



July - 21

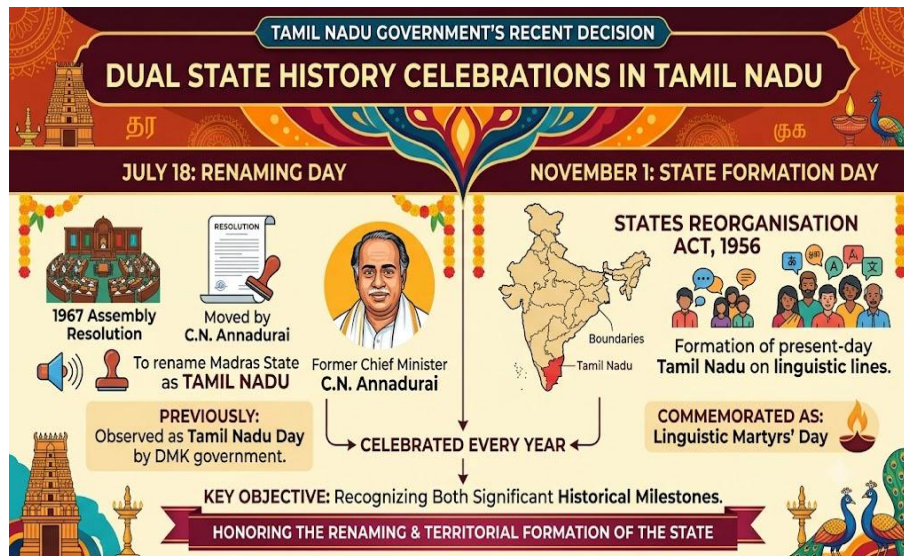
TNPSC BITS

- ❖ The Indian Space Research Organisation (ISRO) successfully conducted three major tests of the Gaganyaan crew module systems.
 - The tests focused on crew safety systems, including crew module uprighting after sea splashdown, umbilical mechanism separation, and apex cover separation.
- ❖ Scientists identified Likweli, a new monkey species in the rainforests of the Democratic Republic of the Congo (DRC), with the scientific name *Colobus congoensis*, belonging to the *Colobus* family, marking Africa's 5th new monkey species discovery in 75 years.
- ❖ VELS Institute of Science, Technology & Advanced Studies (VISTAS) inaugurated India's first Artificial Intelligence (AI)-integrated vertical university campus at Thiruvannamiyur, Chennai.
- ❖ The University of Oxford has started human trials of a new Ebola vaccine developed against the Bundibugyo strain of Ebola spreading in the Democratic Republic of Congo (DRC).
- ❖ Scientists at the Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru, have developed an ultra-sensitive wearable ammonia sensor for real-time toxic gas detection.
- ❖ Legendary West Indies cricketer Sir Garfield Sobers passed away at the age of 89.
- ❖ Hyderabad-based Skyroot Aerospace successfully launched Vikram-1, becoming India's first privately built rocket to place payloads into Low Earth Orbit (LEO) under the Mission Aagaman.
- ❖ Chief Justice of India (CJI) Surya Kant inaugurated the 'Tower of Justice' District Court Complex in Gurugram, Haryana, to improve access to justice and judicial efficiency.
 - The new complex includes an International Arbitration Centre under the Punjab and Haryana High Court, a Ladies Bar Room for women advocates and a childcare centre.
- ❖ The birth anniversary of South Africa's first Black President (1994–1999) - Nelson Mandela observed as Nelson Mandela Day in July 18.
 - He received the Nobel Peace Prize (1993) for his role in ending apartheid.

TAMIL NADU NEWS

Dual State History Celebrations in Tamil Nadu

- ❖ The Tamil Nadu Government has decided to celebrate the State's history on both July 18 and November 1 every year.
- ❖ July 18 marks the day in 1967 when former Chief Minister C.N. Annadurai moved the Assembly resolution to rename Madras State as Tamil Nadu.
- ❖ November 1 marks the formation of the present-day State after the States Reorganisation Act, 1956 came into effect.
- ❖ The earlier Dravida Munnetra Kazhagam (DMK) government had observed July 18 as Tamil Nadu Day, while November 1 was commemorated as Linguistic Martyrs' Day.
- ❖ The new decision recognises the historical significance of both the renaming of the State and its territorial formation.



e-Zero FIR System

- ❖ The Tamil Nadu Government has implemented the e-Zero First Information Report (FIR) system for faster registration and investigation of cyber financial fraud cases.
- ❖ Cyber fraud complaints involving a loss of more than ₹1 lakh, reported through the 1930 National Cybercrime Helpline, will be automatically linked with the Crime and Criminal Tracking Network and Systems (CCTNS) for e-Zero FIR registration.

- ❖ The system has been introduced under Section 173 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023, allowing electronic registration of Zero FIRs irrespective of territorial jurisdiction.
- ❖ The e-Zero FIR is electronically transferred to the jurisdictional cybercrime police station and later converted into a regular FIR after verification.
- ❖ The initiative, supported by the Union Ministry of Home Affairs (MHA), aims to speed up investigations, freeze fraudulent transactions during the Golden Hour, preserve digital evidence, and improve recovery of defrauded funds.

Tamil Nadu government implements e-Zero FIR system for cybercrime cases

The government of Tamil Nadu has implemented the e-Zero FIR system to facilitate the registration and investigation of cyber financial fraud cases reported through the Cyber Crime Helpline 1930. Integration of the 1930 Helpline with CCTNS eliminates duplicate data entry, enables faster case registration and seamless jurisdictional transfer.

Karivalamvanthanallur Excavation Findings



- ❖ Excavations at Karivalamvanthanallur in Tenkasi district have uncovered evidence of continuous human occupation from the Stone Age to the Sangam Age.

- ❖ The excavation is being carried out by the Tamil Nadu State Department of Archaeology (TNSDA), which has opened 18 trenches at the site.
- ❖ Archaeologists have found microlithic stone tools, brick structures, iron-working remains, and craft-production workshops, indicating long-term settlement and industrial activity.
- ❖ The discoveries suggest that the site was an important centre for craft production, iron technology, and trade during the Sangam period.
- ❖ The excavation is part of Tamil Nadu's wider archaeological programme, which also includes the Keeladi excavations.

NATIONAL NEWS

Semicon 2.0 Programme



Semicon 2.0 seeks to holistically build the semiconductor ecosystem through six pillars:

- Design – Develop semiconductor IPs, chip designs and systems
- Machines and materials – Incentivise manufacturing and R&D of semiconductor equipment, materials, chemicals and gases
- Setting up more fabs – Attract more manufacturers to set up semiconductor fabrication units in India
- Further strengthening the ATMP/OSAT industry
- Research & Development
- Talent development

The scheme will **support economic growth, strengthen supply chain resilience, and establish technological leadership** in critical sectors

- ❖ The Union Cabinet approved Semicon 2.0 with an outlay of ₹1.27 lakh crore to strengthen India's semiconductor ecosystem.
- ❖ The programme aims to make India a global hub for semiconductor design, manufacturing and innovation.
- ❖ It builds on the Semicon India Programme (Semicon 1.0) by providing long-term policy support for the semiconductor sector.
- ❖ Semicon 2.0 focuses on six areas: chip design, manufacturing equipment and materials, fabrication facilities, semiconductor packaging, Research and Development (R&D), and talent development.

- ❖ The programme aims to develop a complete semiconductor ecosystem and reduce dependence on global supply chains.

Roadmap for Viksit Krishi

- ❖ The Roadmap for Viksit Krishi was unveiled on 16 July 2026 during the 98th Foundation Day of the Indian Council of Agricultural Research (ICAR) as a key pillar of Viksit Bharat 2047.
- ❖ It aims to make Indian agriculture climate-resilient, technology-driven and globally competitive.
- ❖ The roadmap has 7 goals: 100 Climate Smart Villages, One Institute–One Grand Innovation, Technology Outreach to 100 million farmers, Mission ICAR-100, ICAR Open Digital Knowledge Platform, Counterfeit Seed & Pesticide Control, and ₹10,000 crore resource generation by 2029.
- ❖ Mission ICAR-100 will transform Krishi Vigyan Kendras (KVKs) into innovation, climate advisory and farmer support centres.
- ❖ The Digital Knowledge Platform will provide free crop advisories, weather forecasts, soil testing and market information.



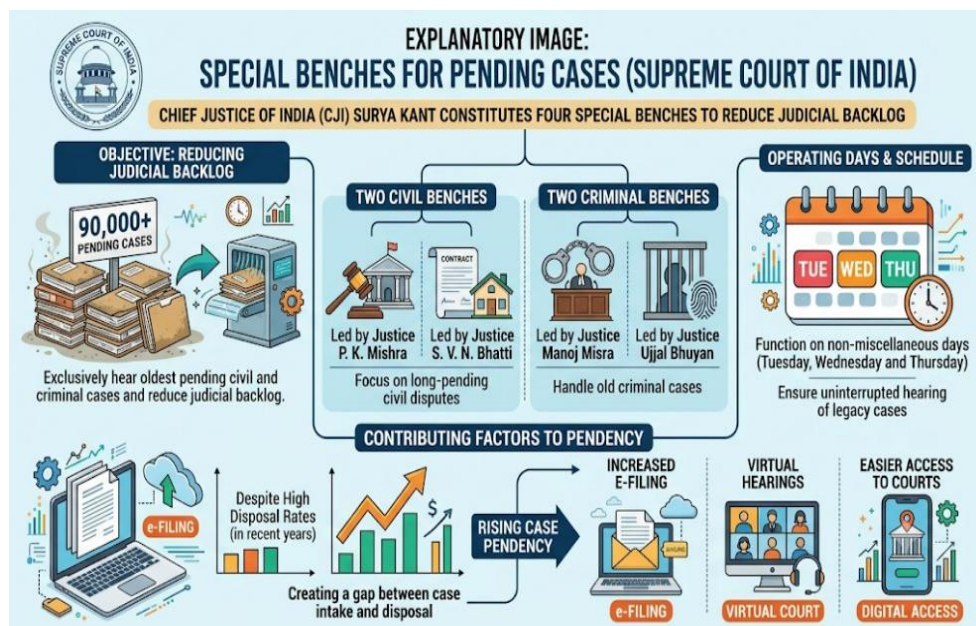
Paraquat Dichloride Ban in India

- ❖ The Central Government has notified a ban on Paraquat Dichloride, a herbicide linked to poisoning-related deaths, under the Insecticides Act, 1968.
- ❖ The ban prohibits the manufacture, import, transport, distribution, sale, and use of Paraquat Dichloride in India.

- ❖ The decision was based on recommendations from the Registration Committee and an Experts Committee, citing health risks, high fatality rates, and the absence of a specific antidote.
- ❖ Paraquat Dichloride is already banned or strictly restricted in more than 70 countries worldwide.
- ❖ The herbicide is commonly used by farmers for weed control after harvesting, but concerns have been raised over occupational exposure and poisoning cases.



Special Benches for Pending Cases



- ❖ Chief Justice of India (CJI) Surya Kant constituted four special benches in the Supreme Court of India to exclusively hear the oldest pending civil and criminal cases and reduce the judicial backlog.
- ❖ Two civil benches headed by Justice P. K. Mishra and Justice S. V. N. Bhatti will focus on long-pending civil disputes, while two criminal benches led by Justice Manoj Misra and Justice Ujjal Bhuyan will handle old criminal cases.
- ❖ These benches will function on non-miscellaneous days (Tuesday, Wednesday and Thursday) to ensure uninterrupted hearing of legacy cases.
- ❖ The move aims to address rising case pendency, as the Supreme Court's pending cases have crossed 90,000, despite the court recording high disposal rates in recent years.
- ❖ Increased e-filing, virtual hearings and easier access to courts have contributed to a rise in new case filings, creating a gap between case intake and disposal.

SCIENCE AND TECHNOLOGY NEWS

Tritium Removal Breakthrough



- ❖ A research team from China has developed a new metal-organic framework (MOF)-based material that can rapidly remove tritium from nuclear wastewater.
- ❖ Tritium is a radioactive isotope of hydrogen that is difficult to separate because tritiated water has almost the same chemical properties as ordinary water.
- ❖ The new material, NH₂-MIL-101(Cr), was coated on a stainless-steel mesh and increased the surface area available for separation by 32 times.

- ❖ The chromium-oxygen clusters inside the material help capture tritium atoms and exchange them with normal hydrogen atoms.
- ❖ The technology could help reduce tritium release from nuclear facilities and improve the management of nuclear wastewater.

PERSONALITIES, AWARDS, AND EVENTS

72nd National Film Awards 2026



- ❖ The Ministry of Information and Broadcasting announced the winners of the 72nd National Film Awards, recognising films certified by the Central Board of Film Certification (CBFC) during 2024.
- ❖ Article 370 won the Best Feature Film award, while Raayan received the Best Tamil Film award at the 72nd National Film Awards.
- ❖ Kartik Aaryan (*Chandu Champion*) and Mammooty (*Bramayugam*) jointly received the Best Actor award, and Yami Gautam won the Best Actress award for Article 370.



- ❖ Rajkumar Periasamy won the Best Director award for Amaran, while Kalki 2898 AD received the Best Film Providing Wholesome Entertainment award.
- ❖ Pushpa 2 won the Best Screenplay award, and Amaran received the Best Editing award in the feature film category.

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