

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 28-10-2025

Table of Content

22nd India-ASEAN Summit

Rising Elderly Population in India

7 Projects Approved Under Electronics Component Manufacturing Scheme

India Needs a Green Fodder Revolution

United Nations Convention against Cybercrime

Great Nicobar Project to Boost India's Maritime Global Trade

News In Short

National Seeds Corporation

Adjusted Gross Revenue (AGR)

Rashtriya Vigyan Puraskar 2025

Burevestnik Missile

Red Sanders

Intrusion Detection System to Protect Elephants

Digital Arrest

Stanford/Elsevier's Rank List

22ND INDIA-ASEAN SUMMIT

Context

- The 22nd Association of Southeast Asian Nations (ASEAN)-India Summit was held in Malaysia.
 - The Philippines set to take over the seat in 2026.

Key Highlights of the Summit

- Reviewed progress in ASEAN-India relations and discussed new initiatives to strengthen the Comprehensive Strategic Partnership.
 - This marked his 12th participation in the India-ASEAN Summit.
- The summit called for the early review of the ASEAN-India Free Trade Agreement (AITIGA).
- In line with the Malaysian Chair's theme of "Inclusivity and Sustainability," the Prime Minister announced a series of initiatives to deepen cooperation:
 - implementation of the ASEAN-India Plan of Action (2026–2030),
 - adoption of the ASEAN-India Joint Leaders' Statement on Sustainable Tourism.
 - and designation of 2026 as the "ASEAN-India Year of Maritime Cooperation."
 - Holding East Asia Summit Maritime Heritage Festival at Lothal, Gujarat.
- He also proposed organising the Second ASEAN-India Defence Ministers' Meeting and the Second ASEAN-India Maritime Exercise to promote a secure and open maritime environment.

Association of Southeast Asian Nations (ASEAN)

- It was established in 1967 in Bangkok, Thailand.
- It was founded by five countries: Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
- **Aim:** To promote regional cooperation and stability amid Cold War tensions.
- **Headquarters:** Jakarta, Indonesia.
- Current Member States: ASEAN currently consists of 11 member countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam and East Timor.
- ASEAN maintains dialogue partnerships with multiple countries and organizations, including India, China, the USA, Japan, Australia, the EU, and others.

Brief on India-ASEAN Relations

- Foundation: Cooperation began in the 1990s.
 - Driven by shared economic and strategic interests.
 - Also a response to China's growing influence in the region.
- Policy Framework: "Look East Policy" initiated in the 1990s, it was transformed into the "Act East Policy" in 2014, marking a more action-oriented approach to deepen ties with ASEAN.

• Milestones in the Partnership:

- ◆ 1992: India became a Sectoral Dialogue Partner.
- 1996: Elevated to Full Dialogue Partner.
- 2012: Upgraded to a Strategic Partnership.
- 2022: Elevated to a Comprehensive Strategic Partnership.
- Trade and investment: India and ASEAN have signed a Free Trade Agreement (FTA), significantly boosting trade and investment.
 - ASEAN is India's 4th largest trading partner, with total trade reaching US\$110.4 billion in 2021-22.
 - Between FY 2009 and FY 2023, India's imports from ASEAN surged by 234.4 percent, while its exports to the bloc increased by only 130.4 percent.
 - Consequently, India's trade deficit with ASEAN widened from US\$7.5 billion in 2011 to approximately US\$44 billion in 2023.
- Regional connectivity: India is working to improve connectivity with ASEAN through projects like the India-Myanmar-Thailand (IMT) trilateral highway and the Kaladan Multimodal Transit Transport project.
- Defense and security: Defense ties between India and ASEAN have deepened through joint military exercises such as the ASEAN-India Maritime Exercise and participation in the ASEAN Defense Ministers' Meeting Plus (ADMM+).
 - India also places ASEAN at the heart of its Indo-Pacific vision for regional security and growth (SAGAR – Security and Growth for All in the Region).
- Socio-cultural cooperation: To strengthen people-to-people connections, India and ASEAN have promoted various cultural exchanges, such as the ASEAN Students Exchange Programme, training courses for ASEAN diplomats, and the ASEAN-India Network of Think Tanks.



India-ASEAN FTA

- The Framework Agreement on Comprehensive Economic Cooperation between ASEAN and India was signed in 2003, establishing the legal foundation for subsequent agreements.
 - These agreements include the trade in goods agreement, trade in services agreement, and investment agreement, which together form the ASEAN-India Free Trade Area (AIFTA).
- The ASEAN-India Trade in Goods Agreement was signed and came into effect in 2010.
 - Under this agreement, ASEAN member states and India committed to gradually open their markets by reducing and eliminating tariffs on 76.4% of goods.
- The ASEAN-India Trade in Services Agreement, signed in 2014, includes provisions on transparency, domestic regulations, market access, national treatment, recognition, and dispute settlement.
- The ASEAN-India Investment Agreement, also signed in 2014, ensures protection of investments, including fair and equitable treatment for investors, non-discriminatory practices in cases of expropriation or nationalization, and guarantees of fair compensation.

Challenges With AIFTA

- Widening Trade Deficit: India's trade deficit with ASEAN has consistently widened since the FTA. Indian imports from ASEAN grew faster than exports, leading to asymmetrical gains.
- Limited Market Access for Indian Services: The India-ASEAN Trade in Services and Investment Agreements, which came into force in 2015, remain underutilised.
 - Despite India's strength in services, ASEAN countries offered limited liberalisation in sectors like IT, professional services, and healthcare.
- Non-Tariff Barriers (NTBs): ASEAN members often impose complex standards, licensing requirements, and other regulatory barriers.
 - These nullify tariff concessions and restrict Indian exports, especially in agriculture and pharmaceuticals.
- Rules of Origin Issues: Lax rules of origin enable third countries (like China) to route goods via ASEAN to India, exploiting tariff benefits.
 - This undermines domestic manufacturing under Make in India.

- Limited Gains for Indian Agriculture: Indian agricultural products face high sanitary and phytosanitary standards and quota restrictions.
 - Meanwhile, ASEAN countries export cheap palm oil, rubber, and spices, hurting Indian farmers.
- Negotiation Imbalance: India often faces difficulty in securing reciprocal concessions.
 - ASEAN acts as a bloc, whereas India negotiates alone, leading to less negotiating leverage.

Way Forward

- Non-Tariff Barriers (NTBs): India must push for a transparent mechanism to address NTBs, particularly in sectors like pharmaceuticals and agricultural products.
- Rules of Origin (RoO): Tighter and clearer RoO criteria can prevent circumvention and ensure that genuine ASEAN-India trade flows are promoted.
- Supply Chain Resilience: India and ASEAN share an interest in reducing overdependence on single-country supply chains, collaborative investment in resilient and diversified supply chains in electronics, semiconductors, and critical minerals could be a win-win.
- Sustainability and Green Growth: Joint ventures in solar energy, electric mobility, and climate-smart agriculture could strengthen the partnership.

Source: TH

RISING ELDERLY POPULATION IN INDIA

Context

 India's senior citizen population is projected to surge to around 230 million by 2036, making up about 15% of the total population.

Elderly Population in India

- The sex ratio among the elderly stands at 1,065 females per 1,000 males, with women accounting for 58% of the elderly population, out of which 54% are widows.
- Furthermore, the overall dependency ratio is 62 dependents per 100 working-age individuals, highlighting the increasing socio-economic implications of population ageing in India.

 Southern states, along with Himachal Pradesh and Punjab, have higher elderly populations, with regional disparities expected to widen by 2036.

Challenges Faced by Elderly Population

- Health: Stigmatised mental health conditions (dementia, Alzheimer's), rising disabilities, inadequate geriatric infrastructure, Urban-rural divide in access to medical services.
- Economic: Insufficient social security provisions, rise of living and medical expenses, limited financial resources.
- **Social:** Weakening family support systems, social isolation, neglect, lack of companionship etc.
- **Digital divide:** Technology adoption barriers, lack of training and accessible devices.
- Infrastructure: Inadequate literacy, emergency response system overlooking elderly as vulnerable group.
 - Public spaces and transport in India is largely not elderly-friendly since ramps, handrails and accessible washrooms are missing in many areas.

Government Initiatives for Elderly in India

- Atal Pension Yojana (APY): Launched in 2015 to ensure old-age income security for unorganised sector workers. It provides a guaranteed monthly pension (₹1,000–₹5,000) post-60 years.
- Rashtriya Vayoshri Yojana (RVY): Launched in 2017 to distribute assistive living devices (hearing aids, walking sticks, wheelchairs, etc.) to BPL senior citizens or those with income below ₹15,000/month.
- Senior Care Ageing Growth Engine (SAGE)
 Portal: Promotes start-ups and innovation in elderly care services, encouraging the growth of the silver economy.
- Ayushman Bharat PMJAY: It Extends ₹5 lakh annual health coverage to around 6 crore senior citizens aged 70 years and above, across 4.5 crore families.
- Maintenance and Welfare of Parents and Senior Citizens Act, 2007: Makes it a legal obligation for children and heirs to provide maintenance to their parents.
 - Mandates state governments to establish old-age homes and ensure senior welfare services.

The International Day of Older Persons, celebrated on October 1, is a special day dedicated to senior citizens worldwide. It was designated as such by the UN General Assembly on December 14, 1990. In India, the Ministry of Social Justice and Empowerment, has been observing this day since 2005. The theme for 2025 was "Ageing with Dignity", highlighting the importance of respecting and dignifying the aging population.

Way Ahead

- Promote Digital Literacy for Seniors: Launch targeted training programmes through community centres, NGOs, and Panchayati Raj Institutions to familiarise elderly citizens with smartphones, telemedicine, and digital banking platforms.
- Strengthen Tech Infrastructure in Rural Areas: Expand internet connectivity and affordable digital devices to bridge the rural-urban divide in accessing telehealth and online services.
- Encourage Innovation in the Silver Economy:
 Support start-ups and enterprises developing assistive technologies, Al-based health monitoring tools, and user-friendly applications tailored for elderly needs.
- Integrate Technology with Public Health Systems: Link wearable health devices and telemedicine services with existing government schemes such as Ayushman Bharat and NPHCE for continuous and preventive care.
- Ensure Data Privacy and Cybersecurity: Develop elderly-specific data protection protocols to safeguard sensitive medical and financial information from cyber threats.

Source: PIB

7 PROJECTS APPROVED UNDER ELECTRONICS COMPONENT MANUFACTURING SCHEME

In News

 The Ministry of Electronics and Electronics Technology announced seven projects amounting to 5,532 crore, five of which are in Tamil Nadu, and one each in Madhya Pradesh and Andhra Pradesh, under the Electronics Component Manufacturing Scheme (ECMS).



About the Electronics Component Manufacturing Scheme (ECMS)

- The Scheme was notified in April 2025 with a total outlay of ₹22,919 crore.
- ECMS has a tenure of 6 years (FY 2025–26 to FY 2031–32) with incentives given to both greenfield (new) and brownfield (existing) investments on a first-come, first-served basis.
- ECMS aims to create a robust ecosystem for electronics manufacturing by attracting investments and integrating India into global value chains.
- The scheme is geared to reduce India's dependence on imported components, improving domestic value addition and enhancing export capabilities.

Present status of India's electronics sector

- Electronics have emerged as India's third largest and fastest growing export category in 2024– 25, rising from the seventh position in 2021–22. It contributes around 3.4% of the country's GDP.
- In the first half of FY 2025–26, electronics exports stood at USD 22.2 billion, maintaining strong growth momentum and placing the sector on course to become the country's second largest exported item.
- Mobile manufacturing has been central to this growth, with production rising 28 times and India now ranking as the world's second-largest mobile phone producer.

Challenges

- Despite impressive growth, India's electronics sector faces several structural and strategic challenges like dependence on imported components, especially semiconductors and display panels.
- Limited high-end R&D and innovation ecosystems, particularly in advanced electronics.
- Supply chain vulnerabilities, including logistics and raw material sourcing.
- Skill gaps in specialized manufacturing and design roles.
- Global competition from established hubs like China, South Korea, and Taiwan

Governments steps

 Production Linked Incentive (PLI) Scheme supports large-scale electronics and mobile manufacturing with financial incentives.

- Modified Electronics Manufacturing Clusters (EMC 2.0) promotes infrastructure development for electronics hubs.
- **Semicon India Programme** aims to build a domestic semiconductor ecosystem.
- Digital India and Make in India provide overarching policy support for electronics innovation and manufacturing.

Conclusion

- India is steadily climbing the manufacturing ladder, driven by rising exports, expanding domestic output, and a booming mobile manufacturing industry.
- These developments signal India's emergence as a key player in global supply chains and its accelerating journey toward becoming a leading global electronics hub.
- With continued policy support, infrastructure investment, and innovation, it can evolve into a global hub for electronics manufacturing and exports.

Source: PIB

INDIA NEEDS A GREEN FODDER REVOLUTION

Context

 India, the world's largest milk producer, is facing a severe shortage of fodder and livestock feed, and risks undermining decades of progress in rural development and nutrition.

About

- India is accounting for approximately 23–24% of global milk output, and over 70 million farmers are directly involved in dairying.
- It contributes to one-third of rural household income, especially for small and marginal farmers.
- Livestock contributes over 5% to India's Gross Value Added (GVA) and more than 30% of the agriculture and allied sector's GVA, supporting 80 million rural households.

Challenges Facing Dairy Sector in India

- Fodder Crisis: According to government estimates, India faces a deficit of 11–32% in green fodder, 23% in dry fodder, and over 40% in concentrated feed.
 - The situation is particularly dire in highoutput states like Uttar Pradesh, Bihar,

- and Rajasthan, where demand far outstrips supply.
- Low Per Animal Yield: India's per-animal yield remains low, largely due to poor nutrition, despite being world's largest producing milk.
- Economic and Livelihood Impact: Poor feeding practices cause up to half of the potential productivity loss in dairy animals.
 - For smallholders owning two or three animals, even a one-litre drop in milk yield per day can lead to serious economic distress.
 - Malnutrition also extends calving cycles, increases disease risks, and raises veterinary expenses.

Reasons Behind Fodder Gap in India

- **Urbanization and infrastructure expansion** have encroached upon traditional grazing lands.
- Crop residues such as paddy straw are increasingly diverted to industrial use, leaving less for livestock.
 - Some residues provide low nutritional value, sustaining but not enhancing productivity.
- Climate variability including droughts, erratic rainfall, and rising temperatures — has hurt seasonal fodder crops like berseem and maize.
- Rising Prices of Fodder Seeds & Commercial Feed: Many farmers are being forced to sell livestock prematurely, breaking productive herds and destabilizing milk procurement chains.
 - If unchecked, this could erode rural incomes, threaten food security, and compromise India's dairy leadership globally.

Why Does Fodder Matters?

- Fodder isn't just animal feed it's the fuel behind India's dairy economy. Poor-quality or insufficient fodder leads to:
 - Reduced milk yield and quality;
 - Higher veterinary costs;
 - Increased methane emissions from inefficient digestion;
 - Greater vulnerability to diseases like Lumpy Skin Disease;

Way Forward

- Addressing the fodder crisis demands coordinated policy and scientific interventions:
 - Establish dedicated fodder zones at village levels.
 - Promote multi-cut, high-yielding, droughtresistant fodder varieties such as sorghum, maize, and napier.

- Train farmers in silage making, hydroponics, and fodder preservation.
- Encourage **fodder-food crop integration** through sustainable agronomic practices.
- Use satellite mapping and Al-based forecasting to identify fodder-deficit areas.
- Develop region-specific fodder packages through agricultural and veterinary universities.
- Towards a Green Fodder Revolution: Inspired by the success of the Green Revolution in food grains, the Green Fodder Revolution would involve:
 - Diversifying cropping systems to include high-yield fodder varieties like Napier grass, maize, and legumes;
 - Promoting agroforestry and silvopasture to integrate trees and fodder crops;
 - Investing in fodder banks and cold chains to store surplus during lean seasons;
 - Training farmers in sustainable fodder cultivation and feed management;
 - Policy support through subsidies, insurance, and inclusion in flagship schemes like PM-Kisan:
- Role of Cooperatives and Private Dairy
 Players: India's dairy cooperatives like Amul
 can lead the response by:
 - Setting up local fodder banks.
 - Distributing fodder seeds and providing feeding advisory services.
 - Establishing contract farming partnerships with private players to ensure steady fodder supply.
- Just as India overcame past challenges through the White Revolution, it now needs a Green Fodder Revolution — one ensuring every dairy animal has adequate, nutritious feed yearround, securing both rural livelihoods and the nation's food future.

Source: DTE

UNITED NATIONS CONVENTION AGAINST CYBERCRIME

Context

 72 nations have signed a landmark United Nations Convention against Cybercrime treaty in Hanoi aimed at tackling cybercrime.

United Nations Convention against Cybercrime

- Aim: It proposes a legislative framework to boost international cooperation among law enforcement agencies and offer technical assistance to countries that lack adequate infrastructure for combating cybercrime.
- **First Universal Convention:** The Convention against Cybercrime establishes the first universal framework for investigating and prosecuting offences committed online from ransomware and financial fraud to the non-consensual sharing of intimate images.
- **Adoption:** It was adopted by the General Assembly in 2024 after five years of negotiation.
 - The signing process is expected to remain open till next year.
- **Legally Binding:** The UN Cybercrime Convention is a powerful, legally binding instrument to strengthen the collective defences against cybercrime.
- **Key Provisions:** It criminalises the following types of crimes:
 - **Cyber-dependent crimes:** Unauthorized access (hacking), data interference.
 - **Cyber-enabled crimes:** Online fraud, non-consensual dissemination of intimate images.
 - Child exploitation: Online sexual abuse, distribution of abuse material, solicitation/ grooming.
 - It facilitates the sharing of electronic evidence across borders and establishes a 24/7 cooperation network among States.
 - It also makes history as the first international treaty to recognise the non-consensual dissemination of intimate images as an offence – a significant victory for victims of online abuse.
- **Enforcement:** It will enter into force 90 days after the 40th State deposits its ratification.
- Conference of the States Parties: After entry into force, a Conference of the States Parties will convene periodically to improve the capacity of and cooperation between States Parties.
- **Secretariat:** The United Nations Office on Drugs and Crime serves as the secretariat to the Ad Hoc Committee and to the future Conference of the States Parties.

Significance

 Global cybercrime costs are projected to reach \$10.5 trillion annually by 2025, the treaty will be instrumental in combating cybercrime.

- The new convention is expected to reshape how countries tackle cybercrime at a time when digital threats are rising sharply.
- For many governments, particularly in the Global South, the treaty represents an opportunity to access training, technical assistance and realtime cooperation channels.
- It reinforces international solidarity through capacity-building and cooperation.

Other Major International Conventions on Cyber Crimes

- Budapest Convention on Cybercrime (Council of Europe Convention on Cybercrime): It is the first international treaty specifically addressing crimes committed via the internet and other computer networks.
 - It includes provisions on offenses such as illegal access, data interference, system interference, and content-related crimes.
- Internet Governance Forum: The United Nations Internet Governance Forum (IGF) serves to bring people together from various stakeholder groups, as equals, in discussions on digital public policy.
- African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention): This convention focuses on cybersecurity and personal data protection on the African continent.
 - It outlines principles for preventing cyber threats, protecting critical information infrastructure, and facilitating international cooperation.

Source: UN

GREAT NICOBAR PROJECT TO BOOST INDIA'S MARITIME GLOBAL TRADE

Context

 At the India Maritime Week 2025 in Mumbai, the Union Home Minister announced the Great Nicobar Project will play a transformative role in enhancing India's maritime global trade and shipbuilding capacity.

India's Maritime Strength

- India's coastline spans over 11,500 km across
 13 coastal states, providing a strong base for maritime trade.
- Maritime activities contribute nearly 60% of India's GDP, reflecting their strategic and economic importance.

 The government aims to expand port-handling capacity from the current 2,700 million tonnes per annum (MTPA) to 10,000 MTPA through new mega port projects.

The Great Nicobar project

- The Project involves developing an International Container Transshipment Terminal (ICTT), an international airport, township development, and a 450 MVA gas and solar-based power plant on the island.
- The ICTT is expected to allow Great Nicobar to participate in the regional and global maritime economy by becoming a major player in cargo transshipment.
- A proposed "greenfield city" will tap into both the maritime and tourism potential of the island.
- The site for the proposed ICTT and power plant is **Galathea Bay** on the southeastern corner of Great Nicobar Island, where there is no human habitation.

Concerns over the project

- Ecological Impact: The project threatens oldgrowth forests, which are the only habitat for ~24% of the island's species.
- **Legal and Procedural Issues:** The Environmental Appraisal Committee allegedly ignored anthropological and ecological objections.
- Economic Viability Concerns: Experts
 questioned the economic feasibility of the project,
 given the high costs and ecological sensitivity of
 the region.
- Indigenous Rights Violation: The project allegedly violates the rights of the Shompen, a Particularly Vulnerable Tribal Group (PVTG) of hunter-gatherers. The disruption of their traditional lands and lifestyle raises human rights concerns.
- Volatile Zone: The proposed port is situated in a seismically active zone that experienced a significant geological event during the 2004 tsunami, leading to concerns about the safety and long-term stability of the infrastructure in such a location.
- Transparency Issues: Multiple requests for detailed project information were denied under Section 8(1)(a) of the RTI Act, citing reasons of sovereignty, integrity, and security of the nation.

Andaman and Nicobar Islands

- Location: The islands are located 1,300 km southeast of the Indian mainland in the Bay of Bengal.
 - It extends from 6° 45 N to 13° 41 N and from 92° 12 E to 93° 57 E.
- This archipelago is composed of more than 500 big and small islands, which are divided into two distinct groups of islands – The Andaman Islands and the Nicobar Islands.
 - 'Ten Degree Channel' separates the Andaman Islands in the north from the Nicobar Islands in the south.

The Andaman Islands

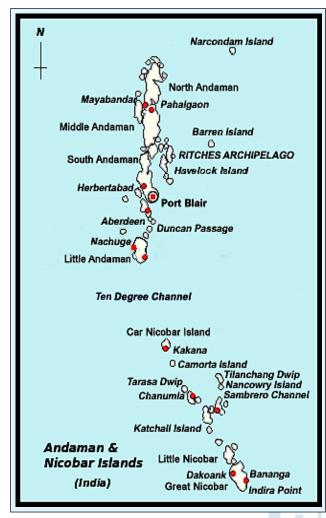
- These islands are divided into three major subgroups – North Andaman, Middle Andaman, and South Andaman.
- The capital city of the Andaman & Nicobar Islands Port Blair is located in South Andaman.

The Nicobar Islands

- These islands are divided into three major subgroups – Northern Group, Central Group, and Southern Group.
 - The Great Nicobar is the largest and the southernmost island in the group located in the Southern Group.
 - India's southernmost point 'Indira Point' is located at the southern tip of the Great Nicobar.

Other Features

- Most of these islands have a volcanic base and are made of tertiary sandstone, limestone, and shale.
 - The Barren and Narcondam islands, north of Port Blair, are volcanic islands.
 - Some of the islands are fringed with coral reefs.
- Saddle Peak (737 m) in North Andaman is the highest peak in the Andaman and Nicobar Islands.
- The names of the following three islands were changed in 2018:
 - Ross Island renamed as Netaji Subhash Chandra Bose Dweep
 - Neil Island renamed as Shaheed Dweep
 - Havelock Island renamed as Swaraj Dweep



Source: TH

NEWS IN SHORT

NATIONAL SEEDS CORPORATION

In News

 The Union Agriculture Minister has inaugurated the National Seeds Corporation's (NSC) state-ofthe-art seed processing plant in New Delhi.

About National Seeds Corporation

- It is a Schedule 'B' Central Public Sector Enterprise (CPSE) under the Ministry of Agriculture & Farmers Welfare, Government of India.
- Established in 1963, it plays a key role in the production, processing, and distribution of certified quality seeds across India and maintenance of genetic purity and quality of foundation and breeder seeds.
- It is headquartered in New Delhi

Source: AIR

ADJUSTED GROSS REVENUE (AGR)

In News

 The Supreme Court allowed the Union government to review and reconsider additional demand in adjusted gross revenue (AGR) dues against financially distressed telecom operator Vodafone Idea (Vi).

About Adjusted Gross Revenue (AGR)

- Adjusted Gross Revenue (AGR) refers to the usage and licensing fee that telecom operators are required to pay to the Department of Telecommunications (DoT), under the Telecom Regulatory Framework.
- It is a crucial component in determining the share of revenue the telecom operators must pay to the government.

Background

- The concept of AGR originated under the National Telecom Policy, 1999, when India shifted from a fixed license fee regime to a revenue-sharing model.
- Telecom operators agreed to share a percentage of their AGR as licence fees and spectrum usage charges (SUC) with the government.

Source: TOI

RASHTRIYA VIGYAN PURASKAR 2025

Context

 The Government of India (GoI) has announced the full list of winners of Rashtriya Vigyan Puraskar 2025.

Rashtriya Vigyan Puraskar

- Aim: To celebrate outstanding contributions by scientists, technologists, and innovators in diverse fields of science, technology, and technology-led innovation.
- The award is organized and presented by the Ministry of Science and Technology.
- The Rashtriya Vigyan Puraskar is conferred under four categories:
 - Vigyan Ratna (VR) award will recognise lifetime achievements and contributions made in any field of science and technology.
 - Vigyan Shri (VS) award will recognise distinguished contributions in any field of science and technology.
 - Vigyan Yuva-Shanti Swarup Bhatnagar (VY-SSB) award will recognise and encourage



- young scientists up to the age of 45 years who have made an exceptional contribution in any field of science and technology.
- Vigyan Team (VT) award to be given to a team comprising three or more scientists/ researchers/ innovators who have made an exceptional contribution working in a team in any field of science and technology.
- Awards are conferred across 13 domains:
 Physics, Chemistry, Biological Sciences, Mathematics & Computer Science, Earth Science, Medicine, Engineering Sciences, Agricultural Science, Environmental Science, Technology & Innovation, Atomic Energy, Space Science and Technology, and other allied fields.

Source: PIB

BUREVESTNIK MISSILE

In News

 Russia has successfully tested its nuclearpowered Burevestnik cruise missile.

Burevestnik missile

- It was first revealed by Russia in 2018 and recently it reportedly flew 14,000 km over 15 hours during test.
- NATO refers to it as the SSC-X-9 Skyfall and is named for the storm petrel, a bird that some believe foreshadows a storm.
- It boasts an unlimited range and the ability to evade missile defenses.

Source: IE

RED SANDERS

In News

 The National Biodiversity Authority (NBA), under India's Access and Benefit Sharing (ABS) framework, has released 55 lakh to 18 farmers cultivating Red Sanders (Pterocarpus santalinus).

About Red Sanders (Pterocarpus santalinus)

- It is commonly known as Red Sandalwood.
- It is a medium-sized tree (10–15 m tall) found in dry deciduous forests, either in mixed stands with native species or as pure stands.

- It is a prized hardwood known for its use in furniture, instruments, carvings, and tools.
- It is an endemic species to Eastern Ghats found in Andhra Pradesh and has ecological, economic, and cultural significance.
 - It is also cultivated in Andhra Pradesh, Tamil
 Nadu, Karnataka, Odisha and other States.
- The species is protected under the Wildlife Protection Act, 1972, and listed under the Convention on International Trade in Endangered Species (CITES), which strictly regulates its international trade.
 - The IUCN Red List of threatened species classifies it as **Endangered**.

Source: PIB

INTRUSION DETECTION SYSTEM TO PROTECT ELEPHANTS

Context

 The Northeast Frontier Railway (NFR) has deployed an Intrusion Detection System (IDS) across key sections of its network to prevent elephant deaths caused by train collisions.

What is the Intrusion Detection System (IDS)?

- The IDS is an optical fiber-based monitoring system that detects intrusions or movements along railway tracks in real time.
- When a large object, such as an elephant or human, crosses or nears the track, the system identifies the vibration pattern and immediately alerts railway staff.

Intrusion Detection System in Cybersecurity

- In its original form, an IDS is a network security tool that detects unauthorized access or attacks on computers and networks.
- It operates as a passive monitoring system, observing traffic and alerting administrators to suspicious activity but not directly blocking it.

Source: IE

DIGITAL ARREST

Context

 President Droupadi Murmuo said that "digital arrests" had become one of the most dreaded threats faced by citizens today.



About

- A digital arrest refers to a cyber scam where fraudsters use fake video calls, forged IDs, and official-looking websites to falsely accuse individuals of crimes and coerce them into paying money.
- The Ministry of Home Affairs (MHA) and Indian Cyber Crime Coordination Centre (I4C) have issued public advisories.
- Citizens are urged to report such cases on the National Cybercrime Reporting Portal.

Source: TH

STANFORD/ELSEVIER'S RANK LIST

In News

 Stanford University's "World's Top 2% Scientists list" 2025 was recently released.

World's Top 2% Scientists list" 2025

- Stanford professor John loannidis annually publishes a list of the world's top 2% scientists based on a composite metric called the c-score, derived from Elsevier's Scopus database. The 2025 list includes 6,239 Indian scientists, with the top 10 ranked between 288 and 952, mostly from lesser-known institutions.
 - Curiously, six of seven Nobel laureates ranked far lower, raising questions about the metric's validity.
- It is a prestigious ranking that highlights the most influential researchers across a broad range of scientific fields.
 - It is compiled in collaboration with Elsevier.

Source: TH





