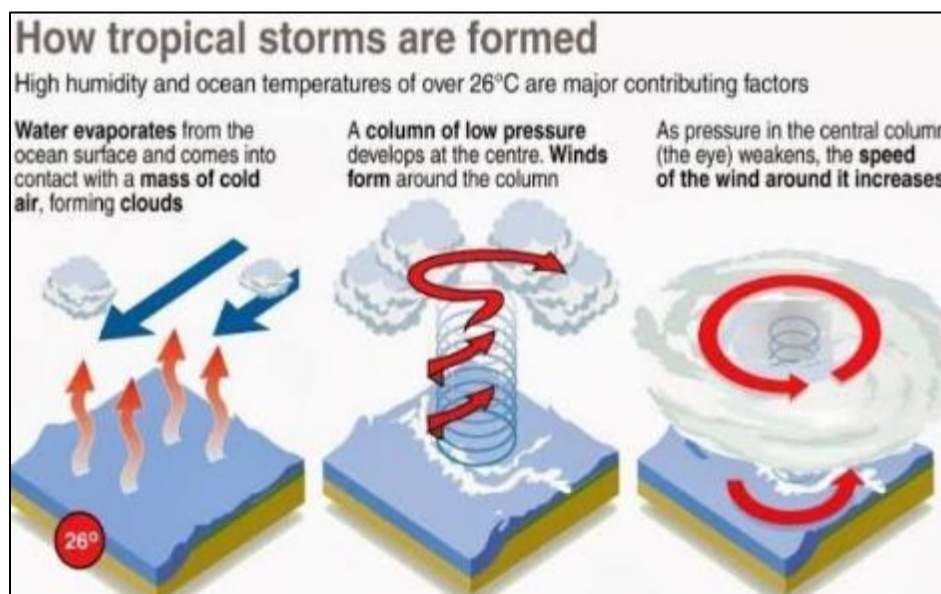
New Suicide drones - North Korea

- ❖ North Korea has unveiled a new “suicide drone.”
- ❖ The Suicide drones are explosive-carrying unmanned drones designed to be deliberately crashed into enemy targets, effectively acting as guided missiles.
- ❖ The suicide drone that looks similar to HAROP can fly over 1000 kilometers (600 miles).



Cyclone Asna

- ❖ Cyclone Asna has formed over the Kutch coast in Gujarat and adjoining areas of Pakistan.
- ❖ This cyclonic storm is a rare land-originating one in August and headed to the Arabian Sea.
- ❖ This is the first cyclonic storm in the Arabian Sea in August since 1976.
- ❖ The name Asna, which means “the one to be acknowledged or praised”, has been given by Pakistan.
- ❖ Between 1891 and 2023, only three cyclonic storms formed in the Arabian Sea in August (in 1976, 1964, and 1944).



Pacific Islands Forum 2024



- ❖ The annual meeting of the Pacific Islands Forum (PIF) was held in Nuku'alofa, the capital of Tonga.
- ❖ Formed in 1971, PIF is an intergovernmental organisation which consists of 18 member states located in the Pacific region.
- ❖ Some of notable member states are Australia, New Zealand, Papua New Guinea, Fiji, Tonga, and Cook Islands etc.

Climate and sustainable development cooperation framework



- ❖ The two-day BRICS Climate Agenda in Modern Conditions Forum was held in Moscow, Russia.
- ❖ The BRICS countries have adopted the framework on climate and sustainable development.
- ❖ The document covers all key aspects of climate action, including a just transition, mitigation, adaptation, carbon markets, finance, science, and business involvement.
- ❖ BRICS comprising 41 per cent of the world population, 24 per cent of the world GDP and over 16 per cent share in the world trade.

Payment Passkey Service



- ❖ Mastercard announced the worldwide launch of its new Payment Passkey Service.
- ❖ It aims to make online shopping more secure and easier than ever.
- ❖ This service has debuted in India as a pilot with some of the nation's largest payment players.
- ❖ Payment passkeys use device-based biometric authentication methods such as fingerprints or facial scans.
- ❖ It was replacing traditional passwords and OTPs.
- ❖ Passkey Service makes transactions not only faster, but also more secure against fraud and scams.

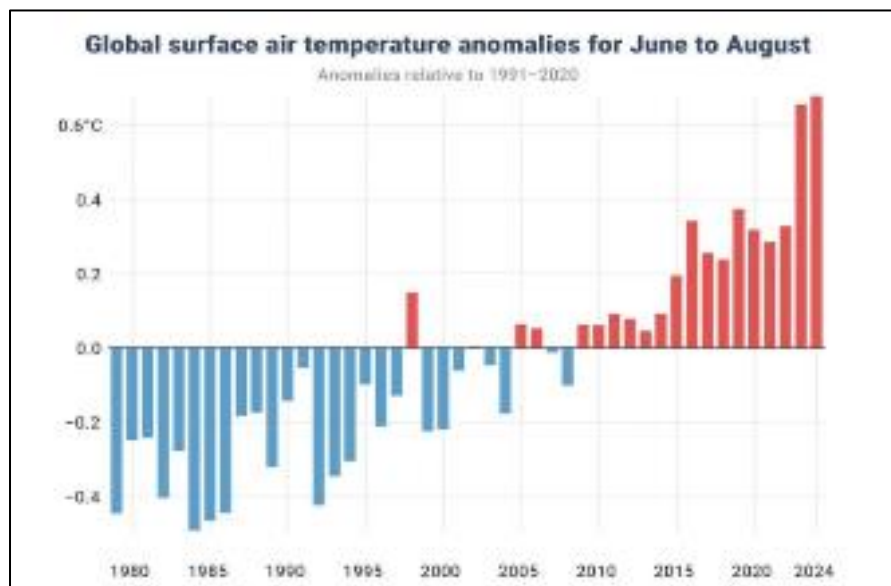
Legally binding international AI treaty

- ❖ The United States, European Union, and the United Kingdom have signed the first legally binding international treaty on artificial intelligence (AI).

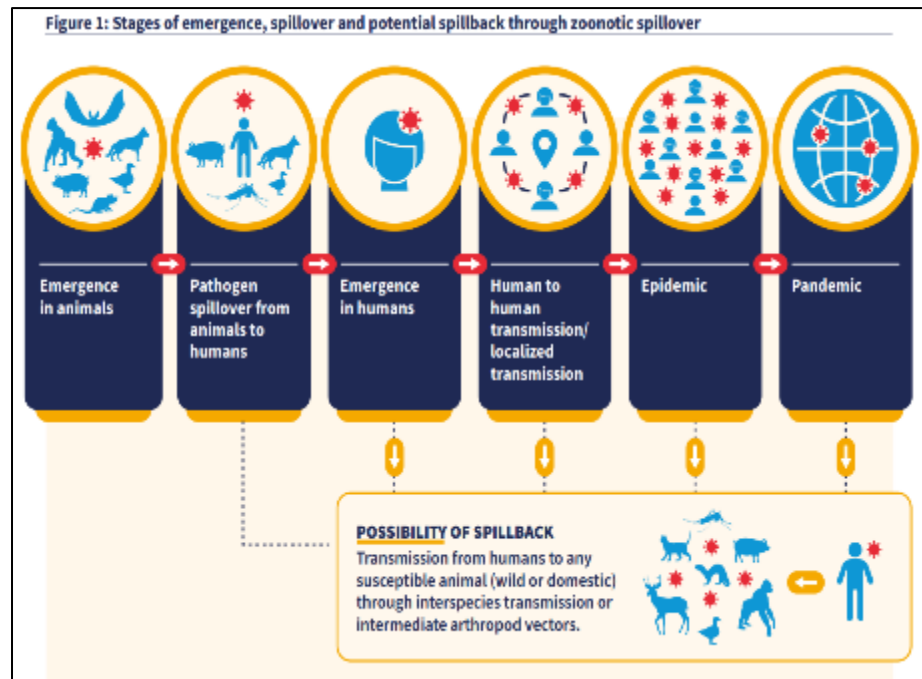
- ❖ It is known as the Council of Europe Framework Convention on Artificial Intelligence, Human Rights, Democracy, and the Rule of Law.
- ❖ It aims to regulate AI technologies, underlining the need to balance innovation with the protection of human rights and democratic values.
- ❖ This AI convention is the result of years of negotiations between 57 countries.

Hottest Northern Hemisphere Summer

- ❖ The summer of 2024 has officially been declared the hottest on record for the Northern Hemisphere.
- ❖ The boreal summer months of June, July, and August 2024 surpassed all previous temperature records.
- ❖ 2024 is on track to overtake 2023 as the warmest year in recorded history.
- ❖ The record-breaking temperatures have been attributed to a combination of the human-induced climate change and the El Nino weather phenomenon.
- ❖ El Nino is characterised by warming surface waters in the eastern Pacific Ocean.
- ❖ August 2024 has recorded the second-highest average sea surface temperatures, surpassed only by August 2023.
- ❖ In Italy, Sicily and Sardinia continue to grapple with a severe drought directly linked to climate change.



Global Framework for Pathogen Origins



- ❖ The World Health Organization (WHO) has introduced a new global framework.
- ❖ It is aimed at streamlining the investigation of the origins of novel and re-emerging pathogens with the potential to cause epidemics or pandemics.
- ❖ It outlines six technical elements that provide guidance for the investigations, including early epidemiological studies, research into human disease patterns, and laboratory safety protocols.

Taliban's new "Morality Law"

<ul style="list-style-type: none"> • The law imposes severe restrictions on women, including mandatory coverage of their faces and bodies when outside and prohibitions on their voices being heard publicly. This is part of a broader pattern of limiting women's public roles and freedoms. • The law includes specific rules such as penalizing individuals for being late to prayers, interacting with non-family members of the opposite sex, or possessing personal photos. 	<ul style="list-style-type: none"> • The law restricts media content, banning anything that opposes Sharia law or deplets living beings. This limits press freedom and religious expression. • Some provisions in the law address the mistreatment of orphans and the practice of "bacha bazi," where boys are exploited and dressed as girls. These measures aim to protect vulnerable children. • While many restrictions have been informally enforced since the Taliban's return to power, the formal codification of these rules may lead to even stricter enforcement. 
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- ❖ Taliban supreme leader has directed officials to enact Afghanistan's "morality law".
- ❖ It is formalising and codifying the restrictions on women and other groups in the country.
- ❖ They published the 114-page code, the first formal enactment of such laws since the Taliban took power in August 2021.
- ❖ The code makes it mandatory for a woman to veil her entire body at all times in public, and deems a face covering.
- ❖ Women should not be heard singing or reading aloud even inside their homes.
- ❖ Women and men are forbidden from even looking at each other if they are not related by blood or marriage.
- ❖ Earlier the Taliban banned education for girls beyond Class 6.

Forum on China-Africa Cooperation (FOCAC) 2024

- ❖ China-hosted the Ninth edition of the Forum on China-Africa Cooperation (FOCAC) summit in Beijing.
- ❖ Chinese President Xi Jinping pledged \$51 billion of funding to African countries.
- ❖ The Forum on China-Africa Cooperation was established in 2000.
- ❖ It aims to formalise the strategic partnership between China and African nations.
- ❖ FOCAC Summit is conducted every three years, with the host alternating between China and an African member.
- ❖ The FOCAC counts 53 African nations as its members – the entire continent except Eswatini.
- ❖ Eswatini has diplomatic ties with Taiwan against Beijing's "One China" Policy.

Switzerland - Best country in the world

- ❖ The survey ranks 89 countries on the basis of their global perception using 10 differentially weighted sub-rankings.
- ❖ Switzerland is ranked higher on metrics of quality of life and openness to business, its lowest ranking was in the field of heritage.
- ❖ This is the seventh time the Central European nation of Switzerland has ranked first in the survey.
- ❖ European countries are making up the majority of the top 25.
- ❖ Switzerland is followed by Japan, the United States of America, Canada and Australia.

- ❖ India is ranked at number 33 on the list this year, dropping three spots from its place on the list in 2023.
- ❖ Only Japan, Singapore, China and South Korea have managed to crack the top 25 from Asia.

Judicial reform bill – Mexico



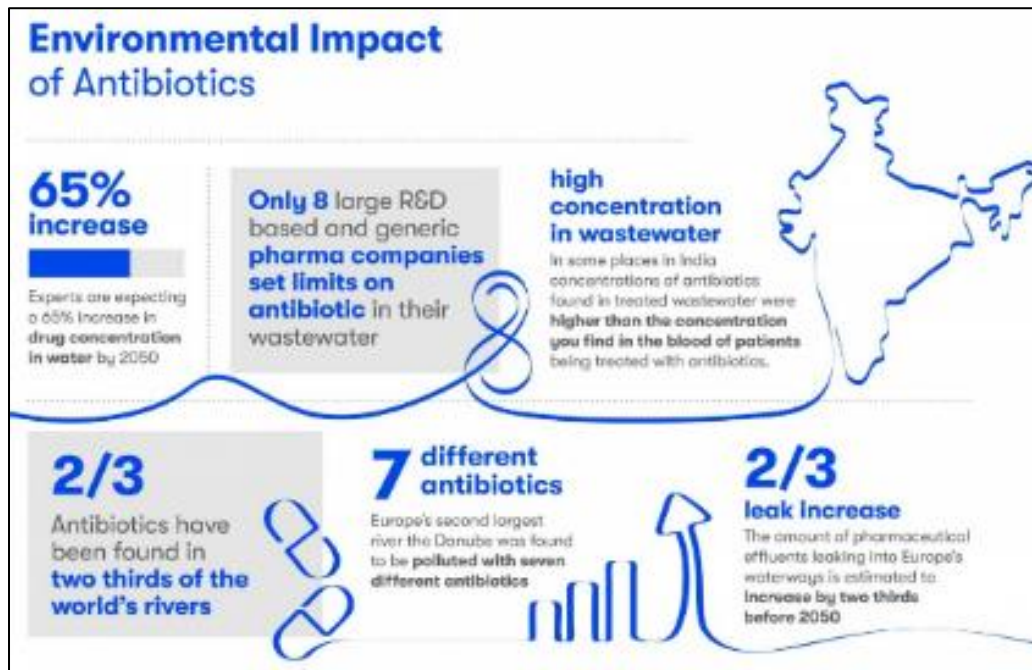
- ❖ Senators in Mexico have approved the controversial Judicial reform bill.
- ❖ Under the new measures, Mexico will become the world's first country to allow voters to elect judges at all levels – including the country's Supreme Court.
- ❖ Judges for the top court have typically been affirmed by the Senate from a shortlist submitted by the president.
- ❖ It has slashed the number of Supreme Court judges to nine from 11, reduced the length of their terms to 12 years.
- ❖ It also abolished a minimum age requirement of 35 and halved necessary work experience to five years, among other things.

Turkey in BRICS

- ❖ Turkey recently requested to join the BRICS alliance.
- ❖ BRICS stands for Brazil, Russia, India, China and South Africa.
- ❖ It is a group of emerging market countries that seek to deepen their economic ties.
- ❖ This year, it gained four new members: Iran, Egypt, Ethiopia, and the UAE.
- ❖ Turkey has been a longtime Western ally and NATO member since 1952.
- ❖ Turkey has faced consistent rejection from joining the EU.

Global guidance to tackle antibiotic pollution from manufacturing

- ❖ WHO released its first ever global guidance on antibiotic pollution stemming from manufacturing processes.
- ❖ This document is titled as “Guidance on wastewater and solid waste management for manufacturing of antibiotics”.
- ❖ The comprehensive document offers a scientific framework for the regulators, industry players and other stakeholders to implement effective controls against antibiotic pollution.



PCAPS project

- ❖ The World Meteorological Organization launched the "Polar Coupled Analysis and Prediction for Services" (PCAPS).
- ❖ It aims to enhance weather forecasting in the Arctic and Antarctic.
- ❖ It will improve information on weather, water, ice, and climate in these regions.
- ❖ The project will develop better observation systems, Earth system models, and advocate for improved forecasting services.
- ❖ PCAPS is part of WMO's World Weather Research Programme (WWRP).

Elephant culling in Zimbabwe



- ❖ Zimbabwe plans to cull 200 elephants to feed communities facing acute hunger after the worst drought in four decades.
- ❖ The El Niño-induced drought wiped out crops in southern Africa, impacting 68 million people and causing food shortages across the region.
- ❖ The cull, the first in the country since 1988, will take place in Hwange, Mbire, Tsholotsho and Chiredzi districts.
- ❖ It follows neighbouring Namibia's decision last month to cull 83 elephants and distribute meat to people impacted by the drought.
- ❖ More than 200,000 elephants are estimated to live in a conservation area spread over five southern African countries - Zimbabwe, Zambia, Botswana, Angola and Namibia.
- ❖ Zimbabwe is home to over 84,000 elephants.
- ❖ Zimbabwe has about \$600 million worth of ivory stockpiles that it cannot sell.

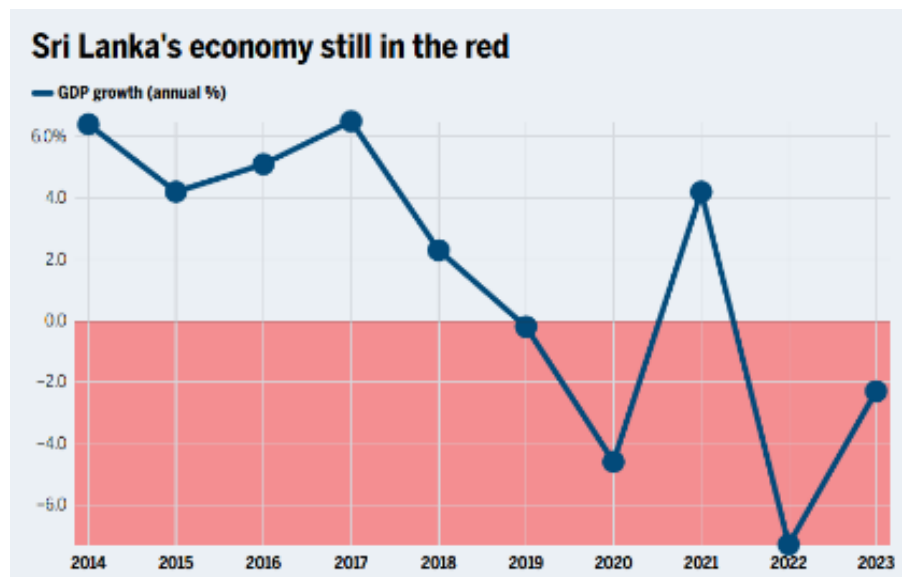
Elimination of Leprosy - Jordan

- ❖ Jordan becomes the first country in the world to eliminate leprosy, receiving the official verification from the World Health Organisation (WHO).
- ❖ For this, a country must demonstrate that the prevalence of leprosy has fallen below 1 case per 10,000 population.

- ❖ It also must have effective systems are in place to detect, treat, and prevent the disease from spreading.
- ❖ Leprosy, also known as Hansen's disease, is a chronic infectious disease caused by *Mycobacterium leprae*.
- ❖ The disease affects the skin, the peripheral nerves, mucosal surfaces of the upper respiratory tract and the eyes.



New President of Sri Lanka 2024



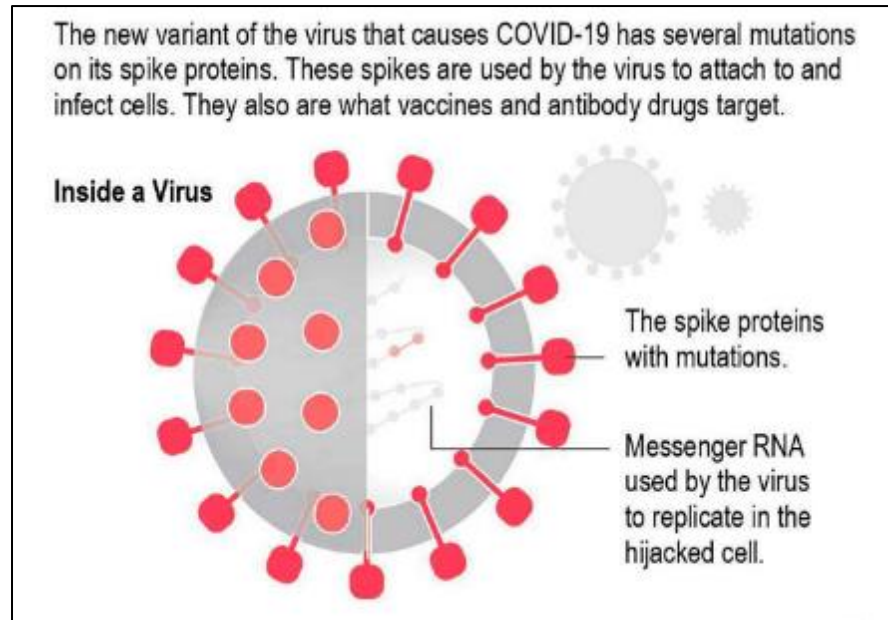
- ❖ Sri Lanka has elected Anura Kumara Disسانayake as its new president.
- ❖ This is marking the first time in the country's history that a Marxist leader has assumed the role.
- ❖ His party earlier, vehemently opposed the Indo-Lanka accord of 1987 – signed by Sri Lanka's then-president JR Jayewardene and India's Rajiv Gandhi.

Cancer Moonshot Initiative



- ❖ The Quad grouping launched a cancer initiative globally called the Quad Cancer Moonshot Initiative.
- ❖ It will focus on
 - Expanding cervical cancer screening;
 - Increasing vaccinations against the human papillomavirus, or HPV, a common sexually transmitted infection that is the primary cause of cervical cancer; and
 - Treating patients.
- ❖ India has dedicated a grant of US \$7.5 million to cancer testing, screening, and diagnostics in the Indo-Pacific region.

New COVID Variant XEC




- ❖ The latest strain, identified as the COVID-19 XEC variant, has garnered attention from health experts and has concerned public.
- ❖ The recombinant strain of two closely related variants called KS.1.1 and KP.3.3 - both descendants of JN.1 strain, collectively known as XEC.
- ❖ The new Covid-19 variant XEC has a bunch of additional mutations, which means it is more infectious than other strains.
- ❖ In total the variant has been spotted in 27 countries.

ECONOMY

Unified Lending Interface

- ❖ Reserve Bank of India (RBI) is working in launch of the Unified Lending Interface (ULI).
- ❖ Similar to the Unified Payment Interface (UPI), this ULI will transform the lending landscape.
- ❖ ULI platform will facilitate a seamless and consent-based flow of the digital information, including land records of various states, from multiple data service providers to lenders.
- ❖ It will cut down the time taken for credit appraisal, especially for smaller and rural borrowers.

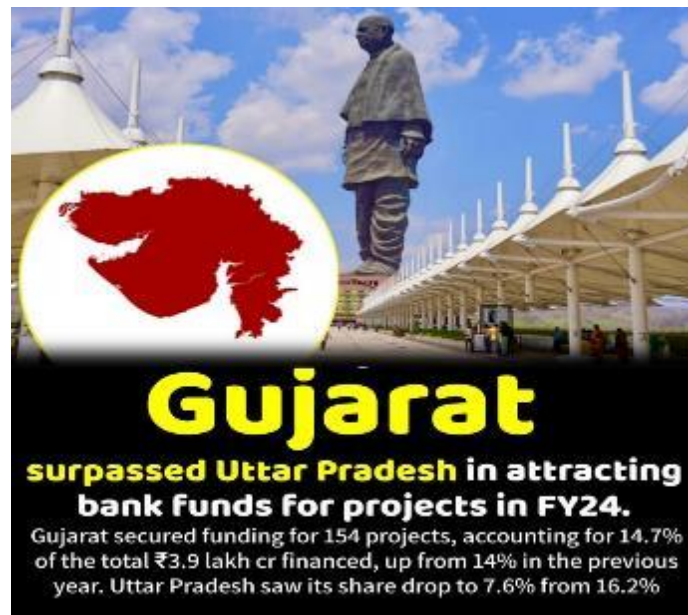
'NEW TRINITY: JAM-UPI-ULI'

 The new trinity of **JAM** (Jan Dhan-Aadhaar-Mobile)-
UPI-ULI will be a revolutionary step forward in India's digital infrastructure journey
—**Shaktikanta Das** | RBI GUV

What's Unified Lending Interface? > It is designed to address unmet credit demand, particularly for agriculture and MSMEs, by digitising access to data like **land records**
> A standardised, plug-and-play system that aims to reduce the need for extensive **documentation** from borrowers

Top investment destination in 2023-24

- ❖ Gujarat replaced Uttar Pradesh in attracting bank funds for projects in the state in 2023-24.
- ❖ Gujarat got funds for 154 projects accounting for 14.7 percent of the Rs 3.9 lakh crore financed by banks and financial institutions
- ❖ This marked an increase from the previous year's 14% share.
- ❖ UP received funds for 69 projects, with its share dropping to 7.6% from 16.2% in the previous year.
- ❖ Maharashtra, Andhra Pradesh were the other states in the top destination.



India's Gold Consumption Forecast 2024

- ❖ The World Gold Council (WGC) has raised its projection for India's gold consumption in 2024 to 850 tonnes from 750 tonnes.
- ❖ In the July-September quarter, the gold demand in India is expected to be 230 tonnes, up 10% year-on-year.
- ❖ The Gold demand in the April-June quarter fell 5% year-on-year to 158.1 tonnes owing to high import duty.
- ❖ With the government reducing the importing duty on gold to 6% from 15% in the Union budget on July 23, demand saw a quick uptick.



RBI's Five Strategic Priorities



- ❖ The 5th edition of Global Fintech Festival 2024 was held in Mumbai.
- ❖ Theme of the event is “Blueprint for the Next Decade of Finance: Responsible AI | Inclusive | Resilient”.
- ❖ During the event, RBI Governor outlined five strategic priorities that are essential for shaping the future of India's financial landscape.
 - Financial Inclusion
 - Enhancing Digital Public Infrastructure (DPI)
 - Strengthening Cybersecurity
 - Promoting Sustainable Finance
 - Reinforcing Financial Infrastructure

New record of Forex 2024



- ❖ India's foreign exchange reserves rose \$2.3 billion in the week ending August 30 to a new record high of \$683.99 billion.
- ❖ This is the third consecutive weekly rise of forex reserves backed by healthy dollar inflows.
- ❖ In the past three weeks, reserves rose by 13.9 billion.
- ❖ In 2024 alone, they have risen by over \$60 billion cumulatively.
- ❖ The Gold reserves during the week increased by \$862 million, bringing the total to \$61.859 billion.

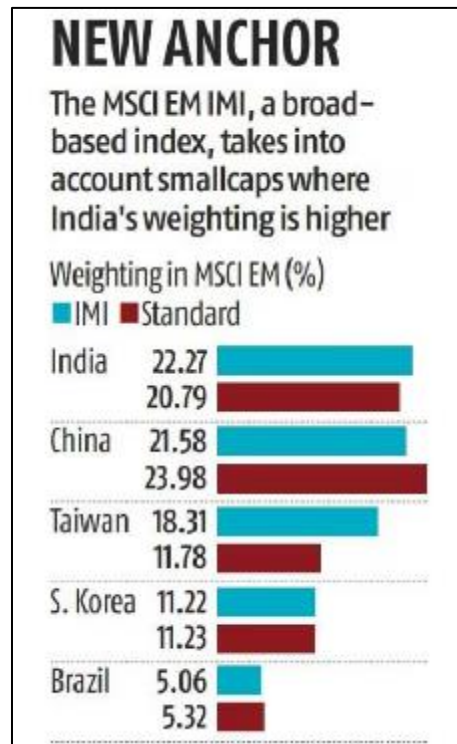
UPI - World Leading Digital Payment platform



- ❖ The Unified Payments Interface, or UPI, has processed nearly Rs 81 lakh crore transactions in the April-July period this year.
- ❖ This surpasses the world's leading digital payments platforms.
- ❖ This transaction number converts to a 37% increase on a year-over-year (YoY) basis.
- ❖ As per global payments hub Paysecure, UPI processed 3,729.1 transactions per second.
- ❖ It is a 58% surge over the 2,348 transactions every second registered in 2022.

- ❖ With this data, UPI has surpassed China's Alipay, Paypal and Brazil's PIX in the number of transactions processed.
- ❖ UPI processed 117.6 billion transactions in 2023 – the highest in the world.
- ❖ Some report forecasts a threefold increase in UPI transactions from 131 billion in 2023-24 to 439 billion by 2028-29.
- ❖ It is representing 91% of all retail digital transactions.

MSCI EM Index



- ❖ India has surpassed China to become the top weight nation in the MSCI Emerging Market (EM) Investable Market Index (IMI) for the first time.
- ❖ Indian equities together carry a weighting of 22.27 per cent in the index, edging ahead of Chinese stocks.
- ❖ Their combined weight now has fallen to 21.58 per cent.
- ❖ China's market capitalisation of \$8.14 trillion being over 60 per cent greater than India's \$5.03 trillion.
- ❖ The MSCI Emerging Markets Investable Market Index (EM IMI) is a comprehensive index that includes large, mid, and small-cap stocks from 24 emerging market countries.

Floor Price on Basmati Rice

- ❖ The Government of India has now decided to completely remove the floor price on Basmati Rice exports.
- ❖ The government on August 27, 2023, decided not to allow exports of basmati rice below USD 1,200 per tonne.
- ❖ In October last year, the government has reduced the floor price for basmati rice exports to USD 950 per tonne from USD 1,200 per tonne.
- ❖ India's total exports of basmati rice stood at USD 4.8 billion in 2022-23 in terms of price, while in volume terms it was at 45.6 lakh tonne.

Price Ceiling	Price Floor
Upper price limit imposed by the government	Lower price limit imposed by the government
Imposed on necessary items like wheat, rice, kerosene, etc.	Imposed on agricultural goods like Paddy, coconut, etc., and minimum wages for workers
It will always be less than equilibrium price	It will be more than equilibrium price
Creation of excess demand	Creation of excess supply
Fair price shops are opened	Excessively demanded quantity may be purchased by the government

Review Tax Rate on Insurances

- ❖ The GST Council constituted a 13-member Group of Ministers to suggest GST rate on premiums of various health and life insurance products.
- ❖ Currently, 18 per cent of Goods and Services Tax (GST) is levied on the insurance premiums.
- ❖ Additionally, the panel is tasked with suggesting the tax rates for life insurance, including term insurance, life insurance with investment plans, and the re-insurance.
- ❖ In the fiscal year 2023-24, the central and state governments collected a total of Rs 8,262.94 crore through GST on health insurance premiums.
- ❖ Additionally, Rs 1,484.36 crore was collected as GST on health reinsurance premiums.

FY24 TALLY			
	Tax evasion cases	GST amount (₹ crore)	
Real-money online gaming	78	81,875	
Banking, financial, insurance	171	18,961	
Iron, copper, scrap, alloys	1,976	16,806	
Pan masala, tobacco, cigarette, bidi	212	5,794	
Works contract services	343	2,846	

Trade connect e-platform

- ❖ Union Ministry for Commerce and Industry inaugurated the Trade Connect e-Platform recently.
- ❖ This Platform is a single window initiative that is fast, accessible and transformational and enables exporters to add newer markets.
- ❖ It will enable India increase its global market share, aid small businesses.



Scrap of windfall tax 2024

- ❖ The government scrapped the windfall tax on domestically produced crude oil.
- ❖ The tax, imposed as a Special Additional Excise Duty (SAED), was reduced from Rs. 1850 per tonne to nil.

- ❖ This is the second time since the tax was introduced in July 2022 that it has been reduced to nil.
- ❖ The last time the SAED was reduced to zero was on April 4, 2023.
- ❖ Windfall tax is levied by governments when an industry unexpectedly earns large profits, mainly due to an unprecedented event.



Organized gold loans

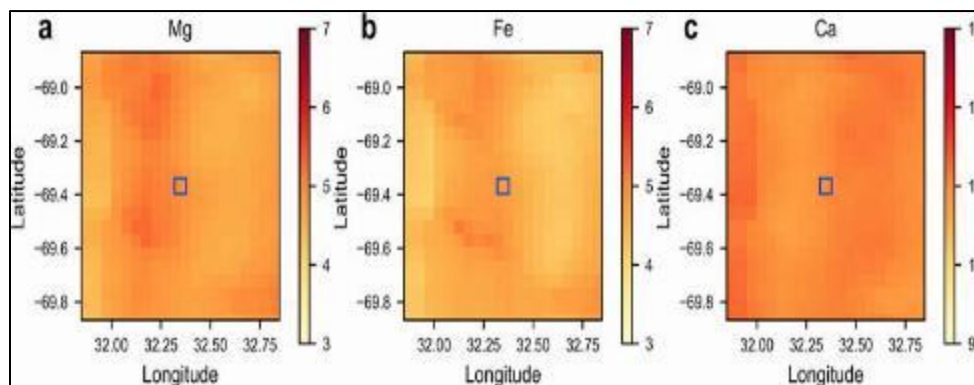


- ❖ Cumulatively, organised gold loans offered by banks and non-banking finance companies (NBFCs) are set to top Rs 10 trillion in the current financial year (FY25).
- ❖ It will potentially touch Rs 15 trillion by March 2027.
- ❖ The gold loan segment has expanded at a compound annual growth rate (CAGR) of 25 per cent between FY20 and FY24.
- ❖ Among the NBFCs, the gold loan book is concentrated with the top four players accounting for 83 per cent in March 2024.

SCIENCE AND TECHNOLOGY

Elemental Abundance Measurements of Lunar Soil

- ❖ Chandrayaan-3 mission has provided the first in-situ elemental abundance measurements of lunar soil in the South Polar Region of the Moon.
- ❖ Data of the Alpha Particle X-ray Spectrometer (APXS) on the Pragyan Rover used for this.
- ❖ These measurements support the Lunar Magma Ocean (LMO) hypothesis.
- ❖ This hypothesis suggests that the Moon's primordial crust formed as lighter minerals floated to the surface.
- ❖ The findings endorsed the theory that magma formed the Moon's surface around 4.5 billion years ago.
- ❖ APXS also detected the higher levels of magnesium-rich minerals, indicating contributions from deeper lunar layers.
- ❖ Scientists also found evidence of a huge meteorite crash in the region four billion years ago.
- ❖ The crash is thought to have made the South Pole–Aitken basin, one of the largest craters in the solar system, measuring 2,500 km across.



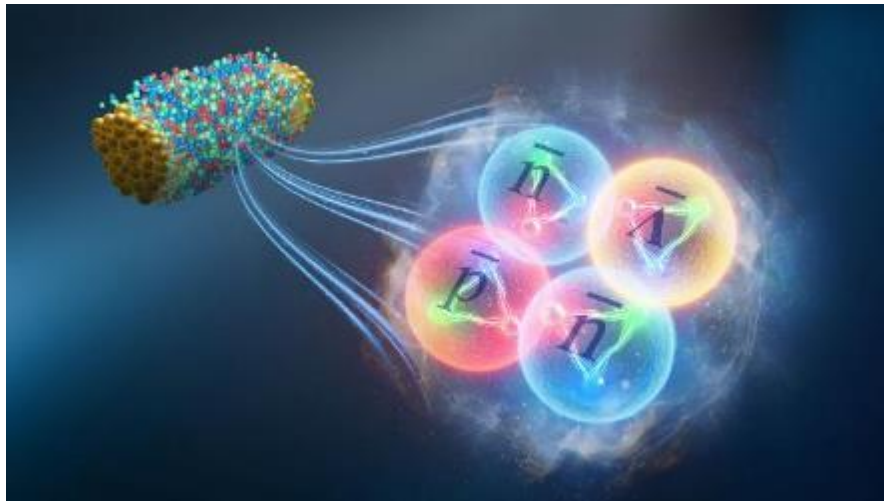
Tanager 1

- ❖ NASA has launched satellite known as Tanager-1a by using SpaceX Falcon 9 rocket.
- ❖ The satellite can detect major emitters of carbon dioxide and methane.
- ❖ The satellite will use imaging spectrometer technology to track methane and carbon dioxide emissions.
- ❖ Methane is an invisible but strong greenhouse gas, and the second largest contributor to global warming after carbon dioxide.

- ❖ According to a 2022 report, exposure to ground-level ozone could be contributing to one million premature deaths every year.



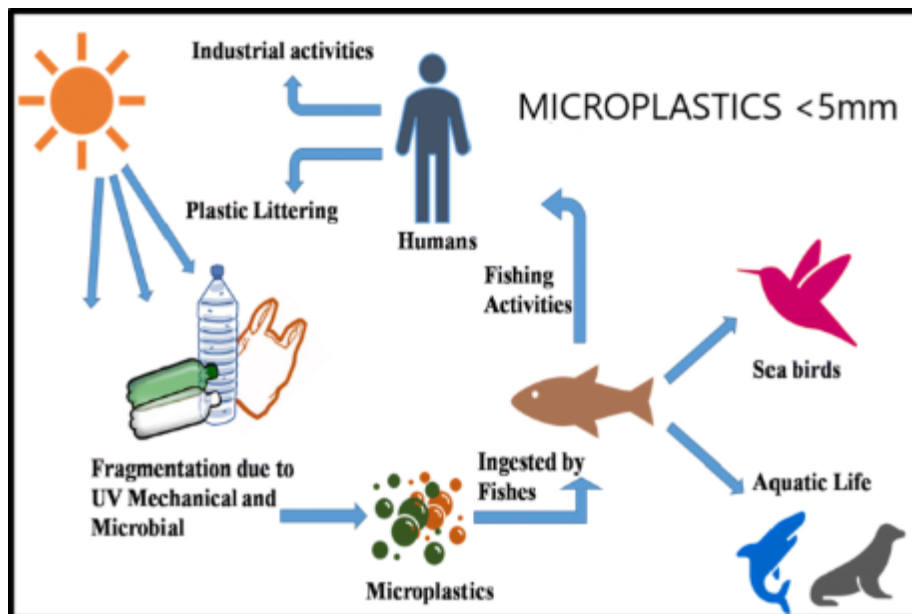
Antihyper Hydrogen-4



- ❖ Antihyperhydrogen-4, Heaviest Antimatter Hypernucleus Ever, was discovered recently.
- ❖ It contains 1 antiproton, 2 antineutrons, 1 anti-Lambda hyperon.
- ❖ This antihyperhydrogen-4 decays when it is only a few centimetres away when it is trapped by an anti-Lambda hyperon.
- ❖ The newly discovered antihyperhydrogen-4 was produced at the Relativistic Heavy Ion Collider (RHIC) in the United States.
- ❖ Antiparticle is a subatomic particle that has the same mass as another particle and equal but opposite values of some other properties.

Microplastics in Human Brains

- ❖ For the first time, researchers found microplastics in human brains.
- ❖ The researchers also found the number of plastics in brain samples increased by about 50% between 2016 and 2024.
- ❖ Microplastics typically enter the body through contaminated food and water.
- ❖ This can disrupt the gut microbiome (the community of microbes in your gut) and cause inflammation.
- ❖ This leads to effects on the whole body via the immune system and the complex, two-way communication system
- ❖ Microplastics are smaller than five millimetres.
- ❖ This makes some too small to be seen with the naked eye.
- ❖ They have been reported in many drinking water sources and everyday food items.



SLIM Moon Mission – Japan

- ❖ Japan's space agency, JAXA, has announced the end of its lunar lander operation after losing communication with the uncrewed spacecraft.
- ❖ Smart Lander for Investigating Moon (SLIM) or the "Moon Sniper" as it has been nicknamed for its landing precision.
- ❖ It landed on the lunar surface eight months ago.
- ❖ With this, Japan became the fifth nation to achieve a soft landing on the moon.

- ❖ However, SLIM landed on the lunar surface at a wonky angle, so its solar panels were left facing the wrong way.
- ❖ Once the sun's angle shifted, the SLIM lander came back to life for two days.
- ❖ At that time, it carried out scientific observations of the lunar crater with a high-spec camera.



J0529-4351

- ❖ Astronomers discovered J0529-4351, the most powerful quasar.
- ❖ It has brightness 500 trillion times greater than that of the sun.
- ❖ The light from the quasar requires 12 billion years to travel to Earth.
- ❖ Quasars are incredibly luminous cores of distant galaxies, fuelled by the super massive black holes at their centres.

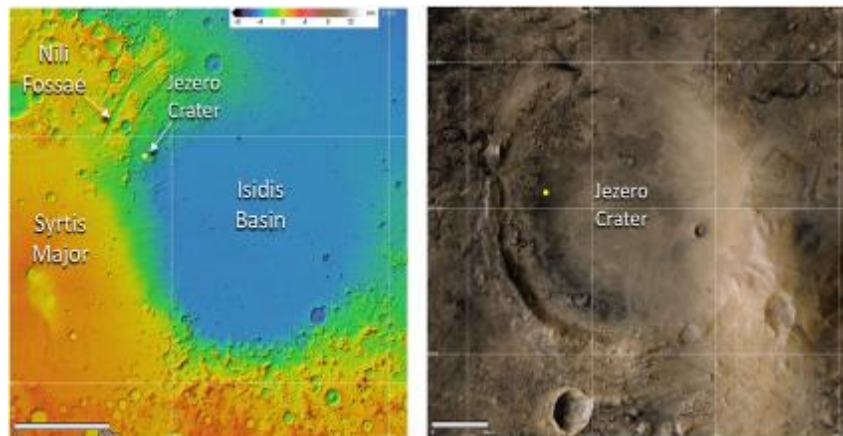


Humanoid Vyommitra in 2025



- ❖ Before launching astronauts on the Gaganyaan mission next year, ISRO will send a humanoid robot, Vyommitra, into space to test spacecraft safety.
- ❖ The humanoid's skull was designed at ISRO's Thiruvananthapuram unit.
- ❖ India's first attempt at sending humans into space is scheduled for next year.
- ❖ But before that two uncrewed preparatory missions, Gaganyaan-1 (G1) and Gaganyaan-2 (G2), would be flown, the first one later this year.
- ❖ The G2 mission will carry Vyommitra inside the human-rated pressurised crew module.

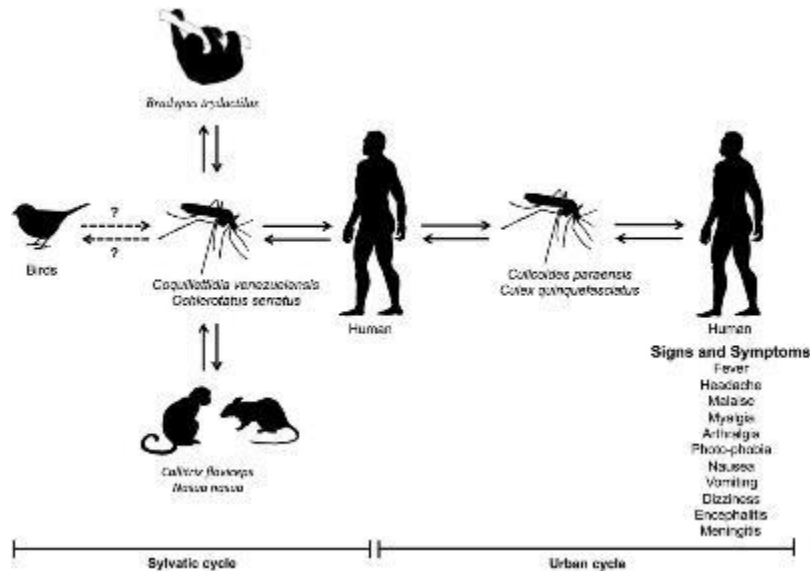
Jezero Crater Rim



- ❖ NASA's Perseverance Mars rover has started off on its most ambitious ascent to the rim of Jezero Crater.
- ❖ The rover will go up 1,000 feet (305 metres) to the rim of Jezero Crater to dig up rock samples.

- ❖ Perseverance has collected 22 rock core samples from the floor of the crater, which was once filled with water.

Oropouche Virus



- ❖ South America reported more than 8,000 cases by an insect-borne virus since August 1.
- ❖ It is similar to dengue and is spread primarily by the bite of infected biting midges, a kind of fly.
- ❖ It was detected for the first time in 1955 and was found in Trinidad and Tobago.

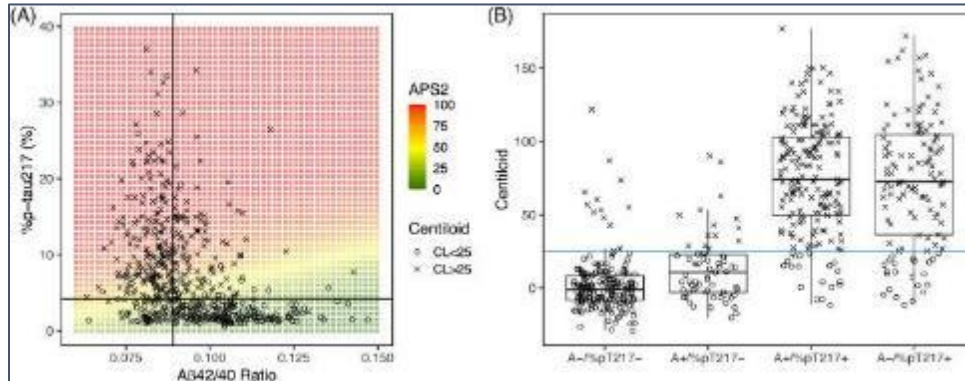
NEOWISE Telescope



- ❖ Nasa's Near-Earth Object Wide-field Infrared Survey Explorer (NEOWISE) has concluded its mission.
- ❖ It was launched in 2009, to explore the universe's farthest reaches, observing distant galaxies, supermassive black holes, and more.

- ❖ Over the decades, it catalogued more than 44,000 solar system objects, including the first known Earth Trojan asteroid.
- ❖ Previously orbiting at 310 miles above Earth, it now resides at just 217 miles.

New Alzheimer's blood test



- ❖ Researchers have developed a new blood test to detect Alzheimer's disease.
- ❖ It helps diagnose the disease even at the early stage of mild cognitive impairment.
- ❖ The new blood test was named as PrecivityAD2.
- ❖ It is about 90% accurate in identifying AD in people experiencing cognitive symptoms.
- ❖ One in five women and one in 10 men develop dementia due to Alzheimer's disease.

1,700 ancient and unknown virus species



- ❖ Researchers have discovered over 1,700 virus remnants buried deep within a glacier in western China.
- ❖ Many of these viruses being previously unknown to science.
- ❖ The oldest of this date back more than 40,000 years.
- ❖ They were extracted from a 1,000-foot ice core from the expansive Guliya Glacier on the Tibetan Plateau.

GNSS-Reflectometry (GNSS-R)

- ❖ ISRO, has successfully demonstrated a satellite technique to capture data on soil moisture, surface inundation, and ocean surface wind and wave measurements.
- ❖ It used a satellite-based sensor that is 475 km above the earth.
- ❖ This novel method is known as GNSS-Reflectometry (GNSS-R).
- ❖ An instrument capable of performing this role was mounted on ISRO's EOS-08 satellite that was launched recently.



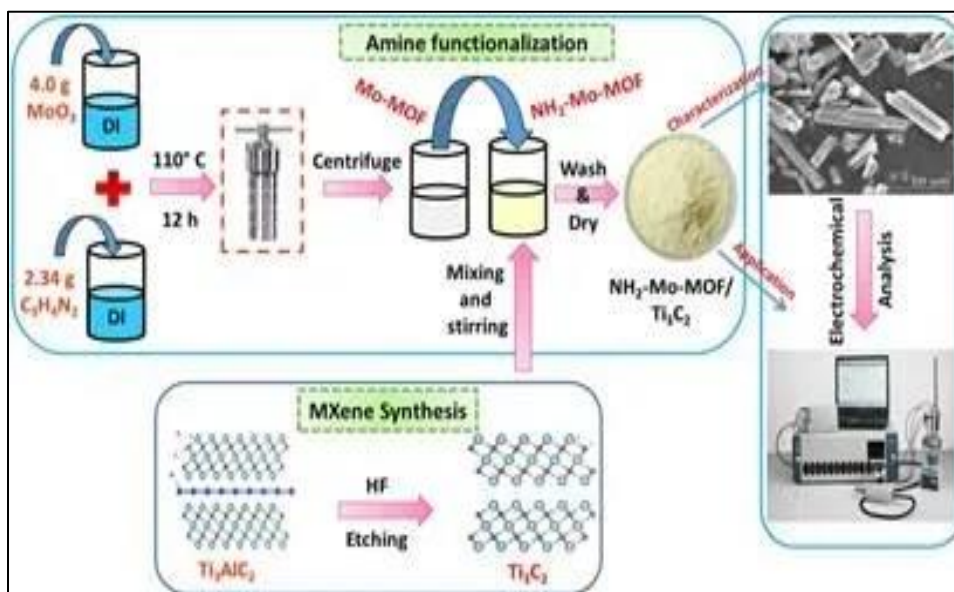
New laser weapon – China

- ❖ China have equipped one of its amphibious assault ships with a laser-directed energy weapon.
- ❖ They installed laser weapon on a People's Liberation Army Navy (PLAN) Type 071 amphibious transport dock.
- ❖ The laser weapon installed on the US ship, officially known as the Laser Weapon System Demonstrator (LWSD) Mk 2 Mod 0.
- ❖ It can be used as a dazzler to blind optical sensors and seekers on an adversary's platforms or weapons.



Metal-Organic Framework

- ❖ Researchers have developed a bunch of electrochemical and optical biosensors based on nano polymers multifunctional Metal-organic framework (MOF) and 2-dimensional (2D) materials.
- ❖ These are the uniform structured porous materials suitable for the solid-phase extraction.
- ❖ 2D materials are a class of nanomaterials defined by their typical and unique property of being hardly one- or two-atom thick.
- ❖ They both possess several unique features that should project them as better alternatives as sensors, than other nanomaterials.
- ❖ Both MOFs and 2D class of materials are known for their large surface area, functionality, and optoelectronic properties.

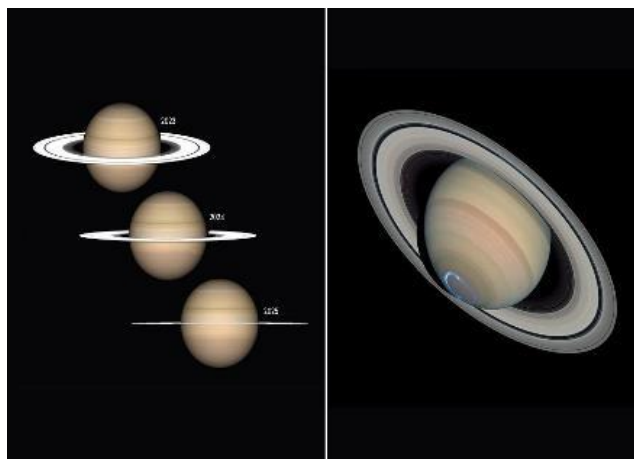


Operation Bhediya – Uttar Pradesh



- ❖ The Uttar Pradesh state government has given the nod to shoot the man-eating wolf/wolves at sight in Bahraich.
- ❖ The state government has also declared it a 'Wildlife Disaster' affected area.
- ❖ The state government has launched 'Operation Bhediya' to address the issue comprehensively.
- ❖ Under this operation, drone cameras and thermal drone mapping techniques are being used by the Forest Department to catch the wolves.
- ❖ The Chief Wildlife Warden can allow hunting of a Schedule I wild animal if it poses a danger to humans by issuing a written order explaining the reasons.

Saturn's rings



- ❖ In March 2025, Saturn's rings will no longer be visible from Earth due to the planet's axis tilt, which will align the rings from the Earth's perspective.
- ❖ This rare occurrence is expected to significantly change how Saturn is viewed from our planet.
- ❖ Saturn has an axis tilted similarly to Earth's. During one half of its year (1 Saturn year equals 29.4 Earth years), the planet tilts in the Sun's direction.
- ❖ That's why the upper part of its ring shines.
- ❖ They temporarily disappear every 29.5 years as the planet completes its orbit around the Sun.
- ❖ After March 2025, they'll become visible again due to Saturn's axial tilt.
- ❖ But it will disappear again in November of the same year.
- ❖ Its rings will come back into full view by 2032.
- ❖ Saturn's ring system is not a single, solid entity but rather a collection of distinct sections.
- ❖ It includes the prominent A, B, and C rings, accompanied by the fainter D, E, F, and G rings.
- ❖ These sections are separated by gaps, such as the notable Cassini Division, which stretches approximately 4,800 Km wide.

FWD 200B



- ❖ Flying Wedge Defence and Aerospace launched the country's first indigenously built combat unmanned aerial vehicle (UAV), the FWD 200B.
- ❖ This marks a significant milestone, as India joins the ranks of nations equipped with advanced unmanned combat aircraft.

- ❖ The bomber FWD 200B is classified as a Medium Altitude Long Endurance (MALE) unmanned combat aerial vehicle (UCAV).
- ❖ It has a maximum take-off weight (MTOW) of 102 kg and can carry a payload of 30 kg.
- ❖ The UAV operates at a cruising altitude of 12,000 feet and can reach up to 15,000 feet.

Zombie fungus

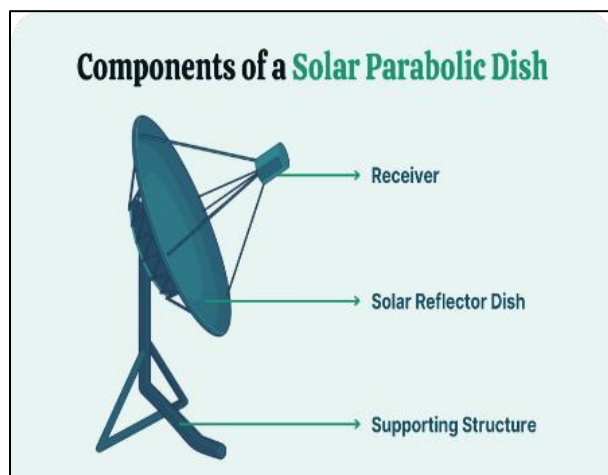
- ❖ Researcher discovered a tarantula infected by a zombie fungus.
- ❖ This marking the first recorded instance of this fungus infecting a tarantula, as it typically targets ants.
- ❖ The *Ophiocordyceps unilateralis* is commonly referred to as "cordyceps."
- ❖ This parasitic fungus is known for infecting insects, particularly ants.
- ❖ The zombie fungus is notable for its ability to control the behaviour of its host.
- ❖ It is specifically forcing ants to seek out environments that optimize the survival and spread of the fungus.
- ❖ Despite its name, it does not infect humans.
- ❖ The fungus is predominantly found in tropical forest ecosystems.



Solar paraboloid technology

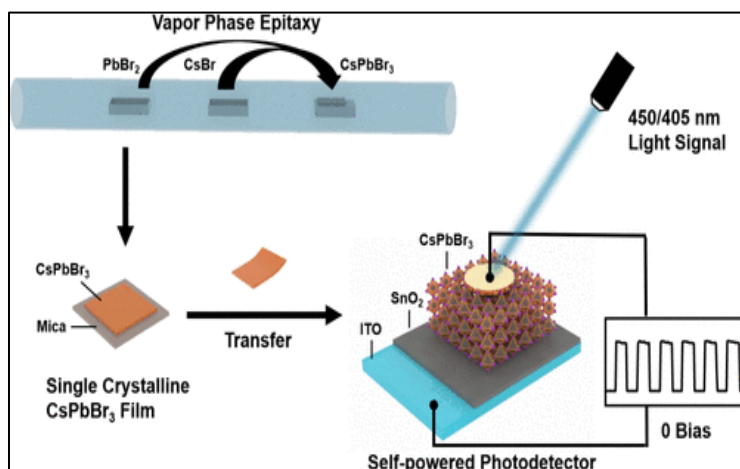
- ❖ Solar paraboloid technology is the advanced approach to harnessing solar power.
- ❖ This technology uses parabolic dish-shaped reflectors to concentrate sunlight onto a small receiver, significantly improving energy efficiency.
- ❖ The core of solar paraboloid technology lies in its ability to focus a large amount of solar energy onto a single point.

- ❖ This concentrated solar power (CSP) method allows for higher temperatures and more efficient electricity generation compared to traditional solar panels.
- ❖ The technology can produce energy even in low-light conditions, making it a versatile solution for diverse environments.



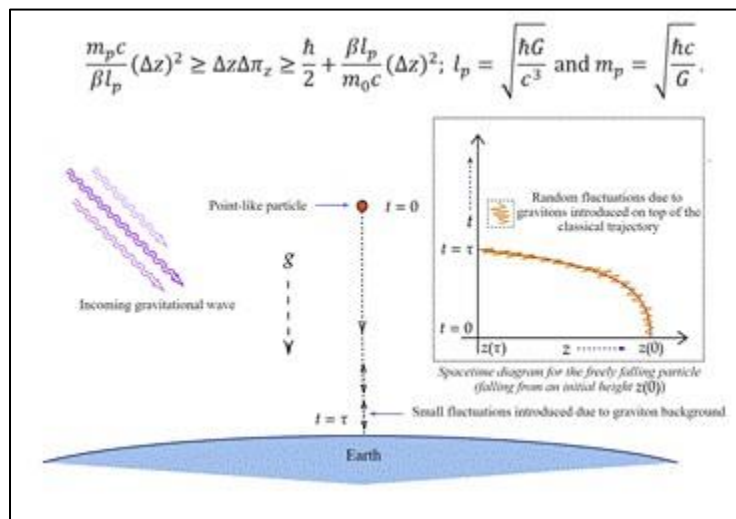
IISER's CsPbBr₃

- ❖ Indian Institute of Science Education and Research in Pune, has shown a new way to grow special crystals.
- ❖ Along with collaborators, its team has reported a new way to grow special crystals called CsPbBr₃ nanoplatelets.
- ❖ The superior properties of these crystals make them promising candidates for use in photodetectors and electronic devices.
- ❖ CsPbBr₃ is a type of material that has good optoelectronic properties.
- ❖ This means it can interact with light in ways that are very useful for devices like solar cells, LEDs, and detectors.

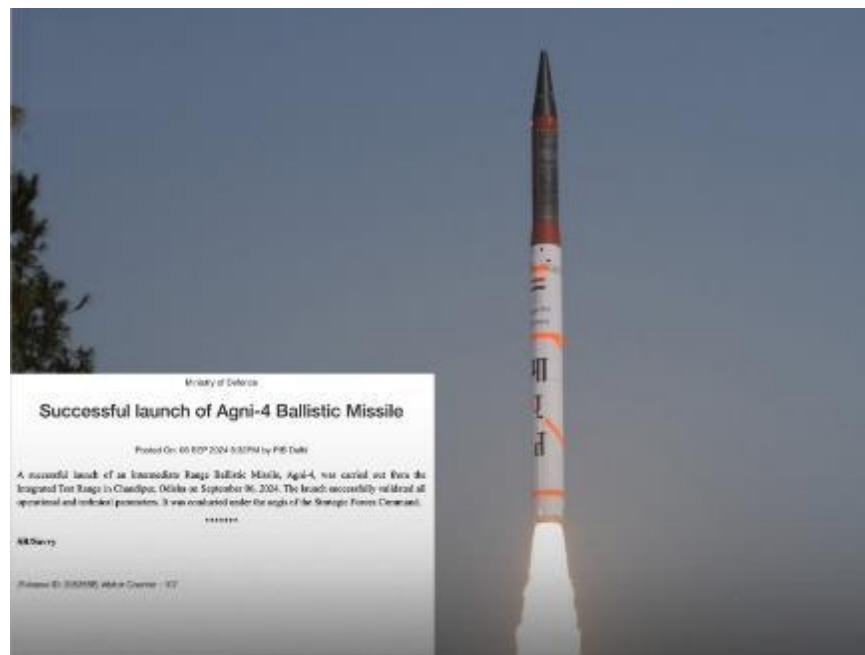


Unification of classical & quantum gravity

- ❖ The Researchers have made progress in unifying classical gravity with quantum mechanics by deriving an uncertainty relation from gravitons.
- ❖ Gravitons are the hypothetical quantum particles mediating gravity.
- ❖ Their calculations have obtained an uncertainty relation between the position and momentum variables induced from the noise of gravitons.
- ❖ Quantum gravity (QG) is a field of theoretical physics that seeks to describe gravity according to the principles of quantum mechanics.



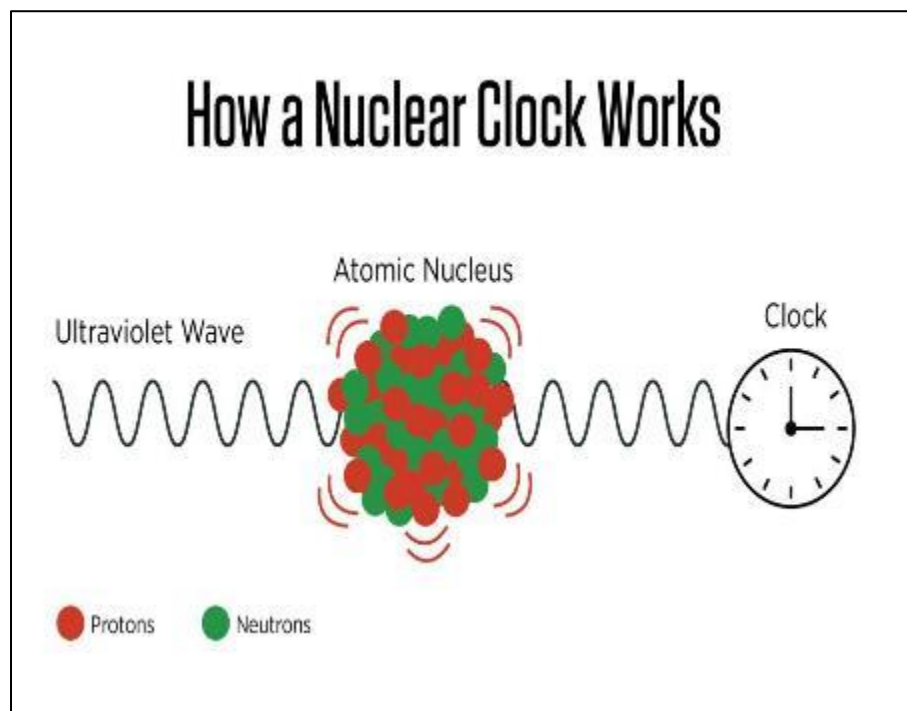
Agni-4 Ballistic Missile Test 2024



- ❖ India has completed a successful test-fire of Agni-4 Ballistic Missile.
- ❖ The range was increased even further with Agni-4, which can hit as far as 4,000 kilometres.
- ❖ The 20-metre-long missile can carry a payload of 1,000 kg and can be fired from a road-mobile launcher.
- ❖ The Agni-4 missile was earlier called Agni-2 Prime.

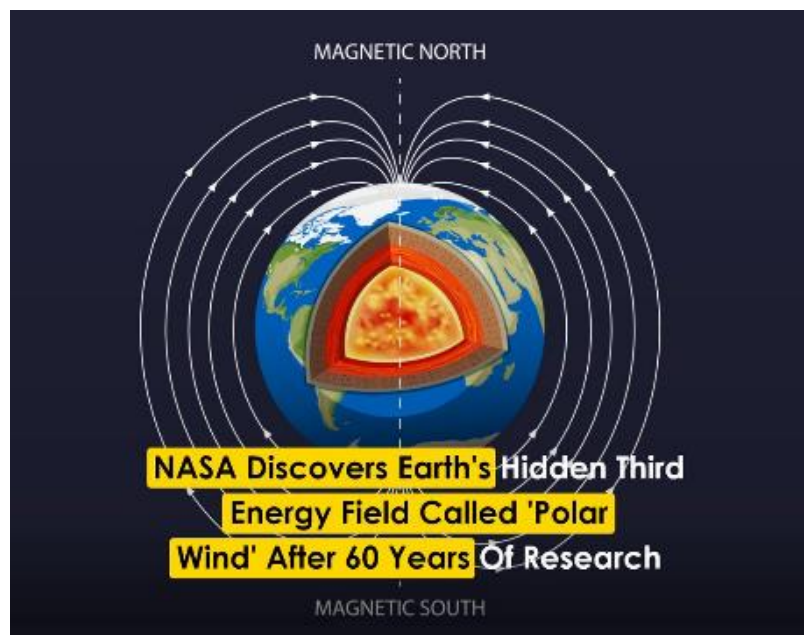
World's First Nuclear Clock

- ❖ The scientists develop the first prototype of the nuclear clock, which is much more advanced than the atomic clocks we currently rely on.
- ❖ Current atomic clocks measures time with exceptional precision, losing only seconds across billions of years.
- ❖ Atomic clocks measure time based on electrons jumping between energy levels in atoms.
- ❖ But the nuclear clock focuses just on the nucleus.
- ❖ Atom is 100,000 times bigger than its nucleus.
- ❖ The nuclear clock's energy level is closely coupled to strong forces in the nucleus.
- ❖ The atomic clocks mainly depend on electromagnetic forces.



Earth's third energy field - Polar Wind

- ❖ Earth's third energy field, ambipolar known as 'Polar Wind', is only existed in theory so far.
- ❖ It has now been discovered by Nasa after a search of 60 years.
- ❖ Polar winds have crucial answers about how Earth's atmosphere evaporates rapidly above the north and south poles.
- ❖ The ambipolar field acts like a conveyor belt which lifts the atmospheric particles into space.
- ❖ Gravitational field is responsible for maintaining our atmosphere and if there were not enough gravity it would go into space.
- ❖ Magnetic field is the shield that protects planet Earth from the solar wind, the stream of charged particles released by the sun.
- ❖ Ambipolar field is counteracts gravity and ejects particles into space.



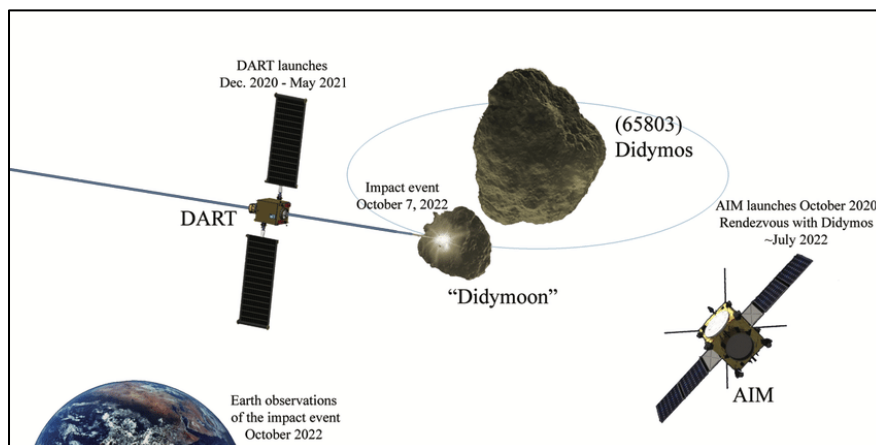
Mercury's south pole

- ❖ Recently the BepiColombo probe made its 4th flyby near Mercury.
- ❖ The satellite has approached the planet's surface at a record low distance of 165 kilometers.
- ❖ During the visit, the probe has taken the first ever images of Mercury's south pole.
- ❖ The historic photograph was taken when the probe was about 3,500 Km from Mercury's surface.

- ❖ Nasa is all set to launch the Europa Clipper mission next month to explore Jupiter's moon Europa
- ❖ The Europa Clipper mission is costing \$5 billion.
- ❖ It aims to determine whether the ocean believed to exist beneath Europa's icy surface could support life.

Human-Made Meteor Shower

- ❖ Debris from a two-year-old Nasa mission could be the cause of first man-made meteor shower.
- ❖ Nasa's Double Asteroids Redirect Test (DART) mission, intentionally collided with the moonlet Dimorphos in September 2022.
- ❖ It may result in this unique phenomenon.
- ❖ The mission is aimed to test asteroid deflection technology.
- ❖ Scientists now believe the impact produced over 2 million pounds of debris that could create meteor showers around Earth and Mars within 10 to 30 years.
- ❖ Due to the collision, fragments from Dimorphos could intermittently and periodically arrive at Earth and Mars for at least 100 years.
- ❖ The debris is traveling at 1,118 miles per hour could reach Mars.
- ❖ The smaller and faster particles moving at 3,579 miles per hour could reach Earth in under 10 years.



New Wetland Virus

- ❖ A new virus, dubbed wetland virus (WELV), has been discovered in China.
- ❖ It can spread to humans through tick bites, causing neurological disease in some cases.

- ❖ It was discovered in a man in 2019 after visiting a park in a large wetland in Mongolia.
- ❖ Ticks in the species *Haemaphysalis concinna* had more potential to harbour the virus.
- ❖ Tick-borne diseases are widespread. Common diseases like Alpha-gal syndrome (AGS), Lyme disease, Anaplasmosis, Ehrlichiosis, Babesiosis, Powassan (POW), Rocky Mountain Spotted Fever, and Tularemia are spread through ticks.
- ❖ Lyme disease is the most commonly reported tick-borne disease in the United States.



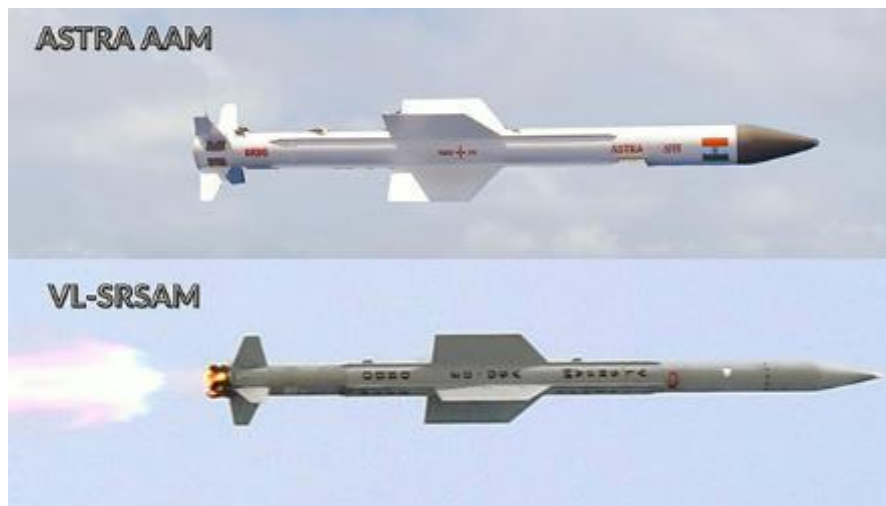
Mysterious tremors on Moon



- ❖ Chandrayaan-3 became the first lunar mission to have detected more than 250 seismic signatures from the south pole of the Moon.

- ❖ These 250 seismic signals included 50 unique signals that are likely to have links with moonquakes.
- ❖ Moonquakes refer to the earthquake on the lunar soil.
- ❖ Out of the 250 seismic events, about 200 correlates with Pragyan's movements or other instrument operations.
- ❖ This is the first time seismic data has been collected from the South Pole of the lunar surface.
- ❖ It is also the first time such an activity has been recorded since the Apollo missions.

VL-SRSAM Missile 2024



- ❖ DRDO and the Indian Navy successfully conducted the flight test of the Vertical Launch Short Range Surface-to-Air Missile (VL-SRSAM).
- ❖ VL-SRSAM is a quick reaction missile, which can identify and neutralise threats coming from all directions.
- ❖ Initially designed for the Indian Navy for a strike range of 40 km, it can now attack targets up to 80 km.
- ❖ With a maximum speed of Mach 4.5, the weapon system can reach an altitude of 16 km.

Largest genome of animal

- ❖ The South American lungfish is an extraordinary creature and a living fossil.
- ❖ It is inhabiting slow-moving and stagnant waters in Brazil, Argentina, Peru, Colombia, Venezuela, French Guiana and Paraguay.

- ❖ It is the nearest living relative to the first land vertebrates and closely resembles its primordial ancestors dating back more than 400 million years.
- ❖ This freshwater species (*Lepidosiren paradoxa*) also has the largest genome – all the genetic information of an organism – of any animal on the earth.
- ❖ Its genome is to be about 30-times the size of the human genetic blueprint.
- ❖ The length of the DNA in each cell of this lungfish would extend almost 60 metres.
- ❖ The human genome would extend a mere 2 metres.



Polaris dawn mission



- ❖ The Polaris Dawn mission, a landmark journey in private space exploration, concluded with a successful splashdown in Florida.
- ❖ This mission marked the highest altitude ever reached by a crewed spacecraft since 1972 and the first commercial spacewalk.
- ❖ Polaris Dawn ascended to an impressive altitude of 870 miles.
- ❖ This is more than three times higher than the International Space Station.

- ❖ This is the furthest, the humans had ever travelled from Earth since the Apollo missions to the Moon.
- ❖ During the historic spacewalk, Isaacman and Gillis have tested SpaceX's new spacesuits, assessing their functionality and mobility.

Image of the Red Spider Nebula

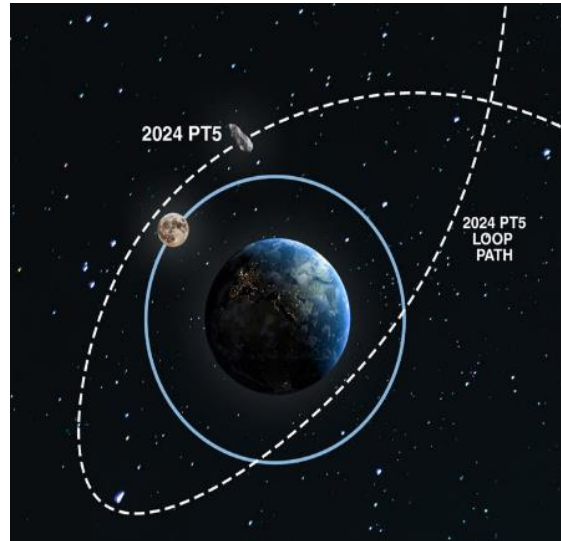
- ❖ The Hubble Telescope clicked a few pictures of the stunning Red Spider Nebula.
- ❖ It is located approximately 3,000 light-years away in the constellation Sagittarius.
- ❖ This planetary nebula is home to one of the most scorching stars in the universe.
- ❖ Its surface temperatures are reaching as high as 250,000°C (450,000°F).
- ❖ Hubble is a joint project of the NASA and the European Space Agency (ESA).
- ❖ The telescope was launched on April 24, 1990.
- ❖ It has made more than 1.4 million observations of nearly 47,000 celestial objects.



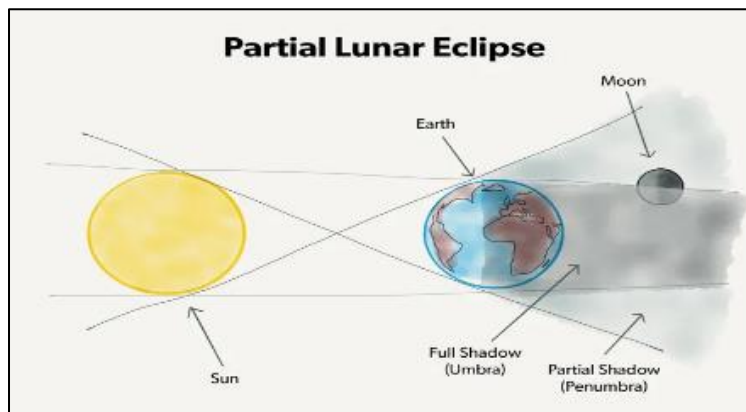
Temporary 'Mini-Moon' 2024

- ❖ An asteroid that cannot escape Earth's gravitation is called a mini-moon.
- ❖ Earth is going to witness a new mini-moon for a short period, starting from September 29 until November 25.
- ❖ That asteroid, named 2024 PT5, is just 33 feet long and is travelling in cosmic space.
- ❖ It will soon be captured by Earth's gravity for a singular orbit.
- ❖ This 2024 PT5 is not a mini-moon technically, as it will not complete one full revolution around Earth.

- ❖ It will remain in the planet's orbit for over 56 days only.
- ❖ It will follow paths known as "horseshoe orbiters" due to their shape around Earth and the Sun.
- ❖ The 2024 PT5 asteroid was first discovered by the Asteroid Terrestrial-impact Last Alert System in August.
- ❖ Earlier in 2006, an asteroid orbited Earth for nearly a year, and another did so for several years before leaving in 2020.



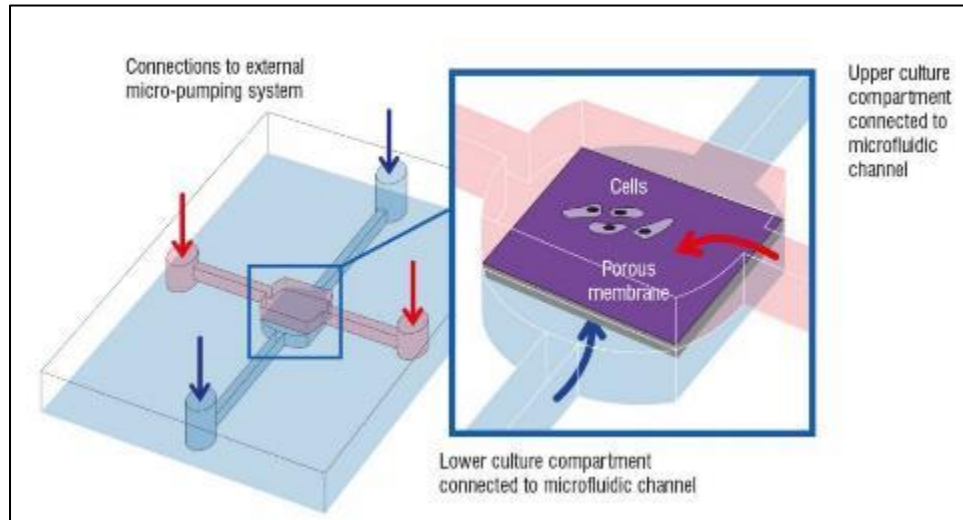
Partial lunar Eclipse 2024



- ❖ The partial lunar eclipse coincided with the September full moon, known as the Harvest Moon.
- ❖ This full moon was also a supermoon, appearing slightly larger and brighter than usual due to its closer proximity to Earth.
- ❖ The eclipse was observed from western Asia, North and South America, Europe, Africa, and parts of Antarctica.

- ❖ The next total lunar eclipse visible from India will occur on September 7, 2025, followed by a partial lunar eclipse on March 3, 2026.

Organ-on-Chip Technology



- ❖ The Government of India announced the 'BioE3' policy to drive innovation in the biotechnology sector.
- ❖ For this, it has established biomanufacturing facilities, bio-AI hubs, and bio-foundries.
- ❖ The policy also aims to boost the development of biologics such as gene therapy and cell therapy.
- ❖ The global organ-on-chip market is expected to be worth around \$1.4 billion by 2032.
- ❖ An organ-on-chip is a small device designed to recreate the dynamic functions of some human organ in a controlled microenvironment.
- ❖ They are expected to be better than the cell cultures and animal models, that researchers currently use at testing the effects of a drug.
- ❖ India amended the New Drugs and Clinical Trials Rules 2019 to permit the use of human organs-on-chips.

Bharatiya Anthariksh Station

- ❖ The union cabinet has approved the building of first unit of the Bharatiya Anatriksh Station by extending the scope of Gaganyaan program.
- ❖ India planned to create an operational Bharatiya Antariksh Station by 2035 and Indian Crewed Lunar Mission by 2040.

- ❖ The first module of the country's space station is to be called Bharatiya Antariksh Station (BAS-1).
- ❖ This is set to debut with its inaugural module in 2028.
- ❖ The ISS is operational since 2000 and was a collaborative effort between NASA, Roscosmos, ESA, JAXA, and CSA.
- ❖ China's Tiangong, meaning "Heavenly Palace," began its operations in June 2022.
- ❖ Russia plans to build its own station, the Russian Orbital Station (ROS).



Next Generation Launch Vehicle

- ❖ The NGLV is designed to enhance payload capacity threefold compared to the current LVM3.
- ❖ Its cost will be only 1.5 times more.
- ❖ The vehicle will incorporate reusability features, ensuring more affordable access to space and the integration of modular green propulsion systems.
- ❖ The NGLV is engineered to support a maximum payload of 30 tonnes to Low Earth Orbit (LEO) and will include a reusable first stage.
- ❖ Currently, India has achieved self-reliance in launching satellites up to 10 tonnes to LEO and 4 tonnes to Geo-Synchronous Transfer Orbit (GTO) through operational vehicles like PSLV, GSLV, LVM3, and SSLV.

The Future of Space Travel

Next Generation Launch Vehicle (NGLV)

New Re-usable **Low-cost** launch vehicle for Bharat

3X the present payload capability at **1.5X** cost & also have reusability

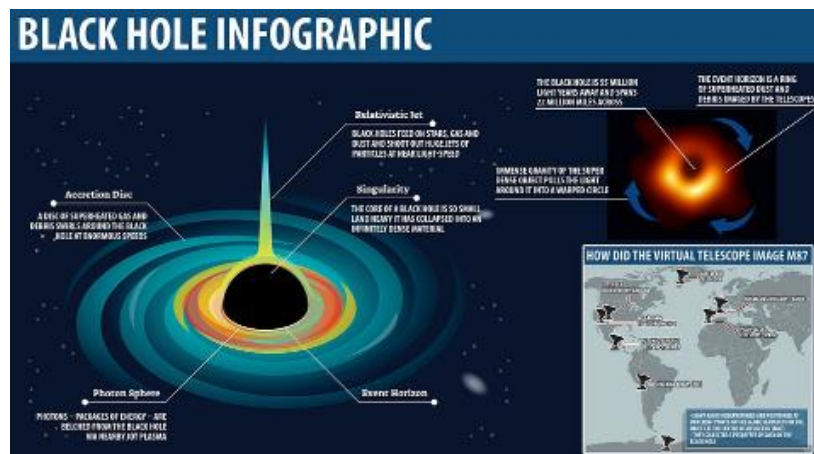
Total fund approved is **₹8240 Crore**

Enable national & commercial missions like Human spaceflight missions to **Bharatiya Antariksh Station**



Black Hole Finder App

- ❖ The Dutch Black Hole Consortium recently unveiled a new app called Black Hole Finder.
- ❖ This will aid astronomers identify new black holes.
- ❖ The app is free-to-use and is available on Android and iOS and can also be accessed from a web browser.
- ❖ The app description states that users who identify 1000 transients will be granted the “Super User” status.



New blood group system – MAL



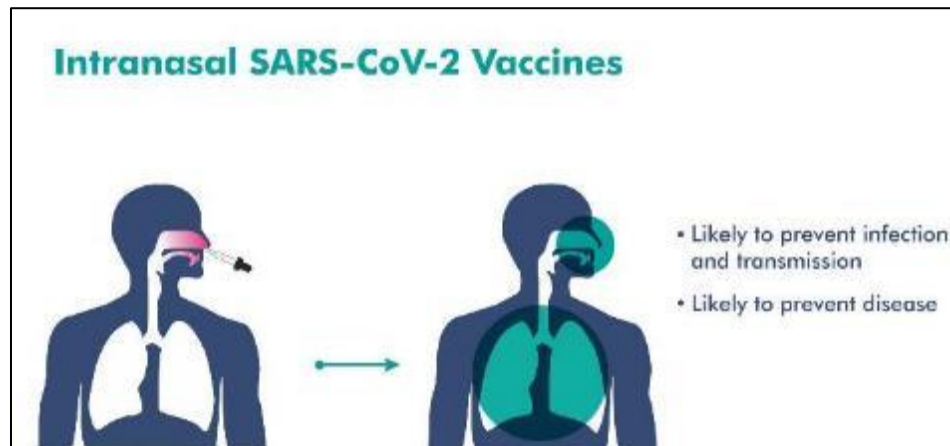
- ❖ Scientists have identified a new blood group system called MAL, solving a 50-year-old mystery about the AnWj antigen.
- ❖ This discovery will improve care for rare patients and help find compatible blood donors.
- ❖ This invention addresses a mystery that has persisted for nearly 50 years concerning the AnWj blood group antigen, first noticed in 1972.
- ❖ MAL is now recognized as the 47th blood group system, encompassing the AnWj antigen.

Chang'e-6 Mission's Lunar Soil Samples

- ❖ This year, China became the first and so far, the only country to collect samples from the far side of the Moon.
- ❖ It collected over 1.9 kg (4.26 pounds) of lunar material from the South Pole-Aitken basin, the Moon's largest, deepest, and oldest impact basin.
- ❖ The study discovered that the far side is composed of basalts and foreign ejecta, distinct from previously collected lunar samples.
- ❖ The soil also contains more light-coloured particles like feldspar and glass compared to the samples collected by the 2020 Chang'e 5 near side mission.
- ❖ This shows that the far side of the moon has experienced a variety of volcanic and impact events, making its history different from other parts of the moon.

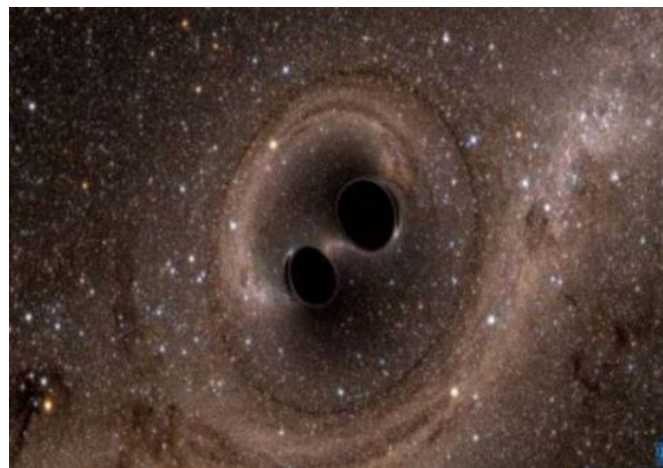
Needle-free COVID-19 vaccine

- ❖ The India-Australia collaboration has developed a needle-free intra-nasal booster vaccine against SARS-CoV-2.
- ❖ This live-attenuated booster has been developed using 'codon de- optimisation' technology.
- ❖ Codon de-optimisation involves decreasing the frequency of under-represented codon pairs (genetic determinants for amino acids) without changing the amino acid sequences.



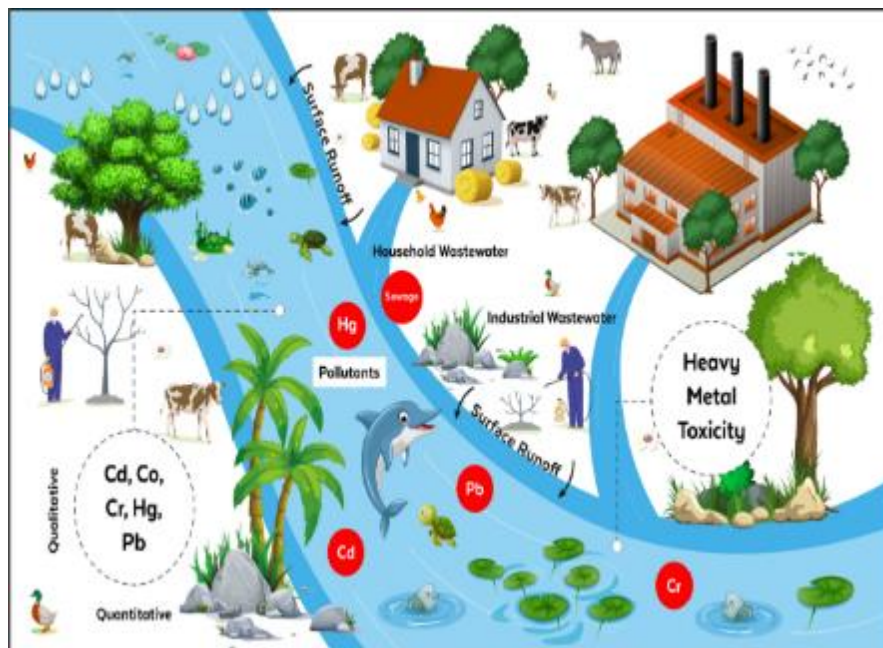
Palomar 5

- ❖ A stellar cluster, known as Palomar 5, is located around 80,000 light-years away from Earth.
- ❖ This may harbour a hidden swarm of over 100 stellar-mass black holes.
- ❖ This star cluster extends across 30,000 light-years.
- ❖ It is typically containing between 100,000 and 1 million ancient stars.



IISc's Sulphidated

- ❖ Researchers at the Indian Institute of Science (IISc) have developed a nano material-based solution to address heavy metal contamination in water.
- ❖ The team has developed an innovative nanomaterial that could help clean up chromium-contaminated groundwater.
- ❖ The material is called 'sulphidated' carboxymethyl cellulose-stabilised nanoscale zero-valent iron (S-CMC-nZVI).
- ❖ It has shown remarkable efficiency in removing hexavalent chromium, a toxic form of the metal, from water.



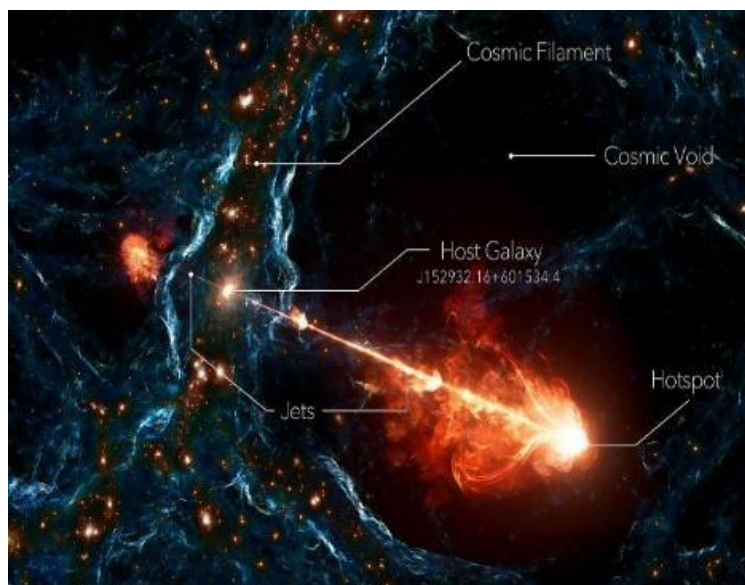
Saturn-like ring on Earth



- ❖ Recent study suggests that earth once had Saturn-like rings that, influencing the climate of the planet.
- ❖ The existence of such a ring, forming around 466 million years ago and persisting for a few tens of millions of years.
- ❖ Analysis of 21 crater sites dated to between 488 million and 443 million years ago to the Ordovician period, found that the impacts all occurred close to the equator.

Supermassive Black hole 2024

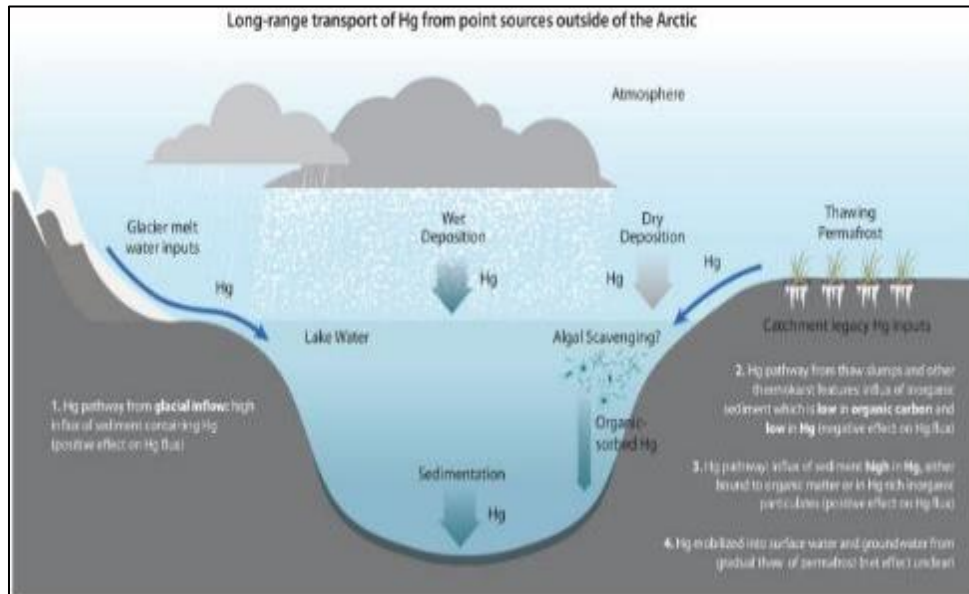
- ❖ The Scientists have discovered two colossal beams of energy emerging from a supermassive black hole in a distant galaxy.
- ❖ These jets are the largest ever recorded.
- ❖ They are extending about 23 million light-years, approximately 140 times the diameter of the Milky Way.
- ❖ The black hole resides at the heart of a galaxy about 7.5 billion light-years from Earth.
- ❖ A light-year is the distance light travels in a year, 5.9 trillion miles (9.5 trillion km).
- ❖ The researchers have nicknamed these two jets Porphyron named after a giant from ancient Greek mythology.
- ❖ Porphyron is about 30% longer than the previous record-holder for such jets.



ENVIRONMENT

Toxic mercury in Arctic's permafrost

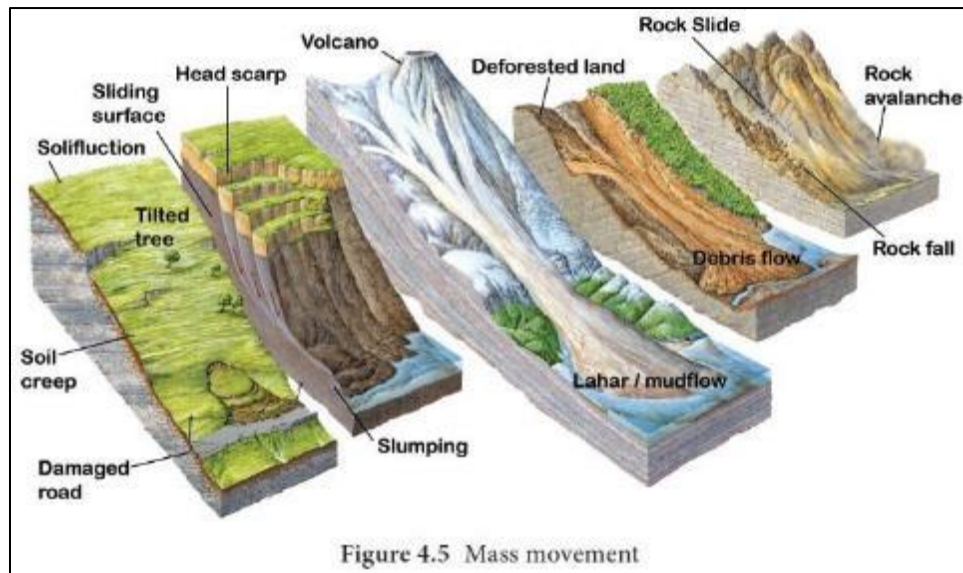
- ❖ Scientists have discovered that the melting permafrost in the Arctic is releasing toxic mercury into the water system.
- ❖ It could have severe consequences for the food chain and the communities that rely on it.
- ❖ Researchers have analyzed samples from the top three meters of permafrost in the Yukon River.
- ❖ They found that "significant" amounts of mercury is released when riverbanks erode.
- ❖ The mercury has likely been trapped in the permafrost for thousands of years.



Alpkarakush kyrgyzicus

- ❖ A new genus and species of large theropod has been discovered in Kyrgyzstan.
- ❖ This dinosaur was named *Alpkarakush kyrgyzicus*.
- ❖ They roamed our planet during the Callovian age of the Jurassic period between 165 and 161 million years ago.
- ❖ It is the first diagnosable theropod species from the Jurassic of Central Asia west of China.

Mass wasting in Tibet's Sedongpu Gully

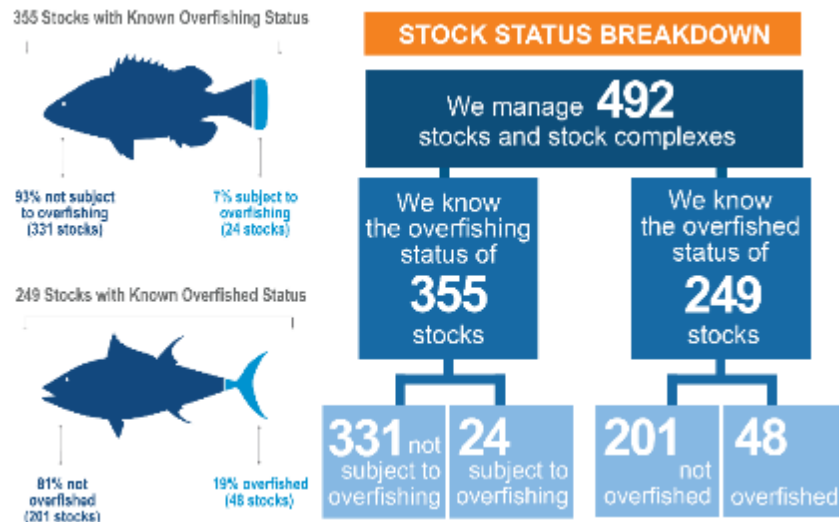


- ❖ The high frequency of mass wasting events in the Sedongpu Gully of the Tibetan Plateau since 2017 and the rapid warming of the area could affect India.
- ❖ This area rarely experienced temperatures beyond 0° C before 2012.
- ❖ But, the nearby weather stations at Bomi and Linzhi revealed that the annual temperature in this area increased at rates of 0.34° to 0.36° C during 1981-2018
- ❖ The Sedongpu Gully, in the catchment of the Sedongpu glacier and its valley, is 11 km long and covers 66.8 sq. km.
- ❖ It drains into the Yarlung Zangbo, or the Tsangpo River, near where it takes a sharp turn — called the Great Bend.
- ❖ While flowing around Mt. Namcha Barwa (altitude 7,782 metres) and Mt. Gyala Peri (7,294 metres) to create a gorge 505 km long and 6,009 metres deep.
- ❖ This is one of the deepest gorges on the earth.
- ❖ Mass wasting is the gravity-influenced movement of rock and soil down a slope.
- ❖ A gully is a landform created by erosion from running water, mass movement or both.

Dire State of Global Fish Stocks 2024

- ❖ Researchers have found that significantly more fish stocks are overfished or have already collapsed compared to previous estimates.
- ❖ Fishing pressure exceeds what fish populations can naturally replenish.
- ❖ When catches fall below 10 per cent of the original biomass, the stock is considered collapsed.

- ❖ Nearly a third of fish stocks classified by the Food and Agriculture Organization (FAO) as “maximally sustainably fished” are actually overfished.
- ❖ Within the overfished category, 85 per cent more stocks have likely collapsed (below 10 per cent original biomass) than previously estimated.



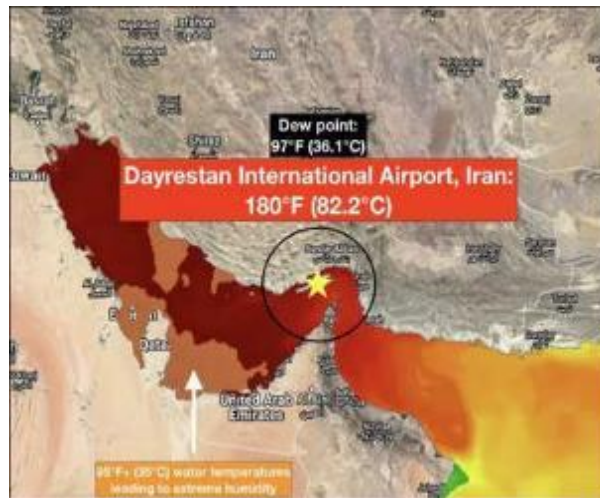
Northern bald ibis



- ❖ The northern bald ibis, also known as the Waldraap, is used to be common across North Africa, the Arabian Peninsula, and much of Europe.
- ❖ However, it became extinct in central Europe for over 300 years due to hunting and habitat destruction.
- ❖ By 2011, the first bird migrated back to Bavaria (Germany) from Tuscany (Italy) without human help.

- ❖ Now scientists guide 36 of these birds on their ancient migration route from Austria to Spain using an ultralight aircraft.
- ❖ This is the first use of an ultralight aircraft for reintroducing a migratory species.
- ❖ It is inspired by the 1996 film Fly Away Home and naturalist Bill Lishman's 1988 work with Canadian geese.

Earth's highest ever heat index

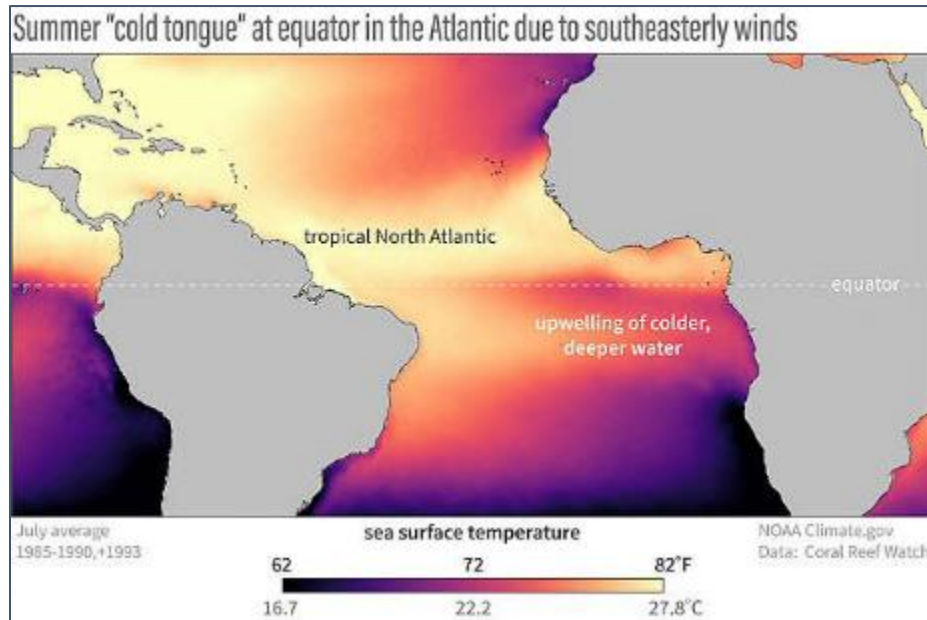


- ❖ A village in southern Iran has recorded the earth's highest ever heat index at 82.2°C (180°F) with a dew point of 97°F (36.1°C).
- ❖ The extreme figures were generated through a combination of an air temperature of 102°F (38.9°C) and 85% relative humidity.
- ❖ The weather station in Dhahran, Saudi Arabia has recorded a dew point as high as 93°F (33.9°C) in recent days.
- ❖ It currently holds the world record dew point of 95°F (35°C).

Temperature Drop in Atlantic Ocean

- ❖ The stretch of the central Atlantic was falling in temperatures up to 86°F near the equator.
- ❖ Then, almost overnight, the mercury plunged to 72°F.
- ❖ This is the warmest since 1982.
- ❖ This cooling event sparked predictions of an "Atlantic Niña," a climate pattern similar to the Pacific Ocean's La Niña.
- ❖ An Atlantic Niña could bring more rainfall to western Africa while causing less rainfall in northeastern Brazil and the Gulf of Guinea.

- ❖ The last time this pattern was observed was in 2013.



Arnoux's Beaked Whales



- ❖ The Researchers found several rare Arnoux's beaked whales in the coast of Antarctica.
- ❖ These whales hadn't been seen for decades.
- ❖ They are known for their brilliant diving abilities and can measure up to around 30 feet long.
- ❖ In the 11 expeditions conducted in the area between 1988 and 2018, scientists had never spotted the whales.

- ❖ They were discovered in 1851 and are elusive marine animals mostly found in the Southern Hemisphere.

Poba Reserve Forest

- ❖ Assam govt is to notify Poba Reserve Forest as wildlife sanctuary.
- ❖ The Poba Reserve Forest, a rainforest located in the northeastern part of Assam.
- ❖ The proposed Wildlife Sanctuary will be including the Poba Reserve Forest, Kabu Chapri Proposed Reserve Forest and the surrounding riverine areas.
- ❖ The forest is also a habitat for about 45 species of birds and reptiles, and the confluence of Siang and Lohit rivers supports a diverse range of fish species.

New Jumping Spider Species in Tamilnadu



- ❖ A new species of jumping spider, *Carrhotus piperus*, has been identified in the lower Palani Hills of Tamil Nadu.
- ❖ The discovery occurred during a 2016 survey in Thadiyankudisai, Dindigul.
- ❖ This discovery brings the number of known *Carrhotus* species in India to 10, and to 37 globally.

Elusive Madras Hedgehog

- ❖ The elusive Madras Hedgehog (*Paraechinus nudiventris*) is a nocturnal and believed to occupy only a restricted geographical range encompassing parts of Tamil Nadu, Kerala, and Andhra Pradesh.
- ❖ The population of the species and the state of its habitats remain little understood.
- ❖ The IUCN classified it as the “least concern”.

- ❖ The most suitable climate for the species was in western and southern Tamil Nadu.
- ❖ Additionally, the Korangaadu grasslands, semi-arid pasture lands, and dryland are predicted as suitable habitats in Tamil Nadu.

Vulnerable species

Some key features of the Madras Hedgehog, the threats it faces, and the ways to protect them

The Madras Hedgehog was first discovered in

1851

A relative of the European Hedgehog, the species is known to populate semi-arid grasslands that are often classified by the government as "wastelands"

The species is protected under Scheduled II of the Wildlife Protection Act, which was amended in 2022

- Climate change poses a significant threat to the Madras Hedgehog, which is highly vulnerable due to its specialised habitat needs
- Rising temperatures and altered precipitation patterns can degrade its grassland and semi-arid habitats, leading to water scarcity and vegetation loss
- Disruptions to ecological niches, habitat fragmentation, and range shifts further threaten it, making it harder for the hedgehog to find suitable habitats and environments to occupy
- Increased competition, predation, and reduced reproductive success due to altered environmental factors add to the challenges

- Additionally, climate change exacerbates human pressures, such as agriculture and urbanisation, further endangering the species' survival
- Other threats include challenges from illegal pet trade and hunting
- Researchers say that future studies should focus on detailed population surveys to accurately assess the hedgehog's numbers and distribution

- Genetic studies can also help explore the species' genetic diversity and adaptability to changing environments
- Investigating specific threats, such as habitat degradation, hunting, and climate change, will help identify targeted conservation strategies

- Research into the species' reproductive biology and behaviour can offer insights into its vulnerability and resilience
- Additionally, studies on the effectiveness of habitat restoration efforts and the impact of human activities on the species' survival will be crucial for informed conservation planning




PHOTO: PRADEEP HEGDE

Antarctic dragonfish

- ❖ Researchers in the Antarctic Peninsula have discovered a new species of Antarctic dragonfish.
- ❖ The dragonfish is called the Banded Dragonfish or *Akarotaxis gouldae*.
- ❖ The fish was named in honor of a recently retired Antarctic research and supply vessel called the Laurence M. Gould and its crew.



Atlas moth



- ❖ The Atlas moth (*Attacus atlas*) is considered endemic to South East Asia and to be one of the largest moths in the world.
- ❖ It was spotted by a birdwatcher in Kalvarayan Hills in the Eastern Ghats recently.
- ❖ This is the first sighting of the species in Kalvarayan Hills in Kallakurichi district.
- ❖ This is one of the largest moths found in India.
- ❖ These moths are typically found at 500-3,000 feet above sea level in tropical dry forests.
- ❖ They rest during the day and remain active at night.

New 'Dancing Girls' Ginger Species

- ❖ Scientists recorded six new species in the genus *Globba* belonging to the ginger (*Zingiberaceae*) family from the Eastern Himalayas and two northeastern States.
- ❖ The common name for this genus is dancing girl or dancing lady ginger.
- ❖ These species are *Globba corniculata*, *Globba paschimbengalensis*, *Globba polymorpha*, *Globba tyrnaensis*, *Globba janakiae*, and *Globba yadaviana*.

- ❖ The first three were recorded from West Bengal's Darjeeling district, the next two from Meghalaya, and the last from Mizoram.
- ❖ Zingiberaceae is the largest family within the order Zingiberales comprising at least 114 genera and 4,022 species.



New species of genus *Curcuma*

- ❖ Researchers have identified a new 'cousin' of the turmeric, *Curcuma ungmensis* in Nagaland.
- ❖ It belongs to the genus *Curcuma* (the ginger family Zingiberaceae).
- ❖ The family Zingiberaceae has 21 genera and about 200 taxa in India.
- ❖ *Curcuma* is one of the most important and largest genera of this plant family.
- ❖ *Curcuma longa*, black turmeric (*Curcuma caesia*) and mango ginger (*Curcuma amada*) are the well-known being turmeric.
- ❖ In India, the genus *Curcuma* is represented by about 40 species.
- ❖ They found mainly in northeast and southern States and the Andaman and Nicobar Islands.

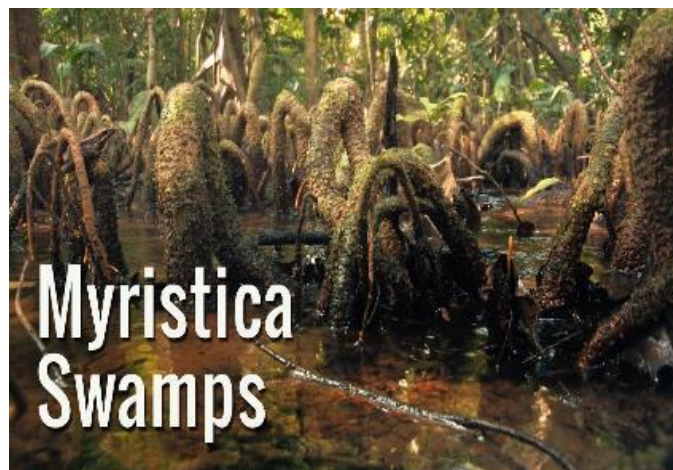


Air Quality Management Exchange Platform

- ❖ Climate and Clean Air Coalition (CCAC) launched an Air Quality Management Exchange Platform (AQMx) following UNEA-6 resolution.
- ❖ It aims to increase the regional cooperation and action on improving air quality globally.
- ❖ The platform will guide city and national air quality managers on how to meet WHO Air Quality Guidelines and interim targets.
- ❖ Air pollution causes more than 8 million premature deaths annually and particularly affects poorer places and more vulnerable populations.



Myristica Swamp Forest



- ❖ The Researchers have discovered a sacred grove — a Myristica swamp forest in Kumbral, which is protected by the local community.
- ❖ Myristica magnifica is a species of plant native to Karnataka and Kerala, and is classified as endangered.

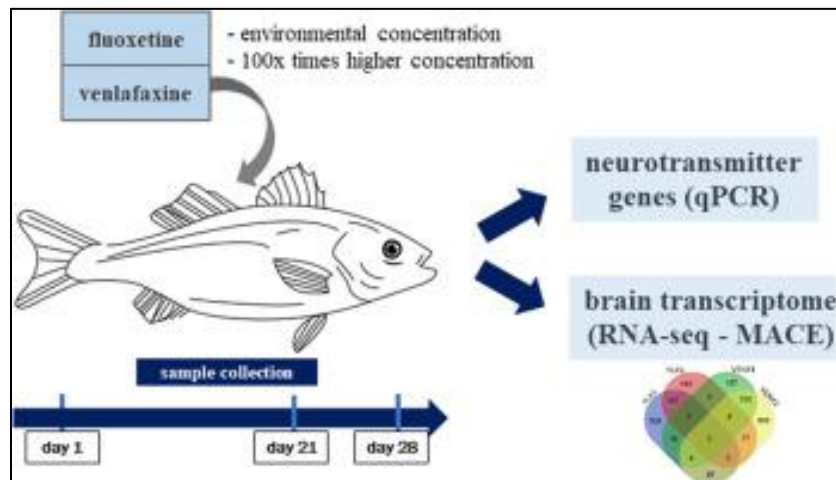
- ❖ Earlier researchers discovered the same in Hewale - Bambarde in Sindhudurg district.
- ❖ This new finding makes Kumbhal, the second village in Maharashtra to have such a unique forest patch.

Elongated Tortoise

- ❖ A critically endangered species, the elongated tortoise (*Indotestudo elongata*), was spotted in Haryana.
- ❖ The tortoise is found in the Sal deciduous and hilly evergreen forests.
- ❖ It is distributed across Southeast Asia from northern India, Nepal, Bhutan, and Bangladesh, Myanmar, Thailand, and all of Indochina.
- ❖ It also inhabits lowlands and foothills of up to 1,000 m above sea level.



Fluoxetine effects on fishes



- ❖ Long-term exposure to fluoxetine (Prozac) can significantly disrupt the behaviour and reproductive traits of the male guppy fish.
- ❖ The male guppies are more sensitive to environmental changes.
- ❖ Low Fluoxetine reduced activity levels and increased refuge-seeking behaviour in male guppies.
- ❖ It also increased variation in sperm numbers.
- ❖ Refuge seeking behaviour refers specifically to how much time the fish spend in hiding or protected areas, as opposed to open,
- ❖ High fluoxetine concentrations increased variation in body condition between individuals.
- ❖ Fluoxetine or Prozac is a widely used antidepressant medication.
- ❖ Guppy fish are small, colorful species due to which they are extremely used for decoration purposes in aquariums.

Antarctica's Ice Collapse Risk

- ❖ The Scientists used computer models to simulate what might happen if West Antarctica's ice cliffs were to start collapsing.
- ❖ They found that the ice might flow into the ocean more quickly, preventing the cliffs from getting tall enough to cause a major collapse.
- ❖ This means the chance of a catastrophic breakdown might be lower than what we thought.
- ❖ There are large ice sheets that sometimes break away from the continent and float in the ocean.
- ❖ When these floating ice sheets melt, they can leave behind very tall and unstable ice cliffs.
- ❖ Scientists worry that if these cliffs collapse, huge chunks of ice could fall into the ocean, causing sea levels to rise dramatically worldwide.



India's first study on 'teal carbon'

- ❖ India's first study on 'teal carbon' was undertaken at the Keoladeo National Park (KNP) in Rajasthan's Bharatpur district.
- ❖ The pilot project had sought to develop holistic nature-based solutions to address climate change.
- ❖ Teal carbon refers to carbon stored in the non-tidal freshwater wetlands, encompassing carbon sequestered in vegetation, microbial biomass, and the dissolved and particulate organic matter.
- ❖ 'Teal carbon' being a colour-based terminology reflects the classification of the organic carbon based on its functions and location rather than its physical properties.
- ❖ As opposed to teal carbon, black and brown carbon are primarily produced by incomplete combustion of organic matter from sources such as wild fires, fossil fuel combustion, and industrial activities.



India's second largest butterfly species



- ❖ India's second largest butterfly species, Southern Birdwing, has been found in Madurai district.

- ❖ India's largest butterfly species, the Golden Birdwing is widely found in the Himalayan region.
- ❖ The Southern Birdwing can be seen in Western and Eastern Ghats regions.
- ❖ These species are found in abundance in Sirumalai hills near Dindigul.

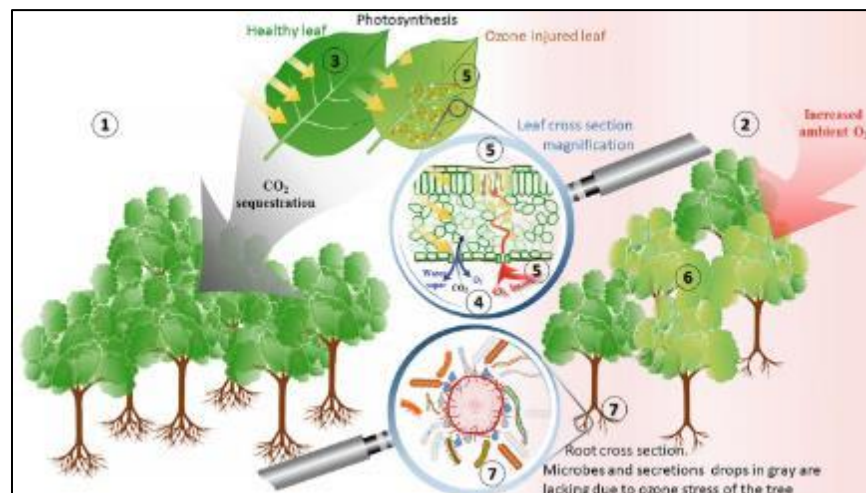
Veli-Akkulam Lake



- ❖ A new study has revealed significant ecological degradation in the Veli-Akkulam Lake, primarily driven by bio invasion.
- ❖ The research employed the Eco path Model to assess the ecological efficiency and food web structure.
- ❖ It revealed a decline in the Veli-Akkulam lake's indigenous aquatic species and an increase in invasive species.
- ❖ By the 2000s, the native species were replaced by the exotic and invasive Mozambique tilapia (*Oreochromis mossambicus*), which has now been overtaken by the Nile tilapia (*Oreochromis niloticus*).

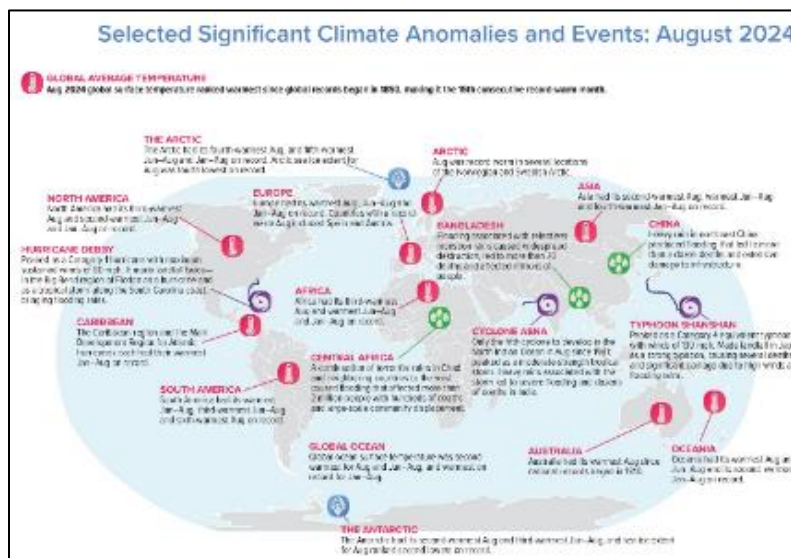
Ozone Pollution and Tropical Forest Growth

- ❖ The ground-level ozone is significantly hampering the growth of tropical forests.
- ❖ It is resulting in an estimated 290 million tonnes of carbon dioxide remaining uncaptured annually.
- ❖ This low-lying ozone interferes with plants' ability to absorb carbon dioxide and poses health risks to humans.
- ❖ The research indicates that the ground-level ozone reduces new yearly growth in tropical forests by an average of 5.1%.
- ❖ The effect is even more pronounced in certain regions, with Asian tropical forests experiencing a staggering 10.9% loss in new growth.



Earth's hottest August in 175 years

- ❖ August 2024 was the hottest August in 175 years.
- ❖ The average global land and ocean surface temperature in August was 2.29 degrees F (1.27 degrees C) above the 20th-century average of 60.1 degrees F (15.6 degrees C).
- ❖ The southern hemisphere was its warmest winter on the record at 0.96-degree centigrade above average.
- ❖ The summer season in 2024 was the northern hemisphere's warmest on record.
- ❖ At present, global sea ice extent is the second-smallest in the 46-year record, at 8.32 million square miles.
- ❖ It was 1.05 million square miles below the 1991-2020 average.



Herpetofauna Survey



- ❖ The first-ever preliminary herpetofauna survey was conducted in Grass Hills National Park and Karian Shola National Park in the Pollachi division of the Anamalai Tiger Reserve (ATR).
- ❖ The survey has identified 20 species of reptiles and 34 species of amphibians.
- ❖ The survey team recorded 11 reptile species and 12 amphibian species in Grass Hills National Park.
- ❖ This park is spread over 3,122 hectares in the Valparai forest range.
- ❖ A total of nine reptiles and 22 amphibians were recorded in Karian Shola National Park, which is situated at Top Slip in Ulandy forest range.
- ❖ The survey team had recorded the critically endangered Anaimalai flying frog (*Rhacophorus pseudomalabaricus*) and the Deccan night frog (*Nyctibatrachus deccanensis*).

Rare Dung Beetle Species

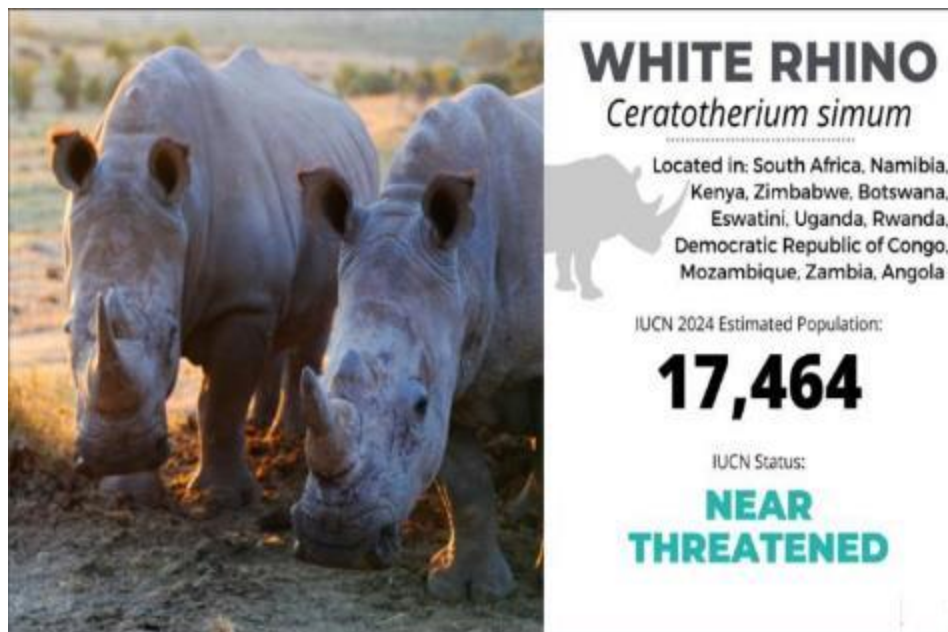


- ❖ Entomologists have discovered a new species of dung beetle, *Onitis visthara*.
- ❖ *Onitis* is a relatively rare genus of dung beetles found in the Afrotropical, Oriental, and Palearctic regions.

- ❖ Before the discovery of the three new species, only 176 species of Onitis had been reported globally.
- ❖ All species of this genus are tunnellers, meaning they bury large quantities of cattle dung beneath the dung pat to provide food for their larvae.

White Rhinos status 2024

- ❖ The white rhino is also known as the Square-lipped rhino due to the shape of its mouth compared with its African cousin, the black rhino.
- ❖ There are two subspecies of white rhino:
 - Southern white rhinos: *Ceratotherium simum simum*
 - Northern white rhinos: *Ceratotherium simum cottoni*
- ❖ The Southern white rhino is one of the more prevalent species, with a population of approximately 17,000 individuals.
- ❖ The Northern white rhino is Critically Endangered with only two individuals left, living at Pejeta Conservancy in Kenya.



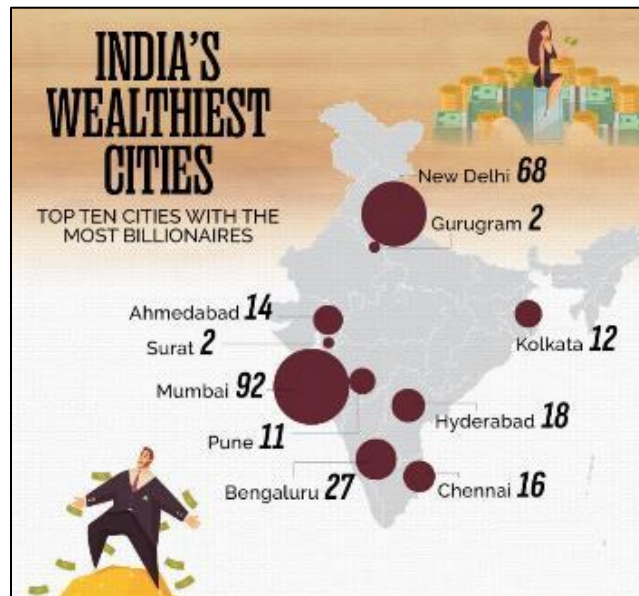
REPORTS AND INDICES

Central Banker Report Cards 2024

Grade	Central Banker	Country
A+	Christian Kettel Thomsen	Denmark
A+	Shaktikanta Das	India
A+	Thomas Jordan	Switzerland
A	Roberto Campos Neto	Brazil
A	Rosanna Costa	Chile
A	Harvesh Kumar Seegolam	Mauritius
A	Abdellatif Jouahri	Morocco
A	Lesetja Kganyago	South Africa
A	Nandalal Weerasinghe	Sri Lanka
A	Nguyen Thi Hong	Vietnam

- ❖ The Global Finance magazine released the Central Banker Report Cards 2024.
- ❖ It announced the names of central bank governors from 100 countries.
- ❖ It ranked “A+” to “F” scale for success in areas such as inflation control, economic growth goals, currency stability, and interest rate management.

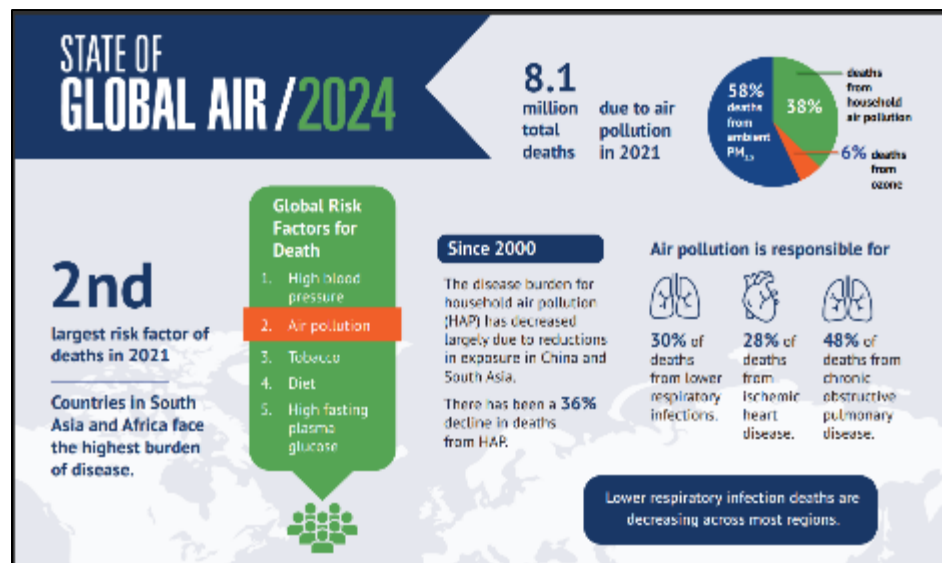
Hurun India Rich List 2024



- ❖ Mumbai is now the billionaire capital of Asia surpassing China's capital Beijing.
- ❖ Mumbai is also the top city for India's wealthy, followed by New Delhi and Hyderabad.

- ❖ In terms of state distribution, Maharashtra leads with 470 entrants, while Delhi has 213.
- ❖ Gujarat ranks third with 129 entrants, with Tamil Nadu, Telangana, and Karnataka occupying the next three positions.

2024 State of Global Air Report

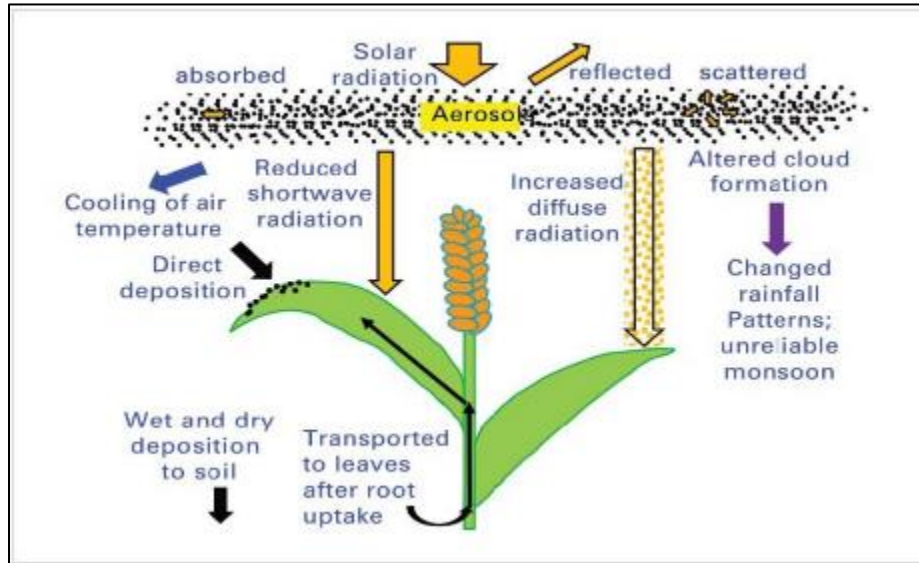


- ❖ The State of Global Air 2024 report published by the US-based Health Effects Institute (HEI).
- ❖ Air pollution accounted for 8.1 million deaths globally in 2021.
- ❖ It is becoming second leading risk factor for death, including for children under five years.
- ❖ China (2.3 million deaths) and India (2.1 million deaths) shared 55% of the world's fatalities from air pollution in 2021.
- ❖ Every day, 464 children under the age of five die because of air pollution in India.
- ❖ 99% of the world's population lives in places with unhealthy levels of PM2.5 pollution.
- ❖ PM2.5 particles are tiny bits of pollution that can be found in the air.
- ❖ More than 90% of deaths related to air pollution are linked to these PM2.5 particles.

Air Quality and Climate Bulletin 2024

- ❖ United Nations' World Meteorological Organization (WMO) recently released its 4th annual Air Quality and Climate Bulletin.

- ❖ Europe and China show lower PM_{2.5} pollution.
- ❖ North America and India see increased emissions from anthropogenic activities.
- ❖ Global Particulate Matter hotspots include agricultural areas in Central Africa, Pakistan, India, China and South-East Asia.
- ❖ PM Reduces crop yields by 15% as it reduces sunlight reaching leaf surfaces.



TIME's World's Best Companies 2024

Rank	Company name	Headquarters	Overall score	Sustainability transparency rank	Employee satisfaction rank	Revenue growth	Industry
1	Apple	United States	97.75	1	4	Very High	IT, Electronics, Hardware & Equipment
2	Accenture	Ireland	97.7	4	21	Very High	Professional Services
3	Microsoft	United States	97.65	112	2	Outstanding	IT, Electronics, Hardware & Equipment
4	BMW Group	Germany	97.41	172	7	Outstanding	Automotive Industry & Suppliers
5	Amazon	United States	96.47	301	3	Outstanding	Technology, Media & Services
6	Electricite de France	France	96.22	181	27	Outstanding	Utilities
7	American Express	United States	96.0	78	26	Outstanding	Banking & Financial Services
8	Meta Platforms	United States	96.0	65	8	Very High	Technology, Media & Services
9	Siemens	Germany	95.96	41	10	Very High	Conglomerate
10	JPMorganChase	United States	95.93	148	18	Outstanding	Banking & Financial Services

- ❖ HCL Tech has been named as the no.1 India-headquartered company in TIME magazine's World's Best Companies 2024 list.
- ❖ HCL Tech is ranked at 112th positions, followed by Infosys at the 119th position, and Wipro at 134 positions.
- ❖ Mahindra Group, Axis Bank, SBI, ICICI Bank, L&T, Kotak Mahindra Bank, ITC Limited, Reliance Industries, and Adani Group are the top Indian firms featured to this list.

- ❖ US-based tech giant Apple has topped the list globally.
- ❖ It is followed by Ireland-based tech major Accenture.
- ❖ Microsoft, BMW Group, and Amazon featured next in line.

Global Cyber Security Index 2024

- ❖ India has jumped to Tier 1 in the Global Cybersecurity Index (GCI) 2024, released by the International Telecommunication Union (ITU).
- ❖ The report placed 46 countries in Tier 1, the highest of the five tiers.
- ❖ This is reserved for “role modelling” countries that demonstrate a strong commitment in all five cybersecurity pillars.
- ❖ Most countries are either “establishing” (Tier 3) or “evolving” (Tier 4) in terms of cybersecurity.
- ❖ India has strong legal measures in place, like the Information Technology Act (2000) and the Digital Personal Data Protection Bill (2022).



Unlocking the power of healthy Longevity

- ❖ The World Bank released a new report titled "Unlocking the Power of Healthy Longevity: Demographic Change, Non-communicable Diseases and Human Capital".
- ❖ It highlights the potential for bold action in promoting healthy longevity to save 150 million lives and extend millions more by 2050.
- ❖ It addresses the rapid demographic changes, as one in three people will be over 60 by mid-century, with a focus on low- and middle-income countries.
- ❖ Non-communicable diseases (NCDs) already account for over 70% of deaths in these regions.

- ❖ The World Bank has set a target to provide better health services to 1.5 billion people by 2030.



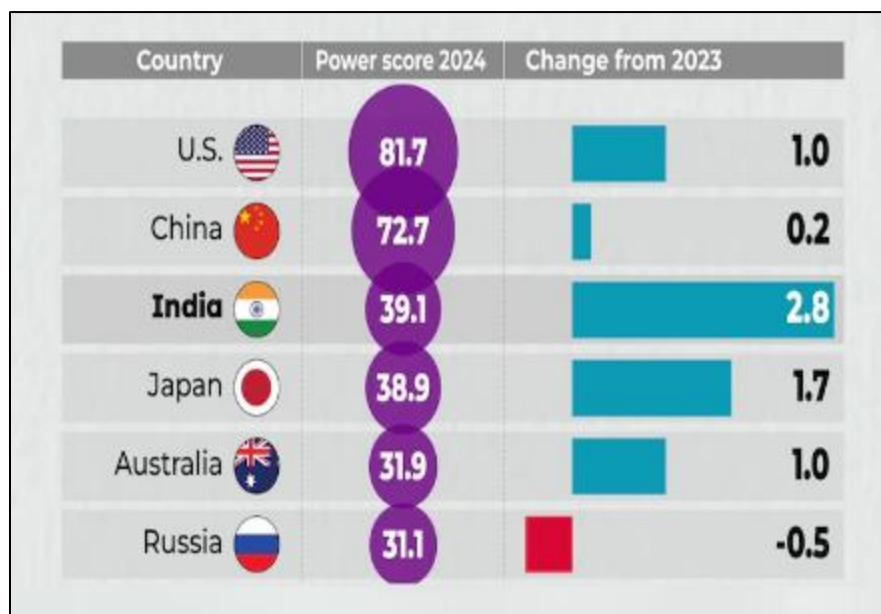
State of Rhino Report 2024



- ❖ The 2024 State of Rhino Report was recently released by the International Rhino Foundation.
- ❖ Currently, fewer than 28,000 rhinos remain worldwide across all five species.
- ❖ The Greater One-Horned Rhino population has steadily grown from fewer than 100 animals a century ago to around 4,014 today.
- ❖ It increased by 20% over the last decade.
- ❖ They are found in the Indo-Nepal Terai, northern West Bengal, and Assam.
- ❖ In India, the Greater One-Horned Rhino population stood at 3,262 at the end of 2021.
- ❖ Over 90% of them are in Kaziranga National Park.
- ❖ Rhino's poaching in Africa increased by 4% from 2022 to 2023.
- ❖ At least 586 African rhinos poached in 2023-one every 15 hours.

Asia Power Index 2024

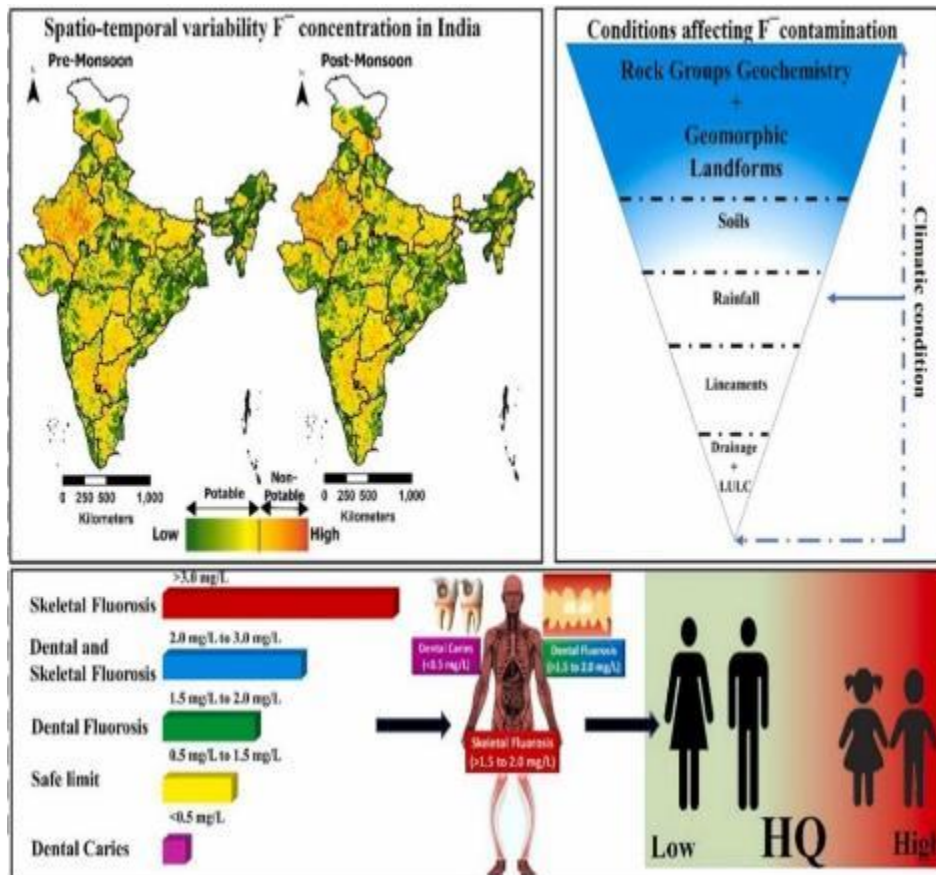
- ❖ India ranks third in the annual Asia Power Index, released by an Australian think tank.
- ❖ It surpasses Japan on the back of strong post-COVID 19 economic growths.
- ❖ China's power appeared to plateau just below the United States.
- ❖ U.S ranked at the top of the Index, followed by China, India, Japan, Australia and Russia.



STATES

Fluorine contamination in groundwater 2024

- ❖ Fluoride contamination in groundwater is above-permissible levels of the mineral across states of Rajasthan, Telangana, western Andhra Pradesh and eastern Karnataka.
- ❖ It has also prevailed in parts of Haryana, Gujarat, Madhya Pradesh, Tamil Nadu, Uttar Pradesh, Jharkhand, Bihar and Chhattisgarh.
- ❖ Excess fluoride increases the risks of disease conditions like skeletal fluorosis, accelerates the rate of dental decay.
- ❖ The nationally permissible limit of Fluoride is 1.50 milligrams/litre.
- ❖ Contamination over 1.50mg/litre is deemed unfit for drinking purposes.
- ❖ The average concentration of fluoride in groundwater was higher in dry, western Indian regions.
- ❖ Rajasthan topped in the charts and the post-monsoon concentration of fluorine was found to be above normal in Karnataka, Tamil Nadu and Jharkhand.



New Muslim marriage Bill – Assam

- ❖ Assam's Legislative Assembly repealed the 1935 Act for the registration of Muslim marriages and divorces, and passed a new one to replace it.
- ❖ This 1935 Act has the scope for marriages between minors.
- ❖ The new bill is named as the Assam Compulsory Registration of Muslim Marriages and Divorces Bill, 2024.
- ❖ The registration under the new Bill is to be carried out by the Marriage and Divorce Registrar of the area concerned, who is the sub-registrar.
- ❖ The state also planned to introduce legislation to ban polygamy.



The Assam Legislative Assembly has passed the Assam Compulsory Registration of Muslim Marriages and Divorces Bill, 2024.

The law aims to prevent child marriages, ensure free consent and curb polygamy.

Mandatory registration
All Muslim marriages must now be registered with a government Sub-Registrar in each jurisdiction.

Free consent
Marriages must be based on the free consent of both parties.

Age requirements
The bride must be at least 18 years old, and the groom must be 21 years old at the time of marriage.

30-Day notice
Couples must give a 30-day notice before their marriage can be registered, along with identity, age, and residence documents.

Penalties for non-compliance
Registering officers who knowingly register unlawful marriages can face up to a year in prison and a ₹50,000 fine.

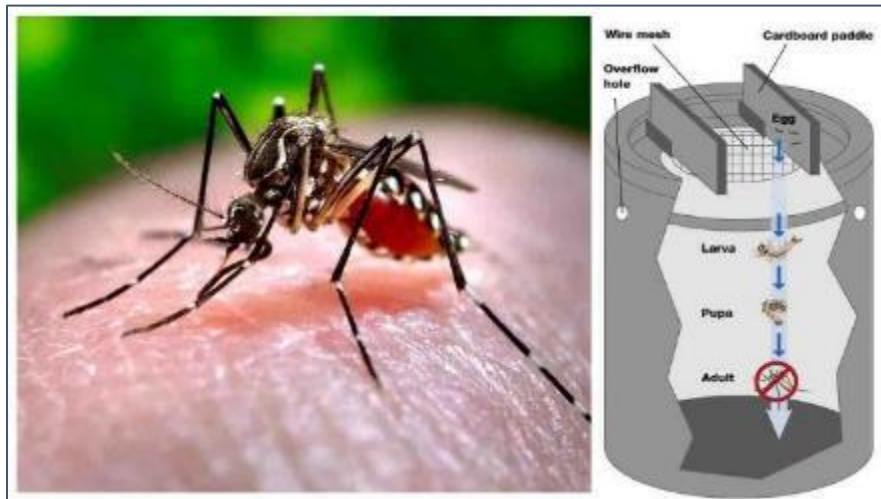
Qutub Shahi Tomb Complex - Hyderabad

- ❖ The restoration project of this complex began in 2013, and was completed in July 2024.
- ❖ The Qutb Shahi tomb complex is a 500-year-old cluster of grand mausoleums, idgah, graves, funerary mosques, a hammam (bath), and baolis (stepwells).
- ❖ Of the seven kings, six have their mausoleums at the tomb complex.
- ❖ It depicts the pinnacle of art and architecture of the region ruled by the Golconda kings for 169 years between 1518 and 1687.
- ❖ Qutb Shahi monuments including Golconda fort along with similar monuments in Gulbarga, Bidar and Bijapur in Karnataka are already inscribed in the tentative list of UNESCO world heritage sites from India in 2014.



Ovitrap Baskets – Karnataka

- ❖ Karnataka started to installing Ovitrap baskets that attract mosquitoes.
- ❖ These baskets are installed 20 feet from houses, and a chemical sprayed inside attracts mosquitoes, luring them into the basket.
- ❖ Ovitrap baskets are specialised devices designed to attract and trap mosquitoes, particularly species that breed in containers, such as *Aedes aegypti* and *Aedes albopictus*.
- ❖ Several countries including India have implemented the use of this baskets for monitoring and controlling mosquito populations.



Aparajita Bill - West Bengal


- ❖ The West Bengal Assembly passed the 'Aparajita Woman and Child Bill (West Bengal Criminal Laws and Amendment) 2024'.
- ❖ It includes provisions for the death penalty for those convicted of rape and murder.

- ❖ The bill seeks amendments to relevant provisions under the
 - Bharatiya Nyaya Sanhita 2023,
 - The Bharatiya Nagrik Suraksha Sanhita 2023, and
 - The Protection of Children from Sexual Offences Act 2012 (POCSO)
- ❖ Under the new Act, the punishment for sexual assault will be not less than 7 years, which may extend to 10 years, along with a fine.
- ❖ The new bill mandates that evidence from a child be recorded within 7 days.
- ❖ The special court is required to complete the trial within 30 days.
- ❖ Punishment For Aggravated Penetrative Sexual Assault is rigorous imprisonment for life, and also a fine, or with death.

WB legislation versus existing law

<p>Punishment for rape and murder</p> <p>WB Bill: Death sentence if the victim dies or is left in a vegetative state</p> <p>Existing law: Under BNS, if rape results in the victim's death or leaves her in a vegetative state, death penalty is only one of the punishments besides life term or minimum 20 years in jail</p>	<p>Probe deadlines</p> <p>WB Bill: Investigation must be concluded within 21 days of the initial report</p> <p>Existing law: Under BNSS, investigation must be concluded within two months of the filing of FIR. For trial, it specifies framing of charge within 60 days from the first hearing and judgment within 30 days (maximum of 60 days) after arguments conclude</p>	<p>Disclosing victim's identity</p> <p>WB Bill: Imprisonment of 3 to 5 years</p> <p>Under BNS: 2 years imprisonment and fine</p>
<p>Fast-track courts</p> <p>WB Bill: Establishment of special courts for cases of sexual violence</p> <p>Existing law: Under a centrally sponsored scheme, the department of justice provides funds to states for setting up fast track special courts for trial of cases relating to sexual offences</p>		

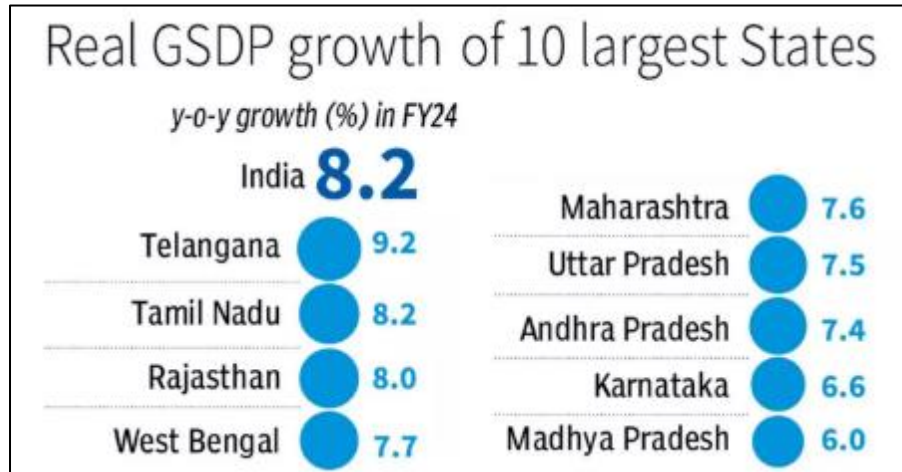
Junior doctors continue their protest in Kolkata.
SAMIR JANA/HT



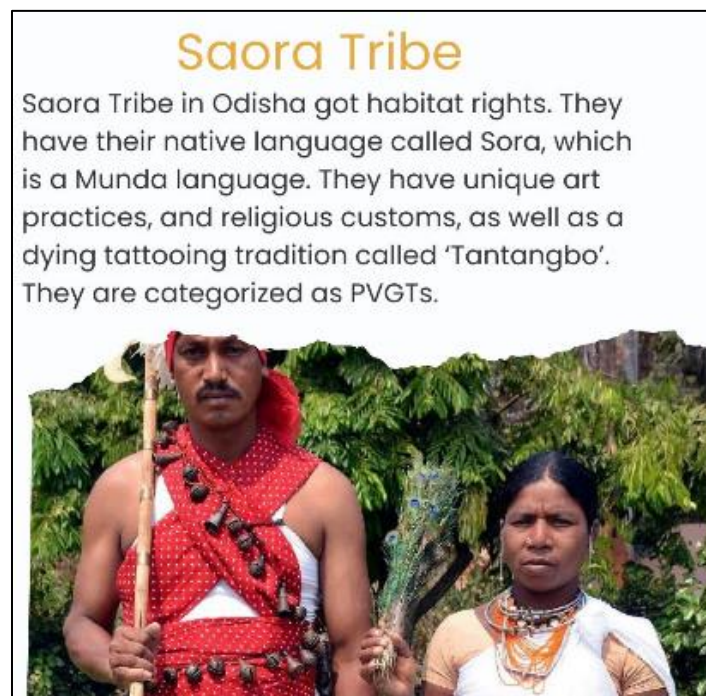
Growth in real GSDP 2024

- ❖ Telangana, Tamil Nadu and Rajasthan have recorded the highest growth in real gross state domestic product (GSDP) in FY24.
- ❖ Telangana, the ninth biggest State, grew its economy at 9.2 per cent to reach real GSDP of ₹7.9 lakh crore.
- ❖ This is faster than national GDP growth of 8.2 per cent.
- ❖ Tamil Nadu, which is the third largest State, grew its economy 8.2 per cent to reach ₹15.7 lakh crore in size.
- ❖ Tamil Nadu's services sector, which holds 52 per cent share in total GVA, grew 9 per cent.

- ❖ Rajasthan, at seventh spot, grew 8 per cent.
- ❖ Maharashtra, at ₹24.1 lakh crore real GSDP, continues to be the largest economy in India.
- ❖ Gujarat was the second-largest in FY23.



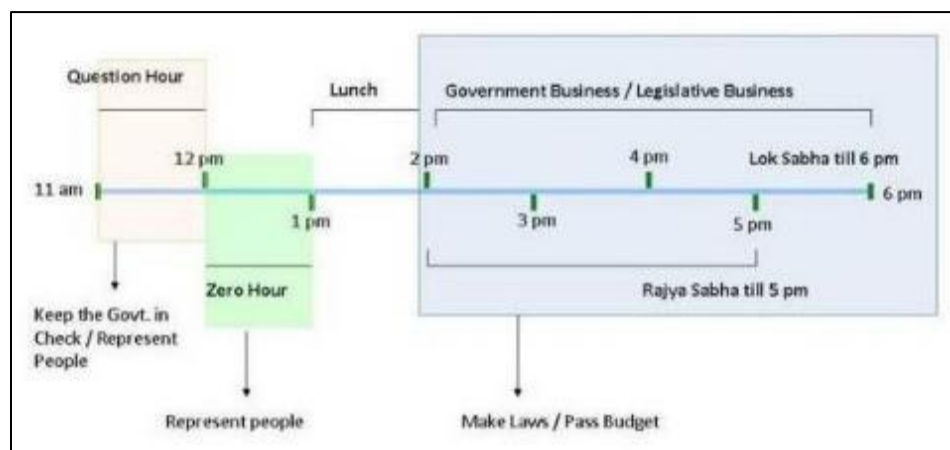
Saoras tribe - habitat rights



- ❖ Saora tribals of Gajapati district getting habitat rights over their ancestral lands In Odisha.
- ❖ Thus, Odisha has become the only state in the country to provide such rights to the highest number of particularly vulnerable tribal groups (PVTGs).

- ❖ Saoras have become the fifth tribal group in the state to get the rights that allow them to protect and preserve natural entities, sacred sites and places of religious and spiritual importance located within their habitat.
- ❖ 128 villages in the Gajapati district are inhabited by Saora tribe.
- ❖ 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.
- ❖ Madhya Pradesh has also given habitat rights to Bharia PVTG and Chhattisgarh government to Kamar and Baiga PVTGs.

Zero Hour - Himachal Pradesh



- ❖ Zero Hour would be introduced for the first time in the Himachal assembly after framing standard operating procedures (SOPs).
- ❖ Only urgent issues of public interest which cannot be listed or are not listed under the rules can be raised during the Question Hour.
- ❖ But the Speaker has the discretion to allow any issue and giving the reply immediately is also not binding.
- ❖ Zero Hour proves that the Speaker is neutral and does not act under the pressure of the government.
- ❖ Zero Hour, which traditionally lasts for half an hour, it should be used exclusively for matters of urgent public importance.

Jal Sanchay Jan Bhagidari

- ❖ Prime Minister launched the 'Jal Sanchay Jan Bhagidari Initiative,' a rainwater harvesting programme led by the Ministry of Jal Shakti.
- ❖ The project aims to construct around 24,800 rainwater harvesting structures through community participation.

- ❖ It will ensure the long-term water sustainability across the state.

the programme marking the launch of **'Jal Sanchay Jan Bhagidari initiative'** in Surat, Gujarat

12:30 PM
6 September, 2024

➤ The initiative aims to construct approximately **24,800** rainwater harvesting structures across Gujarat

Peace Agreement with Insurgent Groups – Tripura

- ❖ The central government and the Tripura state government inked the 12th peace agreement with two insurgent groups of the northeastern state.
- ❖ Around 10,000 people have given up arms and joined the mainstream due to these agreements.
- ❖ The representatives of National Liberation Front of Tripura (NLFT) and All Tripura Tiger Force (ATTF) participated in this event.
- ❖ Under the agreement with NLFT and ATTF, more than 328 armed cadres will give up violence and join the mainstream of society.

- In a significant move, the **Central Government, Tripura State,** and insurgent groups **National Liberation Front of Tripura (NLFT) and the All Tripura Tiger Force (ATTF)** have signed a peace agreement, aimed at ending over 35 years of insurgency in the State
- This peace pact is part of 12 significant agreements signed across the Northeast between 2014 and 2024, with three being directly relevant to Tripura.
- A total of **328 members of NLFT and ATTF** will surrender and peacefully reintegrate into society, signalling the end of armed conflict.
- The Central Government has sanctioned a **₹250 crore special package** to improve the socio-economic conditions of Tripura's tribal population, addressing long-standing issues of unrest.

Green Haryana manifesto – 2024



- ❖ In a first-of-its-kind initiative, environmentalists in Haryana released the 'Green Manifesto 2024' to focus on ecological issues.
- ❖ It was raising various pressing issues such as air pollution, waste management, depleting ground water level, and the need to protect the Aravalis.
- ❖ The State had the lowest forest cover in India, a mere 3.6% as compared to the national average of 21%.
- ❖ It is also having eight of the 50 most polluted places in the world.
- ❖ The main demand in the 'Green Manifesto 2024' is to legally designate the Aravalis including the Bhood areas and the Shivaliks as 'Critical Ecological Zones'.
- ❖ It also demands legislating a 'Tree Act' for Haryana on the line of the strict Delhi Preservation of Trees Act 1994.

Sootea Day – Assam



Indian National Flag was hoisted for the first time in front of Sootea Police station of Assam in Biswanath (previously in Sonitpur) on August 20th, 1942. It was one of the proudest chapter of Indian freedom movement which many of us do not know.

- ❖ Assam Chief Minister announced that August 20 will be observed and celebrated as Sootea Day.
- ❖ It aims to mark the region's importance in the freedom movement.
- ❖ Under the leadership of the late Biman Chandra Bora, they hoisted the national flag at Sootea Police Station on August 20, 1942.

Asian King Vulture Conservation Center





- ❖ India's first conservation and breeding centre for the Asian King Vultures was inaugurated in Gorakhpur Forest division.
- ❖ The facility is named as Jatayu Conservation and Breeding Centre.
- ❖ It aims to improve the population of the species, which has been listed as critically endangered in the IUCN red list since 2007.
- ❖ Six vultures (male and female) have been introduced to the facility.
- ❖ According to the action plan, the goal is to release 40 pairs of vultures from the centre over the next 8 to 10 years.

AYUSH doctors in PHCs

- ❖ Madhya Pradesh has topped among States for having AYUSH facilities at all 328 primary health centers in urban areas.
- ❖ In tribal pockets, there are AYUSH doctors available at 228 primary and community health centers, placing the State third at national level.
- ❖ Odisha ranks first with 296 AYUSH doctors and Chhattisgarh is second with 279.
- ❖ Madhya Pradesh has been among the first six states in India to have significantly increased the number of sub-health centers in rural areas since 2005.
- ❖ Madhya Pradesh is among the top three states in terms of the number of sub-divisional and district hospitals.
- ❖ The state has 144 sub-divisional hospitals, with Tamil Nadu leading with 281 and Karnataka second with 147.
- ❖ Madhya Pradesh also ranks second in the number of district hospitals with 52, following Uttar Pradesh (125) and ahead of Delhi (40).

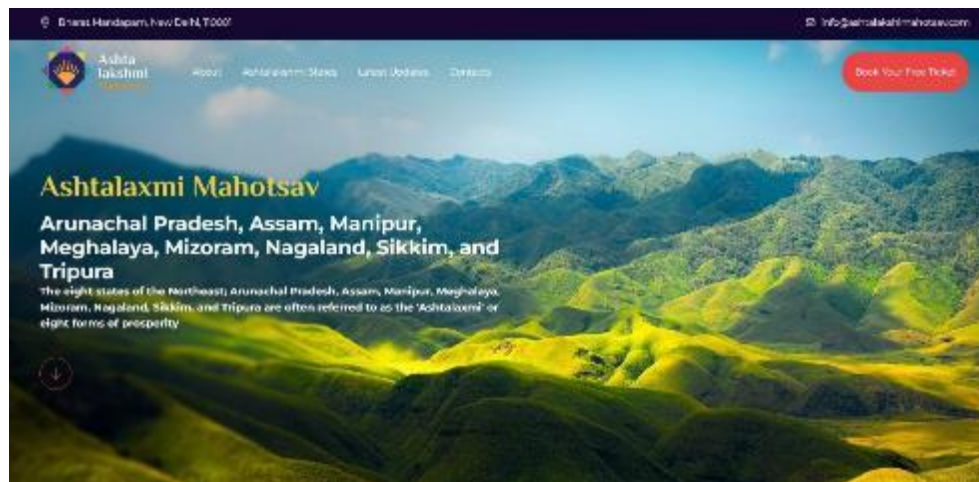
9th Ladakh Zaskar Festival 2024

- ❖ The 9th Ladakh Zaskar Festival 2024 was celebrated in the Zaskar district of Ladakh.
- ❖ This is the first celebration since Zaskar was officially declared a district.
- ❖ Zaskar is one of the known Buddhist kingdoms of the western Himalayas.
- ❖ Its highlights include the performances by the Purgi tribes from Kargil, the Shina community of Drass, the Dard-Aryans from Aryan Valley, and the Changpa nomads from Changthang.

Naga king chilli festival

- ❖ Seiyhama village in Nagaland celebrated the third edition of the Naga king chilli festival recently.
- ❖ The festival is the hallmark of Seiyhama's cultural and agricultural identity.
- ❖ It highlighted the importance of the Naga king chilli, one of the world's hottest chillies.
- ❖ It is also known as raja mircha, a spice renowned globally for its extreme heat, which exceeds 1 million Scoville heat units (SHU).

Ashtalakshmi Mahotsav




- ❖ To celebrate the rich cultural and economic heritage of Northeast India, the centre has launched the official website for the much-anticipated Ashtalakshmi Mahotsav.
- ❖ The Ashtalakshmi Mahotsav is to be held in December in New Delhi.
- ❖ The festival draws inspiration from the eight Northeastern states—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura - collectively known as the "Ashtalakshmi".

Delhi's New CM

- ❖ Atishi Marlena was declared as the new CM of Delhi after Arvind Kejriwal's resignation.
- ❖ She is the 3rd woman CM of the national capital after Sushma Swaraj and Sheila Dikshit.
- ❖ She served as a Cabinet Minister and overseeing 14 key portfolios including Education, Public Works Department (PWD), Tourism, Culture, and Power.



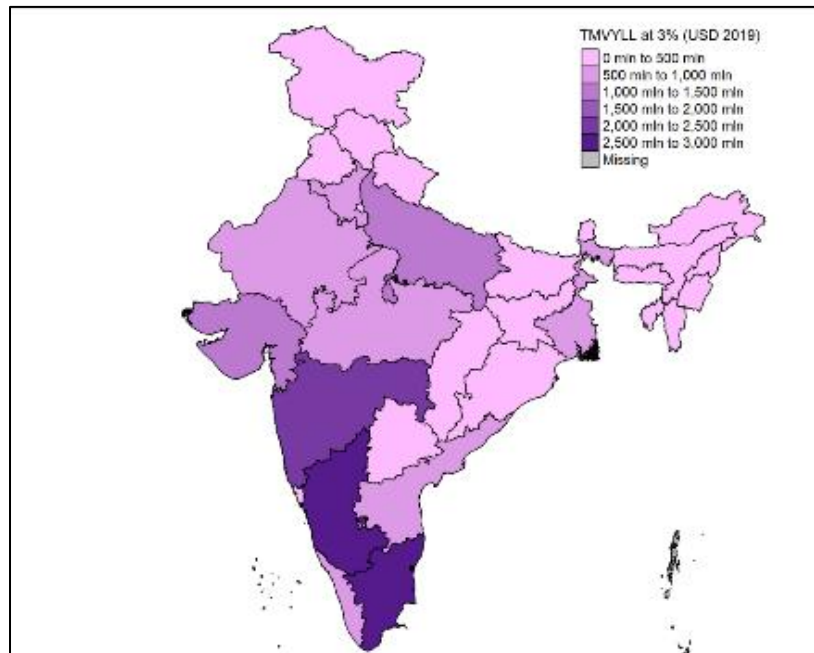
Relative Economic Performance of Indian States

 RICHEST INDIAN STATES BY RELATIVE PER CAPITA INCOME		
STATE	1960-61	2023-24
DELHI	218.30%	250.80%
TELANGANA	-	193.60%
KARNATAKA	96.70%	180.70%
HARYANA	106.90%	176.80%
TAMIL NADU	109.20%	171.10%

- ❖ This is authored by EAC-PM member Sanjeev Sanyal, the paper 'Relative Economic Performance of Indian States: 1960-61 to 2023-24
- ❖ All data used are in current prices and this analysis spans 1960-61 to 2023- 24.
- ❖ West Bengal, which held the third-largest share of national GDP at 10.5% in 1960-61, now accounts for only 5.6% in 2023-24.
- ❖ West Bengal's per capita income was above the national average in 1960-61 at 127.5%, but its growth failed to keep pace with national trends.

- ❖ As a result, its relative per capita income declined to 83.7% in 2023-24.
- ❖ Southern States have significantly overtaken others after economic liberalization in 1991.
- ❖ The five States - Karnataka, Andhra Pradesh, Telangana, Kerala and Tamil Nadu - collectively are accounting for approximately 30% of India's GDP in 2023-24.
- ❖ Per capita income of all southern States became higher than the national average after 1991.
- ❖ Delhi has one of the highest per capita incomes throughout the study period.
- ❖ Maharashtra, West Bengal and Tamil Nadu were home to India's 3 largest industrial clusters in the 1960s.
- ❖ Maharashtra showed broadly steady performance throughout, West Bengal's share has been in continuous decline.
- ❖ After a decline, Tamil Nadu picked up post-1991.
- ❖ Haryana's share of India's GDP now exceeds that of Punjab.
- ❖ Its relative per capita income has reached 176.8 percent, compared to Punjab's 106.7 percent in 2023-24.

Suicide-related economic burden



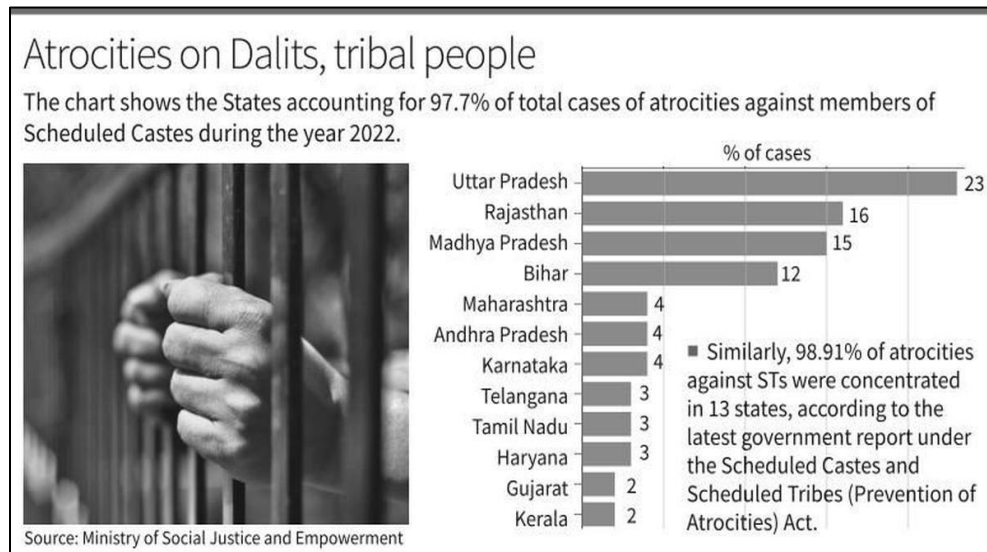
- ❖ India loses some Rs 13.4 lakh crore (\$16 billion) due to suicides every year.
- ❖ Karnataka, with only 5 per cent of the country's population, has the heaviest economic burden from suicides, contributing over ₹2.33 lakh crore.

- ❖ The combined financial impact from Karnataka, Tamil Nadu (₹2.13 lakh crore) and Maharashtra (₹1.81 lakh crore) makes up nearly 45 per cent of the country's total suicide-related losses.
- ❖ Globally, nine out of every 100,000 people die by suicide each year.
- ❖ In India, the rate is alarmingly higher at 14 per 100,000.
- ❖ India has earned the unfortunate distinction of being known as the "suicide capital of the world".

Karma Festival or Karma Naach

- ❖ Tribal populations in Jharkhand, West Bengal, Bihar, Madhya Pradesh, Chhattisgarh, Assam, and Odisha have celebrated the harvest festival of Karma or Karam Parv.
- ❖ The Karam tree has traditionally seen as a symbol of Karam Devta or Karamsani, the god of strength, youth, and vitality.
- ❖ The festival is popular especially among the Munda, Ho, Oraon, Baiga, Kharia, and Santhal peoples.

Atrocities against SCs in 2022

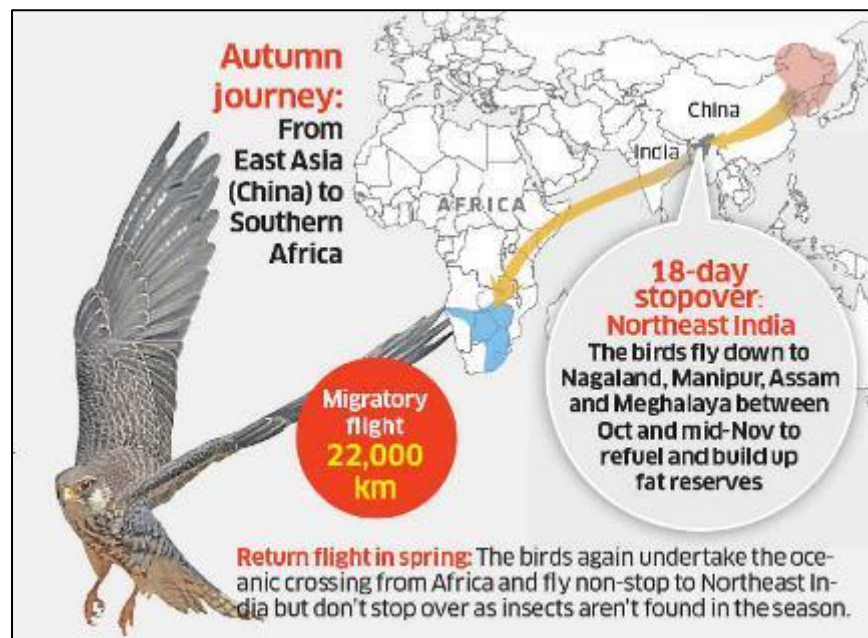


- ❖ The recent report has revealed that Uttar Pradesh, Rajasthan, and Madhya Pradesh reported the highest number of atrocities against Scheduled Castes (SCs) in 2022.
- ❖ 97.7 per cent of all cases of atrocities against SCs were recorded in 13 states.
- ❖ Uttar Pradesh accounted for 12,287 cases, or 23.78 per cent of the total.

- ❖ It is followed by Rajasthan with 8,651 cases (16.75 per cent) and Madhya Pradesh with 7,732 cases (14.97 per cent).
- ❖ Other states with a significant number of cases include Bihar with 6,799 cases (13.16 per cent), Odisha with 3,576 cases (6.93 per cent), and Maharashtra with 2,706 cases (5.24 per cent).
- ❖ These six states alone accounted for nearly 81 per cent of the total cases reported under the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act in 2022.
- ❖ The report further highlighted that the majority of cases of atrocities against STs were concentrated in 13 states.
- ❖ Out of 9,735 cases involving STs, Madhya Pradesh reported 2,979 cases (30.61 per cent).
- ❖ It is followed by Rajasthan reported 2,498 cases (25.66 per cent), and Odisha recorded 773 cases (7.94 per cent).

Amur Falcons - Tamenglong district (Manipur)

- ❖ Tamenglong district gears up to welcome Amur falcon (*Falco Amurensis*).
- ❖ The district administration has imposed a ban on hunting, catching, killing and selling of the bird, locally known as 'Kahuaipuina', with immediate effect.
- ❖ The migratory birds arrive in parts of Tamenglong and bordering areas from their breeding grounds in Northern China, Eastern Mongolia and far East Russia.
- ❖ The district administration also organises 'Amur Falcon' festival annually.



India's first paperless election - Madhya Pradesh

- ❖ In a first, the Madhya Pradesh State Election Commission has successfully conducted paperless voting at a booth in a panchayat by poll in Bhopal.
- ❖ The Paperless booths have been planned for the purpose of conducting a simple, smooth and transparent voting process in panchayats and urban bodies.
- ❖ In this paperless process, voters' signatures and thumb impressions are recorded electronically to ensure accurate identity verification and voting records.
- ❖ The voting percentage and ballot accounting are also being done online.
- ❖ After the voting ends, the ballot accounting will also be provided to the candidates and polling agents via email.



Culling of Nilgai and Wild Boars

- ❖ Bihar government decided to get rid of the menace of Nilgai (Blue bulls) and wild boars by giving permission to cull them.
- ❖ The farmers of the State are troubled most by the terror of Nilgai and wild boars damaging their crops at large scale.
- ❖ The drive to cull them would start in five districts namely, East Champaran, Vaishali, Buxar, Siwan, and Samastipur.
- ❖ There are about three lakh Nilgai and 67,000 wild boars in these districts.



PERSONALITIES, AWARDS AND EVENTS

24th International Mother Teresa Awards

- ❖ This prestigious event was organized by All-India Minority and Weaker Sections Council in Dubai.
- ❖ Notable recipients included the late João Bernardo Vieira II, from Guinea-Bissau, Sidharth Srivastava and Namit Bajoria from the industry sector, and Mohammed Mahtabur Rahman, Chairman of NRB Bank Limited.
- ❖ The arts were represented by Irka Bochenko, while education saw MP Rozario honored, among others.
- ❖ Social work awards went to Murli Panjabi and Sureandar Singh Khandari from the UAE.

National Teachers' Award 2024

- ❖ President Droupadi Murmu will honour 50 educators with the National Teachers Award 2024.
- ❖ It aims to recognise and celebrate the remarkable contributions of educators who have made significant impacts on their students' lives and the broader educational landscape in India.
- ❖ R.S. Muralidharan, a private school teacher from Madurai, was selected as one of the recipients for the National Teachers' Award.
- ❖ R. Gopinathan from Gudiyatham is the other recipient from Tamil Nadu.

New Zealand's Māori King

- ❖ New Zealand's Maori King Kiingi Tuheitia Pootatau Te Wherowhero VII has died recently.
- ❖ The Kiingitanga – Maori King movement – was founded in 1858 with the aim of uniting New Zealand's Indigenous Maori under a single sovereign.
- ❖ The position has significant political and symbolic weight, but no legal status.
- ❖ Tuheitia succeeded his mother in 2006 to become the seventh Kiingitanga monarch.
- ❖ The position is not necessarily hereditary.



7th Anubhav Awards 2024



- ❖ The 'Anubhav' portal was launched in March 2015 as a platform to highlight and recognise the tireless contributions of retiring government officials.

- ❖ This innovative project encourages the retiring civil servants to document their experiences and insights gained during their years of service.
- ❖ The 7th Awards Ceremony has highest-ever representation of women awardees at 33%, reflecting their growing role in governance.
- ❖ The awards, comprising 5 Anubhav Awards and 10 Jury Certificates, recognised outstanding contributions across various categories.

M.A. Eswaran - Freedom fighter

- ❖ M.A. Eswaran, the then Erode MLA was instrumental in securing the Lower Bhavani Project.
- ❖ This is the first major irrigation project executed in Tamil Nadu after the Independence.
- ❖ It turned Erode, Tiruppur, and Karur districts into a fertile landscape, irrigating 2,47,247 acres for the cultivation of paddy and other crops.
- ❖ It is also generating 18 MW through two power generation houses.
- ❖ Eswaran was a close associate of MK Gandhi.
- ❖ He supported the candidature of Tanguturi Prakasam for the Prime Minister of the Madras Presidency.
- ❖ So, the local Congress leaders did not nominate him in the 1952 election.
- ❖ Omandur Ramasamy Reddiyar became the Chief Minister, followed by C. Rajagopalachari and K. Kamaraj, who inaugurated the canal in 1955.



TIME100 Most Influential People in AI 2024

- ❖ TIME Magazine unveiled its 'TIME100 Most Influential People in AI 2024' list.
- ❖ This list includes many Indians like Google and Alphabet CEO Sundar Pichai and Microsoft CEO Satya Nadella.

- ❖ Other Key Indian figures include Ashwini Vaishnaw, Nandan Nilekani and actor Anil Kapoor.
- ❖ In 2023, a New Delhi court ruled infavor of Anil Kapoor, curbing entities from misusing his image.
- ❖ Kapoor emphasized protecting personality rights against AI misuse for commercial purposes.

Lance Naik Charan Singh - 100th birthday



- ❖ The Indian Army celebrated the 100th birthday of World War 2 veteran Lance Naik (Retired) Charan Singh.
- ❖ He was enrolled into the Army at Firozpur Cantonment on August 26, 1942.
- ❖ He served with the Army Service Corps during World War 2.
- ❖ His service took him from Singapore to Lahore and finally to Yol Cantonment in Himachal Pradesh.
- ❖ Singh received the Burma Star Award and the Indian Independence Medal during his tenure in the Army.

Swachh Vayu Survekshan Award 2024

- ❖ It was presented to the best performing National Clean Air Campaign (NCAP) cities in three categories based on population.
- ❖ The winning cities are:



- Category-1 (population over 10 Lakhs): Surat, Jabalpur, and Agra.
- Category-2 (population between 3-10 Lakhs): Firozabad, Amravati, and Jhansi.
- Category-3 (population under 3 Lakhs): Raebareli, Nalgonda, and Nalagarh.

National Florence Nightingale Awards 2024

- ❖ The president Droupadi Murmu gave the National Florence Nightingale Awards 2024 to the 15 nursing professionals
- ❖ This award was instituted by the Ministry of Health and Family Welfare, Government of India in the year 1973.
- ❖ It aims to mark of recognition for the meritorious services rendered by the nurses and nursing professionals to the society.
- ❖ The award is given to outstanding nursing personnel employed in central, states and Union territories and voluntary organisations.

76th Primetime Emmy Awards 2024

- ❖ 76th Primetime Emmy Awards held in Los Angeles, California.
- ❖ Jeremy Allen White claimed the title of Best Actor in a Leading Role (Comedy) for his portrayal in The Bear.
- ❖ His co-star, Liza Colon, also made a mark by winning Best Actress in a Supporting Role (Comedy) for the same show.
- ❖ "Shogun" set a single season record for most wins with 18.
- ❖ "Baby Reindeer" and "The Bear" won four awards apiece.
- ❖ Other Winners are:
 - Best Reality Competition Program: The Traitors (Peacock)
 - Best Talk Series: The Daily Show (Comedy Central)
 - Outstanding Drama Series: Shogun
 - Outstanding Comedy Series: Hacks.

RE-INVEST Expo 2024

- ❖ The 4th Global Renewable Energy Investor's Meet and Expo (RE-INVEST) was held in Gandhinagar, Gujarat.
- ❖ This is the first time the meet was organised outside Delhi.



- ❖ Banks, Manufacturers and financial institutions committed close to \$386 billion or around Rs 32.45 trillion to the development of RE projects by 2030.
- ❖ Gujarat won the maximum number of awards during the event.
- ❖ Gujarat ranked on top under overall renewable energy capacity achieved and overall wind power capacity achieved categories.
- ❖ It was ranked second under overall solar power capacity achieved as Rajasthan pipped Gujarat to be at the top.
- ❖ Other top ranked states under these categories were Rajasthan (bagged two awards), Tamil Nadu (two) and Karnataka (two).
- ❖ Himachal Pradesh and Uttarakhand one each under overall hydro power capacity achievers category.

WorldSkills 2024 competition

- ❖ The 47th edition of the competition held from September 10 to 15 in Lyon, France.
- ❖ India secured a bronze medal in hotel reception; a bronze medal in patisserie and confectionery; and a medallion of excellence in cookery.
- ❖ Overall, India won four bronze medals and 12 Medallions of Excellence across skill sets.
- ❖ This Competition is the world's largest vocational education and skills excellence event.
- ❖ It was drawing participants from almost 70 participating countries to compete in various trades and professions.

Indian Women Dubai Awards 2024

- ❖ It is honoring the achievements of Indian women who have contributed in various fields of excellence across the UAE.
- ❖ More than 30 awards were presented, recognizing women for their achievements in areas such as technology, entrepreneurship, healthcare, and the arts.
- ❖ Indian Women in Dubai is a vibrant community platform created by Reema Mahajan to connect and empower Indian women in the UAE.

India's First Astronaut to ISS

- ❖ Indian astronaut group captain Shubhanshu Shukla is set to make history as the pilot of the Axiom-4 (Ax-4) mission.
- ❖ This will mark India's first human presence on the International Space Station (ISS).

- ❖ This will be the 2nd travel after Wing Commander Rakesh Sharma's 1984 mission with the Soviet Union.
- ❖ The Axiom-4 mission is a result of a bilateral initiative between India and US.



Jackson Hole Symposium 2024

- ❖ The Jackson Hole Economic Policy Symposium is an important event for the global economy was held in Jackson Hole, Wyoming, USA.
- ❖ This annual gathering has become a key platform where the central bankers, economists, and policymakers from around the world come together to discuss the most pressing issues in global economics.
- ❖ It is known for its exclusive nature, with only about 120 participants, including Federal Reserve officials.



SPORTS

Paris Paralympics 2024

- ❖ Avani Lekhara (Rajasthan) and Mona Agarwal (Rajasthan) opened India's medal tally after winning gold and bronze respectively in women's 10m air rifle standing SH1.
- ❖ Preethi Pal (Uttar Pradesh) won a bronze medal in the women's 100m T35.
- ❖ This is India's first medal in a track event at the Para Games.
- ❖ Manish Narwal (Haryana) clinched a silver medal in the men's 10m Air Pistol SH1.



Paris Paralympics 2024 (updates)

- ❖ The Indian para-shuttlers, Thulasimathi Murugesan and Manisha Ramadass, both from Tamilnadu, secured silver and bronze medals respectively in the women's singles SU5 category.
- ❖ Thulasi became the first Indian woman to win a medal in badminton.
- ❖ Indian para-shuttler Suhas Yathiraj of Uttar Pradesh won his second successive Paralympic silver.
- ❖ Sheetal Devi and Rakesh Kumar, both from Jammu and Kashmir, won bronze in the mixed compound archery event at the Paris Paralympics 2024.
- ❖ Nitesh Kumar of Haryana clinched the gold medal in the Men's Singles SL3 badminton event.
- ❖ India's Yogesh Kathuniya of Haryana won second successive silver medal in Men's Discus Throw F56 at the Paralympics.
- ❖ Nishad Kumar of Himachal Pradesh won the silver medal in men's high jump T47 final.



Paralympics 2024 – Final Update

- ❖ Harvinder Singh (Haryana) scripted history by becoming the first Indian archer to clinch a gold at the Paralympics.
- ❖ World champion shot-putter Sachin Sarjerao Khilari (Maharashtra) has won the silver medal at the Paralympics.
- ❖ Sumit Antil (Haryana) becomes the first Indian man and second from the country to successfully defend a Paralympic title by winning gold.
- ❖ Deepthi Jeevanji (Telangana) has bagged the 16th medal for India as she won the bronze in the women's 400m T20 final.



Paris Paralympics 2024 - Medal tally

- ❖ Judoka Kapil Parmar (Madhya Pradesh) created history by winning India's first-ever medal in judo at a Paralympic Games.
- ❖ Praveen Kumar (Uttar Pradesh) wins gold in the men's high jump T64 final with a record-breaking jump of 2.08m.

- ❖ Indian athlete Hokato Hotozhe Sema (Nagaland) has won the bronze medal in the men's shot put F57 class.
- ❖ China (220), Great Britain (124), USA (105), Brazil and Ukraine finishing as the top 5 nations by total no of medals.
- ❖ India's medals tally at the Paris Paralympics has ended at 29 - seven golds, nine silvers and 13 bronze.
- ❖ This was making it the most rewarded campaign for the country.
- ❖ Track-and-field has contributed 17 medals to this tally, four of them gold.
- ❖ Mariyappan Thangavelu (Tamilnadu) became the first Indian to win the medals at the three consecutive Paralympics.
- ❖ He won the gold medal at Rio 2016 and silver at Tokyo 2020.
- ❖ India stood at the 18th position in the points table.
- ❖ Pakistan ended the campaign at the 78/79th position, with just a solitary bronze.

Rank	Country	Gold	Silver	Bronze	Total
1	People's Republic of China	94	76	50	220
2	Great Britain	49	44	31	124
3	USA	36	42	27	105
4	Netherlands	27	17	12	56
5	Brazil	25	26	38	89
6	Italy	24	15	32	71
7	Ukraine	22	28	32	82

US Tennis open 2024

- ❖ Italy's Jannik Sinner won his second Grand Slam title of 2024 by defeating Taylor Fritz (Germany) in the US Open Men's final.
- ❖ Sinner made history by becoming the first Italian man in the Open Era to win the US Open men's singles title.
- ❖ Aryna Sabalenka from Belarus has got past Jessica Pegula (USA) to win her first championship and third Grand Slam title of her career.
- ❖ She previously won the Australian Open women's singles title in both 2023 and 2024.

❖ Other winners:

Event	Winner	Runners-UP
Men's Double	Max Purcell and Jordan Thompson (Australia)	Kevin Krawietz and Tim Puetz (Germany)
Women's Double	Lyudmyla Kichenok (Ukraine) and Jelena Ostapenko (Latvia)	Kristina Mladenovic (France) and Zhang Shuai (China)
Mixed Doubles	Sara Errani and Andrea Vavassori (Italy)	Donald Young and Taylor Townsend (USA)

4th South Asian Junior Athletics Championships 2024

- ❖ India hosts the 4th South Asian Junior Athletics Championships 2024 at the Jawaharlal Nehru Stadium, Chennai.
- ❖ Abinaya Rajarajan won gold in Women's 100m event.
- ❖ V Sudheeksha won silver in the same event.
- ❖ Siddharth Choudhary won gold in Women's Men's shot-put event.
- ❖ Neeru Pathak won the ninth gold for the Indian team in the women's 400m.
- ❖ Pooja won gold in Women's high jump event.
- ❖ Anisha won gold medal in women's discus throw.
- ❖ Vinod Kumar won silver in Men's 800m event.
- ❖ Mruthyam Rajaram won bronze in Men's 100m event.



Equal prize money

- ❖ The International Cricket Council has announced equal prize money for men and women in World Cups.

- ❖ It will be starting with the women's T20 showpiece in the UAE next month.
- ❖ The winners of the Women's T20 World Cup will be rewarded with \$2.34 million.
- ❖ It is a 134% increase on the \$1 million awarded to Australian women when they clinched the title in South Africa in 2023.
- ❖ India, who won the men's T20 World Cup earlier this year, received \$2.45 million in cash prize.
- ❖ The ICC Women's T20 World Cup 2024 will be the first ICC event where women will receive the same prize money as their male counterparts.



Chess Olympiad 2024

- ❖ India has won a double gold medal at 45th Chess Olympiad 2024, Hungary.
- ❖ GMs Gukesh Dommaraju, Arjun Erigaisi, and Praggnanandhaa Rameshbabu all won as the Indian men wrapped up gold.
- ❖ India trumped Azerbaijan in the final round to claim a first-ever gold medal in the women's section.
- ❖ India also retained the Gaprindashvili Trophy, awarded to the team with the best overall performance across the open and women's sections.
- ❖ D. Gukesh, Arjun Erigaisi and Divya Deshmukh also won individual gold medals.
- ❖ The Chess Olympiad is a biennial chess tournament in which teams representing nations of the world compete.

IMPORTANT DAYS

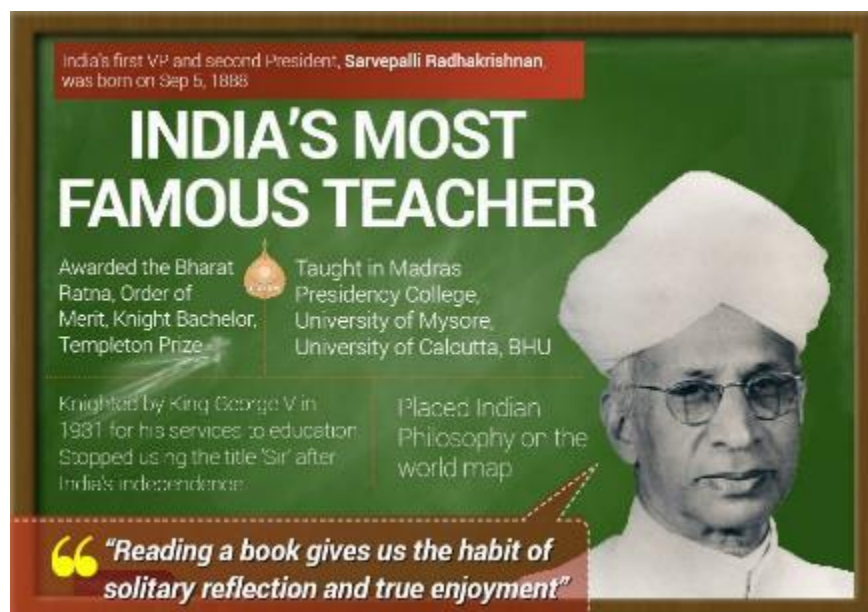
National Nutrition Week 2024 - September 01 to 07

- ❖ It is dedicated to raising awareness among people about the significance of nutrition and cultivating healthy eating habits.
- ❖ It aims to improve dietary practices and support a healthier future among individuals of all ages.
- ❖ The theme for National Nutrition Week 2024 is 'Nutritious Diets for Everyone'.

World Coconut Day 2024 - September 02

- ❖ It was first celebrated on September 2nd, 2009, by the Asian and Pacific Coconut Community (APCC).
- ❖ This day highlights the many benefits of coconuts, from their use in cooking to their role in various industries.
- ❖ It aims to raise awareness about the nutritional value and economic significance of coconuts.
- ❖ This year's theme is "Coconut for a Circular Economy: Building Partnership for Maximum Value."

National Teachers Day 2024 - September 05

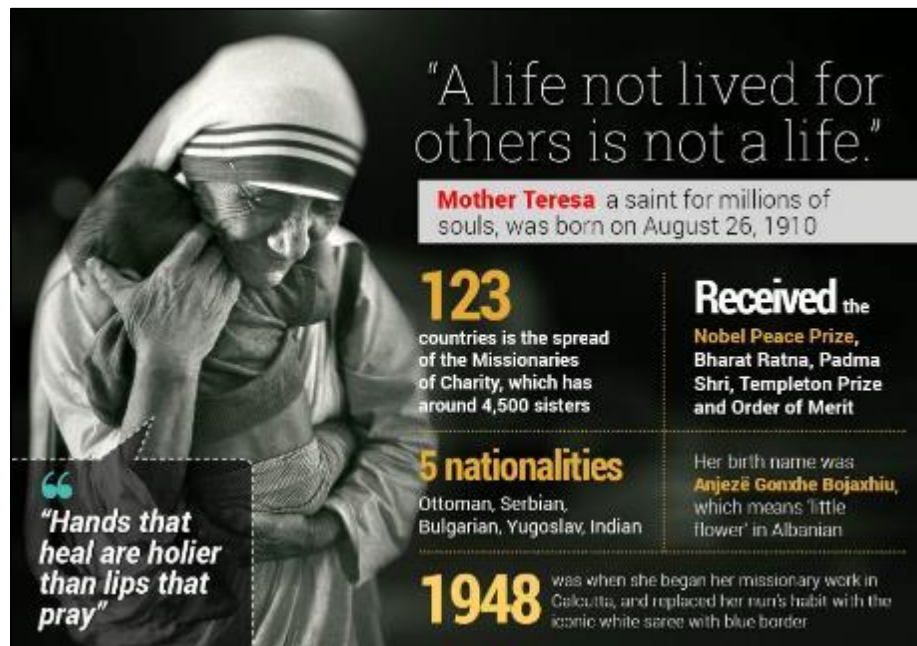


- ❖ It aims to honour educators and recognise Teachers significant contributions in empowering and educating society.

- ❖ This date also marks the birth anniversary of Dr Sarvepalli Radhakrishnan.
- ❖ He was the second President of India and a renowned scholar and philosopher.
- ❖ The first Teachers' Day was observed on his 77th birthday in 1962.
- ❖ President of India Droupadi Murmu conferred the National Teachers' Award 2024 to 82 selected awardees in New Delhi.

International Day of Charity 2024 - September 05

- ❖ This International Day is marked in the memory of Mother Teresa.
- ❖ It aims to raise awareness among individuals, NGOs and stakeholders about the importance of participating in charitable activities.
- ❖ It serves as a valuable opportunity to unite people in support of charity events and contribute to the welfare of the most vulnerable members of society.
- ❖ Mother Teresa, renowned Nobel Peace Prize winner, passed away on September 5, 1997.



World Duchenne Awareness Day 2024 - September 07

- ❖ It aims to continue to increase the awareness of disease that has impacted an estimated 300,000 patients worldwide.
- ❖ Duchenne Muscular Dystrophy is a rare disorder that causes muscles to become weaker over time until it affects the whole body.
- ❖ Approximately one in every 5,000 boys is born with the disease.



- ❖ It is caused by a mutation on the X-chromosome, that is why mainly males are affected.
- ❖ Theme for 2024 is 'Raise your voice for Duchenne'.

International Vulture Awareness Day 2024 - September 07

- ❖ Every year, on the first Saturday of September, the world commemorates the International Vulture Awareness Day.
- ❖ It aimed at raising awareness about the importance of vultures and the challenges they face.
- ❖ Of the 23 vulture species worldwide, more than half are listed on the IUCN Red List of Threatened Species.
- ❖ Vultures Population increased from 246 in February 2023 to 308 in December 2023.
- ❖ The Mudumalai-Sathyamangalam-Bandipur-Wayanad complex accounts for over 82% of the vultures recorded.

International Day of Police Cooperation 2024 - September 07

- ❖ The United Nations marked the International Day of Police Cooperation for the first time in 2023.
- ❖ It emphasises a sustained and long-term effort to establish a comprehensive framework for police oversight and accountability.
- ❖ The International Criminal Police Commission (ICPC) was created on September 7, 1923.

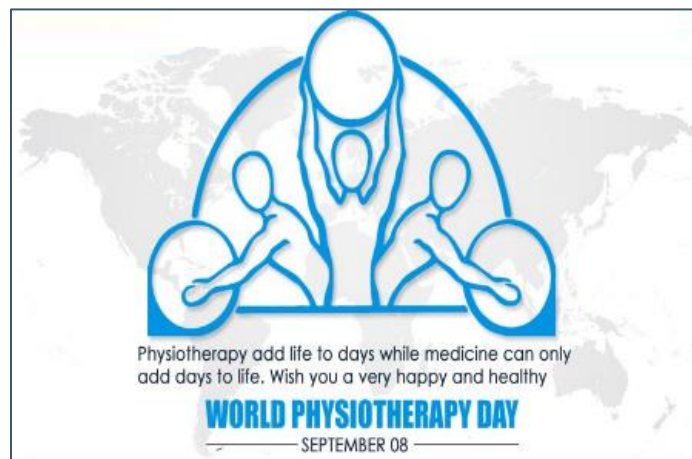
International Day of Clean Air for Blue Skies 2024 - September 07

- ❖ This day is emphasizing the need to make efforts to improve air quality, including reducing air pollution, to protect human health.
- ❖ The huge costs of air pollution to public health, economies and the environment are clear, with global health damages totalling \$8.1 trillion annually.
- ❖ Only a per cent of international development funding currently goes towards the clean air projects.
- ❖ The potential for every dollar invested in clean air initiatives is to return up to \$ 30 in economic benefits.
- ❖ In countries like India, air pollution costs industry an estimated \$95 billion per year, or three per cent of the country's GDP.

International Literacy Day 2024 - September 08

- ❖ This day aims to raise the awareness about the significance of literacy as a fundamental human right and a matter of dignity.
- ❖ The theme for 2024 is 'Promoting multilingual education: Literacy for mutual understanding and peace'.
- ❖ International Literacy Day was established by UNESCO on October 26, 1966, during its 14th General Conference.
- ❖ The first celebration took place in 1967.

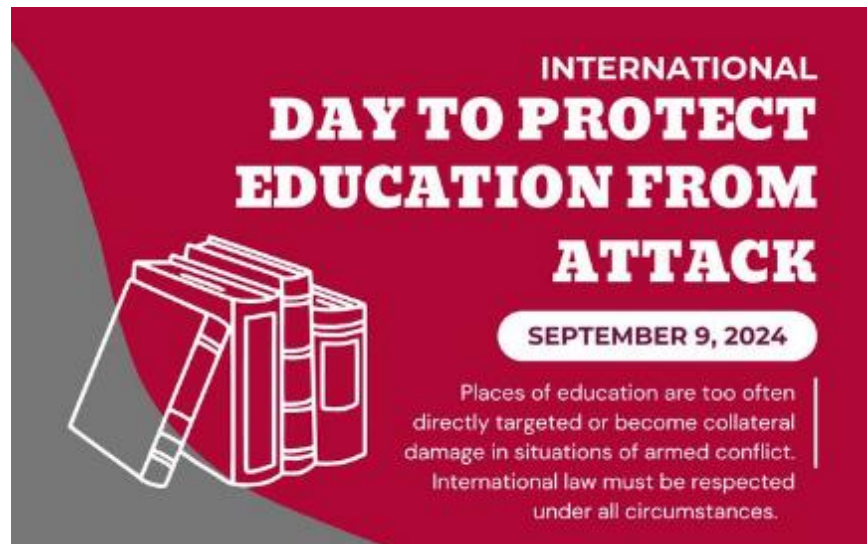
World Physical Therapy Day 2024 - September 08



- ❖ It honours the work of physiotherapists and promotes the importance of physiotherapy in healthcare.
- ❖ It was first designated in 1996 by World Physiotherapy, formerly known as the World Confederation for Physical Therapy (WCPT).
- ❖ The date, September 8, commemorates the founding of WCPT in 1951.

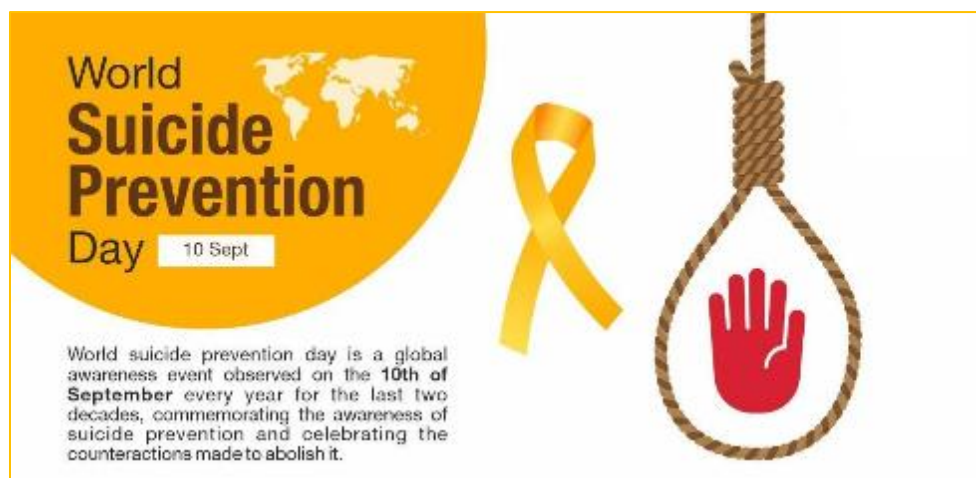
UN International Day to Protect Education from Attack 2024 - September 09

- ❖ It aims to raise awareness about the plight of children living in conflict torn countries around the world.
- ❖ This day observed on since 2020 after a resolution moved by Qatar in the UN General Assembly.
- ❖ In 2023, around 32,990 grave violations against 22,557 children were occurred.
- ❖ More than 72 million children worldwide are out of school due to conflict.
- ❖ In 2022 and 2023 alone, over 10,000 students and educators were victims of these attacks.



World Suicide Prevention Day 2024 - September 10

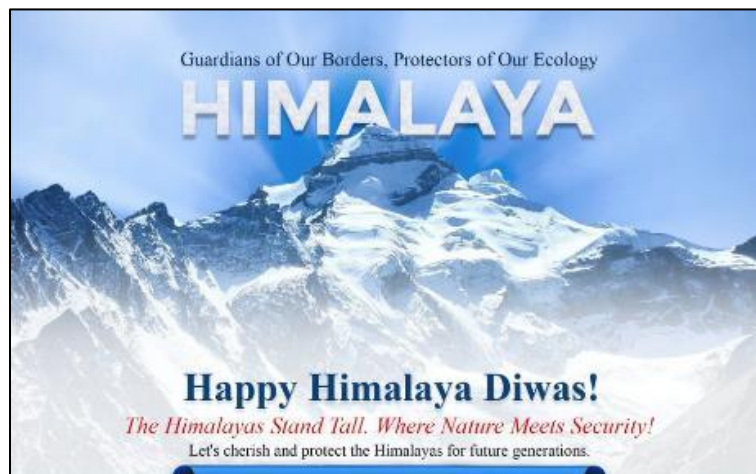
- ❖ This day was first established in 2003.
- ❖ It aims to spread awareness about suicide prevention, reduce stigma and help people.
- ❖ The International Association for Suicide Prevention (IASP) organised this day along with WHO.
- ❖ The theme for 2024-2026 is “Changing the Narrative on Suicide”.
- ❖ Over 7,00,000 people commit suicide every year across the world.
- ❖ It is the third leading cause of death among 15-29-year-olds globally.



National Forest Martyrs Day 2024 - September 11

- ❖ The day is dedicated to honour the brave souls who sacrificed their lives for protecting the country's forests, wildlife, and biodiversity.
- ❖ It was established to commemorate the Khejarli massacre 1730.
- ❖ During this event, Amrita Devi Bishnoi and over 350 members of the Bishnoi community laid down their lives to protect the Khejri trees.
- ❖ They opposed the orders of Maharaja Abhay Singh, who had instructed to cut down trees to construct his palace.

Himalaya Diwas 2024 - September 09



- ❖ This is launched by the Uttarakhand Government in 2014.
- ❖ It aims encourages sustainable practices to protect this crucial region.
- ❖ The theme for 2024 is “Sustainable Himalayas: Preserving Nature and Culture”.
- ❖ The Himalayan Range spans 2400 kilometres from the west-northwest to east-southeast.
- ❖ The Himalayas are the world’s youngest mountain ranges, dating back around 70 million years.
- ❖ The Himalayas cover an area of about 4.2 million square kilometres and hold the most snow and ice after the North and South poles.

Hindi Diwas 2024 - September 14

- ❖ On September 14, 1949, Hindi was given the status of an official language of the country.
- ❖ It aims to promote the use of Hindi language and make people aware of its importance.

- ❖ About 60.88 million people all over the world use Hindi language as the native language.

International Day for south-south cooperation 2024 - September 12



- ❖ It provides an opportunity for member states to reaffirm the value and benefits of South-South cooperation.
- ❖ “A better tomorrow through South-South Cooperation” is the theme of this year.
- ❖ The South-South cooperation is a manifestation of solidarity among peoples and countries of the South that contributes to their national well-being, their national and collective self-reliance and the attainment of internationally agreed development goals.

World First Aid Day 2024 - September 14



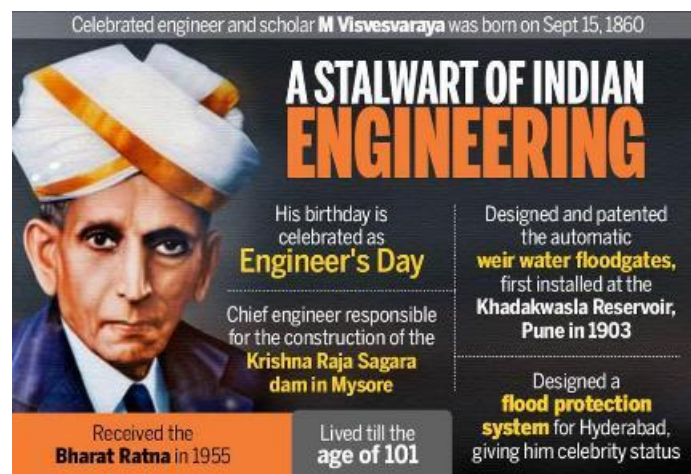
- ❖ The second Saturday of September is observed as the World First Aid Day since 2001.
- ❖ The day aims to educate people about the crucial role first aid plays in tackling medical emergencies and encouraging them to come forward when a situation arises.
- ❖ This year's theme is "First Aid and Sports".

International Day of Science, Technology and Innovation for the South 2024 - September 16

- ❖ This day aims to foster innovation and build scientific capacities in developing nations.
- ❖ The leaders of the G77 and China agreed to designate this day during the Summit on Science, Technology, and Innovation, held in Havana.
- ❖ It aims to bridge the gap between developed and developing countries, encouraging collaboration and knowledge sharing across borders.

National Engineer Day 2024 - September 15

- ❖ This day commemorates the birth anniversary of Mokshagundam Visvesvaraya.
- ❖ Among his most notable achievements are the construction of the Krishna Raja Sagara Dam in Mysore.
- ❖ He received the Bharat Ratna in the year 1955 and was also conferred the British knighthood.
- ❖ He served as Diwan of Mysore from 1912 to 1918.
- ❖ In 1968, the Government of India declared this day.
- ❖ In addition to India, Engineer's Day is also observed in Sri Lanka and Tanzania on September 15.

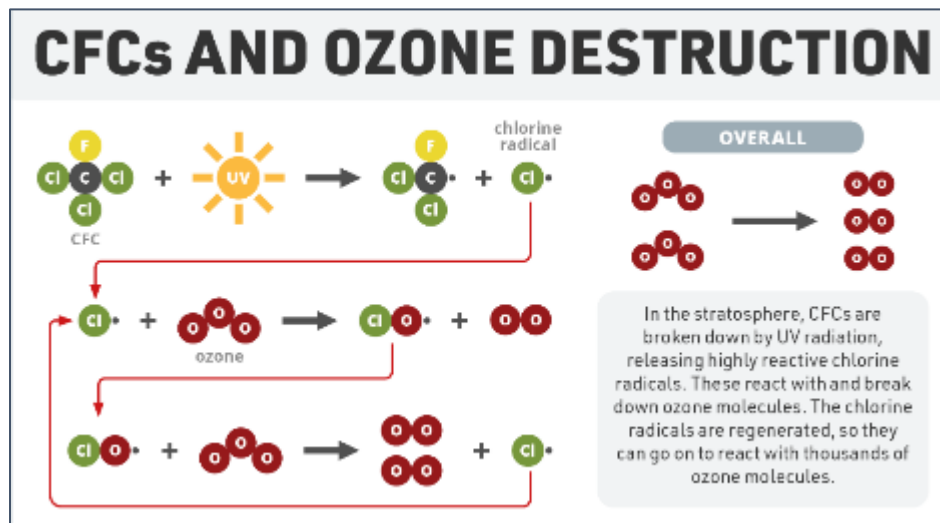


International Day of Democracy 2024 - September 15



- ❖ This special day was established by the UN General Assembly in 2007 to promote and strengthen democratic values.
- ❖ In 1997, the Inter-Parliamentary Union (IPU) adopted the Universal Declaration on Democracy.
- ❖ This year's theme is 'Artificial Intelligence as a tool for good governance'.

World Ozone Day 2024 - September 16



- ❖ On September 16, 2009, the Vienna Convention and the Montreal Protocol became the first treaties in United Nations history to be universally ratified.
- ❖ Ozone (O₃) is a reactive gas, consisting of three oxygen atoms.
- ❖ It can be natural or man-made and found in the Earth's high atmosphere (stratosphere).

- ❖ The theme for this year is “Montreal Protocol: Advancing Climate Actions”.
- ❖ The Montreal Protocol was adopted on September 16, 1987.
- ❖ It is the multilateral environmental agreement that regulates the production and consumption of man-made chemicals referred to as ozone-depleting substances (ODS).
- ❖ The stratospheric ozone layer is damaged by these ODS.

International Day for Interventional Cardiology - September 16

- ❖ In September 2022, the General Assembly decided to proclaim this day.
- ❖ It aims to raise the public awareness of cardiovascular diseases and procedures, related complications, as well as prevention and care, including through education and the mass media.
- ❖ Cardiovascular diseases are a group of disorders of the heart and blood vessels.
- ❖ They are the leading cause of death globally.
- ❖ Over three quarters of deaths from cardiovascular diseases take place in low- and middle-income countries.

World Patient Safety Day 2024 - September 17



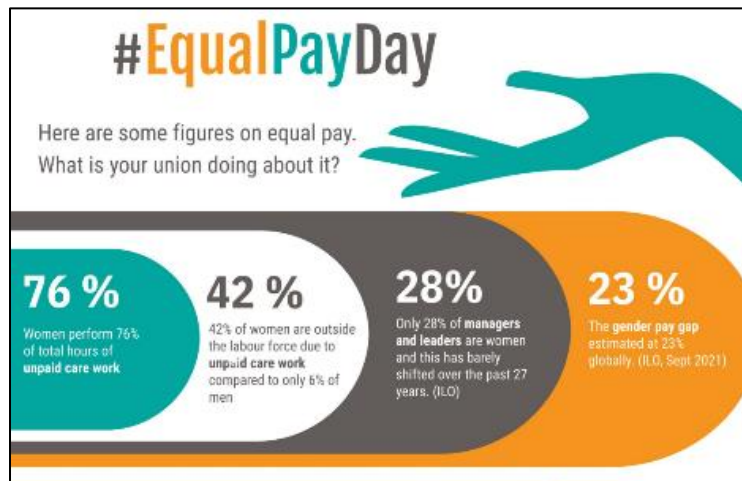
- ❖ In 2019, the 72nd World Health Assembly passed a resolution to establish this day.
- ❖ It aims to raise the global awareness about patient safety, promote actions to enhance safety in healthcare, and encourage stakeholders to unite for safer healthcare practices.
- ❖ The day is recognised to address the significant burden of harm that unsafe medical practices cause worldwide.
- ❖ This year's theme will be "Improving Diagnosis for Patient Safety".

8th India Water Week 2024

- ❖ It was first organized in 2012 and has since been held biannually.
- ❖ It is a 4 days conference and exhibition.
- ❖ The theme for this year's is "Partnerships and Cooperation for Inclusive Water Development and Management."
- ❖ Seven editions of events have been organized in 2012, 2013, 2015, 2016, 2017, 2019 and 2022.



International Equal Pay Day 2024 - September 18



- ❖ This day is dedicated to address the persistent pay disparity between the men and women.
- ❖ According to the International Labour Organization (ILO), the women earn approximately 23% less than men globally.
- ❖ Globally, over 2.7 billion women are legally restricted from having the same choice of jobs as men.'
- ❖ The Equal Pay International Coalition (EPIC) is led by the ILO, UN Women, and OECD.
- ❖ The Coalition's goal is to achieve equal pay for women and men everywhere.



World Bamboo Day 2024 - September 18

- ❖ This day highlights bamboo's numerous medicinal and practical uses.
- ❖ World Bamboo Organisation (WBO) has taken steps to promote its conservation, sustainable use, and the protection of our environment.
- ❖ This day was established in 2009, during the eighth World Bamboo Congress in Bangkok.

World Water Monitoring Day 2024 - September 20

- ❖ In 2003, America's Clean Water Foundation (ACWF) launched this day.
- ❖ Initially, the date was October 18, in honour of the US Clean Water Act 1972.
- ❖ To maximize the number of participants and participating countries, the official date was changed to September 18 in 2007.
- ❖ The theme 2024 is 'Water for Peace'.
- ❖ 72% of freshwater withdrawals are used by agriculture.
- ❖ About 80% of jobs are water-dependent in low-income countries
- ❖ Some 700 million people could be displaced by intense water scarcity by 2030.
- ❖ By 2040, roughly 1 in 4 children worldwide will be living in the areas of extremely high-water stress.

World Cleanup Day 2024 - September 20

- ❖ It is a global social program aimed at tackling the problems associated with marine debris and waste management.
- ❖ It will be uniting 157 countries across the world for a cleaner planet.
- ❖ On 8 December 2023, the United Nations General Assembly declared this day.
- ❖ The theme for 2024 is 'Arctic Cities and Marine Litter'.

International Day of Peace 2024 - September 21

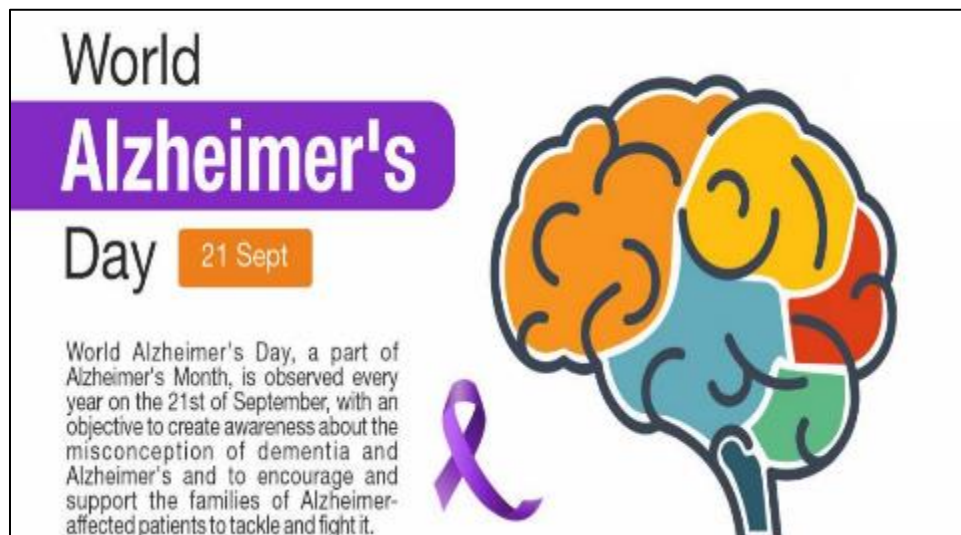
- ❖ It serves as a global reminder of the need to foster a culture of peace.
- ❖ In 1981, the United Nations General Assembly (UNGA) had passed a resolution declaring this day.
- ❖ This year's theme is 'Cultivating a Culture of Peace'.

International Coastal Clean-up Day 2024 - September 21

- ❖ This day is annually observed across the world on the 3rd Saturday of September.
- ❖ It aims to raise the public awareness about coastal cleanliness and the adverse impact of pollution on marine life.
- ❖ The theme of 2024 is 'Sea the Change'.
- ❖ The Indian Coast Guard has been coordinating this day's activity in India since 2006.

World Alzheimer's Day 2024 - September 21

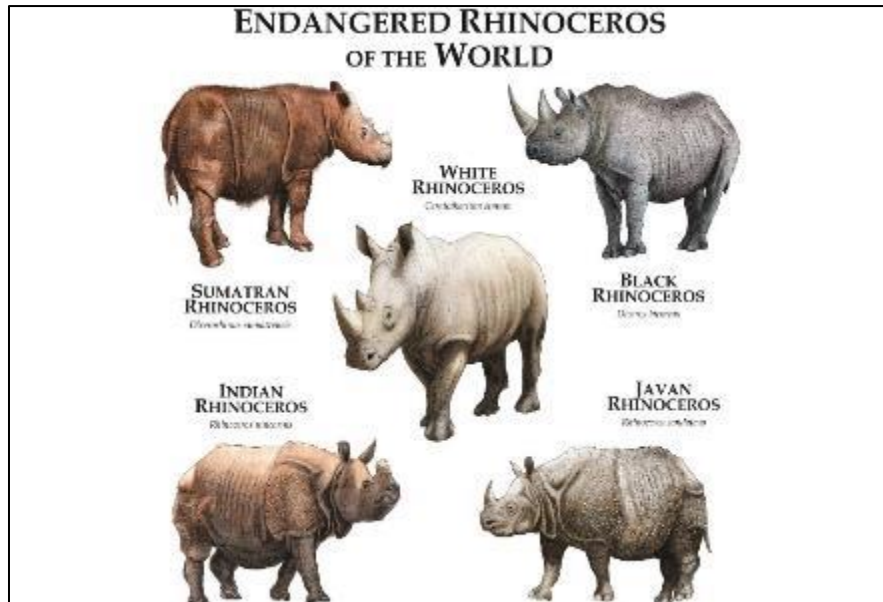
- ❖ It aims to raise the awareness about Alzheimer's disease and dementia, promote understanding, and combat the stigma surrounding these conditions.
- ❖ This day was first launched in 1994 by Alzheimer's Disease International (ADI) to mark the 10th anniversary of the organisation.
- ❖ The theme for 2024 is "Time to act on dementia, Time to act on Alzheimer's."
- ❖ Alzheimer's disease causes the brain to shrink and brain cells to eventually die.



International Red Panda Day 2024 - September 21

- ❖ This day is celebrated on the third Saturday in September.
- ❖ It aims to spread awareness regarding yet another species that is near extinction.
- ❖ The red panda is a tiny tree-dwelling mammal located in the woodlands of India, Nepal, Bhutan, and the northern mountains of Myanmar and southern China.
- ❖ The red panda or *Ailurus fulgens* as it is known to science, was first described by Cuvier in 1825.

World Rhino Day 2024 - September 22



- ❖ It aims to raise the awareness about the rhinoceros and the urgent need for their conservation.
- ❖ There are five rhino species such as Javan, Sumatran, Black, Greater One-Horned, and White rhinos.
- ❖ Theme for 2024 is 'Keep the Five Alive'.

World River Day 2024 - September 22

- ❖ This day is annually observed on the fourth Sunday of September.
- ❖ This day provides a platform for reflecting on the essential role rivers play in sustaining life on Earth.
- ❖ It was first celebrated in 2005, initiated by the International River Network.
- ❖ The theme for 2024 is "Waterways of Life."

International Sign Language Day 2024 - September 23

- ❖ The day is marked to raise awareness about the rights of the deaf community and other sign language users.
- ❖ According to the United Nations (UN), they are fully-fledged natural languages, distinct from spoken languages.
- ❖ It commemorates the establishment of the World Federation of the Deaf (WFD) in 1951.

- ❖ The day was first celebrated in 2018 as part of the International Week of the Deaf.
- ❖ The theme for the 2024 is 'Sign up for Sign Language Rights'.



World Gorilla Day 2024 - September 24

- ❖ It aims to celebrate these amazing animals and to take actions to protect them.
- ❖ The word 'gorilla' was first used in 1847 by two people—Thomas Staughton Savage, a doctor, and Jeffries Wyman, a naturalist.
- ❖ Exactly 1,063 mountain gorillas are known to remain in the wild today.
- ❖ Mountain gorillas live in east-central Africa in just two isolated groups – one in the Virunga Volcanoes and one in Bwindi Impenetrable National Park, Uganda.
- ❖ Males between 8-12 years are called 'blackbacks'.
- ❖ Then from 12 years old, they develop a silver section of hair over their back and hips, earning them the name 'silverback'.

World Rose Day 2024 - September 22

- ❖ It is also known as the Day for the Welfare of Cancer Patients.
- ❖ This day focuses on educating people about cancer and encouraging those who are struggling with it.
- ❖ This day honours Melinda Rose, a courageous 12-year-old Canadian girl who lost her battle with cancer in 1996.

NSS day 2024 - September 24



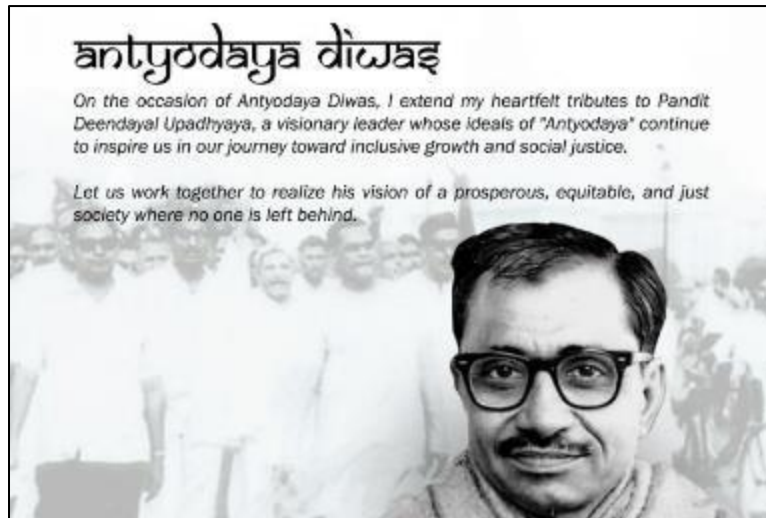
- ❖ The idea of the National Service Scheme (NSS) was proposed by Major General Jagannath Rao Bhonsle.
- ❖ On September 24, 1969, the NSS was launched by Dr V.K. R.V. Rao, the father of NSS and then Education Minister of India.
- ❖ The motto of the NSS is “Not Me but You”.

World Pharmacist Day 2024 - September 25

- ❖ It aims to honour and acknowledge pharmacists for their important contributions to enhancing world health.
- ❖ This day encourage and support initiatives that advocate for and increase public awareness of the crucial roles that pharmacists play all over the world.
- ❖ On this day in 1912, International Pharmaceutical Federation (FIP) was founded.
- ❖ The theme for 2024 is "Pharmacists: Meeting global health needs".



Antyodaya Diwas 2024 - September 25



- ❖ It is commemorating the birth anniversary of Pandit Deendayal Upadhyaya.
- ❖ He was born in Mathura, Uttar Pradesh, on September 25, 1916.
- ❖ He was the co-founder of the Bharatiya Jana Sangh (BJS).
- ❖ This day focuses on uplifting the most disadvantaged people in society, promoting social justice and inclusive growth.

World Maritime Day 2024 - September 26

- ❖ This day is observed on the last Thursday of September every year.
- ❖ It aims to provide an opportunity to draw people's attention to the importance of shipping and other maritime activities across the globe.
- ❖ The theme for 2024 is "Navigating the Future: safety first!".



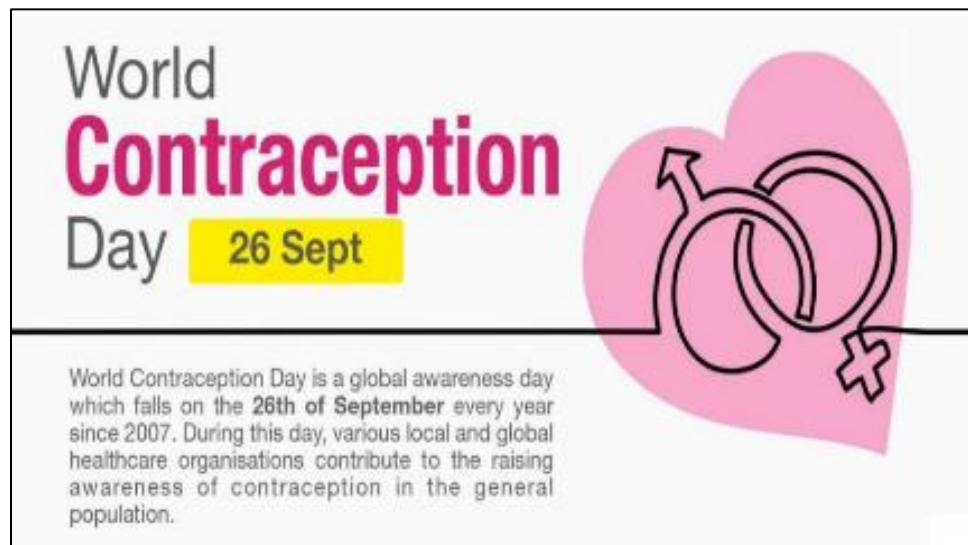
International Day for the Total Elimination of Nuclear Weapons 2024 - September 26

- ❖ It aims to raise awareness about the threat of nuclear weapons and to promote their elimination.
- ❖ It was declared by the UN General Assembly (UNGA) in 2013.

- ❖ The Treaty on the Prohibition of nuclear weapons (TPNW), or the Ban Treaty came into force in 2021.
- ❖ As of July 2024, the TPNW had 70 states parties.
- ❖ Another 27 had signed but not yet ratified it.

World Contraception Day 2024 - September 26

- ❖ It aims to spread the awareness of various contraceptive options to individuals, young men and women, regarding Family Planning and Reproductive Health.
- ❖ It promotes the awareness about contraception, promote the overall health of individuals (both men and women).
- ❖ The theme for 2024 is "A choice for all. Freedom to plan, power to choose."



World Environmental Health Day 2024 - September 26



- ❖ This day highlights the essential connection between a healthy environment and human well-being.
- ❖ It was initiated by the International Federation of Environmental Health (IFEH) in 2011.
- ❖ It draws attention to the urgent need for environmental protection to ensure a healthier future for all.
- ❖ For 2024, the theme is 'Our land Our future'.

World Tourism Day 2024 - September 27

- ❖ This day commemorates the adoption of the UNWTO's statutes in 1970.
- ❖ This day serves as a reminder of tourism's vital role in promoting understanding and peace among cultures.
- ❖ The Theme for 2024 is "Tourism and Peace".

World Rabies Day 2024 - September 28



- ❖ It aims to raise awareness about rabies prevention and to highlight progress in defeating this horrifying disease.
- ❖ This date marks the anniversary of Louis Pasteur's death, the French chemist and microbiologist, who developed the first rabies vaccine.
- ❖ This year's theme is "Breaking Rabies Boundaries".

International Day for Universal Access to Information 2024 - September 28

- ❖ It highlights the advantage of having constitutional, statutory, or policies that guarantee the public to access information for saving lives and building trust.
- ❖ UNESCO declared this day on 17 November 2015.
- ❖ This day emphasizes the pivotal role of information accessibility in achieving sustainable development, transparency and accountable governance.

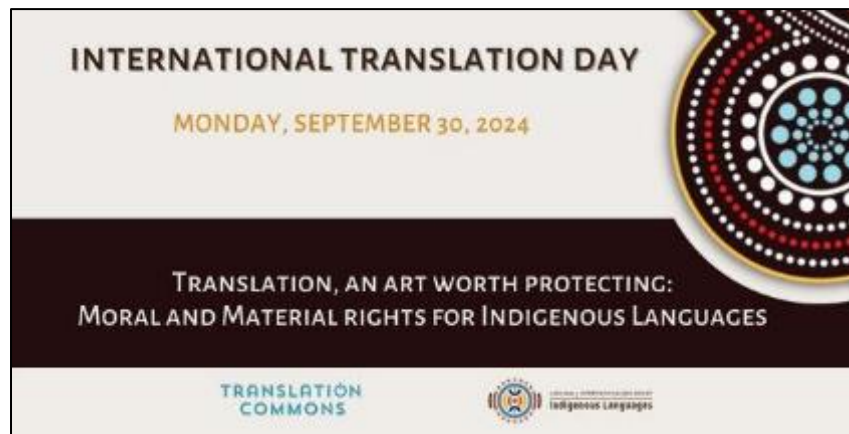
World Heart Day 2024 - September 29

- ❖ It aims to raise awareness about the heart disease and its preventive measures to manage the cardiovascular diseases.
- ❖ The cardiovascular diseases (CVDs) is one of the leading reason for mortality worldwide.
- ❖ Every year, over 20 million people die due to cardiovascular disease, accounting approx. 31% of all global mortality.
- ❖ The World Heart Federation has launched a new three-year World Heart Day campaign from 2024 to 2026 with the theme “Use Heart for Action.”



International Translation Day 2024 - September 30

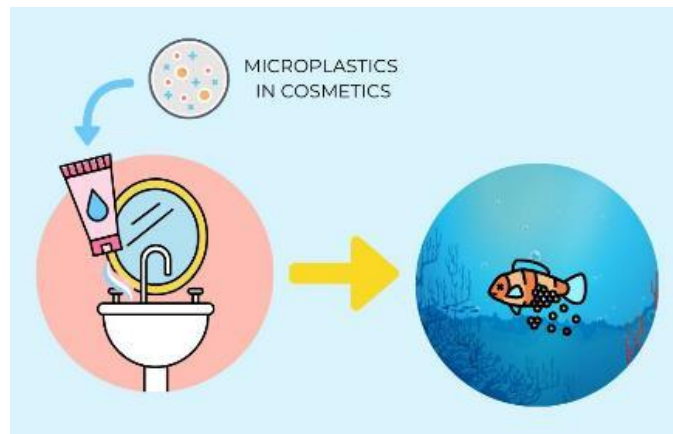
- ❖ It recognizes the invaluable contributions of translators and interpreters in bridging linguistic and cultural divides.
- ❖ This day celebrates the feast of St. Jerome, the Bible translator, who is considered the patron saint of translators.
- ❖ He is known for his endeavour of translating most of the Bible into Latin from the Greek manuscripts of the New Testament.





MISCELLANEOUS

Microplastics in Personal Care Products

- ❖ Researchers found that the microplastics from 45 products, both national and international, bought online and offline.
- ❖ It found that 49.12% of all selected products analysed in India contained plastic microbeads.
- ❖ 45% of the products contained irregular or smooth microplastics, with polyethylene being the dominant polymer, and followed by the polypropylene, polystyrene, polyurethane, and polycaprolactone.
- ❖ A significant number of products (23.33%) contained cellulose microbeads.
- ❖ Approximately, 1.34% of the total product contained plastic microbeads, with the highest at 5.04% and some as low as 0.04%.



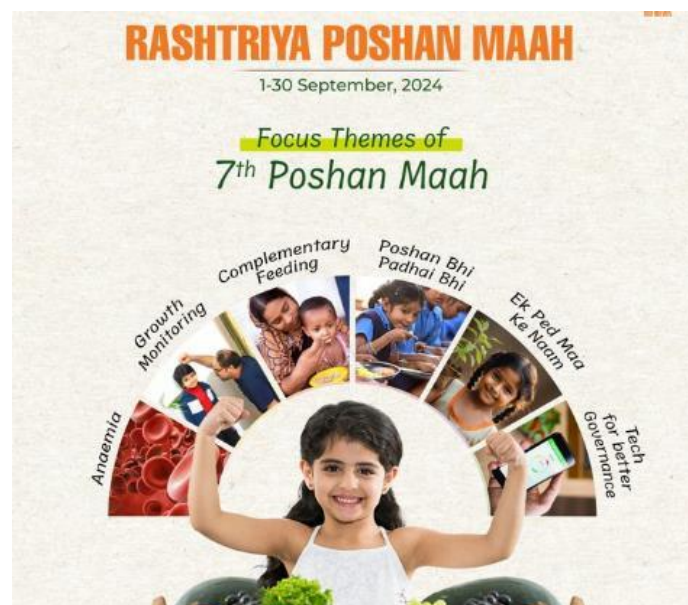
Ban on FDC drugs

Loose Drugs	=	Fixed Dose Combination (FDC)
		
<p>First-line Anti-TB drugs</p> <p>From left to right:</p> <ul style="list-style-type: none"> • Isoniazid, • Rifampicin, • Pyrazinamide and • Ethambutol <p>form the core of initial treatment regimens.</p>		<p>FDCs are improved formulations of currently used medicines, recommended for the first line treatment of TB.</p>

- ❖ The Indian government has banned 156 fixed-dose combination (FDC) drugs, including popular medicines such as Cheston Cold and Foracet.
- ❖ FDCs are combinations of two or more known drugs in single-dosage form.
- ❖ Since 2018, 328 such drugs were banned.
- ❖ FDCs are meant for patients with conditions such as tuberculosis and diabetes for which they need to take multiple medicines regularly.
- ❖ They reduce the number of pills the patient needs to take each day, and help improve adherence to the treatment.
- ❖ The government set up a committee in 2014 to examine 3,450 FDCs approved for manufacture and sale in the country after 1988.
- ❖ The committee found 963 drugs to be irrational, and suggested an immediate ban.
- ❖ It also identified a set of FDCs which needed to be studied further.
- ❖ Of these, 499 have been banned so far.

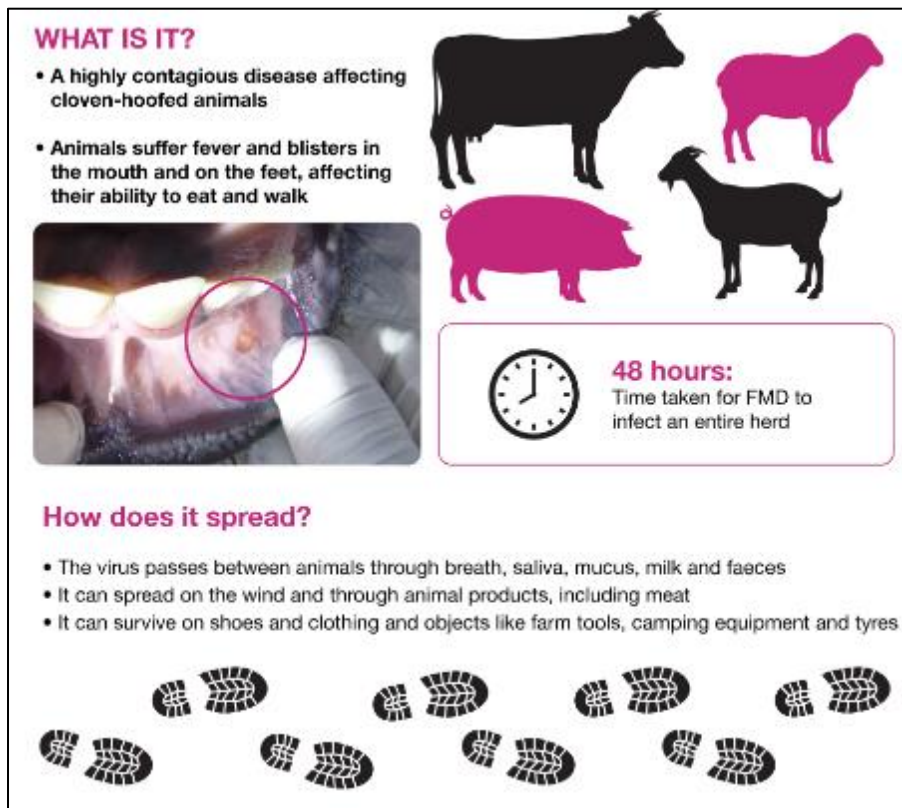
7th Rashtriya Poshan Maah 2024

- ❖ The month-long campaign aims to bolster efforts against malnutrition and promote holistic well-being throughout the nation.
- ❖ It was dedicated to combat the malnutrition among children, adolescent girls, pregnant women, and lactating mothers across the country.
- ❖ It will focus on key themes including Anaemia, Growth Monitoring, Complementary Feeding, Poshan Bhi Padhai Bhi, Technology for the Better Governance, and Ek Ped Maa Ke Naam.



Foot-And-Mouth Disease Free Zones 2024

- ❖ The Union government has decided to establish foot-and-mouth disease-free zones in eight States.
- ❖ They are Karnataka, Tamil Nadu, Andhra Pradesh, Telangana, Uttarakhand, Punjab, Haryana, Maharashtra, and Gujarat.
- ❖ It aims to expand export opportunities for Indian animal products, and enhance the country's global market presence.
- ❖ Foot-and-mouth disease is a highly contagious viral disease of wild and domesticated animals, most notably in cattle, pigs, and sheep.
- ❖ The viral disease, causes wounds to the feet and mouth of cattle, leads to cattle developing fever and not consuming fodder.



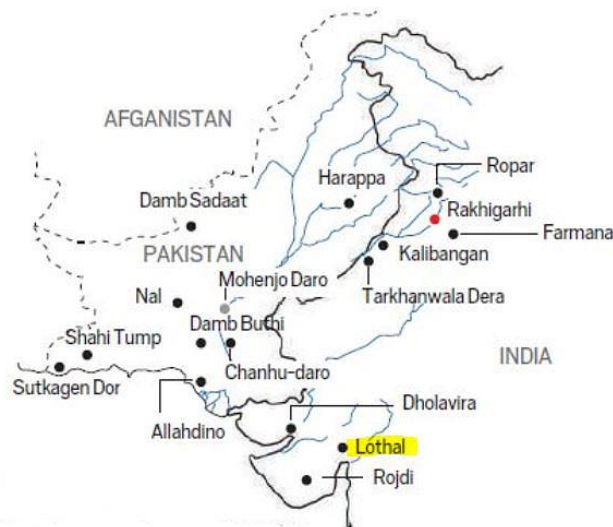
Printing history of Thiruvasagam

- ❖ In 1868, Ka. Peer Katharoli Rauthar, a Tamil scholar from Tirunelveli, published Thiruvasagam penned by the Saivite saint Manickavasagar.
- ❖ Rauthar's edition was verified by Sivaloganatha Pandithar of Thirupunkur.
- ❖ The book was printed in Iyartamil Achagam, run by Thiruvengkata Mudaliar, in Kancheepuram.

- ❖ The Sivapuranam in Thiruvvasagam is normally described as an agaval, but Rauthar cited the Tholkappiyam to prove that it was a kalivenba.
- ❖ The book was republished in 2008 after a gap of 140 years by T.N. Ramachandran, Tamil scholar from Thanjavur.
- ❖ Thiruvvasagam was first among the Saivite literary works to be printed.
- ❖ It was published in 1835, followed by the publication of Thirukovaiyar in 1841.



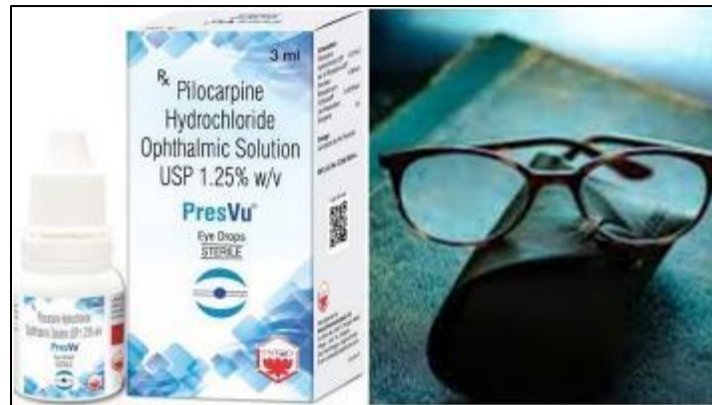
Study on Lothal port



- ❖ The IIT-Gandhinagar has found fresh evidence on Lothal which can confirm the dockyard's existence.





- ❖ The study has revealed that the Sabarmati River used to flow by Lothal (currently, it flows 20 km away from the location) during the Harappan Civilisation.
- ❖ There was also a travel route connecting Ahmedabad, through Lothal, the Nal Sarovar wetland, and the Little Rann, to Dholavira — another Harappan site.

PresVu Eye Drop



- ❖ The Drug Controller General of India (DCGI) has suspended the license for PresVu, an eye drops by Entod Pharmaceuticals.
- ❖ This is meant to reduce the need for reading glasses in people with Presbyopia.
- ❖ The suspension was due to the company's unauthorized promotions, creating doubts about the product's safety and its misuse by patients.

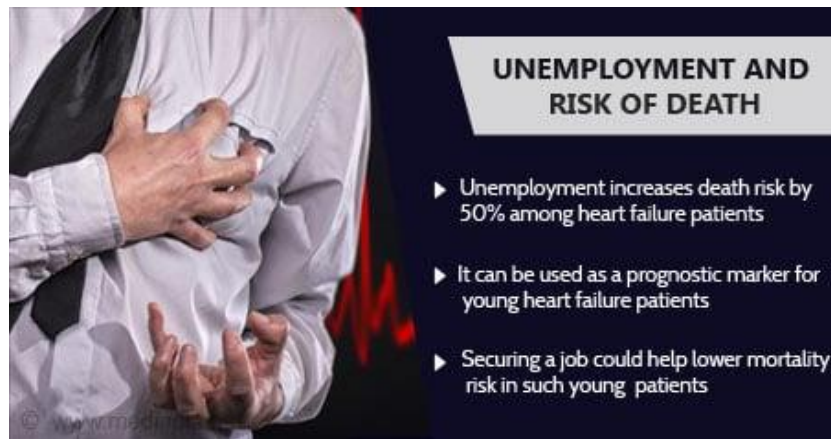
A1 or A2 claim on Milk

<h2>2 be or not 2 be</h2> <p>Customers often pay more for the promise of A2 milk without verifying the authenticity of the product at source</p>		
	Indigenous 'Desi Cow'	Crossbred, exotic cow
Types	 Gir, Sahiwal, Tharparkar	 Jersey, Holstein
Physical Attributes	Distinct hump, leafy ears	No hump, roundish ears
Milk Yield	 5-6 litres a day	 15-20 litres a day
Genetic attribute	A2/A2	A1/A2
Cost of DNA certification	Rs 5,000 - 7,000 per cow	
Cost of daily test (Random sampling for A2 protein)	Rs 3,000 - 4,000 per batch/sample	

- ❖ The FSSAI issued a notification to protect consumers from unscientific claims by food/dairy companies regarding the superiority of A2 milk, ghee, or products over A1 milk/products.
- ❖ It has directed to remove claims of 'A1' and 'A2' types of milk and milk products from packaging, calling such labelling misleading.
- ❖ The main difference between 'A1' and 'A2' milk fat products is merely due to the structure of a protein known as beta casein.

Unemployment and risk of heart disease

- ❖ An ICMR-led study found that those unemployed were at a significantly higher risk, followed by those having high blood sugar levels.
- ❖ The Men were twice as likely as women to have more than a 10% chance of heart disease.
- ❖ High blood sugar increases the risk of heart disease significantly
- ❖ Women faced an 85% higher risk, while men had a 77% higher risk.
- ❖ Only 54% of the unemployed had a low risk of cardiovascular diseases (CVD), compared to 87-88% of employed people and homemakers.



Angkor Wat - Cambodia

- ❖ Angkor Wat was named the most photogenic UNESCO World Heritage site in Asia by Times Travel.
- ❖ Other world heritage sites on the list included India's Taj Mahal; Hampi of Vijayanagara Empire; the Great Wall of China in Beijing and etc.
- ❖ Angkor Wat attracted 651,857 international visitors in the first eight months of 2024.
- ❖ It was built in the early 12th century and is the largest religious monument in the world.

- ❖ In 1992, it has recognized as a UNESCO World Heritage Site.



ISO/UNDP PAS 53002



- ❖ The United Nations Development Programme (UNDP) along with the International Organization for Standardization have launched 'ISO/UNDP PAS 53002'.
- ❖ It is the world's first international guidelines to accelerate contributions toward the United Nations (UN)'s Sustainable Development Goals.
- ❖ This provides a valuable resource for organizations to place SDGs into their core operations and increase their positive impact.

FTI-TTP program

- ❖ The Indira Gandhi International Airport has recently introduced a fast-track immigration program for certain passengers at Terminal 3.
- ❖ The Fast Track Immigration Trusted Travellers Program (FTI-TTP) is designed to reduce the wait period for frequent and trusted travellers during international trips.

- ❖ It is only verified for Indian nationals and Overseas citizens of India (OCI) cardholders.
- ❖ The program is expected to reduce the immigration process from 15-20 minutes to a few seconds.
- ❖ The FTI-TTP will be launched in other cities too in the coming months.



100 years of ICAR-NISA

- ❖ ICAR-NISA was established in 1924 as Indian Institute of Natural Resins and Gums, in Ranchi, Jharkhand.
- ❖ It was renamed in 2022 as ICAR-NISA and comes under Ministry of Agriculture and Farmers' Welfare.
- ❖ It involves adding value to primary agricultural products and related activities like beekeeping, poultry farming, and agritourism.
- ❖ It includes processes converting agricultural produce, residues, and by-products into high-value items for food, industrial, and medicinal uses.

