



July - 25

TNPSC BITS

- ❖ India achieved its best-ever performance at the 58th International Chemistry Olympiad (ICHO) 2026 held in Tashkent, Uzbekistan, by winning four gold medals.
 - The Indian team comprised Debadatta Priyadarshi (Odisha), Harshit Singla (Punjab), Kabeer Chillar (Delhi), and Sandeep Kuchi (Telangana), all of whom secured gold medals.
- ❖ The Ministry of Electronics and Information Technology (MeitY) launched the National Innovation Challenge for Drone Application and Research (NIDAR 2.0, 2026-27) under the SwaYaan initiative.
 - NIDAR 2.0, launched in collaboration with Drone Federation India, aims to develop drones powered by Indian-made semiconductor chips and promote indigenous drone technology.
- ❖ IIT Tirupati hosted the 5th BRICS Working Group Meeting on Geospatial Technologies and its Applications.
 - The meeting aimed to strengthen cooperation in areas such as disaster management, agriculture, urban planning, transport and environmental monitoring.
- ❖ QDENGGA, a dengue vaccine developed by Takeda Biopharmaceuticals (Japan), received market authorisation from the Drug Controller General of India (DCGI), becoming India's first approved dengue vaccine.
- ❖ India unveiled its first Electric Vertical Take-Off and Landing (eVTOL) aircraft prototype, developed by the ePlane Company, an IIT Madras-incubated startup, marking a major step towards Advanced Air Mobility (AAM).
- ❖ For the first time in Indian cinema history, Santhali-language short film "Angen (Invisible)" won a National Film Award at the 72nd National Film Awards, with director Ravi Raj Murmu receiving the Best Debut Film of a Director Award (Non-Feature Category).
- ❖ Pi Approximation Day is observed every year on July 22 to celebrate the mathematical constant pi (π) using its common fractional approximation 22/7.
 - The theme for the year 2026 is "Mathematics and Hope".

TAMIL NADU NEWS

TN School Breakfast Scheme Update

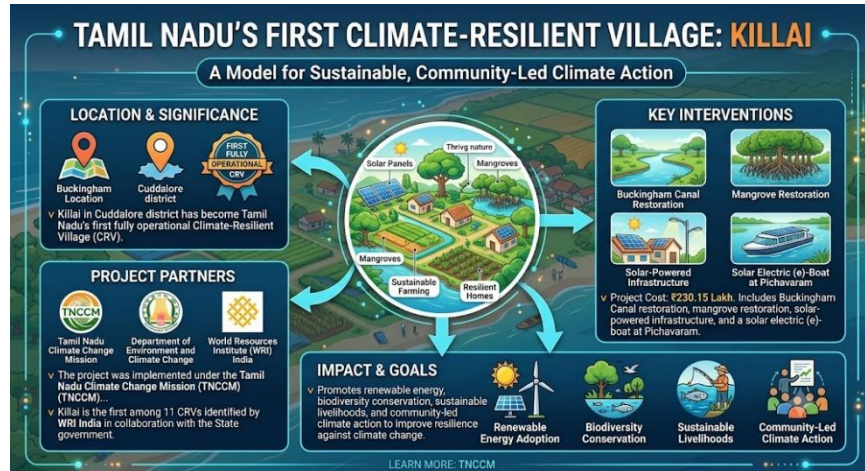
- ❖ The Tamil Nadu Government has renamed the Chief Minister's Breakfast Scheme as the Perunthalaivar Kamarajar Breakfast Scheme.
- ❖ The scheme was launched in September 2022 for students of Classes I to V in government and government-aided schools.
- ❖ It has been expanded to cover Classes VI to VIII in government and government-aided schools.
- ❖ The renaming order was issued by the Department of Social Welfare and Women Empowerment on July 15, 2026, marking the birth anniversary of K. Kamaraj.
- ❖ The expanded scheme will be implemented from September 17, 2026, the birth anniversary of Periyar Erode Venkata Ramasamy (E.V. Ramasamy).
- ❖ The scheme will benefit about 34.48 lakh students across Tamil Nadu.



TN's First Climate Village – Killai

- ❖ Killai in Cuddalore district has become Tamil Nadu's first fully operational Climate-Resilient Village (CRV).
- ❖ The project was implemented under the Tamil Nadu Climate Change Mission (TNCCM) of the Department of Environment and Climate Change.

- ❖ Killai is the first among 11 Climate-Resilient Villages (CRVs) identified by World Resources Institute (WRI) India in collaboration with the State government.
- ❖ The project, implemented at a cost of ₹230.15 lakh, includes Buckingham Canal restoration, mangrove restoration, solar-powered infrastructure, and a solar electric (e)-boat at Pichavaram.
- ❖ The initiative promotes renewable energy, biodiversity conservation, sustainable livelihoods, and community-led climate action to improve resilience against climate change.



Electronics Clusters in TN



- ❖ The Central Government has approved two Electronics Manufacturing Clusters (EMCs) in Tamil Nadu with a total project cost of ₹1,012 crore.
- ❖ The Electronics Manufacturing Clusters (EMCs) will be developed at Manallur in Tiruvallur District (474.3 acres) and Pillapaikkam in Kancheepuram district (379.3 acres).

- ❖ The projects aim to strengthen electronics manufacturing, attract investments, and generate employment in the State.
- ❖ Under the Semicon India Programme, the Central Government supports 61 institutes in Tamil Nadu for semiconductor talent development out of 315 institutes nationwide.
- ❖ Semicon 2.0, approved on July 15, 2026, aims to develop a complete semiconductor ecosystem and create more investment opportunities.

NATIONAL NEWS

Boss Scam - SEBI

- ❖ The Securities and Exchange Board of India (SEBI) has warned companies about the rising "Boss Scam" or Chief Executive Officer (CEO) impersonation scam.
- ❖ Fraudsters use fake WhatsApp accounts, Artificial Intelligence (AI)-generated voice cloning, deepfake video calls, and emails to impersonate senior company officials.
- ❖ Employees are pressured to make urgent fund transfers or open malicious .zip files that install malware and compromise WhatsApp Web accounts.
- ❖ The warning was issued after the Indian Cyber Crime Coordination Centre (I4C) reported an increase in such cyber fraud cases.
- ❖ SEBI advised organisations to verify payment requests directly with senior officials and avoid opening suspicious files or relying only on messaging platforms.



Gramodyam for Rural Entrepreneurship

- ❖ NABARD has launched an entrepreneurship development programme.

- ❖ It was implemented by – National Skill Development Corporation (NSDC) under the aegis of the Union Ministry of Skill Development and Entrepreneurship (MSDE)
- ❖ It is Implemented through Institute for Industrial Development.
- ❖ It aims to unlock the entrepreneurial potential of rural India.
- ❖ It also aims to transform local opportunities into engines of sustainable rural growth and jobs by creating about 4,000 entrepreneurs in 3 years through a scalable delivery system
- ❖ It uses a digital-first, hybrid delivery model through a combination of digital platforms, social media engagement, community outreach and on-ground mobilization



INTERNATIONAL NEWS

World Artificial Intelligence Cooperation Organization

- ❖ It has been launched at World Artificial Intelligence Conference (WAIC), Shanghai, China.
- ❖ It is projected as an inclusive alternative to Western AI frameworks.
- ❖ It is an independent intergovernmental organisation.

- ❖ It focuses on cooperation in AI in the civilian domain in an inclusive and non-discriminatory manner.
- ❖ 29 countries signed the agreement on the creation of the WAICO.
- ❖ It features a standing structure containing a Council and a Secretariat.
- ❖ Notable founding members include Indonesia, Russia, Brazil, Pakistan, Kazakhstan, Laos, and Belarus.
- ❖ United Nations Secretary-General António Guterres attended the signing ceremony.
- ❖ But India is not a signatory to this.



ECONOMY NEWS

Nifty500 Ahimsa Index



- ❖ It is a thematic benchmark launched by the National Stock Exchange (NSE).

- ❖ It tracks companies from the Nifty 500 universe aligned with principles of "Ahimsa" (non-violence)
- ❖ It is classified as 'Green' band.
- ❖ It exclusively includes stocks that do not harm animals.
- ❖ Companies are placed in green, orange, and red bands on the basis of their business activities and animal-related impact –
- ❖ Orange and Red bands are excluded from the index.
- ❖ It will be reconstituted semi-annually.
- ❖ index base date is 1 April 2016 – with base value of 1000.
- ❖ Free-float market capitalisation is used for this.
- ❖ Free-float market capitalisation refers to the market value of shares available for public trading, excluding promoter and locked-in holdings.

ENVIRONMENT NEWS

India's First Mangrove Restoration Standards - BIS



- ❖ The Bureau of Indian Standards (BIS) is preparing India's first national guidelines for mangrove ecosystem restoration.
- ❖ The draft standard titled "Restoration of Mangrove Ecosystem — Guidelines" aims to provide uniform practices for mangrove restoration across India.
- ❖ The guidelines focus on scientific plantation methods, biodiversity conservation, community participation and sustainable restoration of mangrove habitats.

- ❖ BIS received stakeholder suggestions, including the use of biodegradable bags instead of polythene for mangrove planting and integration of livelihood options.
- ❖ The standards highlight that planting the right species at suitable locations helps restore mangrove ecosystems and supports marine biodiversity.

Second-Oldest Orbicular Rock Found - Madhya Pradesh

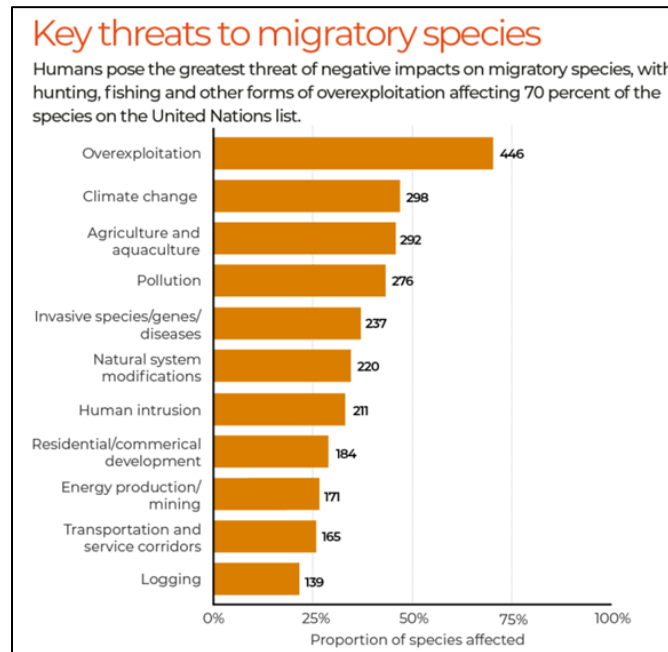
- ❖ Scientists have identified the Pichhore orbicular granite in Shivpuri district, Madhya Pradesh as the second-oldest known orbicular rock in the world, dating back about 2.56 billion years.
- ❖ The rock was found near Kutawali village and belongs to the Bundelkhand Craton, one of India's oldest geological blocks.
- ❖ Its age was determined using Uranium-Lead (U-Pb) zircon dating, a method used to study ancient rocks.
- ❖ Orbicular granite contains spherical structures called orbicules, made mainly of quartz and feldspar, often arranged in concentric layers.
- ❖ The study revealed inherited zircon crystals as old as 3.5 billion years, indicating recycling of ancient continental crust during early Earth history.



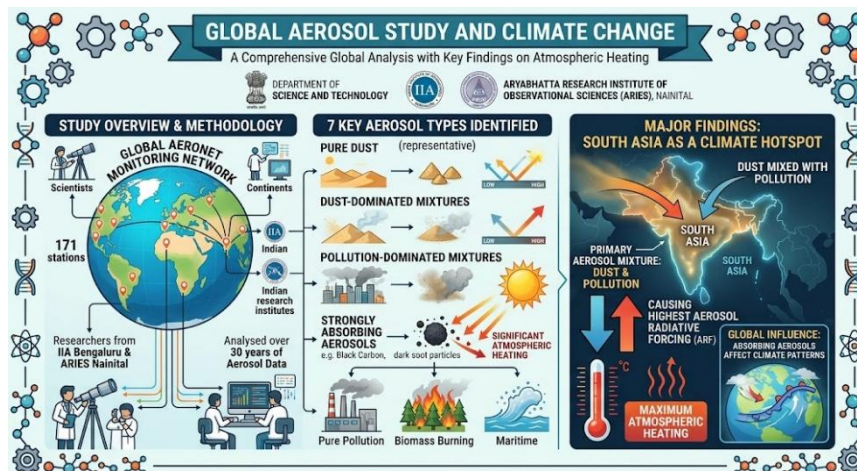
Decline in Migratory Bird Species

- ❖ A global assessment found that more than half of the world's 3,380 migratory bird species are declining due to multiple environmental threats.
- ❖ Major threats include habitat loss, invasive species, hunting, pesticide use, building collisions, and accidental capture in fishing nets.

- ❖ Migratory birds depend on connected habitats across different countries for breeding, migration, and survival.
- ❖ Scientists recommend a full annual-cycle conservation approach to protect birds across their breeding grounds, migration routes, and non-breeding habitats.
- ❖ Advanced tools like tracking devices, genetic studies, automated monitoring, and citizen science programmes help in bird conservation efforts.



Global Aerosol Study and Climate Change

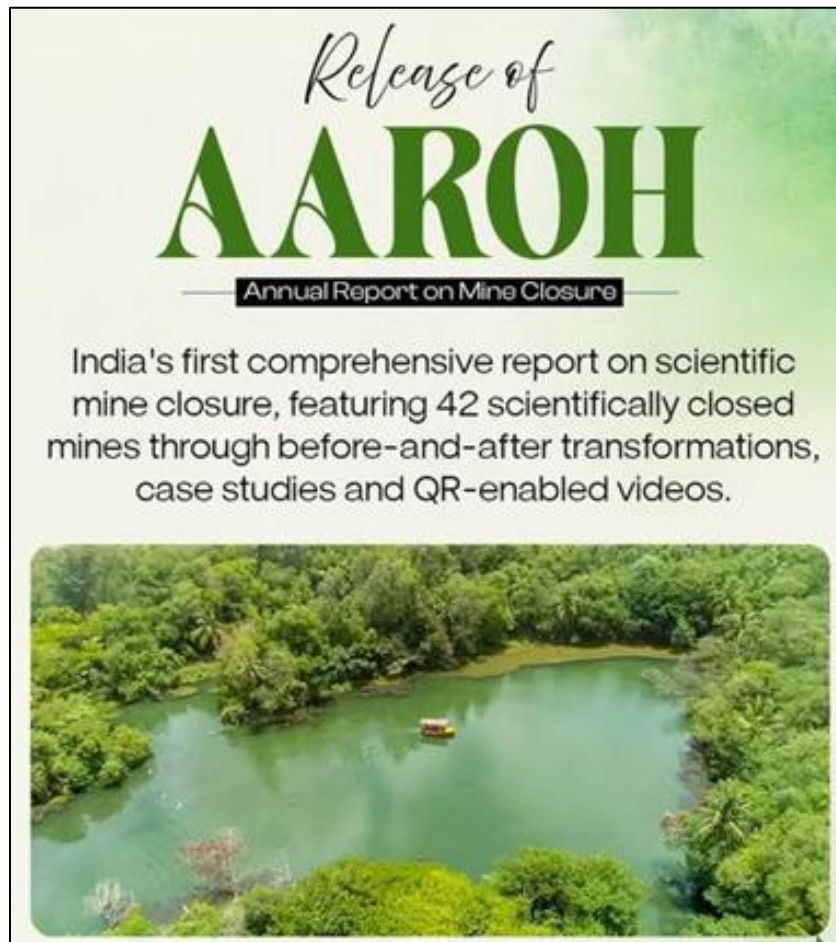


- ❖ A study on global aerosol diversity found that South Asia is mainly affected by dust mixed with pollution, causing the highest Aerosol Radiative Forcing (ARF) and atmospheric heating.

- ❖ The study was conducted by researchers from the Indian Institute of Astrophysics (IIA), Bengaluru and Aryabhata Research Institute of Observational Sciences (ARIES), Nainital, under the Department of Science and Technology (DST).
- ❖ Researchers analysed aerosol data from 171 AERosol Robotic NETwork (AERONET) monitoring stations across six continents for over 30 years.
- ❖ Seven aerosol types were identified, including pure dust, dust-dominated mixtures, pollution-dominated mixtures, and strongly absorbing aerosols.
- ❖ Strongly absorbing aerosols, such as those containing black carbon, contribute significantly to atmospheric heating and influence climate patterns.

REPORTS AND INDICES

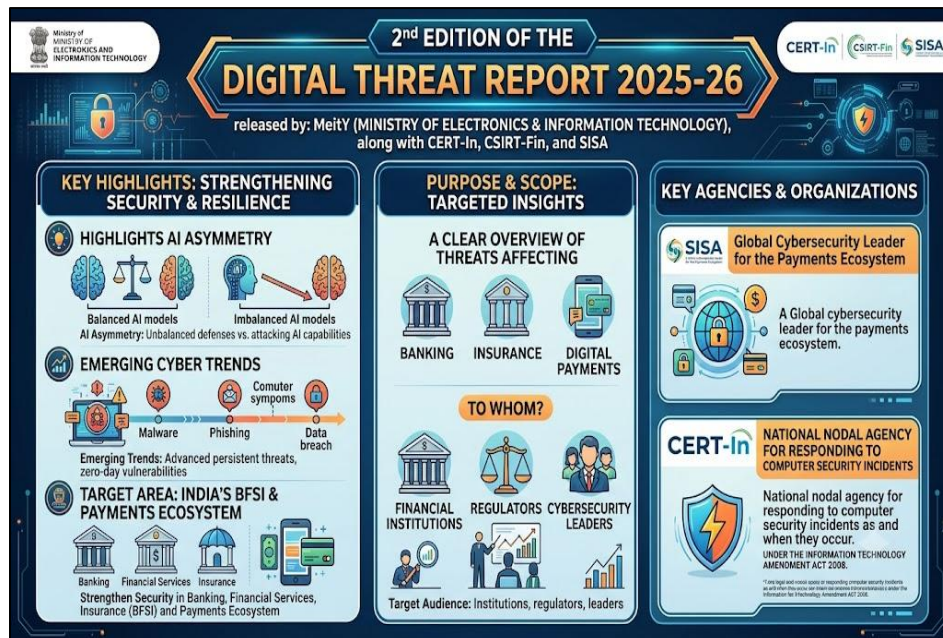
India's First Mine Closure Report – AAROH



- ❖ The Ministry of Coal released 'AAROH – Annual Report on Mine Closure', India's first report on scientific mine closure and repurposing practices.

- ❖ The report, developed by the Coal Controller Organisation (CCO), documents scientific closure practices of 42 coal mines with ecological restoration and sustainable land use.
- ❖ It highlights frameworks like RECLAIM (Reclamation Framework), L.I.V.E.S. (Livelihood, Inclusion, Value, Environment and Sustainability) and SUVIKALP (Mine Repurposing Tool).
- ❖ The Ministry of Coal signed an agreement with Germany's GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) for cooperation in sustainable mine closure.
- ❖ India has scientifically closed 42 coal mines and plans to close 147 more mines in the next 2–3 years.
- ❖ The initiative focuses on converting closed mines into assets through renewable energy, water conservation, eco-tourism and community development.

2nd edition of the Digital Threat Report 2025-26

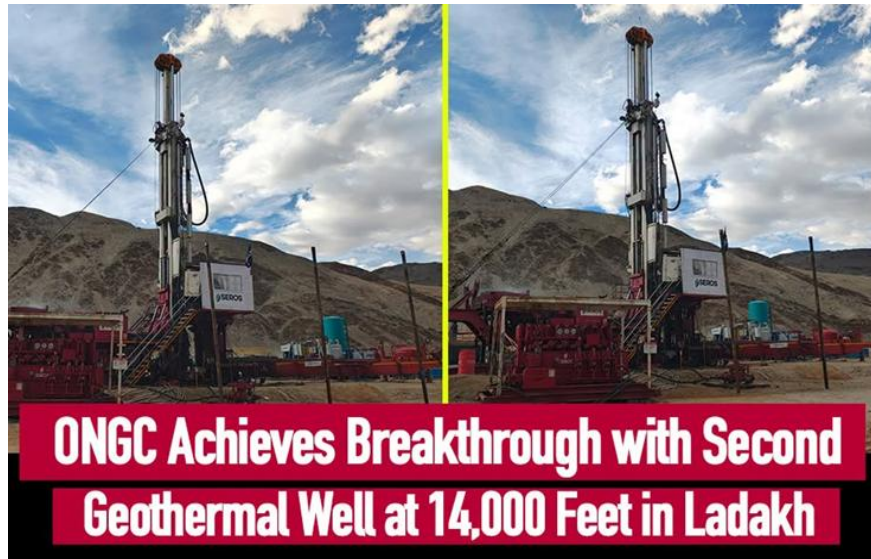


- ❖ It is released by the Ministry of Electronics and Information Technology (MeitY), along with CERT-In, CSIRT-Fin, and SISA
- ❖ The report Highlights AI Asymmetry and Emerging Cyber Trends to Strengthen Security and Resilience in India's BFSI and Payments Ecosystem
- ❖ Report gives financial institutions, regulators, and cybersecurity leaders a clear overview of threats affecting banking, insurance, and digital payments
- ❖ SISA is a Global cybersecurity leader for the payments ecosystem.

- ❖ CERT-In is the national nodal agency for responding to computer security incidents as and when they occur.
- ❖ It was under the Information Technology Amendment Act 2008.

STATE NEWS

Second Geothermal Well in Ladakh



- ❖ Oil and Natural Gas Corporation (ONGC) drills a second geothermal well in Ladakh.
- ❖ It is India's 1st pilot geothermal power plant with 1-Megawatt (MW) in Ladakh's Puga Valley
- ❖ Thus, India's first and deepest geothermal wells were commissioned
- ❖ It aims to tap into underground steam and hot water to provide reliable, round-the-clock clean energy
- ❖ It successfully drilled to a depth of 1,000 meters, at an elevation of over 14,000 feet above sea level.
- ❖ It is one of the highest geothermal drilling projects in the world
- ❖ Puga Valley is geologically active - characterized by abundant hot springs, high underground thermal gradients, and shallow geothermal reservoirs.
- ❖ Manikaran, located in the Parvati Valley of Himachal Pradesh, is one of India's most prominent geothermal energy sites
- ❖ Natural hot springs emerge here at temperatures reaching 96° C.
- ❖ Geothermal energy is heat generated and stored deep within the Earth.

- ❖ It is originating from the planet's formation and radioactive decay, from the underground pools of steam and hot water trapped in hot spot region in earth crust.
- ❖ It provides a constant, reliable source of low-carbon, renewable power that operates independently of weather conditions like wind and solar.
- ❖ It aims to generate electricity and for other heating applications.
- ❖ Molten rocks formed in the deeper hot regions of earth's crust are pushed upward and trapped in certain regions called 'hot spots'.
- ❖ 4 Major potential regions - Northwest-Southeast Himalayan Arc, Gondwana Grabens and Delhi fold, West Coast continental margin, Son-Narmada-Tapti lineament

IMPORTANT DAYS

Income Tax Day 2026 - July 24



- ❖ The day is observed to commemorate the introduction of income tax in India in 1860.
- ❖ Income tax was introduced by Sir James Wilson, the first Finance Member of British India, after the Revolt of 1857.
- ❖ The Central Board of Direct Taxes (CBDT) has officially observed Income Tax Day since 2010, marking 150 years of income tax in India.



- ❖ The Income-tax Act, 2025 came into force on April 1, 2026, replacing the Income-tax Act, 1961, to simplify tax laws and improve taxpayer convenience.
- ❖ The 167th Income Tax Day (2026) is the first celebration after the implementation of the Income-tax Act, 2025.

