



December - 08

TNPSC BITS

- ❖ The Melamadai junction flyover in Madurai, which is named after freedom fighter Velu Nachiyar. was inaugurated by TN Chief Minister.
- ❖ A private member's bill aimed at allowing employees to refrain from attending to work-related calls and emails outside office hours (Right to Disconnect Bill) was introduced in the Lok Sabha by NCP MP Supriya Sule
- ❖ India and Nepal have signed a Letter of Exchange to expand rail-based trade connectivity via key transit corridors, including Jogbani–Biratnagar.
- ❖ Oman has been elected as a member of the UNESCO Man and the Biosphere (MAB) Council for the 2025–2029 term during the 43rd UNESCO General Conference in Samarkand.
- ❖ Victoria University (Australia) will open its first Indian campus in Gurugram (Haryana) by mid-2026.
 - o It is one of the first foreign universities approved under India's National Education Policy (NEP 2020).
- ❖ Israel approved a plan on 23 November 2025 to bring all remaining 5,800 Bnei Menashe Jews from Northeast India by 2030.
 - The plan includes a special budget of 90 million shekels (USD 27 million) for travel, housing, Hebrew lessons, and conversion classes.

NATIONAL NEWS

National Security Cess Bill, 2025

- ❖ The Lok Sabha has passed the Health Security Se National Security Cess Bill, 2025.
- ❖ The Bill aims to levy a cess on machines used to manufacture pan masala to support India's health and national security.
- ❖ The cess amount depends on how many pouches a machine produces per minute and the weight of pan masala packed in each pouch.
- ❖ The cess ranges from ₹1.01 crore to ₹2.5 crore per month per machine, and violations can lead to up to 5 years of imprisonment.
- ❖ According to the Global Adult Tobacco Survey (GATS-2), 42% of men and 14% of women in India use tobacco.
- This is making India as home to 70% of the world's smokeless tobacco users.





- ❖ The economic cost of tobacco use in India was ₹1.77 lakh crore in 2016-17.
- ❖ The government has clarified that 41% of duties collected will be shared with the States.



India's Quantum 2047 Roadmap



- NITI Aayog's Frontier Technology Hub released a roadmap to make India a top-3 quantum-powered economy by 2047.
- ❖ The roadmap, developed with International Business Machines Corporation (IBM), outlines the steps to strengthen research, talent, commercialization, and quantum technology deployment.
- ❖ It builds on the National Quantum Mission to expand the quantum computing, secure communication, precision sensing, and advanced materials in India.

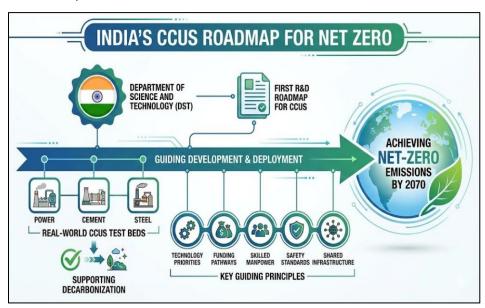




❖ The roadmap highlights the role of quantum technologies in transforming sectors like healthcare, finance, logistics, energy, and national security.

CCUS Roadmap for Net Zero

- ❖ India has launched its first R&D Roadmap for Carbon Capture, Utilization and Storage (CCUS).
- ❖ The roadmap was prepared by the Department of Science and Technology.
- ❖ It aims to support India's climate goal of achieving Net-Zero emissions by 2070 by guiding CCUS technology development and deployment.
- ❖ DST has created CCUS test beds in real industries like power, cement, and steel to support decarbonization.
- ❖ The roadmap guides technology priorities, funding pathways, skilled manpower, safety standards, and shared infrastructure.



New Community Disease Reporting System

- ❖ The National Centre for Disease Control (NCDC) has launched a citizen-based reporting system to give early alerts of disease outbreaks.
- ❖ People can report unusual health events by scanning a Quick Response (QR) code provided by the Ministry of Health and NCDC.
- ❖ Each report is sent instantly to district, state and national dashboards under the Integrated Disease Surveillance Programme (IDSP).
- ❖ The system uses the secure government servers and cybersecurity protocols to protect user data.



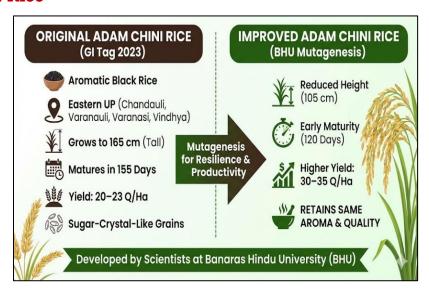


❖ It aims to detect outbreaks before patients reach health facilities, though only about 100 validated reports have been recorded since its nationwide launch in January 2024.



SCIENCE AND TECHNOLOGY NEWS

Adam Chini Rice



- Scientists at Banaras Hindu University (BHU) improved Adam Chini Rice using mutagenesis to increase resilience and productivity.
- ❖ Adam Chini Rice is an aromatic black rice variety mainly grown in Eastern Uttar Pradesh, including Chandauli, Varanasi and the Vindhya region.
- ❖ It received a Geographical Indication (GI) tag in 2023.
- ❖ The original variety has sugar-crystal-like grains, grows up to 165 cm, matures in 155 days and yields 20–23 quintals per hectare.





❖ The improved mutants now have reduced height (105 cm), early maturity (120 days) and higher yields (30–35 quintals per hectare) while keeping the same aroma.

STATES' NEWS

'Sahajeevan' Stray Dog Management Project - Assam



- ❖ The Guwahati Municipal Corporation (GMC) launched the "Sahajeevan" project after the Supreme Court directives to shift stray dogs from public places to shelters.
- ❖ The project focuses on relocating dogs safely, vaccinating them, and promoting human–animal coexistence.
- ❖ Since 2014, GMC has sterilised 24,016 dogs under the Animal Birth Control (ABC) programme.
- ❖ But the dog bite cases in Assam rose from 90,000 (2013) to 1.5 lakh (2024).
- ❖ The new project aims to expand the vaccination, sterilisation, and feeding arrangements to control the rising stray dog population.

PERSONALITIES, AWARDS, AND EVENTS

JSJB Awards 2025

❖ The Ministry of Jal Shakti announced the Jal Sanchay Jan Bhagidari (JSJB) Awards 2025.





- ❖ The awards are part of the Jal Shakti Abhiyan: Catch the Rain (JSA: CTR) campaign launched on 6 September 2024.
- ❖ Best Performing States: Telangana, Chhattisgarh, and Rajasthan.
- ❖ Top Districts: Mirzapur (Uttar Pradesh), Balod (Chhattisgarh), and Adilabad (Telangana).
- ❖ Best Municipal Corporations: Raipur (Chhattisgarh) and Hyderabad (Telangana).
- ❖ Best NGOs and Philanthropists: Jaltara Save Groundwater, Art of Living, and Karmabhoomi se Matrabhoomi.

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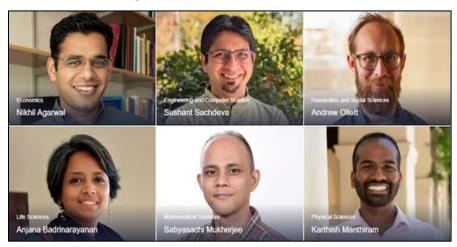
Infosys Prize 2025 Winners

- ❖ The Infosys Science Foundation announced the Prize for the year 2025 in six major categories.
- ❖ Each winner receives a gold medal, a citation, and prize money of \$100,000.
- ❖ Nikhil Agarwal, Massachusetts Institute of Technology, USA, won in Economics for market design and allocation mechanisms.
- Sushant Sachdeva, University of Toronto, Canada, won in Engineering and Computer Science for mathematical optimization and algorithmic theory.
- ❖ Andrew Ollett, University of Chicago, USA, won in Humanities and Social Sciences for research on Prakrit, Kannada, and Indian linguistics.
- ❖ Anjana Badrinarayanan, the National Centre for Biological Sciences of Bengaluru in India won in Life Sciences for DNA repair and genome maintenance studies.





- Sabyasachi Mukherjee, Tata Institute of Fundamental Research, Mumbai, India, won in Mathematical Sciences for complex dynamics and conformal mathematics.
- ❖ Karthish Manthiram, California Institute of Technology, USA, won in Physical Sciences for sustainable electrochemical synthesis and renewable-driven chemical manufacturing.



IMPORTANT DAYS

International Cheetah Day 2025 - December 04



❖ This day aims to spread awareness about protecting cheetahs (Acinonyx jubatus) and preventing their extinction.





- ❖ The day was started in 2010 by Dr. Laurie Marker, founder of the Cheetah Conservation Fund (CCF).
- ❖ India declared cheetahs extinct in 1952 and launched Project Cheetah in 2022 to reintroduce them.
- ❖ As of 2025, India has 32 cheetahs, including 21 cubs born in India.
- ❖ Cheetahs are listed as Vulnerable by the International Union for Conservation of Nature (IUCN).

International Volunteer Day 2025 - December 05



- ❖ This day aims to appreciate volunteers and promote volunteer work for global development.
- ❖ International Volunteer Day was established by the United Nations General Assembly (UNGA) in 1985.
- ❖ The year 2026 is declared as the International Year of Volunteers for Sustainable Development (IVY 2026) by UNGA Resolution.
- ❖ The theme for 2025 is "Every Contribution Matters."

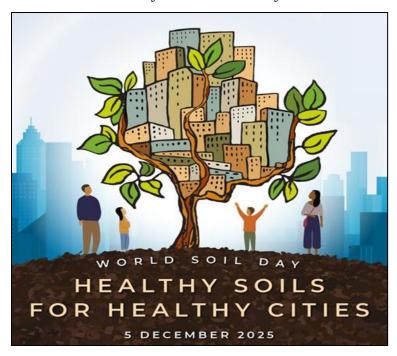
World Soil Day 2025 - December 05

- ❖ This day aims to raise awareness about the importance of healthy soil for life and sustainability.
- ❖ World Soil Day was first proposed in 2002 by the International Union of Soil Sciences (IUSS).





- ❖ It was officially recognized by the UN General Assembly in 2013, and the first celebration was held on 5 December 2014.
- ❖ The theme for 2025 is "Healthy Soils for Healthy Cities."



MISCELLANEOUS NEWS

Karahan Tepe - 11,000 Year Old Site

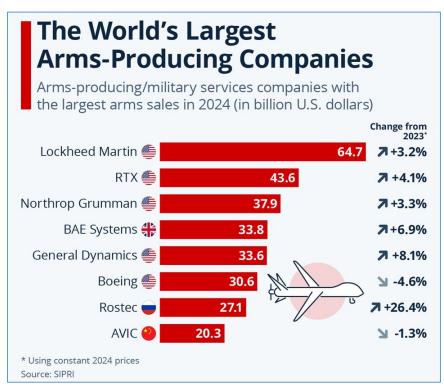






- ❖ Karahan Tepe is an 11,000-year-old Pre-Pottery Neolithic site located in Sanliurfa Province, southeastern Türkiye, near the well-known site of Göbekli Tepe.
- ❖ It is part of the Taş Tepeler (Stone Hills) group.
- ❖ It was inhabited from around 9400 to 8000 BCE on a limestone plateau between the Tigris and Euphrates rivers.
- ❖ The site contains early residential structures, ritual enclosures, and T-shaped stone monoliths that show organised communal activity.
- ❖ Archaeologists recently found the first human-faced T-shaped pillar along with carved human faces, stitched-lip figurines, serpentinite beads, and hybrid animal-human sculptures.
- ❖ Karahan Tepe also features anthropomorphic pillars with carved arms, hands, belts, fur garments, and a 2.3-metre-tall male statue.

Top Global Defence Firms 2024



- ❖ In 2024, SIPRI (Stockholm International Peace Research Institute) released the Top 100 Arms-Producing and Military Services Companies ranking.
- ❖ Indian Public Sector Undertakings (PSUs) featured among the top 100:
 - o Hindustan Aeronautics Limited (HAL) 44th, USD 4,010 million
 - o Bharat Electronics Limited (BEL) 58th, USD 2,750 million





- o Mazagon Dock Shipbuilders Limited (MDL) 91st, USD 1,370 million
- ❖ Top 3 global companies: Lockheed Martin (USA), RTX (USA), Northrop Grumman (USA).
- ❖ The total revenue of the Top 100 companies reached USD 679 billion in 2024.
- ❖ India's total arms revenue in 2024 was USD 7.5 billion, an 8.2% increase from 2023, contributing 1.1% of global arms revenue.
- SIPRI was established in 1966 and headquartered in Stockholm, Sweden.
- ❖ It publishes this ranking annually based on arms sales, military products, and related services.

Three Guinness Titles for India



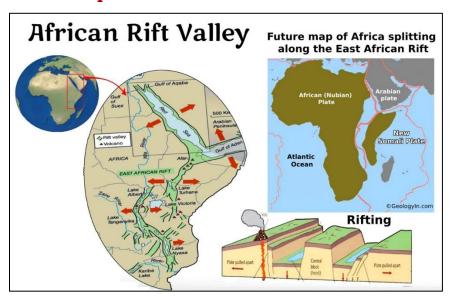
- ❖ India achieved three Guinness World Records under the Swasth Nari, Sashakt Parivar Abhiyaan (SNSPA) led by the Union Health Ministry.
- Swasth Nari, Sashakt Parivar Abhiyaan is a nationwide health initiative that aims to ensure healthy women for healthy and empowered families.
- SNSPA focuses on women's health, nutrition, early disease detection, and access to essential health services.
- The records include
 - o The most registrations on a health platform in one month (3.21 crore),
 - o The most breast cancer screening sign-ups in one week (9.94 lakh), and





- The most vital signs screening sign-ups in one week at the state level (1.25 lakh).
- ❖ The campaign ran nationwide from 17 September to 2 October 2025 during Poshan Maah (Nutrition Month).
- ❖ The drive enabled large-scale screenings across India, including hypertension, diabetes, cancer, TB, anaemia, and other preventive health checks.

Africa's Continental Split



- ❖ A New magnetic data analysed in 2025 show strong evidence of ongoing crustal separation in the Afar Region that may lead to Africa splitting into two landmasses.
- ❖ The Afar Region is a triple junction where the Main Ethiopian Rift, Red Sea Rift, and Gulf of Aden Rift meet.
- ❖ Reinterpreted 1960s magnetic data show past seafloor spreading between Africa and Arabia.
- ❖ The East African Rift is widening as the crust stretches and thins.
- ❖ The continental tearing is moving from the northeast towards the south.
- ❖ Scientists estimate that a new ocean basin could form in about 5–10 million years.

