

June - 22

## TNPSC BITS

- ❖ Indian Railways approved over ₹1,200 crore for communication upgrades and expansion of Kavach 4.0 (Automatic Train Protection-ATP), including deployment on 548 km of routes in Tamil Nadu, Kerala, and Karnataka at a cost of over ₹300 crore.
  - Kavach prevents Signal Passing at Danger (SPAD), head-on collisions, rear-end collisions, and over speeding of trains.
- ❖ Bengaluru-based Sarvam AI became India's 130th unicorn after raising \$234 million in a Series B funding round.
- ❖ Assam has been granted Geographical Indication (GI) tags for four traditional products to protect cultural heritage and support rural economy in 2026.
  - The four GI-tagged products are Karbi Anglong Handloom Products, Assam Bihu Pepa, Assam Bamboo Crafts, and Deuri Handloom Products.
- ❖ The Indian Institute of Technology (IIT) Hyderabad will set up India's first Centre of Design Excellence in Nuclear Engineering (CODENE).
  - It aims to develop advanced engineering talent for India's nuclear sector, supporting the national goal of 100 GW nuclear power by 2047.
- ❖ Jio Platforms entered the World Intellectual Property Organization (WIPO) Global Top 20 Patent Rankings under the Patent Cooperation Treaty (PCT) system, becoming the only Indian technology company in the list.
  - The company recorded a jump of around 320 ranks, driven by a sharp rise in global patent filings.
- ❖ World Hydrography Day is observed every year on 21 June to promote awareness about hydrography and its role in safe navigation and ocean knowledge.
  - The theme for the year 2026 is "Transforming how ocean data is shared".

## TAMIL NADU NEWS

### Five Renewable Energy Zones in Tamil Nadu

- ❖ The Tamil Nadu government approved five dedicated Renewable Energy Zones under the Tamil Nadu Green Energy Corporation Limited (TNGECL).
- ❖ The five zonal headquarters are located in Chennai, Tiruchirappalli, Tirunelveli, Coimbatore, and Madurai.

- ❖ The zones were created to manage wind and solar power projects, including project approvals, coordination, and power evacuation infrastructure.
- ❖ The new system also supports repowering of wind farms, which means replacing or upgrading old wind turbines with new ones.
- ❖ The zones will support Battery Energy Storage Systems (BESS), Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) 2.0, PM Rooftop Solar, and floating solar projects.
- ❖ Battery Energy Storage Systems (BESS) store electricity for later use, and floating solar projects are installed on reservoirs and lakes.



## NATIONAL NEWS

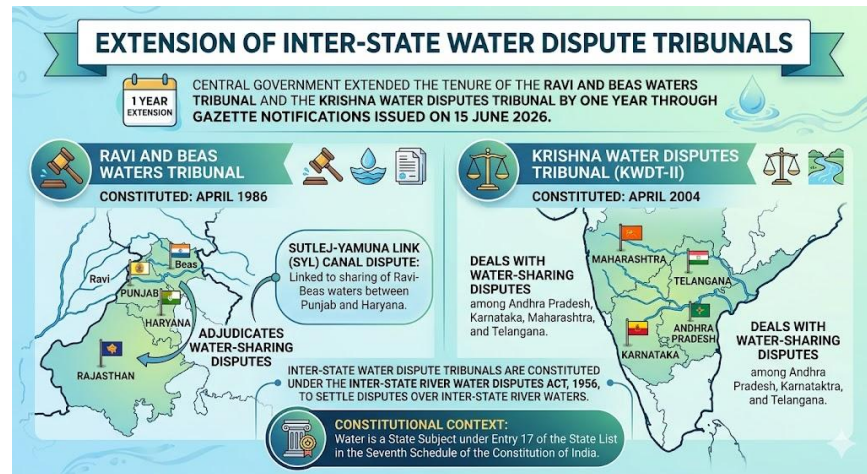
### Mandatory Prescription for Medicinal Syrups

- ❖ The Union Health Ministry has made a doctor's prescription mandatory for purchasing all medicinal syrups, including cough syrups, by removing the term "syrup" from Schedule K of the Drugs Rules, 1945.
- ❖ The decision follows the deaths of more than 300 children in several countries since 2022 due to contamination of India-made cough syrups with ethylene glycol (EG) and diethylene glycol (DEG).
- ❖ Many over-the-counter cough syrups contain a combination of bronchodilators, antihistamines, and decongestants, which may cause harmful effects, especially in children.
- ❖ The contamination incidents highlighted failures in manufacturing quality control, raw material testing, and regulatory oversight, rather than problems related to consumer access.

- ❖ India has around three dozen State drug controllers, but enforcement remains weak because of a shortage of inspectors and inadequate regulatory capacity.
- ❖ The World Health Organization (WHO) issued warnings in 2022 and 2023 regarding contaminated Indian cough syrups, raising concerns about India's pharmaceutical quality standards.



## Extension of Water Dispute Tribunals



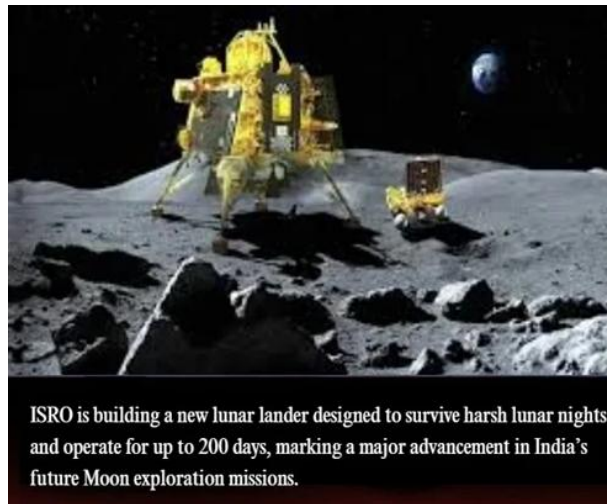
- ❖ The Central Government extended the tenure of the Ravi and Beas Waters Tribunal and the Krishna Water Disputes Tribunal by one year through gazette notifications issued on 15 June 2026.
- ❖ Inter-State Water Dispute Tribunals are constituted under the Inter-State River Water Disputes Act, 1956, to settle disputes over inter-state river waters.
- ❖ The Ravi and Beas Waters Tribunal, constituted in April 1986, adjudicates water-sharing disputes among Punjab, Haryana, and Rajasthan.
- ❖ The Krishna Water Disputes Tribunal (KWDT-II), constituted in April 2004, deals with water-sharing disputes among Andhra Pradesh, Karnataka, Maharashtra, and Telangana.

- ❖ Water is a State subject under Entry 17 of the State List in the Seventh Schedule of the Constitution of India.
- ❖ The Sutlej-Yamuna Link (SYL) Canal dispute is linked to the sharing of Ravi-Beas waters between Punjab and Haryana.

## SCIENCE AND TECHNOLOGY NEWS

### Long-Duration Lunar Lander

- ❖ The Indian Space Research Organisation (ISRO) and the Department of Atomic Energy (DAE) are developing a new lunar lander in 2026 that can operate on the Moon for 100-200 days.
- ❖ The project aims to extend lander operations beyond the 14-day mission life of Chandrayaan-3's Vikram lander.
- ❖ A lunar day and a lunar night each last about 14 Earth days, and lunar night temperatures can fall below  $-100^{\circ}\text{C}$ .
- ❖ ISRO is developing artificial heating systems to protect electronics, batteries, and scientific instruments during the long lunar night.
- ❖ The Vikram lander of Chandrayaan-3 landed near the Moon's south pole on 23 August 2023 and operated for one lunar day using solar power.

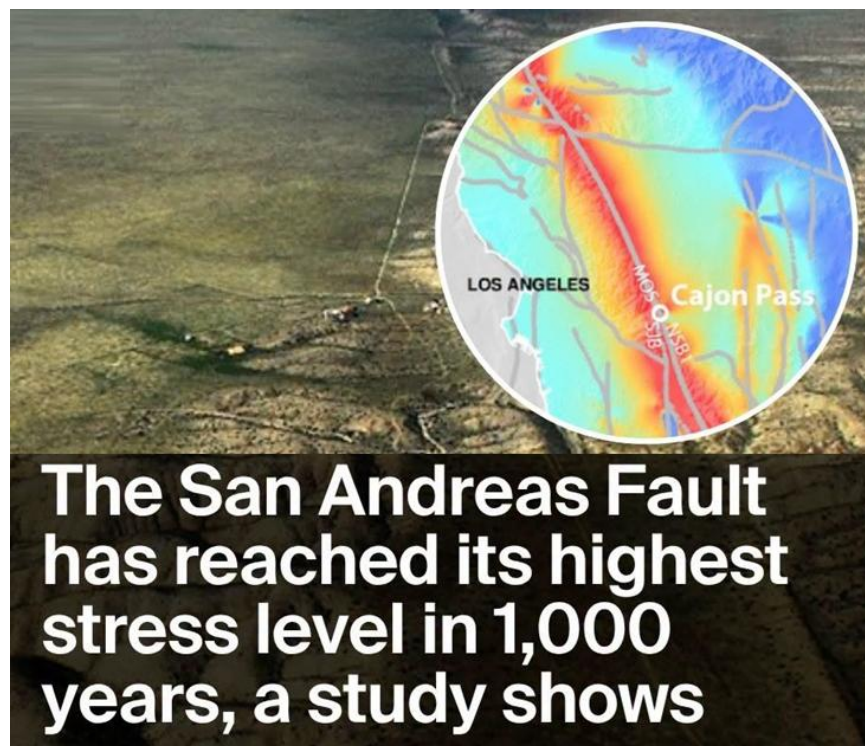


## ENVIRONMENT NEWS

### San Andreas Fault: Highest Stress in 1,000 Years

- ❖ New study suggests the San Andreas Fault (California, United States) has accumulated its highest stress levels in the last 1,000 years.

- ❖ The study was published in the AGU (American Geophysical Union) Journals based on earthquake cycle modelling.
- ❖ Researchers analysed a reconstructed 1,000-year earthquake history using geological and radiocarbon data.
- ❖ The model shows stress build-up beneath the fault, especially near Cajon Pass, where fault strands interact.
- ❖ Elevated stress does not indicate an immediate earthquake, only long-term accumulation of tectonic strain.
- ❖ The San Andreas Fault is a major tectonic boundary where the Pacific Plate and the North American Plate meet.



## REPORTS AND INDICES

### Children's Climate Risk Report 2026 - UNICEF

- ❖ The UNICEF Children's Climate Risk Report 2026 highlights that around 392 million children in India (92%) are exposed to extreme heat, with 89 million children facing recurrent heatwaves.
- ❖ The report identifies India's overall climate hazard exposure score as 9.21/10, among the highest globally.

- ❖ India records 10/10 exposure for extreme heat and 9.94/10 for air pollution, indicating severe environmental risks.
- ❖ The report notes high drought vulnerability (8.84/10) and multiple overlapping risks like heatwaves, floods, and pollution affecting children.
- ❖ It highlights gaps in child-focused Heat Action Plans, especially in schools, anganwadis, and child-specific adaptation measures.



## STATE NEWS

### Kishau Multipurpose Dam Project

#### HM Amit Shah chairs key meeting on Kishau Multi-Purpose Dam

Six states reach consensus on implementation



- ❖ A consensus was reached among six states for the Kishau Multipurpose Dam Project on the Yamuna basin, enabling inter-state water sharing and implementation through a Memorandum of Understanding (MoU).

- ❖ The project is a hydropower and water storage initiative on the Tons River, a major tributary of the Yamuna, aimed at irrigation, drinking water supply, and electricity generation.
- ❖ The participating states are Himachal Pradesh, Uttarakhand, Delhi, Uttar Pradesh, Haryana, and Rajasthan.
- ❖ The Central Government will bear 90% of the water component cost, while the remaining 10% will be shared by the six states.
- ❖ The project is expected to improve the Yamuna River flow, drinking water availability, irrigation support, and hydropower generation.

### **High-Energy Medical Cyclotron Project - Maharashtra**

- ❖ The Maharashtra Cabinet approved the ₹300-crore High-Energy Medical Cyclotron Project (HEMCP) in Nagpur.
- ❖ The project is a nuclear medicine facility based on a high-energy particle accelerator (cyclotron) to produce short-lived medical radioisotopes.
- ❖ These radioisotopes will be used in PET-CT imaging, cancer diagnosis, and targeted nuclear medicine therapies.
- ❖ The facility will support major institutions like AIIMS Nagpur, National Cancer Institute (NCI), and Government Medical College (GMC).
- ❖ The project is jointly funded by government departments under a 50:50 financial model and will be managed through a dedicated Special Purpose Vehicle (SPV).



## **IMPORTANT DAYS**

### **Autistic Pride Day 2026 - June 18**

- ❖ The day aims to promote understanding and acceptance of autism.

- ❖ The day recognises autism as a neurological difference and not a disease, and encourages pride among autistic people.
- ❖ Autism Spectrum Disorder (ASD) is a group of complex neuro-developmental disorders characterised by difficulties in social interaction, communication, and repetitive patterns of behaviour.
- ❖ Autism Spectrum Disorder (ASD) is a lifelong condition that usually appears during the first three years of life.
- ❖ The exact cause of autism is unknown, but it is associated with genetic and environmental factors.
- ❖ The theme for the year 2026 is “Recognition, Representation and Reform.”



### **World Sickle Cell Day 2026 - June 19**

- ❖ The day aims to raise global awareness about sickle cell disease.
- ❖ Sickle cell disease is a monogenic disorder affecting over 3,00,000 births worldwide every year.
- ❖ India has the second-highest burden of sickle cell disease, especially among scheduled tribes and marginalized communities.
- ❖ The disease is caused by abnormal haemoglobin that makes red blood cells sickle-shaped and affects oxygen transport.

- ❖ The United Nations (UN) General Assembly (2008 resolution) declared 19 June as World Sickle Cell Day for global awareness.
- ❖ The theme for the year 2026 is “Closing the Survival Gap: Equity in Sickle Cell Disease”.

