

# MAHITHI MONTHLY SNIPPETS

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## NAMMAKPSC SPECIAL EDITION



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## ***NEWS IN SHORT***

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- New Delhi based NGO, Rural Environment and Water Assets Reproductive and Development Society (REWARDS) has been awarded the contract to supply food to all BBMP-run Indira Canteens, excluding those in the West and Dasarahalli zones, for the next two years.
- The Indian National Space Promotion and Authorisation Centre (IN-SPACe) has released an Announcement of Opportunity (AO) for making available Indian Orbital Resources to the non-government entities. An Announcement of Opportunity (AO) is a formal notification or invitation issued by an organization, agency, or government body to solicit proposals, applications, or expressions of interest from eligible parties for a specific project, program, or initiative
- The Civil Aviation Ministry has tabled the Bharatiya Vayuyan Vidheyak, 2024 in the Lok Sabha to replace the 1934 Aircraft Act, aiming to streamline aviation certification by transferring the radio telephone operator restricted (RTR) exam from the Department of Telecom to the Directorate General of Civil Aviation (DGCA). The Bill, which faced protests for its Hindi name, seeks to address ambiguities in the outdated Aircraft Act and improve ease of doing business. It will centralize certification, benefiting pilots and aviation personnel, and potentially reduce issues with the RTR exam.
- Daniel Wiffen become the first Irishman to win an Olympic swimming gold medal on Tuesday when he powered home first in the men's 800m freestyle
- A British team anchored by Duncan Scott stormed to victory in the men's Olympic 4x200m freestyle relay
- Veteran jockey-turned-trainer Karan Singh (80) passed away in Bengaluru . As a jockey, he achieved the 1000 winners' milestone during a more than three-decades career. After his retirement, he became a trainer for M.A.M. Ramaswamy in Bengaluru
- The Indian Army is procuring the Advanced Land Navigation System (ALNS) Mk-II, a Ring Laser Gyro (RLG) based navigation system, for its Armoured Fighting Vehicles (AFVs), which provides spoof-proof and highly encrypted Inertial, GPS, and Hybrid Navigation data, compatible with Indian Regional Navigation Satellite System (IRNSS), GPS, and GLONASS, and offers high accuracy in navigational applications, to be indigenously designed, developed, and manufactured by Bharat Electronics Limited (BEL), Chennai.
- Archaeologists discovered a Vattezhuthu script and eight Tamil inscriptions at the 1,000-year-old Thalikiswarar temple in Tamil Nadu, shedding light on the ancient writing system Vattezhuthu, a syllabic alphabet used to write Tamil and Malayalam languages in south India and Sri Lanka from the 4th century AD to the 15th century AD, which evolved from Tamil-Brahmi script and influenced the development of Malayalam and Koleluttu scripts.

- Karnataka's bioeconomy is expected to triple to \$100 billion by 2030. The biotech industry may see a 19% compound average growth rate (CAGR). Karnataka is a leading state in India's bioeconomy, with a strong presence of biotech companies and research institutions. The state's bioeconomy is driven by government support, research institutions, and industry collaboration. Key sectors include biopharma, agri-biotech, bioindustrial, and biotech startups. Initiatives like KBITS, KITS, and BioNEST support the biotech industry. The state's bioeconomy is expected to attract investments and create jobs. Karnataka aims to establish itself as a global biotech hub.
- Karnataka's Department of School Education and Literacy has announced new initiatives. To reduce school bag weight, note sheets and divided textbooks will be introduced. No Bag Day will be celebrated every third Saturday of the month. Free coaching for competitive exams like NEET and KCET will be provided to 25,000 students. The Maru Sinchana program will promote science education in 93 aspirational taluks. A face recognition system will be introduced to track attendance. The system will be linked to the Students Achievement Tracking System (SATS). These initiatives aim to improve education and reduce irregularity in government schools.
- Union Minister Shri Bhupender Yadav launched the Ideas4LiFE portal to promote sustainable living. The portal invites ideas for environment-friendly products and services. The initiative is part of the Mission LiFE global movement for environmental sustainability. The Ideas4LiFE Ideathon covers seven themes, including saving water and reducing waste. UNICEF is an active partner in the implementation of Mission LiFE. Mission LiFE aims to mobilize one billion people to adopt sustainable lifestyles.
- Researchers in South Korea have achieved a breakthrough using Nano-MIND technology, which employs magnetized nanoparticles to control specific brain regions in mice. This method precisely activates neural circuits, influencing behaviors such as nurturing and appetite. The technology offers new potential for understanding brain functions, brain-computer interfaces, and treating neurological disorders, marking a world-first advancement with significant implications for neuroscience and medicine.
- India will host its first major multi-nation air exercise in August, with 51 countries participating in two phases in Sulur and Jodhpur; Germany, France, Spain, UK, Australia, and the USA will join, while 18 countries, including Quad nations, will observe. Indian aircraft like LCA Tejas, Mirage-2000, and Rafale, along with foreign aircraft such as F-16, A-10, Rafale, and Typhoon, will participate. Russia is excluded, highlighting India's strategic ties and growing military cooperation.

- The Supreme Court, in a 6:1 majority verdict led by Chief Justice D Y Chandrachud, ruled that states can sub-classify Scheduled Castes (SCs) for preferential treatment based on empirical data on backwardness, overruling its 2004 judgment (E V Chinnaiah vs State of Andhra Pradesh) that considered SCs as homogeneous, and established criteria for sub-classification, while also suggesting a "creamy layer" policy to exclude affluent individuals from affirmative action benefits.
- Farmers at the tail-end of river basins in Karnataka face water scarcity due to upstream farmers not following recommended cropping patterns, silt accumulation, poor canal maintenance, and unauthorized water pumping; a new law is planned to address these issues by enforcing cropping patterns, taking legal action against illegal water drawing, ensuring regular canal repairs, and preventing silt and weed growth to ensure fair water distribution.
- Swapnil Kusale had an Olympic debut to remember, winning a bronze — India's third medal of the Games — in the men's 50m rifle 3 position event
- The Karnataka State government has decided to make all competitive examinations with less than 20,000 candidates online.
- Lieutenant-General Sadhna Saxena Nair assumed the office of Director General, Medical Services (Army), becoming the first woman to be appointed to this position
- An approval by the Union Ministry of Environment, Forest and Climate Change (MoEFCC) for exploratory oil and gas drilling in parts of Hoollongapar Gibbon Wildlife Sanctuary, may put the endangered Hoolock Gibbon at further risk.
- Karnataka Government launched Cyber Security Policy 2024 to combat cybercrimes and protect digital infrastructure. The policy focuses on awareness, skill building, public-private partnerships, and technology integration. Rs 103.87 crore allocated over five years, with Rs 23.74 crore for incentives and concessions. Internship program offers stipends of Rs 10,000-15,000 per month for up to three months. R&D projects eligible for matching grants up to 50% of project costs or Rs 50 lakh. Cyber Security Audit reimbursement up to Rs 1 lakh for CERT-In empanelled service providers. Policy aims to build a strong cyber security ecosystem and strengthen state IT assets. Collaborative efforts with IISc, CySeck, CISCO, and Meta for training and awareness programs.
- Union Education Minister Dharmendra Pradhan launched the NATS 2.0 Portal, disbursing Rs 100 crore stipends to apprentices through Direct Benefit Transfer (DBT) mode, to enhance employability skills and provide a guaranteed monthly stipend.
- The Assam government is organizing a grand Jhumur dance performance featuring 8,000 tea tribe artists. Also known as Jhumar, this ancient folk dance is

predominantly practiced in Assam and also performed in Chhattisgarh, Orissa, West Bengal, Bihar, Jharkhand, and Andhra Pradesh. The dance, performed in broad, open spaces during festivals and harvest seasons, is accompanied by traditional instruments like dhol, manjira, and dholki. Men wear long traditional gowns and handle musical instruments, while women don classic red-bordered white sarees. The dance's themes include everyday life, challenges, and solutions, emphasizing courage and enthusiasm.

- The Karnataka High Court has upheld the constitutional validity of the Karnataka Land Revenue (III) Amendment Act, 2011, dismissing petitions from Kodava joint families who claimed that the amendments disrupted their customary and religious practices by requiring partition deeds for land ownership, and instead ruled that the amendments confer full ownership rights over Jamma Bane land without compelling partition or separation from the family.
- ISRO's Human Space Flight Centre has partnered with Axiom Space Inc. for the Axiom-4 mission to the International Space Station, selecting Group Captain Shubhanshu Shukla and Group Captain Prasanth Balakrishnan Nair as the prime and backup pilots, respectively, to undertake scientific research and technology demonstration experiments on board the ISS
- The Karnataka government will provide special lunches to government and aided schoolchildren on festivals, national days, and birthdays of teachers and students under the midday meal (PM Poshan) program. The special lunch, called "Tithi Bhojana", will be served with the help of donors and locals, and will feature fresh, healthy, and nutritious food, including locally sourced vegetables, pulses, and cereals. The goal is to attract children to government schools and promote healthy eating habits. No junk food will be served. This initiative is in collaboration with the Union government and is expected to benefit around 55.6 lakh students across the state
- 8 national high-speed road corridor projects approved by Union Cabinet + Total length: 936 km + Total cost: ₹50,000 crore + Projects include: Ayodhya ring road (68 km, ₹3,935 crore) + Guwahati bypass (121 km, ₹5,729 crore) + Tharad-Ahmedabad corridor (214 km, six-lane) + Agra-Gwalior corridor (88 km, ₹4,613 crore) + Other projects: connecting major cities and industrial regions to ports and national corridors
- The Centre recently allowed state governments to directly buy rice from the Food Corporation of India (FCI) without participating in e-auction under the open market sale scheme (domestic). The Open Market Sale Scheme (OMSS) allows the Food Corporation of India (FCI) to sell surplus food grains, such as wheat and rice, in the open market to various buyers, including state governments, at predetermined

prices, to enhance food security, moderate prices, and control inflation, with state governments now allowed to buy directly without participating in e-auctions.

- The Central Electricity Authority has approved Sharavati 2,000 MW hydro-pumped storage plant in Karnataka, developed by KPCL, with an investment of Rs 8,005 crore. The plant will have eight hydropower units, an underground tunnel, and play a crucial role in ensuring energy security, grid stability, and meeting peak power demands. It works by pumping water uphill during off-peak hours and releasing it to generate power during peak hours.
- The National Skill Development Corporation (NSDC) has launched the Women Entrepreneurship Program in partnership with Britannia Industries Limited, aiming to empower 25 lakh women entrepreneurs across India by providing financial grants, product and service exposure, complimentary self-learning entrepreneurship courses, and incubation support to stimulate economic growth and create a supportive ecosystem for women-led enterprises
- The Union government has issued a draft notification to declare 56,800 sq km of the Western Ghats across six states as an Ecologically Sensitive Area (ESA), aiming to achieve consensus among states and protect the region's biodiversity. The notification proposes restrictions on mining, quarrying, and construction, and invites suggestions and objections within 60 days.
- Astronomers from the Indian Institute of Astrophysics (IIA) discovered a vampire star, WOCS 9005, in the star cluster M67. Vampire stars, also known as blue straggler stars, exhibit traits of younger stars. They rejuvenate by siphoning material from a companion star in a binary system. Data from the UltraViolet Imaging Telescope on AstroSat aided in the discovery. Vampire stars are compact, hot stars that attract material from a larger, cooler donor star. The material forms an accretion disk, increasing the vampire star's mass and energy output
- Book Brahma Sahitya Puraskara, a literary award, will be presented annually during the Book Brahma Literature Festival (Aug 9-11, 2024) to honor writers in Indian languages who have made significant contributions to Indian literature. The award includes Rs 3,00,000, a citation plaque, and a book bouquet. It is organized by Book Brahma, Bengaluru-based digital media house
- Sara Abraham, a pioneering figure in contemporary Indian Art, passed away in Chennai, leaving behind a legacy as a collector, promoter, and discoverer of Indian Art, with her journey, "Kala Yatra", showcasing the country's manifold artistic variety
- The Indo-Tibetan Border Police (ITBP) has successfully demonstrated and trialed the Typhoon-K, a Russian-made Mine-Resistant Ambush Protected (MRAP) vehicle,

at its Transport Battalion in Chandigarh, showcasing its capabilities for safe transportation of troops and military cargo in high-risk areas

- Maritime Partnership Exercise (MPX) was conducted between India and Russia in St. Petersburg on the occasion of the 328th Russian Navy Day
- The Great Four-Ring (*Ypthima cantliei*) butterfly, a species last seen in 1957, has been rediscovered after 61 years in Namdapha National Park, Arunachal Pradesh, India, highlighting the park's unique biodiversity and significance as a habitat for rare and endangered species
- The Standardised Precipitation Index (SPI) measures wet or dry conditions based on long-term precipitation records, with negative values indicating drought and positive values indicating wet conditions, and can be calculated for various timescales ranging from 1 to 72 months.
- Victoria, Australia has reported 71 confirmed cases of Legionnaires' disease, including one fatality, a severe form of pneumonia caused by *Legionella* bacteria found in natural and man-made water systems, transmitted through inhalation of contaminated aerosols, and treatable but without a available vaccine.
- The Supreme Court ruled on the Delhi L-G's power to nominate aldermen. The Delhi Municipal Corporation Act, 1957 grants the L-G the authority to nominate 10 aldermen. Aldermen are crucial for the functioning of the MCD, including participation in Standing Committee elections. The MCD Structure includes Wards Committees and a Standing Committee, both of which require alderman participation. Article 239AA of the Constitution establishes the Delhi Legislative Assembly, Council of Ministers, and L-G roles. The court relied on the *Government of NCT of Delhi v. Union of India (2023)* case in its decision.
- The Food and Consumer Affairs Minister launched Version 4.0 of the Price Monitoring System (PMS) Mobile App on August 1, 2024. The app now monitors 38 commodities, including 16 new items. The new items include Bajra, Jowar, Ragi, Suji, Maida, Besan, Ghee, and others. The monitoring network covers 550 centers across 34 States/UTs. It covers about 31% of CPI weights, up from 26.5% previously. The app has helped in recent decline in pulse prices by up to 4% in major mandis.
- The Kerala government has requested the Centre to declare the Wayanad landslides a national disaster. There is no official category of "national disasters" in India. Disasters are defined under the 2005 Disaster Management Act as catastrophes resulting in substantial loss of life or property damage. The state government is primarily responsible for rescue, relief, and rehabilitation during natural disasters. The Centre provides assistance through the National Disaster Response Fund (NDRF) and National Calamity Contingency Fund (NCCF). The Disaster Management Division of the Ministry of Home Affairs provides support

and monitors fund utilization. The National Disaster Management Authority (NDMA) is the apex body for disaster management in India. The NDMA lays down policies, plans, and guidelines for disaster management.

- The Indian Army erected a 190-foot Bailey bridge in Wayanad to facilitate movement of heavy machinery and ambulances. A Bailey bridge is a type of modular bridge with pre-built parts for quick assembly. It originated during World War 2 and was invented by Donald Coleman Bailey. The bridge was first used by Allied armies in Italy and northwest Europe in 1943-45. It was praised by British Field Marshal Lord Bernard Law Montgomery as crucial to winning the war. The bridge works by using pre-fabricated parts, including light steel panels and pins for guardrails. It has advantages such as quick assembly and disassembly, and no heavy installation equipment needed. The Bailey bridge has been used in various Indian contexts, including the 1971 war with Pakistan and in Uttarakhand after flash floods.
- India has committed \$85 million to support the WHO Global Traditional Medicine Centre over 10 years. The centre aims to strengthen the evidence base for traditional medicine and provide data and evidence on policies, practices, products, and public use. The commitment is part of a \$250 million investment by India in 2022 and supports the centre's workplan, interim premises, and new building. The centre enhances WHO's capacities on traditional medicine, promotes global collaboration, and is included in WHO's Investment Round (2025-2028). The WHO Global Traditional Medicine Centre is located in Jamnagar, Gujarat, India, and was founded in April 2022. The centre's primary objectives include harnessing the potential of traditional medicine, enhancing global community health, and building policies and standards.
- The 216th flower show, themed around the life and works of Dr. BR Ambedkar, will be held from August 8 to 19, featuring a stunning display of 27 lakh flowers, including nine lakh cut varieties, with a total cost of Rs 2.8 crore
- One youth died of amoebic meningoencephalitis in Thiruvananthapuram and three others tested positive for the infection after bathing in a waterbody. It is a rare and deadly brain infection caused by amoebas, specifically *Naegleria fowleri*
- Alongside classic summer Olympic events like gymnastics and beach volleyball, a new sport will take the stage in Paris in 2024. Breakdancing, officially called breaking, will be the only new sport to debut during the Paris Olympics. Several sports that were featured for the first time during the Tokyo Games will also return.
- The Thadou Students' Association (TSA) has established a global platform to address critical issues affecting the Thadou community, an indigenous ethnic group in Manipur, India, with a population of approximately 200,000, who predominantly



practice Christianity, speak the Thadou language, and engage in subsistence activities like animal husbandry, cultivation, hunting, and fishing, while facing challenges in education, employment, and cultural preservation

- The Indian Air Force (IAF) has cleared the production of 200 Astra air-to-air missiles, designed and developed by DRDO and manufactured by BDL, for its Su-30 and LCA Tejas fighter aircraft, boasting advanced features like beyond-visual-range capability, hypersonic speed, active radar homing, and high single-shot kill probability, making it one of the best in its class globally.
- International Clouded Leopard Day falls on August 4
- The yen carry trade, a trading strategy involving borrowing at a low interest rate in Japan and investing in higher-yielding assets abroad, contributed to the recent sharp decline in global stock markets, as investors borrowed yen at zero interest rates and invested in foreign assets, such as stocks and bonds, seeking higher returns, but were forced to unwind their positions as markets fell, exacerbating the decline
- The Indian Institute of Science (IISc) will train 2,100 tribal students in semiconductor technology over three years, providing basic training to 1,500 and advanced training to 600 students, under a program initiated by the Ministry of Tribal Affairs and conducted by IISc's Centre for Nano Science and Engineering (CeNSE)
- The Union Health Ministry has decided to do away with the current regulatory practice of clinical trials for imported medicines if the manufacturers receive approvals in the USA, UK, Japan, Australia, Canada and EU for their new drugs
- China has discovered the world's first major shallow gas field in the disputed South China Sea, estimated to contain over 100 billion cubic meters of natural gas, which is expected to escalate tensions in the region, where multiple countries have competing claims, and is a significant find for China's natural gas reserves and production.
- BBMP's Suraksha 75 project aims to redevelop 75 traffic junctions to improve pedestrian safety and traffic flow at a cost of ₹100 crore. The project was initiated in 2023 in collaboration with the World Resources Institute. The objectives are to improve pedestrian safety, streamline traffic flow, and reduce congestion. Three junctions have been transformed as part of a pilot project. Design partners and urban architects were brought on board to focus on safety elements like raised pedestrian crossings and proper road markings. Multiple stakeholder workshops were conducted to review draft DPRs. Interventions at each junction are unique and pragmatic. The aim is to complete work at all 75 junctions by end of 2024.

- QCI Surajya Recognition & Ranking Framework launched to drive excellence among states for a Viksit Bharat + Categorized under four pillars: Shiksha (Education), Swasthya (Health), Samriddhi (Prosperity), and Sushasan (Governance) + Aims to enhance quality of education, guarantee superior healthcare, drive economic prosperity, and ensure transparent governance + Uttar Pradesh leads in Shiksha Rankings, Chhattisgarh and others excel in Swasthya Rankings + Gujarat, Karnataka, and Rajasthan lead in Samriddhi Rankings
- The Union Health Ministry has released the first-ever SOPs for the transport of human organs + Aims to maximize utilization and streamline processes for organ transport + Guidelines cover air, road, railways, and waterways for organ transport + Priority take-off and landing for flights carrying organs, and green corridors for seamless road transport + Nodal officer from police department to handle issues related to green corridor creation + Priority transit for metro carrying live human organs, with security staff escorting the clinical team + Guidelines for transport of organs through ports via shipping also issued + SOPs developed in consultation with NITI Aayog, concerned ministries, and transplant professionals.
- Reserve Bank of India keeps key policy interest rates unchanged for 9th time in a row + Repo rate remains at 6.5%, SDF rate at 6.25%, MSF rate and Bank Rate at 6.75% + RBI aims to bring headline retail inflation down to 4% on a sustainable basis + CPI inflation for 2024-25 projected at 4.5%, assuming a normal monsoon + Headline inflation increased to 5.1% in June 2024, driven by food component + India's GDP projected to grow by 7.2% in current financial year + Real GDP growth for first quarter of 2025-26 projected at 7.2% + MPC decides to maintain status quo with a majority of 4:2 to ensure inflation aligns to medium-term target.
- WHO releases list of Priority Pathogens and Emerging Threats, including COVID-19, Sarbecovirus, Nipah, Ebola, and others. Over 30 pathogens identified as priorities for surveillance and medical countermeasures. WHO's Pathogens Prioritisation Report provides framework for epidemic and pandemic research preparedness. Result of work by over 200 scientists from 54 countries, evaluating 28 viral families and one core group of bacteria. Priority pathogens list includes viruses and bacteria that cause plague, cholera, pneumonia, dysentery, and non-typhoidal salmonella. Regional priorities vary, with Southeast Asia focusing on bacterial pathogens like cholera and dysentery. Surveillance and monitoring are crucial for tracking changes in priority pathogens. WHO aims to enhance global preparedness for epidemics and pandemics through this report
- The High Court of Karnataka has struck down the 2023 amendment to the Co-operative Societies Act, ruling that the state cannot take away the right of a co-operative society to recruit, transfer, and initiate disciplinary action against its

employees, as it violates the fundamental right to form and manage a co-operative society under Article 19(1)(c) of the Constitution.

- The Karnataka government has decided to reserve 25% of seats in deemed-to-be medical universities as government quota seats, as per PGET rules, despite these universities following UGC norms. This decision applies to 70 medical colleges, including 9 deemed-to-be universities, with 12,095 UG seats and 1,650 deemed-to-be university seats. Most managements have agreed to offer government quota seats after meetings with the Principal Secretary of Medical Education. Non-compliance may result in withholding of Essentiality Certificate and Feasibility Certificate, required for medical colleges to function
- CSIR-NBRI has developed 'NBRI-Gout Out', a herbal product to address gout. Gout is a common and complex form of arthritis that can affect anyone. It results from increased uric acid in blood serum, affecting men more often. Women tend to have lower uric acid levels, making them less prone to gout. Obesity, certain medicines, and purine-rich foods/drinks can increase uric acid levels. Alcohol and sugary drinks are examples of purine-rich substances. 'NBRI-Gout Out' combines five medicinal plants to help manage gout. This herbal product offers a natural solution to alleviate gout symptoms.
- Bangalore University (BU) is enhancing employability skills of its students by introducing new-age courses like Data Science, Machine Learning, and Full Stack Development, and partnering with Wadhvani Foundation to integrate AI-driven skills into the curriculum, aiming to improve career readiness and sustainment.
- Kerala's 'Degree for all' initiative, supported by IGNOU, offers graduation education to anyone regardless of age, empowering individuals, especially women, to pursue higher education, with over 600 enthusiasts, mostly women, already enrolled, proving age is no barrier for education.
- Entomologists from ATREE, Bengaluru, discovered three new edible bug species in Northeast India. The species, *Coridius adii*, *Coridius esculentus*, and *Coridius insperatus*, are traditionally consumed by indigenous people. The discovery highlights the need to document and protect traditional knowledge of insects. Over 500 species of edible insects were documented, including grasshoppers, caterpillars, and beetles. The *Coridius* bugs feed on plant sap and are found in Arunachal Pradesh. Entomophagy, the practice of eating insects, is a tradition and sustenance in Northeast India. The study found potential pharmaceutical applications and raised concerns about side effects
- Prime Minister Narendra Modi released 109 high-yielding, climate-resilient, and biofortified seed varieties of agricultural and horticultural crops to enhance farm

productivity and farmers' income, developed by the Indian Council of Agricultural Research (ICAR).

- Karnataka wins 40th Sub-junior and 50th junior national aquatic championships in Bhubaneswar
- Biotechnologists at Guru Gobind Singh Indraprastha University have discovered a significant variation in nitrogen-use efficiency among popular Indian rice varieties, which can be utilized to develop high-yielding, nitrogen-efficient varieties, reducing fertilizer expenditure and environmental pollution. Cereals consume two-thirds of all urea in India, led by rice. Poor nitrogen-use efficiency (NUE) wastes N (nitrogen)-fertilizers worth ₹1 trillion a year in India and over \$170 billion per year globally
- A team of climbers from the Himalayan Mountaineering Institute (HMI) in Darjeeling scaled Uhuru Peak, the highest peak of Mt. Kilimanjaro in Tanzania, recently.
- CPCRI issues advisory to control Koleroga disease in arecanut plantations, recommending spraying of 1% Bordeaux mixture or Mandipropamid 23.4% SC on all bunches, improving drainage, removing diseased nuts, and applying dolomite/lime and fertilizers in September to mitigate the impact of the disease prevalent due to recent rains. Koleroga/Fruit Rot is caused by a number of different fungi, bacteria, and viruses, and it can be difficult to prevent and treat. Continuous heavy rainfall coupled with low temperature (20 to 23 °C), high relative humidity (>90%), and intermittent rain and sunshine hours favour the occurrence of fruit rot.
- Recently, a new flowering plant species from 'ceropegia' genus has been discovered inside the Vishalgad premises in Maharashtra and named it as Ceropegia Shivrayiana.
- Recently, Indian Air Force and Royal Malaysian Air Force participated in Exercise Udara Shakti 2024. It is the joint air exercise was conducted in collaboration with the Royal Malaysian Air Force (RMAF) at Kuantan, Malaysia. It was aimed at bolstering operational efficiency, technical experts of both Air Forces engaged in exchange of their maintenance practices
- The Indian Army and the Sri Lankan Army will kick off their joint exercise, "Mitra Shakti," at Maduruoya in Sri Lanka's Southern Province.
- Prime Minister Narendra Modi released 109 climate-resilient crop varieties, including two drought-tolerant cardamom varieties, IISR Manushree and IISR Kaveri, developed by ICAR-IISR, which can be cultivated in Karnataka and Kerala.

- The Ministry of Textiles has launched the Kasturi Cotton Bharat program, a QR code certification technology-based initiative to ensure quality and traceability of cotton, with 343 modernized ginning units registered and 100 bales of Andhra Pradesh cotton certified so far.
- Neelakurinji, a purplish flowering shrub, has been listed as a threatened species on the IUCN Red List. It blooms once in 12 years and is endemic to the Western Ghats. The species is vulnerable due to habitat loss, invasive species, infrastructure development, and climate change. There are 34 subpopulations spread across 14 ecoregions in southwest India. Neelakurinji has cultural significance, with the Nilgiri Hills named after its blue flowers. The IUCN Red List is a comprehensive inventory of global conservation status.
- The World Meteorological Organization (WMO) has initiated a new project to enhance weather, water, ice, and climate information in the Arctic and Antarctic regions, focusing on improving observation systems, Earth system models, and forecasting services, addressing the rapid temperature rise impacting Indigenous populations and local communities; running from 2024 to 2028, this project is part of WMO's World Weather Research Programme (WWRP), led by the Norwegian Meteorological Institute and University of Canterbury, and faces challenges like complex physical processes and understanding user needs, while the WMO itself is a global organization with 193 member countries and territories dedicated to advancing meteorology and hydrology cooperation.
- The Union Cabinet has launched the Clean Plant Programme (CPP) to provide affordable clean plant material to all farmers, focusing on engaging women farmers and addressing diverse agro-climatic conditions across India. It will establish nine advanced Clean Plant Centers (CPCs) with diagnostic facilities, targeting specific fruits and regions, and includes a strong certification system and regulatory framework. The program ensures accountability and traceability, supports large-scale nurseries and infrastructure, and will be implemented by the National Horticulture Board and ICAR. By prioritizing women farmers and regional disparities, the CPP aims to enhance food security and farmer prosperity.
- India will introduce the BPaL regimen, an advanced treatment for multi-drug-resistant tuberculosis (MDR-TB), recommended by WHO 20 months ago. BPaL combines bedaquiline, pretomanid, and linezolid to target drug-resistant TB, especially pre-XDR TB or MDR pulmonary TB, with a shorter 26-week treatment duration compared to traditional 18-month regimens. A phase-3/4 trial with 400 participants demonstrated an 85%+ cure rate, surpassing the 60-65% rate of conventional treatments. BPaL is generally safe, with manageable side effects like linezolid-induced neuropathy and reduced hemoglobin and platelet counts.

Ongoing optimization of linezolid dosing aims to minimize side effects while maintaining effectiveness. Successful implementation of BPAL could revolutionize DR-TB treatment globally, enhancing adherence and outcomes, with further assessments needed for long-term efficacy and potential global standardization.

- The central government announced the first-ever Rashtriya Vigyan Puraskar (RVP) 2024 awards to recognize outstanding contributions in science and technology, with Govindrajan Padmanaban, a noted biochemist, receiving the Vigyan Ratna, India's highest science award, which honors lifetime achievements in the field; other awards include Vigyan Shri for distinguished contributions, Vigyan Yuva for young scientists, and Vigyan Team for notable collective contributions; the RVP aims to recognize significant achievements in various domains, including physics, chemistry, and biological sciences, with the selection committee led by the Principal Scientific Adviser choosing the awardees, and the awards honor scientists, technologists, and innovators from any sector, including those abroad benefiting Indian communities.
- The Bengaluru Charter, adopted at the International Conference on Human-Elephant Conflict Management-2024, outlines a 13-point plan to mitigate human-wildlife conflict, including formulating a Standard Operating Procedure (SOP) for minimizing conflict, tracking elephant herds, providing compensation for crop losses, and enhancing inter-state coordination to address human-elephant conflicts
- Bharatanatyam veteran Yamini Krishnamurthy died on 3rd August 2024 at the age of 84. Krishnamurthy was awarded the Padma Shri at just 28 in 1968, followed by the Padma Bhushan in 2001, and the Padma Vibhushan in 2016. She also received the Sangeet Natak Akademi Award in 1977
- NASA's NEOWISE telescope, launched in 2009 as the Wide-Field Infrared Survey Explorer (WISE), has concluded its mission after over a decade. Initially designed to survey the sky in infrared, it detected asteroids, stars, and faint galaxies. After its primary mission ended in February 2011, NEOWISE was repurposed in December 2013 to study near-Earth objects (NEOs) and other celestial bodies. Originally orbiting at 310 miles, it now sits 217 miles above Earth due to increased solar activity. During its mission, NEOWISE discovered over 158,000 minor planets, including 34,000 new ones. Its data has been crucial for understanding asteroid numbers, orbits, and compositions, and led to the discovery of the first known Earth Trojan asteroid.
- India's first round-the-clock grain ATM, Annapurthi Grain ATM, has been launched in Odisha's Mancheswar in Bhubaneswar. The ATM is a result of a partnership between the Odisha government and the World Food Programme. It uses

biometric authentication to dispense grain to beneficiaries, who can input their Aadhar or Ration card number to access their entitled grain. The machine has an error rate of 0.01% and can dispense up to 50 kilograms of grain in five minutes. The ATM is designed and developed by the World Food Programme India and offers universal access to anyone with a Public Distribution System ration card. It is energy efficient and can be connected to solar panels for automatic refilling. The ATM dispenses rice and wheat 24/7, reducing waiting time by 70% and eliminating long queues. It also ensures accurate weight and prevents potential cheating, reducing issues related to theft and black marketing.

- Madhya Pradesh has commissioned the largest floating solar project in central and north India, located at Omkareshwar, District Khandwa. The project generates 90 MW of energy and is developed on the backwaters of Omkareshwar dam. It is the biggest solar park in India and the largest floating solar project in central and north India. The project was developed under the Union Ministry of Renewable Energy and executed by SJVN Green Energy Limited. The project cost is Rs 646 crores and is projected to generate 196.5 million units of electricity in the first year. Over 25 years, the project will generate 4,629.3 million units of electricity. The project reduces 2.3 lakh tons of carbon emissions and contributes to India's mission of net zero carbon emissions by 2070. It also helps in water conservation by reducing water evaporation.
- India has successfully proposed names for three underwater geographical structures in the Indian Ocean, which have been awarded by the International Hydrographic Organization (IHO) and UNESCO's Intergovernmental Oceanographic Commission (IOC). The three structures are Ashoka Seamount, Chandragupt Ridge, and Kalpataru Ridge, named after Indian scientists and rulers. Previously, four structures were named after Indian scientists and researchers, including Raman Ridge, Panikkar Seamount, Sagar Kanya Ridge, and DN Wadia Guyot. The Indian Ocean Research Programme, undertaken since 2004 by the National Centre for Polar and Ocean Research (NCPOR), Goa, aims to study various aspects of the ocean. The newly named structures were discovered by Russian and Indian research vessels between 2012 and 2020. The Ashoka Seamount, Kalpataru Ridge, and Chandragupt Ridge are oval-shaped, elongated, and oval-shaped, respectively, and cover areas ranging from 180 sq km to 675 sq km. UNESCO's Intergovernmental Oceanographic Commission works to improve ocean management, enable member states, and coordinate ocean-related programmes. India has been a member of the commission since 1946.
- The Union Ministry of Education has released the NIRF Rankings 2024, with IIT Madras topping the overall category. IIM Ahmedabad has been ranked as the best

B-school in India, while IISc Bengaluru has been ranked as the best university. NLSIU Bengaluru has retained its top spot in the law category. The top engineering colleges include IIT Madras, IISc Bengaluru, and IIT Bombay. The top medical colleges include AIIMS, New Delhi, PGIMER Chandigarh, and Christian Medical College, Vellore. The top colleges include Hindu College, Delhi, Miranda House, Delhi, and St. Stephen's College, Delhi. The NIRF rankings are based on parameters such as teaching, learning, and resources, research and professional practice, graduation outcomes, outreach and inclusivity, and perception. The Ministry of Education aims to introduce 'sustainability rankings' from next year.

- Tarang Shakti is India's first multinational air exercise, involving 30 nations in its maiden show. The first phase between Aug 6 and 14 witnessed the participation of German, French, British, and Spanish air forces. The second phase will kick off at Jodhpur on August 29 in the presence of the US Air Force and Australian Air Force, among others. It is now made biennial
- India successfully conducts maiden flight test of 1,000 kg class glide bomb "Gaurav" – made by DRDO - from Su-30 MK-I fighter jet, hitting target with pinpoint accuracy off Odisha coast, marking a major milestone in indigenous defence technology development.
- Governor of Karnataka Thawarchand Gehlot bestowed the honorary doctorate awarded by Visvesvaraya Technological University (VTU), Belagavi, and the University of Agricultural Sciences, Dharwad, on ISRO Chairman S. Somnath.
- The Union Minister of Commerce & Industry introduced the Diamond Imprest Licence at the 40th India International Jewellery Show 2024, allowing eligible exporters to import up to 5% of their average turnover in cut and polished diamonds, with a 10% value addition requirement. This licence, revived from the 2002 and 2009 foreign trade policies, mandates that imported diamonds be used by the importer and not transferred post-export. It aims to level the playing field for Indian MSME diamond exporters, prevent investment flight, and create more employment opportunities.
- SK Kanta awarded D Devraj Urs award. The award, instituted by the State government, carries a cash prize of Rs one lakh and citation recognition of excellence in their respective fields
- The Appointments Committee of the Cabinet approved the appointment of Culture Ministry Secretary Govind Mohan as the next Union Home Secretary.
- Antibiotics, especially the broad-spectrum ones, can wipe out a large portion of the gut bacteria, a disruption known as dysbiosis
- The Union Minister for Jal Shakti launched Version 2.0 of the 'FloodWatch India' mobile application, developed by the Central Water Commission (CWC), which



provides real-time information on flood situations and forecasts for up to 7 days, utilizing advanced technologies like satellite data analysis, mathematical modeling, and real-time monitoring, with features including: Readable and audio broadcasts in English and Hindi + Real-time flood monitoring and state-wise/basin-wise flood forecasts + Flood advisories for up to 7 days and forecasts at the nearest location + User-friendly interface with dropdown menus for selecting specific stations, states, or basins

- Former IAS officer Rakesh Singh to Karnataka head dam safety panel
- Dr. Ram Narain Agarwal, 84, an eminent aerospace scientist known as the 'Father of Agni Missiles,' passed away in Hyderabad due to age-related issues. Born in Jaipur, he was instrumental in developing India's Agni long-range missiles and served as the first program director of the Agni missile program. A prominent DRDO scientist, he was honored with the Padma Shri in 1990 and the Padma Bhushan in 2000 for his contributions to missile technology.
- BBMP plans to introduce touchscreen menu boards with face recognition software in Indira Canteens to ensure transparency and prevent order inflation. The system, tested successfully in six canteens, will be expanded to 170 canteens across eight zones in Bengaluru. It will also provide data on daily business, helping the civic body plug leakages and streamline the ordering process.
- The Government of India has issued operational guidelines for the "Model Solar Village" scheme, a component of the PM-Surya Ghar: Muft Bijli Yojana, aiming to promote solar energy adoption and enable village communities to become self-reliant in meeting their energy needs, with a total financial outlay of ₹800 crore and eligibility criteria including revenue villages with a population size above 5,000.
- The Union government launched the Jiyo Parsi Scheme portal, under the Ministry of Minority Affairs, to address the declining Parsi population in India by providing medical assistance, financial support for child care, and advocacy programs. This unique Central Sector Scheme, introduced in 2013-14, focuses on structured interventions to stabilize the Parsi community's population through scientific protocols and awareness initiatives.
- India has added three new wetlands—Nanjarayan Bird Sanctuary, Kazhuveli Bird Sanctuary - Both in Tamilnadu , and Tawa Reservoir in MP —to its list of Ramsar sites, bringing the total to 85. Tamil Nadu now has 18 Ramsar sites, while Uttar Pradesh has 10. The Ramsar sites in India cover 13,58,068 hectares, accounting for 10% of the country's total wetland area. Ramsar site designation, under the convention signed in 1971 and joined by India in 1982, ensures conservation, protection from encroachment, and boosts tourism and international visibility.

- Experts attribute the Wayanad landslide to a "dam burst effect" triggered by over 570 mm of rainfall in three days, leading to a devastating landslide on July 30. The disaster resulted in 231 bodies and 221 body parts being recovered, with 118 people still missing. Climate change is blamed for altered rainfall patterns. An expert committee has assessed the affected areas, warning against habitation in danger zones, while geological surveys are underway to study the damming effect and soil stability. Madhav Gadgil recommends adopting Goa's homestay tourism model for rehabilitation in Wayanad.
- The Union government launched the National Pest Surveillance System (NPSS) powered by AI, allowing farmers to photograph infested crops or insects and receive expert advice on pest control, reducing dependence on pesticide retailers and promoting scientific pest management. NPSS aims to curb excessive pesticide use, ensure accurate diagnosis, and build farmer confidence, benefiting 14 crore farmers by connecting them with scientists. The technology will be expanded through outreach programs following successful pilot projects.
- The World Health Organization (WHO) confirmed Sweden's first case of mpox, a viral zoonotic disease caused by the monkeypox virus, marking the first spread outside Africa. Mpox, with two known types (Clade I in Central Africa and Clade II in West Africa), was first recorded in humans in 1970 in the Democratic Republic of the Congo (DRC). Symptoms include skin rash, fever, headache, and swollen lymph nodes, with transmission occurring through contact with infected body fluids or lesions. Early supportive care is essential for symptom management and complication prevention.
- Indian astronomers have discovered a new correlation using 100 years of data from the Kodaikanal Solar Observatory, enabling predictions of the upcoming solar cycle's amplitude. This new precursor method, based on the width of supergranular cells during the solar cycle minimum, offers a simple yet effective approach to space weather forecasting. Accurate predictions are essential for protecting communication systems, power transmission, spacecraft electronics, and astronaut safety from the impacts of space weather.
- India's second indigenously built nuclear-powered submarine, INS Arighat, is ready for commissioning, featuring a pressurized water reactor, seven-blade propeller, and a maximum submerged speed of 24 knots. Armed with nuclear-capable K-4 and K-15 SLBMs, it is a critical component of India's nuclear triad, enhancing strategic capabilities and national security. Constructed at the Indian Navy's Ship Building Centre in Visakhapatnam, it also includes safety measures like standby auxiliary engines and a retractable thruster.

- St Martin's Island, Bangladesh's only coral island in the Bay of Bengal, is 7.3 km long and 3.6 meters above sea level. It features reefs, a sea turtle breeding ground, and has a history of settlement by Arab merchants and later British annexation. It was originally part of the Teknaf peninsula, submerged, and resurfaced 450 years ago. The island is geographically significant near the Bangladesh-Myanmar border.
- The government of Karnataka has decided to give all its employees new ID tags bearing yellow and red - colours of the state's flag - on the occasion of Karnataka celebrating 50 years of its renaming.
- ISRO successfully completed the development of the Small Satellite Launch Vehicle (SSLV) with its third flight, which precisely injected an Earth Observation Satellite (EOS-08) into orbit; ISRO now plans to transfer SSLV technology to the industry for serial production, enhancing commercial launch capabilities.
- Kempegowda International Airport (KIA) in Bengaluru has become the first in Asia to receive Airports Council International's (ACI) highest Level 5 accreditation for its significant achievements in reducing greenhouse gas emissions by 95.6%, transitioning to 100% renewable electricity, and implementing sustainable initiatives, with the accreditation effective from May 5, 2024.
- On August 12, 2024, the world marked the 75th anniversary of the adoption of the Geneva Conventions, established in 1949. These four treaties, comprising over 400 articles, set forth detailed rules for the humane treatment of prisoners, protection of hospitals and medical staff, provision of humanitarian aid, and prohibition of torture, rape, and sexual violence during armed conflicts. The Conventions, formalized by the United Nations, focus on safeguarding non-combatants and prisoners of war, with additional protocols introduced in 1977 and 2005. The conventions include protections for wounded soldiers, prisoners of war, and civilians, including those in occupied territories.
- Rotary Bangalore Midtown will donate a mobile science laboratory, designed by Scikraft, to a government school in Begur, aiming to enhance science education quality
- Farmers in the coconut belt of Tumakuru district report a pest or disease affecting thousands of trees, resembling either leaf blight disease caused by the Pestalotiopsis palmarum fungus, which affects all parts of the leaf, or an infestation by the black-headed caterpillar.
- French film legend Alain Delon has died aged 88
- Netherlands' "I'm not a Robot" directed by Victoria Warmerdam won the best international film award at the 14th Bengaluru International Short Film Festival (BISFF) held at Suchitra Film Society, Bengaluru.

- The Bruhat Bengaluru Mahanagara Palike (BBMP) has introduced new leak-proof trucks to transport mixed waste to landfills, replacing older compactors to prevent leakage and reduce foul odors, with plans to cut the number of waste transport vehicles in the city from 600 to 300, despite some resistance from contractors.
- Defence Minister Rajnath Singh inaugurated a new Maritime Rescue Coordination Centre (MRCC) of the Coast Guard in Chennai. The MRCC would facilitate enhanced coordination for rescue of mariners and fishermen in distress at sea, a release said. It has been installed with the latest equipment for distress monitoring through terrestrial and satellite systems
- The Union Minister of Port Shipping and Waterways launched the Standard Operating Procedure (SOP) for the Green Tug Transition Program (GTTP), an initiative under the 'Panch Karma Sankalp' launched on May 22, 2023, aimed at replacing conventional fuel-based harbour tugs in Indian Major Ports with green tugs powered by cleaner alternative fuels. Phase 1 of GTTP will begin on October 1, 2024, and run until December 31, 2027, involving four Major Ports (Jawaharlal Nehru, Deendayal, Paradip, and O. Chidambaranar), which will procure or charter at least two green tugs each, based on SSC specifications, with oversight from the National Centre of Excellence in Green Port & Shipping (NCoEGPS). India aims to become a 'Global Hub for Green Ship' building by 2030, with tugs eventually transitioning to non-fossil fuels like Methanol, Ammonia, and Hydrogen.
- Rare species of owl species *Glyptobasis dentifera* has been rediscovered after 75 years from Kerala by researchers.
- Indian students won multiple medals at the 17th International Earth Sciences Olympiad (IESO) held in Beijing (August 08-16, 2024). The IESO, established in 2003, aims to raise earth sciences awareness through global competition. India has participated since 2007, hosting the 10th edition in Mysore and supports its students via the Indian National Earth Science Olympiad (INESO) under the REACHOUT and PRITHVI schemes.
- Karnataka leads the nation with 5,765 public EV charging stations, the highest in India, driven by strong state policies, the FAME scheme, BESCOCOM's investments, and public-private partnerships; Bengaluru Urban accounts for 85% of these, and the state plans to add 2,500 more stations under a public-private partnership, with an additional Rs 35 crore allocated for 100 charging centers in collaboration with power companies.
- Geological Survey of India (GSI) experts discovered marine whale fossils within a limestone block in Meghalaya's South Garo Hills, marking the first possible occurrence in the region and expanding their known Indian range from Western India and the Himalayas. The fossils, found in the Siju Limestone Member, date

back to the Eocene epoch, crucial for understanding the evolution of marine mammals. Preliminary studies of the bone fragments revealed distinct spongy textures and potential osteocyte-like structures, highlighting the site's paleontological significance within the Paleogene sedimentary sequences of the Jaintia Group.

- In the latest AAI Customer Satisfaction Index survey, Belagavi and Hubballi airports saw significant drops in their rankings, moving from top positions to 11th and 16th, respectively. These airports received negative scores on several parameters, including value for money, parking, and hygiene. Meanwhile, Mysuru and Kalaburagi airports improved their standings, with Mysuru rising to 13th place and Kalaburagi to 12th. The survey, covering 58 airports, evaluated 33 parameters, with Rajahmundry airport securing the top spot.
- The state government appointed retired IAS officer Rakesh Singh to the post of chairperson of the Karnataka Real Estate Regulatory Authority (K-RERA), which fell vacant in May this year. Singh had also superannuated in May-end after a long stint as additional chief secretary (ACS) of the Urban Development department.
- Namma Metro and BMTc have opened their data under the General Transit Feed Specification (GTFS) to enhance public transport solutions in Bengaluru. As part of the 'Enroute: A Mobility-as-a-Service Challenge,' apps like TummoC and Namma Yatri will utilize this data to create integrated transport solutions, including real-time tracking, journey planning, and unified ticketing. This initiative positions Bengaluru alongside global cities in using GTFS data to improve urban mobility.
- Bangalore Electricity Supply Company (BESCOM), in collaboration with German companies GIZ and Nunam, is setting up India's first battery-powered EV charging station near Kempegowda International Airport. This pilot project utilizes second-life batteries to store solar energy, allowing 24 vehicles to charge simultaneously. The station, powered by a rooftop solar installation, is 80% complete and will open soon. Karnataka leads the country with the highest number of public EV charging stations, with 4,462 of the state's 5,765 stations located in Bengaluru Urban district.
- Karnataka has set a deadline of December 2027 to treat 173.07 lakh tonnes of legacy waste, allocating Rs 530.70 crore, with 19.3% of waste cleared in BBMP areas and 4.63% in urban local bodies, aiming to remediate landfills and remove waste, as ordered by the National Green Tribunal, with various projects in progress, including bioremediation, biomining, and tenders called, to address the major source of water and air pollution.
- Karnataka, home to the country's largest elephant population, has lost over 280 elephants in three years, with 30+ deaths due to electrocution, including recent

cases in Chikkamagaluru and Nagarahole, amidst a total of 82, 72, 97, and 37 elephant deaths in consecutive years, with six poaching cases, and 37 deaths so far in 2024-25, highlighting a growing concern for elephant conservation and safety in the state.

- The Appointments Committee of the Cabinet (ACC) approved the appointment of Satish Kumar as the Chairman and CEO of Railway Board
- The Central Drugs Standard Control Organisation has granted Siemens Healthineers approval to manufacture RT-PCR testing kits for Mpox detection at their Vadodara unit, with a capacity of one million kits annually. These kits provide test results within 40 minutes, significantly faster than traditional methods, facilitating quicker responses. The IMDX Monkeypox Detection RT-PCR Assay targets two distinct viral genome regions, covering multiple strains and fitting seamlessly into existing lab workflows without needing new instruments. Clinically validated by the ICMR-NIV Pune, the assay shows 100% sensitivity and specificity, marking a significant step in India's efforts to combat Mpox.
- Typhoon Shanshan has intensified into a "very strong" storm as it approaches Japan's southwestern coast, prompting warnings from weather agencies.
- The Zoological Survey of India (ZSI) recently discovered two new species of spiders named *Mimetus spinatus* and *Mimetus parvulus* from the southern Western Ghats.
- The Cabinet Committee on Economic Affairs (CCEA) approved the establishment of 12 new industrial cities across 10 states with an investment of Rs 28,602 crore under the National Industrial Corridor Development Programme (NICDP). The cities will be located in Uttarakhand, Punjab, Maharashtra, Kerala, Uttar Pradesh, Bihar, Telangana, Andhra Pradesh, and Rajasthan.
- Natasha Chethan won women's under 21 title at the World Junior Snooker Championship at the KSBA in Bengaluru
- Bengaluru-based AlphaMers Ltd. has partnered with ISRO's Space Application Centre to develop an AI model for identifying and profiling marine pollution, particularly plastics and oil spills, using remote sensing technology. This collaboration aims to fine-tune AI algorithms with ground-truth data from AlphaMers' floating trash barriers deployed across various Indian cities.
- The Karnataka government is set to implement the "Code Grey Protocol" in medical colleges to enhance the safety of women staff. This initiative includes mandatory personal safety devices with self-alarms for women, recruitment of ex-servicemen for security, continuous security audits, and 24/7 toll-free helplines. The protocol is modeled after Kerala's system and aims to prevent incidents like the recent tragic events in Kolkata. Additionally, stress management and mental health support for women staff will be prioritized.

- Cyclone Asna has formed over the Kutch coast in Gujarat and adjoining areas of Pakistan. The cyclonic storm — a rare land-originating one in August and headed to the Arabian Sea — is expected to move further away from the western coast in the next 48 hours. This is the first cyclonic storm in the Arabian Sea in August since 1976. The name Asna, meaning “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), according to IMD.
- Mastercard, a global technology in the payments industry announced the worldwide launch of its new Payment Passkey Service. new Payment Passkey Services use device-based biometric authentication methods such as fingerprints or facial scans. It will provide customers with a non-OTP-based solution for transaction management.
- The President of Ukraine recently announced that Ukraine has successfully tested its first ballistic missile, Hrim-2, manufactured by the country’s defence industry.
- Recently, the Department of Pension and Pensioners’ Welfare (DoPPW) organised 7th Anubhav Awards ceremony for recognising the contribution made by the Central Government employees while in service.
- Indian Railways plans to adopt nuclear energy by 2030 as part of its green initiative to achieve net-zero carbon emissions, starting with nuclear-powered train movements on circuits served by the Nabinagar Thermal Power Plant. These trains will utilize portable nuclear reactors, potentially thorium-based for lower radiation risks, to generate steam that powers electric turbines for train propulsion, and are part of a broader strategy to increase reliance on non-fossil fuel sources.
- The Pacific Islands Forum (PIF), an intergovernmental organization established in 1971 with 18 member states from the Pacific region, including Australia, New Zealand, and Fiji, aims to foster economic growth, political governance, regional cooperation, and security, with a vision for a resilient Pacific region. At its annual meetings, where decisions are made by consensus and implemented by the PIF Secretariat, members prioritize issues like climate action, exemplified by their efforts to fund the Pacific Resilience Facility (PRF), which is currently \$380 million short of its \$500 million target.
- Typhoon Shanshan is a "very strong" storm in Japan's southwestern coast
- A recent study published in the journal IEEE Transactions on Geoscience and Remote Sensing reveals that Chile's Atacama salt flat is sinking at 1 to 2 centimetres per year due to Lithium brine extraction. Lithium brine extraction is a process where salt-rich water is pumped to the surface and into evaporation ponds to extract lithium. This method is prevalent in salt flats like Chile’s Atacama, one of the world’s largest lithium sources.

- Sonoluminescence - It is a fascinating phenomenon where small gas bubbles in a liquid emit a brief flash of light when exposed to intense sound waves. This phenomenon was first observed in 1934 by two German engineers studying sonar, a method of using sound waves for navigation similar to how bats operate.
- A new dinosaur species named *Alpkarakush kyrgyzicus* has been recently discovered, which walked the region of Kyrgyzstan in Central Asia around 165 million years ago.
- The Union Minister for Environment, Forest and Climate Change recently announced three new Ramsar sites, bringing India's total to 85. The new sites include Nanjarayan Bird Sanctuary in Tamil Nadu, a crucial habitat for migratory birds from the Central Asian Flyway; Kazhuveli Bird Sanctuary in Tamil Nadu, a brackish wetland vital for endangered species and flood control; and Tawa Reservoir in Madhya Pradesh, a key wintering ground for migratory birds and an important water source within the Satpura Tiger Reserve.
- Recently, a 2,492-carat diamond, the second-largest ever found, has been unearthed in the Karowe Diamond Mine, northeastern Botswana, by Canadian company Lucara Diamond.
- *Gongronema sasiharanii*, a new species of plant, was recently discovered from Pampadum Shola National Park in Kerala.
- The National Disaster Management Authority (NDMA) has identified 189 "high-risk" glacial lakes for mitigation to reduce the threat of Glacial Lake Outburst Floods (GLOFs). Glacial lakes, formed by meltwater from glaciers, are categorized by ISRO into four types: moraine-dammed, ice-dammed, erosion-based, and others. These lakes typically form when glaciers retreat, leaving depressions filled by meltwater. While they are vital freshwater sources for rivers, they also pose significant risks, particularly GLOFs, which occur when natural dams fail, releasing large volumes of water and causing severe downstream flooding.
- An international astronomical group has proposed a lunar time standard to address time discrepancies caused by the Moon's unique gravitational effects, ensuring accurate synchronization for future lunar missions. This need arises because atomic clocks, the most precise timekeeping devices, measure time using atomic vibrations (e.g., cesium-133) and are crucial for applications like GPS, telecommunications, and scientific research. The Moon's lower gravity causes time to tick slightly faster than on Earth, leading to potential issues in mission-critical operations, such as spacecraft docking and data transfers, necessitating a consistent lunar time standard.
- Similipal Tiger Reserve authorities have decided to grow bamboo grass in the national park, one of the largest tiger reserves in the country, as part of an initiative



to provide sufficient fodder for elephants. The initiative will not only prevent the entry of elephants to human settlements but also check the man-animal conflict which is a major challenge for the forest department.

- Hayflick limit: It refers to the maximum number of times a cell can divide. It's named after scientist Leonard Hayflick, who discovered this phenomenon. The limit plays a crucial role in aging and the development of age-related diseases.
- The Union Minister of Port Shipping and Waterways officially launched the Standard Operating Procedure (SOP) for the Green Tug Transition Program (GTTP), a key initiative under the 'Panch Karma Sankalp' launched on May 22, 2023, aimed at replacing conventional fuel-based harbour tugs in Indian Major Ports with green tugs powered by cleaner alternative fuels. Phase 1, starting October 1, 2024, will involve four Major Ports (Jawaharlal Nehru, Deendayal, Paradip, and O. Chidambaranar) procuring or chartering at least two green tugs each. The National Centre of Excellence in Green Port & Shipping (NCoEGPS) will act as the nodal agency, with the program contributing to India's goal of becoming a 'Global Hub for Green Ship' building by 2030, using Green Hybrid Propulsion systems and non-fossil fuel solutions like Methanol, Ammonia, and Hydrogen.
- India recently gifted Ukraine the Aarogya Maitri Health Cube, the world's first indigenously-made portable hospital designed under Project BHISHM. The Health Cube includes essential medical equipment like a mini-ICU, operation theatre, and diagnostic tools, all packed into durable, waterproof mini-cubes that can be carried or transported by drones. The system, capable of treating up to 200 survivors with severe injuries, integrates AI and data analytics, offering a 48-hour survival kit for disaster relief. The Indian Army and Air Force successfully paradropped it from 15,000 feet, marking a historic deployment.
- The North Eastern Handicrafts and Handlooms Development Corporation (NEHHDC) achieved Oeko-Tex certification for Assam's Eri Silk, the world's only vegan silk, on India's 78th Independence Day. Eri Silk, known for its ethical and eco-friendly production, is a Geographical Indication (GI) tagged product from Assam. The certification, which ensures textiles are free from harmful substances and made in environment-friendly conditions, enhances Eri Silk's authenticity, strengthens its global market presence, and positions it as a leading sustainable fabric, showcasing NEHHDC's commitment to preserving Assam's cultural heritage.
- The 70th National Film Awards, celebrating Indian cinema from 2022, were announced at the National Media Center, New Delhi, with key honors including Best Feature Film to "Aattam" (Malayalam), Best Actor to Rishab Shetty for "Kantara" (Kannada), Best Actress shared by Nithya Menen for "Tiruchitrabalam" (Tamil) and Manasi Parekh for "Kutch Express" (Gujarati), and Best Director to

Sooraj Barjatya for "Uunchai" (Hindi), along with various regional and non-feature film recognitions, administered by the Directorate of Film Festivals under the Ministry of Information and Broadcasting.

- Malaysia, the world's second-largest palm oil producer, initially proposed gifting orangutans to palm oil-buying countries as a diplomatic gesture and for wildlife conservation, inspired by China's "panda diplomacy." However, the proposal faced criticism for being hypocritical, given the industry's link to deforestation and orangutan habitat loss. In response, Malaysia revised the scheme, allowing palm oil importers to "sponsor" orangutans with funds directed toward conservation programs, keeping the animals in their natural habitats.
- The Colombo Security Conclave (CSC), a regional security grouping comprising India, Sri Lanka, Maldives, and Mauritius, was rebranded in 2020 to promote regional security across five key pillars, including maritime safety and cybersecurity. With observer nations Bangladesh and Seychelles, the CSC established a permanent secretariat in Colombo in 2021 to coordinate efforts against transnational threats in the Indian Ocean Region. National Security Adviser Ajit Doval and other representatives recently signed the Charter and an MoU for the Secretariat's establishment.
- Researchers at IISc developed a sustainable surfactant, CNSL-1000-M, from cashew nut shell liquid (CNSL), offering a greener alternative to toxic organic solvents in industrial syntheses by forming water-free micelles, resulting in 80% higher product yields and reducing waste.
- Cybercrime cases in Bengaluru Rural district surged by 1,141% from 2020 to 2023, with online job fraud being the most common type. The total financial loss amounted to Rs 75.57 crore, with Rs 35.53 crore lost in 2023 alone. Challenges in investigation include delayed reporting and sophisticated methods like cryptocurrency laundering. The rise is attributed to increased internet use in semi-urban areas, digital technology adoption, and urbanization. Victims are mainly private-sector employees and tech professionals, highlighting the need for enhanced cybersecurity awareness and protocols.
- Several water management initiatives have been launched in Bangalore, including the Cauvery Stage V Project, which will soon be commissioned to supply 770 MLD of water to newly added city areas. Funded by a ₹5,500 crore loan from JICA, this project started in 2018. Additionally, a collaboration between the United Nations and BWSSB focuses on water management, rainwater harvesting, lake rejuvenation, and groundwater maintenance. The Varuna Mitras Campaign, also by BWSSB, aims to train 1,000 youth in installing rainwater harvesting systems, enhancing water sustainability and providing employment.

- Bengaluru is set to develop three integrated townships in Bidadi, Solur, and Nandagudi with a mix of commercial and residential units, logistics parks, and data centers, overseen by the BMRDA and GBDA, involving land acquisition, metro connectivity studies, water infrastructure by BWSSB, and addressing challenges like funding and government approvals, with a focus on sustainable development and urban expansion.
- The Retired Sportsperson Empowerment Training (RESET) Programme, launched by Dr. Mansukh Mandaviya, aims to empower retired athletes aged 20-50 who have represented India or participated in recognized competitions, by enhancing their employability through skills development and career guidance. Implemented by Lakshmi Bai National Institute of Physical Education (LNIFE), the programme offers a hybrid learning model with internships and placement support. Applications are accepted via a dedicated portal from August 29, 2024.
- The Cabinet has approved 12 industrial nodes/cities under the National Industrial Corridor Development Programme, aiming to develop greenfield smart cities with global infrastructure standards, facilitate strategic investments from large industries and MSMEs, and enhance multi-modal connectivity as part of PM GatiShakti, contributing to India's socio-economic upliftment by generating an estimated 1 million direct and 3 million indirect jobs. The programme includes newly sanctioned industrial areas in states like Uttarakhand, Punjab, Maharashtra, Kerala, Uttar Pradesh, Bihar, Telangana, Andhra Pradesh, and Rajasthan.
- The Vigyan Dhara Scheme, launched by the Department of Science and Technology (DST) with an outlay of ₹10,579.84 crore for 2021-2026, unifies three umbrella schemes to promote science and technology (S&T) capacity building, enhance research and innovation, and strengthen India's S&T ecosystem. Key components include institutional and human capacity building, research and development aligned with the Anusandhan National Research Foundation, and initiatives to increase women's participation in S&T, all aimed at achieving the DST's 5-year goals and contributing to Viksit Bharat 2047.
- The Unified Pension Scheme (UPS), approved by the Union Cabinet and effective from April 1, 2025, replaces the New Pension Scheme (NPS) with key features like assured pension at 50% of average basic pay for at least 25 years of service, assured family pension at 60%, a minimum pension of ₹10,000, inflation indexation, and a lump-sum payment at superannuation. The scheme is applicable to central government employees under NPS since 2004, optional for existing NPS employees, and mandates an increased government contribution to the pension fund from 14% to 18.5%.

- The Department of Pension & Pensioners' Welfare (DOPPW) introduced Bhavishya, a centralized pension processing software, mandatory since January 1, 2017, for all central government Ministries/Departments. Key features include auto-registration, self-filling of pension forms, and strict timelines, ensuring transparency, accountability, and real-time updates. The software facilitates automatic calculation of retirement benefits, e-PPO issuance, end-to-end digitization, and integration with Digilocker and banks. Achievements include 83% timely PPO issuance, a top-3 ranking in NeSDA 2021, and over 2.5 lakh PPOs issued by August 2024.
- The Education Ministry has defined literacy as the ability to read, write, and compute with comprehension, including critical life skills like digital and financial literacy. Full literacy is defined as achieving 95% literacy in a State or Union Territory, equating to 100% literacy. The New India Literacy Programme (NILP) targets non-literates aged 15 and above, aiming to onboard one crore learners annually with a financial outlay of ₹1037.90 crore. It focuses on five components: Foundational Literacy and Numeracy, Critical Life Skills, Basic Education, Vocational Skills, and Continuing Education. Despite progress, 18.12 crore adults remain non-literate. The scheme, based on volunteerism and technology-driven learning, encourages States to achieve full literacy by 2030.
- The Union government launched the SHE-BOX Portal, an online system by the Ministry of Women and Child Development for registering complaints related to sexual harassment at the workplace. It ensures effective implementation of the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013. Complaints are sent directly to the Internal Complaints Committee (ICC) of the concerned organization, allowing both the Women and Child Development Ministry and the complainant to monitor the inquiry's progress. The portal aims to provide a quicker remedy for women who have already filed a written complaint with the ICC.
- The Union Budget 2024 increased the loan limit under MUDRA's Tarun category to Rs 20 lakh, targeting those who have repaid previous MUDRA loans. MUDRA 1.0 disbursed over Rs 27.75 lakh crore to 47 crore entrepreneurs, with 69% of accounts held by women and 51% by SC/ST and OBC entrepreneurs. Challenges included uneven credit distribution, misuse of funds, high NPAs in lower categories, and limited financial literacy. MUDRA 2.0 aims to address these through rural outreach, financial literacy programs, an enhanced Credit Guarantee Scheme (ECGS), and a robust Monitoring and Evaluation Framework (RMEF). The vision includes expanded scope, reduced defaults, and improved efficiency. PMMY, launched in

2015, provides affordable credit to micro and small enterprises, integrating them into the formal financial system.

- SEBI proposes a mandatory UPI block mechanism for secondary market trading, akin to the Application Supported by Blocked Amount (ASBA) facility. This mechanism enhances client protection by blocking funds in the bank account until trading is completed, offering an alternative to transferring funds upfront. The proposal aims to improve security and efficiency, aligning with global practices. Qualified stock brokers (QSBs) will be required to implement this system, and public feedback is invited until September 12.
- Pradhan Mantri Jan Dhan Yojana (PMJDY), launched on August 28, 2014, aims to enhance financial inclusion by providing zero-balance bank accounts with RuPay debit cards, accident insurance (up to ₹2 lakh), and life insurance (up to ₹30,000 for first-time holders). It covers accounts in rural and semi-urban areas, with 55.6% of account holders being women. Account growth surged from 72 crore in March 2015 to 53.13 crore by August 2024, with deposits increasing from ₹15,670 crore to over ₹2.31 lakh crore. The government plans to open 3 crore additional accounts in FY 2024-25.
- Maharashtra government declared 1,500 geoglyphs in Ratnagiri district as a 'protected monument'. Geoglyphs are large earth designs, visible from a distance, made using additive or subtractive techniques. Discovered in Konkan, dating back to the Mesolithic period (20,000-10,000 years ago). Reflect ancient human-environment interactions. Local efforts and government recognition led to their protection. They place India on the global map of geoglyph sites but face preservation threats.
- The Ministry of Environment, Forest and Climate Change (MoEFCC) has announced the final date for declaring possession of exotic wild species listed under Schedule IV of the Wild Life (Protection) Act 1972. A mandatory license is required for such possession, with applications to be submitted electronically through the PARIVESH 2.0 portal. The newly notified 'Living Animal Species (Reporting and Registration) Rules, 2024' under Section 49 M regulate the keeping and breeding of highly endangered exotic wild animals. These regulations, highlighted during the COVID-19 pandemic, were introduced by the Wild Life (Protection) Amendment Act, 2022, effective from April 1, 2023. The PARIVESH 2.0 portal facilitates online submission and monitoring of related proposals.
- Chandrayaan-3's initial findings support the lunar magma ocean (LMO) theory, which suggests the Moon had a molten rock layer on its surface early in its history. Chemical measurements by the Pragyan rover near the lunar south pole revealed uniform composition similar to the Moon's highlands and higher magnesium levels,

indicating early material mixing. These results confirm the LMO hypothesis and provide new insights into the Moon's formation and evolution, with implications for understanding other celestial bodies. Future missions include Chandrayaan-4 (2027) and a joint Chandrayaan-5 with JAXA.

- **Polaris Dawn Mission:** This mission aims to pioneer a new era in space exploration by performing the first non-government spacewalk at a record-breaking altitude of 700 km, surpassing the ISS. It will test SpaceX's new spacesuits and technologies, including laser communications through Starlink. The mission will navigate the Van Allen Belts to address radiation exposure concerns for future Mars missions. Led by Jared Isaacman, the mission will focus on health research and contribute to space biobanks. Polaris Dawn is the first of three planned missions, with future missions pushing further into human spaceflight and testing SpaceX's Starship.
- **India's RHUMI-1,** its first reusable hybrid rocket, was recently launched from Thiruvudandai, Chennai. Developed by Space Zone India and Martin Group, RHUMI-1 features a hybrid propulsion system combining solid and liquid fuels, improving efficiency and reducing operational costs. The rocket uses a CO<sub>2</sub>-triggered parachute system for safe recovery and avoids traditional explosives. It carried 3 Cube Satellites and 50 PICO Satellites for monitoring atmospheric and environmental conditions. The launch utilized India's first hydraulic mobile launch system, enabling flexible operations.
- A collaborative effort between ICAR-National Rice Research Institute and Pennsylvania State University has led to the development of ISDra2TnpB, a new genome-editing tool. ISDra2TnpB, derived from the bacterium *Deinococcus radiodurans*, is smaller than traditional CRISPR-associated proteins, making it more suitable for plant cells. It offers high editing efficiency (33.58%), works effectively on both monocot and dicot plants, and supports base editing. This tool has potential applications in enhancing crop resilience, productivity, and nutritional value, and reducing susceptibility to pests and environmental stress.
- **Colombo Security Conclave (CSC):** A regional security group with India, Sri Lanka, Maldives, and Mauritius + Originated from 2011 trilateral meetings; rebranded in 2020 with Mauritius joining. + Bangladesh and Seychelles are observers + Objectives: Maritime safety, counter-terrorism, anti-trafficking, cyber-security, and disaster relief + Secretariat: Established in Colombo in 2021 for coordination and implementation + Importance: Tackles diverse security challenges in the Indian Ocean Region through collective efforts.
- **Malaysia's "Orangutan Diplomacy" Policy:** Malaysia, the world's second-largest palm oil producer, initially proposed gifting orangutans to palm oil-buying countries as a diplomatic and conservation gesture, inspired by China's "panda



diplomacy." Criticism arose for being hypocritical given the destruction of orangutan habitats due to palm oil production and the lack of protected areas. The revised scheme now allows palm oil importers to "sponsor" orangutans instead, with funds directed towards conservation programs in Malaysia and keeping orangutans in their natural habitats.

