

August - 09

TNPSC BITS

- ❖ The Indian Air Force (IAF) concluded Exercise ROTOR CLAP III at the Pokhran Field Firing Range, Jaisalmer district, Rajasthan.
- ❖ The Indian Army introduced Xtreme Weather Grade (XWG) Diesel; an indigenous fuel designed to operate in extreme cold conditions up to -42°C .
- ❖ A snow leopard (*Panthera uncia*) was spotted for the first time in the Dhauladhar Wildlife Sanctuary, Kangra district, Himachal Pradesh.
- ❖ Nathan Thomas, an 18-year-old engineering educator from the United States of America (USA), became the world's youngest male professor at the age of 18 years and 346 days, breaking a 306-year-old Guinness World Record.
- ❖ Felix Gerald has been appointed as the Chairman of the Tamil Nadu State Minorities Commission by the Tamil Nadu Government.
- ❖ A new species of stream-loving catfish, *Pseudecheneis likimroensis*, has been discovered in the fast-flowing Likimro River in Nagaland and named after the river.

TAMIL NADU NEWS

Environmental and Social Welfare Cess on Liquor



- ❖ Tamil Nadu introduced a Bill, proposing an Environmental and Social Welfare Cess on the sale of alcoholic liquor.

- ❖ The cess will fund recycling, safe disposal and reuse of liquor bottles and containers.
- ❖ The revenue will support rehabilitation and de-addiction programmes and livelihood assistance for families affected by alcohol addiction.
- ❖ It will also fund public awareness campaigns on alcohol-related harm and improper disposal of liquor containers.
- ❖ The funds will be used for the protection and restoration of forests, wildlife and ecology.
- ❖ The Bill proposes to amend the Tamil Nadu Value Added Tax (VAT) Act, 2006.

NATIONAL NEWS

GI and Beyond 2.0 Summit



- ❖ The GI & Beyond 2.0 Summit was held in New Delhi to promote India's Geographical Indication (GI)-tagged handloom and handicraft products.

- ❖ The Digital Handloom Atlas – “One Platform. Endless Markets” was launched to improve the visibility and market access of Indian handloom products.
- ❖ New GI certificates were presented for Ladakh Nambu Textile, Ladakh Pashmina Textile, Himachal Gudma and Himachal Lingchay.
- ❖ GI certificates were also presented for Jharkhand Bamboo Craft, Jharkhand Tussar Silk Saree & Fabrics, Munda Jewellery of Jharkhand and Bareilly Terracotta.
- ❖ The summit showcased more than 100 GI-registered handloom and handicraft products and included live demonstrations by artisans and weavers.
- ❖ The Handloom Export Promotion Council (HEPC) unveiled its Diamond Jubilee Logo, marking 60 years of promoting India’s handloom exports.

Indian Statistical Institute Bill, 2026



- ❖ The Indian Statistical Institute (ISI) Bill, 2026 was introduced in the Lok Sabha to replace the Indian Statistical Institute Act, 1959 and change its governance structure.
- ❖ ISI was founded by P.C. Mahalanobis in 1931 and was declared an Institution of National Importance under the 1959 Act.
- ❖ The Bill proposes to convert ISI from a society into a statutory body corporate and create an 11-member Board of Governors as its main policy-making body.
- ❖ The President of India will be the Visitor, while an Academic Council will manage academic matters such as courses and examinations.

- ❖ The Bill also proposes changes in the appointment and review of the Director and transfers the existing institute's assets, liabilities, employees and academic programmes to the new statutory body.
- ❖ Indian Statistical Institute was founded in Kolkata and has centres in Delhi, Bengaluru, Chennai and Tezpur.

PM Vidyalaxmi Scheme update



- ❖ PM Vidyalaxmi Scheme expands access to higher education with collateral-free loans, interest support.
- ❖ It is an initiative of the Ministry of Education to provide collateral-free and guarantor-free education loans.
- ❖ These loans can be accessed by all students admitted on merit to any designated Quality Higher Education Institution (QHEI) in India.
- ❖ The scheme was launched to support the objectives of the National Education Policy, 2020 and Sustainable Development Goal 4, with its focus on inclusive and equitable access to quality education.
- ❖ India's higher education enrolment ratio has seen a remarkable increase from 23.7% in 2014-15 to 30% in 2023-24.

- ❖ PM Vidyalaxmi covers higher education institutions in the top 100 of the National Institutional Ranking Framework (NIRF) in the overall, category-specific and domain-specific categories.
- ❖ The education loans available under PM Vidyalaxmi do not have any upper limit, and the sanctioned amount depends on the course fee and other approved educational expenses.
- ❖ The loan could cover tuition and institutional fees, hostel and mess charges, refundable and non-refundable fees charged by the institution, laptop and living expenses during the course.
- ❖ The loans disbursed under PM Vidyalaxmi are provided through Scheduled Banks, Regional Rural Banks and Cooperative Banks.
- ❖ The government also provides a 75% credit guarantee on loans up to Rs 7.5 lakhs.
- ❖ Borrowers can also claim tax benefits on the interest that is paid under Section 80E.
- ❖ PM Vidyalaxmi is not an isolated scheme and complements the existing Pradhan Mantri Uchchatar Shiksha Protsahan Central Sector Interest Subsidy Scheme, or PM-USP CSIS.
- ❖ The PM-USP CSIS covers loans for students with an annual family income of Rs 4.5 lakhs and may receive 100% interest subvention.

Bharat Maritime Insurance Pool (BMIP)

Creation of
'Bharat Maritime Insurance Pool'
(BMI Pool)

Cabinet approves creation of 'Bharat Maritime Insurance Pool' (BMI Pool) with a **sovereign guarantee of ₹12,980 crore** to ensure continuous maritime insurance coverage

The Domestic Insurance Pool aims to **reduce dependence on foreign insurers (IGP&I Clubs)** amid global volatility and geopolitical instability

BMI Pool will cover **Indian-flagged/controlled vessels** carrying cargo from any International origin to **Indian ports** and **vice-versa** including transit through **volatile maritime corridors**

- ❖ It was India's first sovereign-backed maritime insurance and risk-sharing mechanism.

- ❖ It was launched by the Ministry of Finance's Department of Financial Services (DFS).
- ❖ The war risk premium rates have decreased approximately by 35-40 percent - levels observed at the height of the West Asia conflict.
- ❖ It ensures the continuity of maritime war risk insurance coverage.
- ❖ It fosters the development of domestic underwriting capacity and enhances confidence among India's shipping and trade stakeholders.

ECONOMY NEWS

E-Commerce Export Framework

- ❖ The Government operationalised the Inventory-based Cross-border E-Commerce Export Framework under the Foreign Trade Policy (FTP), 2023.
- ❖ The framework allows e-commerce companies to hold goods in India exclusively to fulfil confirmed overseas export orders.
- ❖ Exports must be handled through an Exporter-on-Record (EOR), who procures goods from Sellers-on-Record (SORs) against confirmed overseas orders.
- ❖ The EOR handles customs, documentation, testing, packaging, labelling, logistics and compliance with destination-country requirements.
- ❖ The framework prevents speculative inventory and diversion to the domestic market, while helping Micro, Small and Medium Enterprises (MSMEs), artisans and manufacturers access global e-commerce markets.



RBI's New NBFC List

- ❖ The Reserve Bank of India (RBI) released the updated list of Upper Layer Non-Banking Financial Companies (NBFCs) for 2026-27.

- ❖ The list contains 17 NBFCs, up from 15 in the previous list.
- ❖ The RBI introduced an asset-size threshold of ₹1 lakh crore or more for identifying Upper Layer NBFCs in June 2026.
- ❖ REC Limited, Power Finance Corporation, Indian Railway Finance Corporation and Housing and Urban Development Corporation were added to the list.
- ❖ PNB Housing Finance and Sammaan Capital were excluded based on the revised asset-size criterion, but remain under enhanced regulation due to the five-year lock-in period.
- ❖ Tata Sons Private Limited continues to be examined regarding its application to surrender its Core Investment Company (CIC) registration.

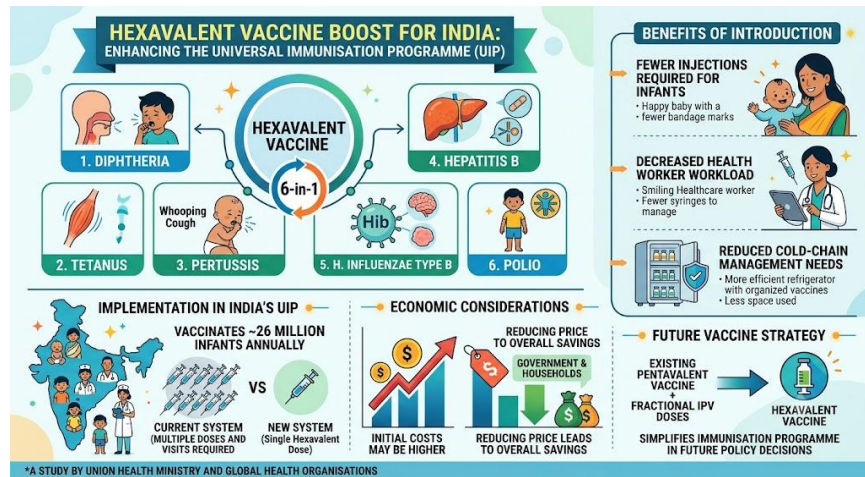


SCIENCE AND TECHNOLOGY NEWS

Hexavalent Vaccine Boost for India

- ❖ A study by the Union Health Ministry and global health organisations found that introducing the Hexavalent (six-in-one) vaccine in India's Universal Immunisation Programme (UIP) could improve vaccination efficiency.
- ❖ The Hexavalent vaccine protects against six diseases — Diphtheria, Tetanus, Pertussis (whooping cough), Hepatitis B, Haemophilus influenzae type b (Hib), and Polio.
- ❖ It can reduce the number of injections required for infants, decrease the workload of health workers, and reduce cold-chain management needs.
- ❖ India vaccinates around 26 million infants annually, and the current system requires multiple vaccine doses during visits.
- ❖ The study found that although the vaccine may have higher initial costs, reducing its price could result in overall savings for the government and households.

- ❖ The vaccine could simplify India's immunisation programme by replacing the existing Pentavalent vaccine and Fractional Inactivated Polio Vaccine (IPV) doses in future policy decisions.



25 years of the Himalayan Chandra Telescope in Hanle



- ❖ It is operated by the Indian Institute of Astrophysics (IIA) under the Department of Science and Technology (DST).
- ❖ Hanle offers over 250 clear nights annually, making it ideal for optical and near-infrared astronomy.
- ❖ It has been remotely operated from Hosakote, Bengaluru using an INSAT-3B satellite link.

- ❖ It is named after Nobel laureate Subrahmanyan Chandrasekhar and achieved its First Light on 26 September 2000.

ENVIRONMENT NEWS

10-km Mining Buffer for Wetlands

- ❖ The Supreme Court ruled that a 10-km mining buffer applies to all notified wetland reserves, even when a separate buffer has not been notified.
- ❖ The ruling aims to protect ecologically fragile wetlands from the harmful effects of mining activities.
- ❖ Wetlands are regulated under the Wetlands (Conservation and Management) Rules, 2017, framed under the Environment (Protection) Act, 1986.
- ❖ The State Wetland Authority (SWA) is responsible for the conservation and management of notified wetlands in each State/Union Territory (UT).
- ❖ India is a party to the Ramsar Convention on Wetlands (1971), which promotes the conservation and wise use of wetlands.
- ❖ As of 2026, India has 91 Ramsar Sites.



Pigeonpea T2T Genome - ICAR

- ❖ The Indian Council of Agricultural Research (ICAR) developed India's first fully annotated Telomere-to-Telomere (T2T) reference genome of pigeonpea variety 'Asha'.
- ❖ The genome contains 752.65 million base pairs, 11 chromosomes, 11 centromeres and 22 telomeres.

- ❖ The annotated genome contains 36,557 genes and 48,008 mRNAs, with more than 99.9% read alignment accuracy.
- ❖ Pigeonpea, also called red gram or arhar, is a major pulse crop and belongs to the Fabaceae family.
- ❖ The genome can support the development of high-yielding and climate-resilient pigeonpea varieties.

INDIA'S FIRST

TELOMERE-TO-TELOMERE (T2T)

REFERENCE GENOME OF PIGEONPEA

— DEVELOPED BY —
*ICAR–National Institute for
Plant Biotechnology (ICAR–NIPB),
New Delhi*



National Catalogue of Butterflies and Moths

- ❖ Zoological Survey of India (ZSI) under the Union Ministry of Environment, Forest and Climate Change announced the completion of the National Catalogue of Lepidoptera (Butterflies and Moths), the final volume was published in Zoo Taxa.
- ❖ India Achieves Historic Milestone in Biodiversity Science.
- ❖ Indian Lepidoptera is 13,703 species across 3,705 genera, 240 subfamilies, 102 families, and 31 superfamilies.
- ❖ It represents approximately 8.25% of all known butterfly and moth species worldwide.
- ❖ India is a Global Hotspot for Geometroidea Moths.
- ❖ key milestone within this initiative is the groundbreaking catalogue dedicated to the moth superfamily Geometroidea.
- ❖ It is establishing India as a global sanctuary for nocturnal pollinators

- ❖ Geometroidea in India is 2,205 species across 479 genera, 13 subfamilies, and 4 families
- ❖ It accounts for 8.80% of the world's known species in this superfamily.
- ❖ India's starkly contrasting ecosystems range from the high-altitude, freezing Himalayan zones to the humid, lush tropical rainforests of the Western Ghats—serving as evolutionary sanctuaries.

• **Family Composition**

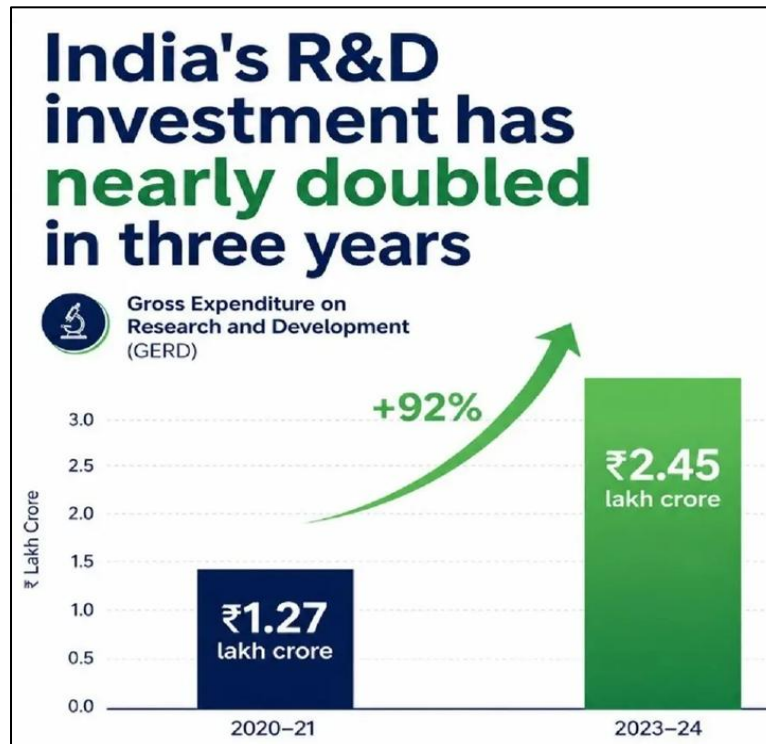
- **Geometridae** – 2,100 species, 445 genera.
- **Uraniidae** – 95 species, 27 genera.
- **Epicopeiidae** – 9 species, 6 genera.
- **Pseudobistonidae** – 1 species, 1 genus.

• **Subfamilies**

- Ennominae (895 species),
- Larentiinae (565 species),
- Geometrinae (309 species).
- Epidesmiinae (Geometridae) and Heraculinae (Pseudobistonidae) are each represented by a single species in India.

REPORTS AND INDICES

India's R and D Report 2025–26



- ❖ The Department of Science and Technology (DST) released the Research and Development (R&D) Statistics 2025–26 report.

- ❖ India ranked 3rd globally in scientific publications in 2022, after China and the United States (US), and filed 1.10 lakh patents in 2024–25.
- ❖ India's Gross Expenditure on Research and Development (GERD) rose to a record 0.84% of Gross Domestic Product (GDP) in 2023–24, from 0.64% in 2020–21.
- ❖ GERD increased more than three times to ₹2.45 lakh crore in 2023–24 from ₹79,356 crore in 2013–14.
- ❖ The private sector's share in R&D increased to 45.2%, while women formed 29% of India's R&D workforce in 2023–24.
- ❖ India had about 5 lakh full-time equivalent researchers, equal to 354 researchers per million population.

PERSONALITIES, AWARDS, AND EVENTS

Sarvottam Jeevan Raksha Padak 2026



- ❖ Union Minister for Road Transport and Highways conferred the Sarvottam Jeevan Raksha Padak on 12 rat-hole miners in New Delhi for their bravery in saving lives.
- ❖ It is the highest category of the Jeevan Raksha Padak, a civilian life-saving award administered by the Ministry of Home Affairs (MHA).
- ❖ The award was instituted on 30 September 1961 and later organised into three levels: Sarvottam, Uttam and Jeevan Raksha Padak.



- ❖ It honours people who save human lives while facing extreme personal risk, including during mine collapses, fires, floods and other disasters.
- ❖ The award is open to all citizens and can also be given posthumously; recipients receive a ₹2 lakh monetary grant, medal and certificate.

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