01-10-2026

1. Green Energy Corridor Phase-III (GEC-III) scheme:

Context: The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the Green Energy Corridor Phase-III (GEC-III) scheme. This historic initiative will strengthen India's Intra-State Transmission System (InSTS) to enable evacuation of up to 135 Gigawatt (GW) of renewable energy across States/ Union Territories.

About Green Energy Corridor Phase-III (GEC-III) scheme:

- **BESS Deployment:** The scheme provides for 50 GWh of Battery Energy Storage Systems (BESS) at renewable energy generation points or other strategic grid locations.
- **Purpose of BESS:** It will address renewable-energy intermittency, grid congestion, peak-hour curtailment and meet electricity demand during non-solar hours.
- **Transmission Infrastructure:** The scheme will strengthen Intra-State Transmission Systems (InSTS) and facilitate grid integration and power evacuation within States/UTs.
- **Implementation Target:** The scheme is targeted for completion by FY 2032–33 with a total project outlay of ₹1,86,405 crore.
- **Financial Components:** The outlay includes ₹1,36,378 crore for InSTS development under GEC-III and ₹50,000 crore for 50 GWh BESS.
- **Central Support:** The scheme provides ₹54,082 crore Central Financial Support (CFS) to offset intra-state transmission charges and help keep electricity costs lower for consumers.
- **Implementation Model:** Greenfield InSTS projects will follow Tariff-Based Competitive Bidding (TBCB), while brownfield upgrades and network strengthening will follow Cost Plus Basis (CPB); STUs will be overall implementing agencies.
- **Energy & Climate Benefits:** The scheme will support the target of 900 GW installed non-fossil fuel capacity by 2035, strengthen long-term energy security and promote low-carbon growth.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Employment Generation:** It is expected to create direct and indirect employment in power, manufacturing and construction, while BESS deployment will support the domestic energy-storage industry and generate skilled jobs in O&M and grid management.

2. Minimum Support Prices (MSP):

Context: The Cabinet Committee on Economic Affairs (CCEA), chaired by the Prime Minister Shri Narendra Modi, has approved the increase in the Minimum Support Prices (MSP) for all mandated Rabi Crops for Marketing Season 2027-28.

About Minimum Support Prices (MSP):

- **Meaning & Objective:** MSP is the minimum price announced by the government to protect farmers from a sharp fall in market prices and provide price assurance, supporting farm incomes and food security.
- **Origin:** The MSP system was introduced in 1966–67 during the Green Revolution as part of agricultural price-support measures.
- **Announcement:** MSP is announced twice a year, before the Kharif and Rabi sowing seasons.
- **Recommendation & Approval:** The Commission for Agricultural Costs and Prices (CACP) recommends MSPs, which are approved by the Cabinet Committee on Economic Affairs (CCEA).
- **Crops Covered:** MSP is announced for 22 mandated crops—14 Kharif, 6 Rabi and 2 commercial crops. MSP is also fixed for Toria and de-husked coconut based on the MSPs of rapeseed-mustard and copra respectively.
- **Cost-Based Pricing:** A key consideration is the cost of production, including seeds, fertilisers, irrigation and labour; the policy seeks to provide farmers a minimum 50% margin over production cost.
- **Other Factors:** CACP considers demand and supply, domestic and international price trends, inter-crop price parity and terms of trade between agriculture and non-agricultural sectors.
- **Significance:** MSP encourages cultivation of essential crops, provides a degree of income protection and price stability, and supports agricultural production and national food security.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

(Rs.per quintal)

S. No.	Crops	**MSP RMS 2027-28**	Cost* of Production RMS 2027-28	Margin over cost (in percent)	MSP RMS 2026-27	Increase in MSP (Absolute)
1	Wheat	**2610**	1264	106	2585	25
2	Barley	**2286**	1447	58	2150	136
3	Gram	**5958**	3751	59	5875	83
4	Lentil (Masur)	**7390**	3854	92	7000	390
5	Rapeseed & Mustard	**6613**	3367	96	6200	413
6	Safflower	**7215**	4810	50	6540	675

3. National Coastal Mission (NCM 2.0):

Context: Union Minister for Environment, Forest and Climate Change, Shri Bhupender Yadav, today launched the Guidelines for implementation of National Coastal Mission (NCM 2.0), in New Delhi.

About National Coastal Mission (NCM 2.0):

- This Central Sector Scheme, with an approved outlay of ₹767 crore, would be implemented till 2030-31 across nine coastal States and four Union Territories of the country.
- The scheme aims at strengthening the resilience and sustainability of India's coastal regions and unlocking the potential of Blue economy.
- It would be implemented through active participation and collaboration with coastal States/ UTs and stakeholders.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The mission will strengthen coastal resilience through vulnerability assessments, ecosystem restoration, pollution management, biodiversity conservation, sustainable tourism, spatial planning, research and capacity building.

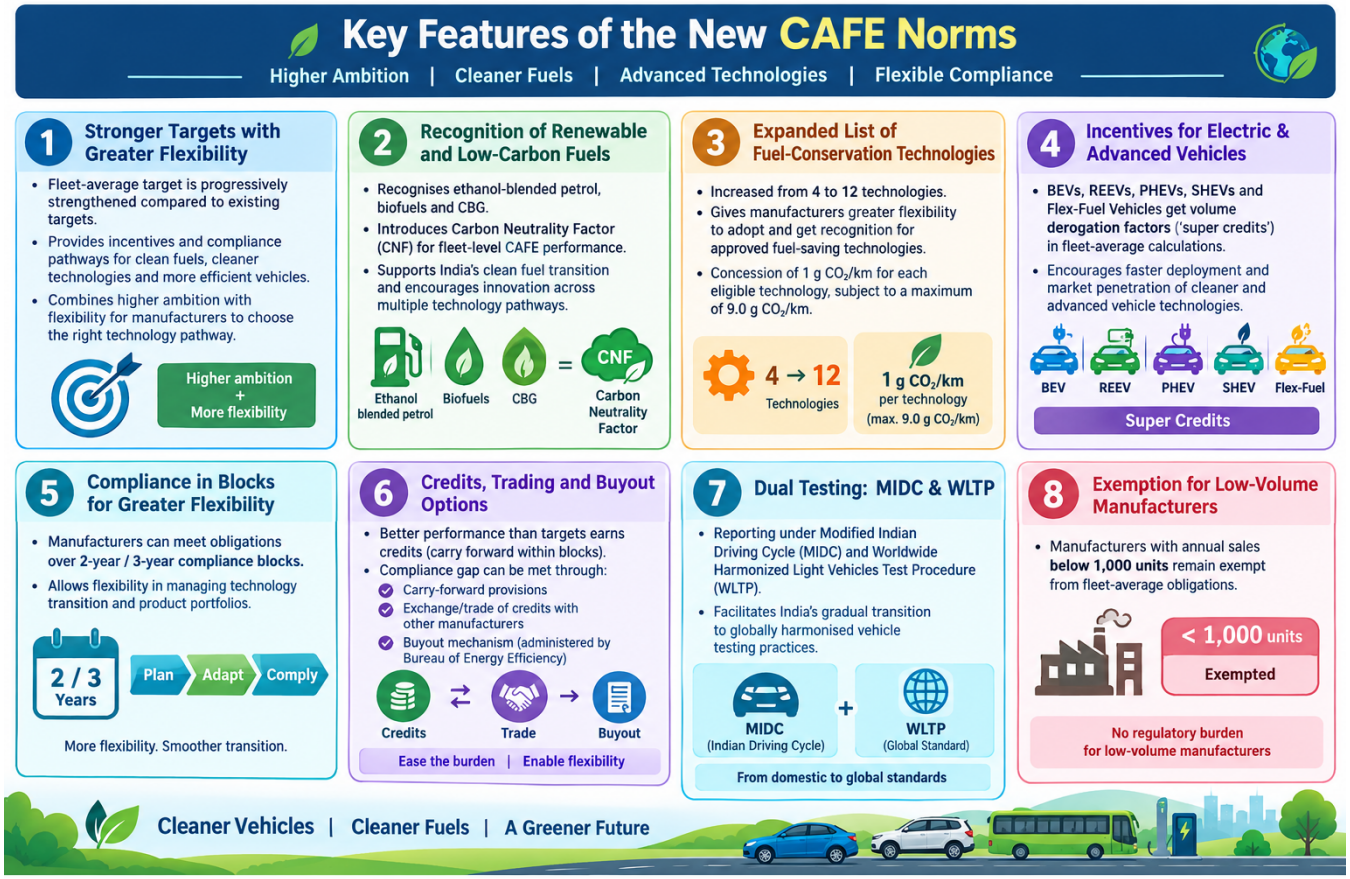
4. Corporate Average Fuel Economy (CAFE) Norms:

Context: The Ministry of Power, Government of India has notified the new Corporate Average Fuel Economy (CAFE) Norms for passenger vehicles, which will come into effect from 1 April 2027 and remain applicable up to 31 March 2032. The new norms will apply to new passenger vehicles manufactured or imported for sale in India.

About Corporate Average Fuel Economy (CAFE) Norms:

- **Overview:** Corporate Average Fuel Economy (CAFE) regulations aim to improve fuel efficiency and reduce carbon emissions from vehicles.
- **Global Presence:** CAFE norms are implemented in many developed and developing countries, including India.
- **Objective:** Reduce fuel consumption and CO_2 emissions, thereby lowering oil dependence and controlling pollution.
- **Meaning of Corporate Average:** Refers to the sales-volume weighted average emissions of vehicles produced by each manufacturer.
- **Applicability:** Covers petrol, diesel, LPG and CNG passenger vehicles.
- **Implementation in India:** Came into force from April 1, 2017.
- **Emission Targets:** Average corporate CO_2 emissions must be below 130 g/km till 2022 and below 113 g/km thereafter.
- **Comparison with BS6:** CAFE focuses mainly on COx emissions, while BS6 regulates overall emissions including NOx and SOx.
- **Environmental Impact:** Reduction in COx emissions lowers carbon footprint and improves fuel economy.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com



5. Annual Survey of Industries (2024-25) results:

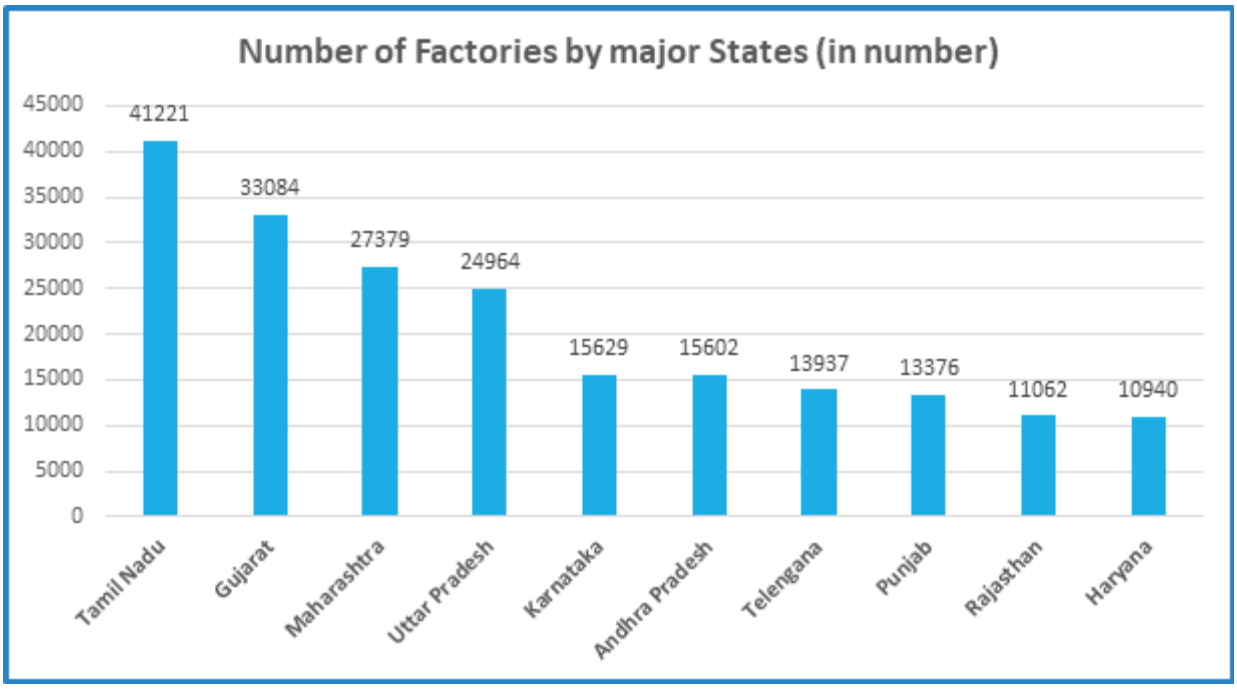
Context: Ministry of Statistics and Programme Implementation (MoSPI) has released the results of Annual Survey of Industries (ASI) for the reference period April 2024 to March 2025 (i.e. financial year 2024-25) through the factsheet.

Key highlights from ASI 2024-25 results:

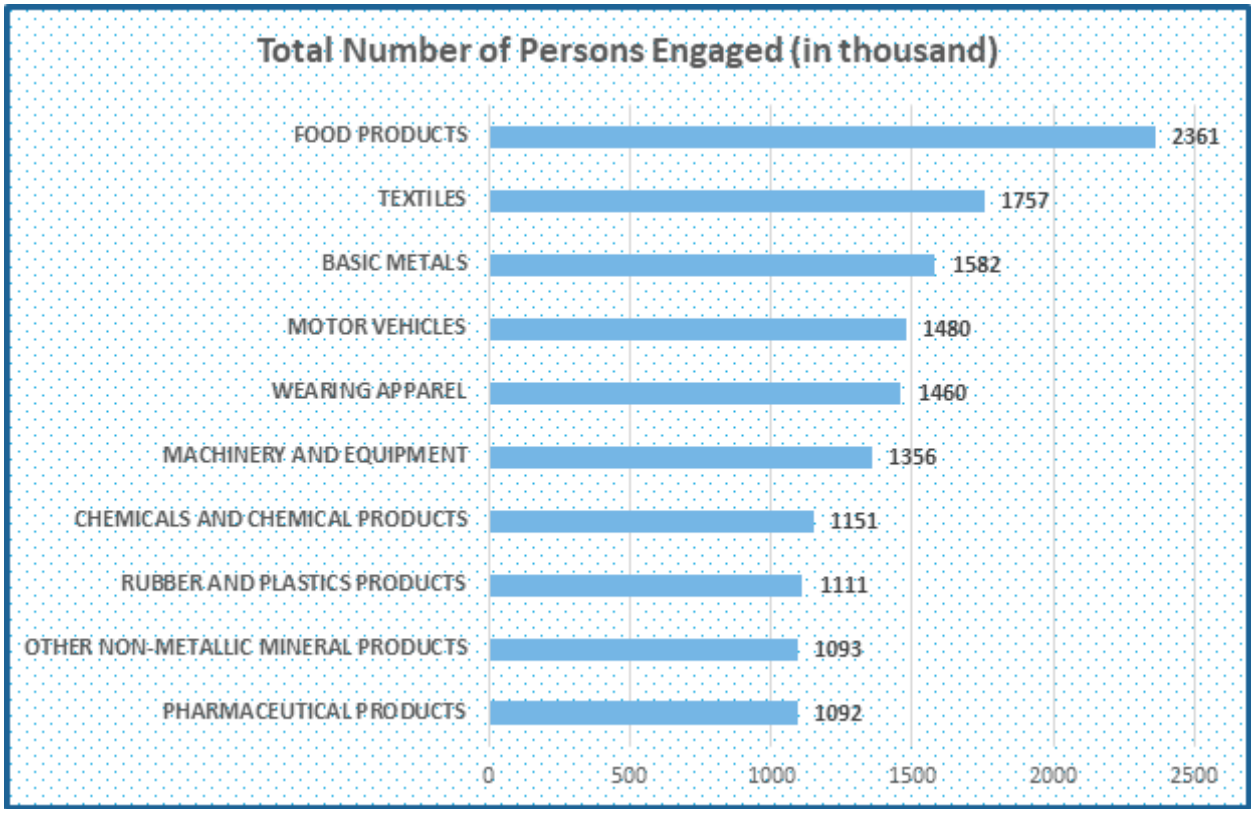
- **Overall Growth:** The registered manufacturing sector recorded broad-based growth in FY2024-25, with increases in invested capital, inputs, output, GVA, employment and wages.
- **Establishments:** Total manufacturing establishments increased from 2.60 lakh to 2.67 lakh, registering 2.64% growth.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Leading States – Establishments:** Tamil Nadu (41,221) had the highest number of establishments, followed by Gujarat (33,084) and Maharashtra (27,379).
- **GVA Growth:** Gross Value Added (GVA) increased from ₹2,458.3 thousand crore to ₹2,694.2 thousand crore, recording 9.59% growth.
- **Leading States – GVA:** Maharashtra had the highest share of manufacturing GVA, followed by Gujarat, Tamil Nadu, Karnataka and Uttar Pradesh. Together, these five states contributed over 54% of India's manufacturing GVA.
- **Employment Growth:** Employment increased from 1.96 crore to 2.10 crore persons, registering 7.19% growth in 2024-25.
- **Wages:** Total emoluments paid to workers increased by 12.08% compared with 2023-24.
- **Leading States – Employment:** Tamil Nadu, Maharashtra, Gujarat, Uttar Pradesh and Haryana were the top five states in manufacturing employment, together accounting for about 56% of total employment.



Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com



6. Union Public Service Commission (UPSC):

Context: On 1 October 2026, the Union Public Service Commission (UPSC) completes one hundred years. Its institutional journey began on 1 October 1926, when India's first Public Service Commission was constituted - an advisory body whose Chairman and Members were appointed by the Secretary of State in London. Over the century that followed, the Commission evolved in structure, status and responsibilities, becoming what it is today - an independent constitutional body

About Union Public Service Commission (UPSC):

- **Origin of Merit-Based Recruitment:** The principle of merit-based public service formally emerged in 1855 with the introduction of the Indian Civil Service (ICS) examination, replacing the East India Company's nomination system with open competition.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Barriers for Indians:** The examination was held only in London, conducted in English and included subjects such as Greek and Latin, making entry extremely difficult for Indians.
- **Satyendranath Tagore:** In 1863, Satyendranath Tagore became the first Indian to qualify for the ICS, joining the service in 1864 and serving for over three decades.
- **Limited Indian Representation:** Despite later entrants such as Surendranath Banerjee, Behari Lal Gupta and Romesh Chunder Dutt, the reduction of the maximum age to 19 restricted Indian participation. By 1919, only 78 of 1,255 ICS officers were Indians.
- **Government of India Act, 1919:** The Act provided for the establishment of a Public Service Commission, while the ICS examination began to be conducted in India at Allahabad in 1922, alongside London.
- **Lee Commission, 1924:** The Lee Commission recommended the immediate establishment of a statutory Public Service Commission and proposed a recruitment arrangement involving British and Indian candidates.
- **First Public Service Commission:** The Commission was established in 1926, with Sir Ross Barker as its first Chairman. It was initially housed at Metcalfe House, Delhi. The Commission considers 1926 as the beginning of its institutional history.
- **Constitutional Status:** The Constitution incorporated Public Service Commissions in Part XIV, Articles 315–323, with Dr. B.R. Ambedkar moving the relevant draft provisions in the Constituent Assembly in 1949.
- **Independence and Safeguards:** Constitutional provisions seek to ensure the Commission's independence through safeguards relating to appointment, removal, service conditions, post-tenure employment and financial autonomy.
- **Key Functions:** Under Article 320, PSCs conduct examinations and advise on recruitment, appointments, promotions and disciplinary matters. Their expenses are charged to the Consolidated Fund under Article 322, while Article 323 provides for annual reports to the legislature.

7. Surtseyan Eruption:

Context: Japan's Coast Guard recently detected signs of activity at Fukutoku-Okanoba, an active submarine volcano in the Volcano Islands of the Pacific Ocean. It lies along the Izu-Bonin arc, formed by

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

subduction of the Pacific Plate beneath the Philippine Sea Plate, with its summit only about 14 m below sea level. Its shallow depth enables Surtseyan eruptions, producing pumice rafts, discoloured water and temporary islands. Its 2021 eruption generated massive pumice rafts that drifted thousands of kilometres and affected shipping and beaches.

About Surtseyan Eruption:

- **Definition:** Surtseyan eruption is a phreatomagmatic volcanic eruption occurring in shallow seas or lakes, named after Surtsey Island, Iceland.
- **Trigger:** Rising magma comes into contact with shallow water, causing water to rapidly convert into steam.
- **Explosion Mechanism:** The sudden expansion of steam produces violent explosions that fragment the magma into fine particles.
- **Tephra & Ash:** The fragmented magma, called tephra, is ejected into the atmosphere and can form an ash column.
- **Landform Formation:** Repeated explosions can build tuff rings and ash-rich pyroclastic cones from rapidly cooled and fragmented magma.
- **Magma Type:** They commonly involve basaltic or andesitic magma interacting explosively with abundant surface water or shallow groundwater.
- **Hazards:** Ejected ash and rock fragments can travel long distances and threaten ships and aircraft, while sudden steam expansion can generate shock waves capable of damaging structures.

Quick Bites:

❖ The Cabinet Committee on Economic Affairs (CCEA), chaired by the Prime Minister Shri Narendra Modi, has approved implementation of the ITMS Project by Delhi Police at an estimated cost of Rs.1,789.52 crore, inclusive of taxes. The project will cover 42 identified traffic corridors and will be implemented in three phases over 24 months, followed by five years of operation and maintenance.

❖ The Second Edition of the ASEAN-India Maritime Exercise (AIME-2026) commenced at Subic Bay, Philippines, on 28 Sep 2026, with the participation of Indian Naval Ships Sahyadri and Kulish, along with maritime forces from ASEAN Member States. Conducted under the theme “Anchored in Trust, United at

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Sea", the exercise brings together maritime forces from India and ASEAN countries for professional, operational and social engagements aimed at enhancing mutual understanding, cooperation and interoperability.

- The Digital India BHASHINI Division (DIBD), under the Digital India Corporation (DIC), Ministry of Electronics and Information Technology (MeitY), Government of India, in collaboration with the Office of the Comptroller and Auditor General of India (CAG), today launched "CAG-BHASHINI Anuvaad", an AI-enabled document translation solution developed by BHASHINI to support the translation of official CAG documents and audit-related reports. The solution was launched during the closing ceremony of the 74th Hindi Diwas and Hindi Pakhwada 2026 at the CAG Office, New Delhi
- World Congress of Gastroenterology (WCOG 2026): Union Health Minister J.P. Nadda addressed WCOG 2026 in New Delhi, being held in India for the first time from 30 September–3 October 2026. Organised under the theme "Transforming Gastrointestinal Health, Preserving Nature," it is jointly hosted by the Indian Society of Gastroenterology (ISG) and World Gastroenterology Organisation (WGO), with partner organisations including INASL, CCFI, IPC and INMA. The four-day congress focuses on advances in gastrointestinal health, clinical practice, research, innovation and multidisciplinary healthcare.
- Vasundhara Tal: Uttarakhand is installing its first real-time early-warning system at Vasundhara Tal in Chamoli district to monitor the high-altitude glacial lake and detect potential hazards. Located at about 4,795 m in the Raikana Valley, the lake lies at the snout of the Raikana Glacier and is the source of the Dhauliganga River, a tributary of the Alaknanda. It has been classified as a Category A, highest-risk glacial lake by the NDMA.
- The traditional Mandar, a double-headed percussion instrument deeply rooted in the folk and tribal culture of Jharkhand, has received a Geographical Indication (GI) tag. It has a distinctive hollow, cylindrical body made of red clay, slightly bulging in the middle, with both ends covered by leather. The right opening is smaller than the left, and a special coating called Kiran on the smaller opening produces its characteristic resonant sound.
- Didymocarpus nautiyalii: Botanists have discovered a new plant species, Didymocarpus nautiyalii, in Shi-Yomi district of Arunachal Pradesh, highlighting the botanical diversity of the Eastern Himalaya. It belongs to the Gesneriaceae family and is a small herb growing on moist rock surfaces, roadside walls and near

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

waterfalls in subtropical evergreen forests above 1,000 m elevation. It grows to about 8 cm, with leathery leaves and distinctive bluish-purple flowers.

- Bank of India launched user-level programmable digital rupee functionality with auto-issuance capability on its Central Bank Digital Currency platform on 29 September 2026. The feature allows account holders to schedule automatic transfers of digital rupees, or e₹, to a beneficiary's CBDC wallet at a fixed amount and frequency. Programmable Central Bank Digital Currency is a form of digital money issued by a central bank with rules embedded for transfer, use, or redemption. In India, the digital rupee is issued by the Reserve Bank of India and is commonly written as e₹.
- The 11th meeting of the BIMSTEC Joint Working Group on Counter Terrorism and Transnational Crime (JWG-CTTC) was held in New Delhi, India, on 28-29 September 2026. The Government of India hosted the meeting, and delegations from all seven BIMSTEC Member States attended it.
- India is preparing a new National Steel Policy with a target of more than 600 million tonnes of steelmaking capacity and over 500 million tonnes of steel consumption by 2047. The draft policy is intended to replace the National Steel Policy, 2017, which had a horizon up to 2030 and a capacity target of 300 million tonnes.
- UNESCO Tentative List: India added five new properties to the UNESCO Tentative List on 29–30 September 2026, taking the country's total to 78 properties. Four additions are in Madhya Pradesh—Bagh Cave Paintings, Group of Temples of the Chambal Valley, Udaigiri Caves and Ginnorgarh. The fifth is the transnational serial proposal Sites of Satyagraha, linking India and South Africa through nine locations associated with Mahatma Gandhi and the Satyagraha movement, including Sabarmati Ashram, Sevagram Ashram, Gandhi Smriti, Pietermaritzburg Station and Phoenix Settlement.
- India's 2026 southwest monsoon ended with 759.4 mm of rain, 12.6% below the 868.6-mm normal, the India Meteorological Department (IMD) said on Wednesday. At 87% of the Long Period Average (LPA), this is the lowest rainfall recorded during the monsoon since 2015, which was a tad drier at 758.2 mm.
- SpaceX's Starship faced a Raptor engine failure during its 14th uncrewed test flight, forcing the mission to end earlier than planned despite achieving several key objectives, including reaching orbit and attempting its first commercial satellite deployment. The setback could complicate NASA's timeline for using Starship as a lunar lander for crewed missions planned as early as 2028, highlighting the technical challenges involved in developing the next-generation spacecraft for human Moon missions.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

❖ Russia has warned NATO it would be ready to resort to nuclear weapons if the Western alliance attempted to cut off Kaliningrad, a Russian exclave that borders the Baltic Sea.



Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602

Scan QR Code to Follow us on Social Media
ace.online | www.aceenggacademy.com

02-10-2026

1. CHIME radio telescope:

Context: An international team, including researchers from the Raman Research Institute (RRI) in Bengaluru, has detected the faint radio glow of hydrogen from 9 billion years ago by using the CHIME radio telescope.

About CHIME radio telescope:

- **CHIME:** The Canadian Hydrogen Intensity Mapping Experiment is a radio telescope located in British Columbia, Canada, built in 2017.
- **Primary Purpose:** It maps the distribution of hydrogen gas in the early universe, helping study cosmic structure and expansion.
- **Radio Range:** CHIME operates in the 400–800 MHz frequency range and produces a daily snapshot of about half the sky as Earth rotates.
- **Design:** It consists of four large parabolic radio antennas and has no moving parts; digital signal processing electronically focuses the incoming radio waves.
- **Signal Processing:** Information from more than 1,000 antennas is combined using a powerful correlator, processing data at roughly 7 terabits per second.
- **Fast Radio Bursts:** CHIME is highly capable of detecting Fast Radio Bursts (FRBs)—brief, intense radio flashes originating from distant galaxies.
- **Significance:** Its wide field of view, high sensitivity and rapid sky mapping make CHIME an important instrument for studying the early universe, hydrogen distribution and transient cosmic phenomena.

2. Bandhavgarh Tiger Reserve:

Context: A five-day Elephant Festival and Rejuvenation Camp is being held at Bandhavgarh Tiger Reserve in Umaria district of Madhya Pradesh.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Bandhavgarh Tiger Reserve:

- **Location & Status:** Bandhavgarh National Park lies between the Vindhya and Satpura ranges in Umaria district. It became a National Park in 1968 and a Tiger Reserve in 1972, covering about 1,150 sq km.
- **Name & History:** The name Bandhavgarh means "Brother's Fort", associated with the tradition that Lord Rama gave the fort to Lakshmana. The reserve is dominated by the historic Bandhavgarh Fort.
- **Archaeological Heritage:** The area contains around 39 caves with Pali inscriptions and animal depictions, along with ancient stupas and statues dating to the 1st century BCE.
- **Vegetation:** Major vegetation includes Sal forests, grasslands and bamboo, along with trees such as Saja, Dhauda, Tendu, Arjun, Aonla and Mahua.
- **Wildlife:** It is renowned for its high tiger density and is associated with the origin of the world's white tigers. Other fauna include leopard, gaur, sambar, chital, nilgai, wild boar, sloth bear and wolves.
- **Bird Diversity:** The reserve supports 250+ bird species, including the crested serpent eagle, Malabar pied hornbill, white-rumped vulture and Indian roller.

3. Permafrost:

Context: Alaska's thawing permafrost is releasing acid and metals that turn rivers orange, changing water chemistry for dozens of miles.

About Permafrost:

- **Definition:** Permafrost is ground that remains frozen at or below 0°C for at least two consecutive years; some permafrost has remained frozen for hundreds of thousands of years.
- **Oldest Permafrost:** The oldest known permafrost has been identified in Siberia, estimated to have remained frozen for about 650,000 years.
- **Distribution:** It occurs mainly in high-latitude polar regions and high mountains, both on land and beneath the ocean floor. Nearly one-fourth of Northern Hemisphere land has underlying permafrost.
- **Composition:** Permafrost consists of soil, rocks, sand and ice. Near the surface, it contains large amounts of organic carbon preserved because decomposition is inhibited by freezing conditions.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Active Layer:** The active layer is the upper soil layer that thaws during summer and refreezes in winter. It is generally very thin in extremely cold regions.
- **Permafrost Thaw:** Rising temperatures cause loss of ground ice and progressive thawing of permafrost, making it an important indicator and amplifier of climate change.
- **Greenhouse Gas Release:** Thawing exposes previously frozen organic matter to decomposition, releasing carbon dioxide and methane, creating a positive climate feedback that can accelerate warming.
- **Environmental & Infrastructure Impacts:** Loss of ground ice can destabilise the surface, damaging roads, buildings, pipelines and vegetation, while increasing water-related changes.
- **Pollution & Health Risks:** Thawing permafrost can release mercury, other contaminants and potentially dormant disease-causing microbes, posing risks to ecosystems, water sources, animals and humans.

4. Intelligent Traffic Management System (ITMS):

Context: The Cabinet Committee on Economic Affairs (CCEA), chaired by Prime Minister, approved the Intelligent Traffic Management System (ITMS) for Delhi with an outlay of ₹1,789.52 crore.

About Intelligent Traffic Management System (ITMS):

- It is a comprehensive AI-driven urban traffic management and digital enforcement system designed to replace fixed-time signals and manual policing with dynamic, real-time traffic optimisation across Delhi.
- Implemented by the Delhi Police, the system aims to reduce traffic congestion, emissions and travel time, while modernising enforcement and prioritising emergency vehicles.
- Roadside sensors and AI cameras collect real-time data on traffic density, vehicle speed, queue length and lane occupancy, which is analysed by Adaptive Traffic Control System (ATCS) algorithms.
- The system automatically adjusts signal timings and coordinates intersections to create “green waves”, while GPS-based algorithms can provide priority green signals to ambulances and fire tenders.
- Computer-vision cameras detect violations such as red-light jumping, stop-line violations, triple riding and mobile-phone use, while number plates can be checked against VAHAN databases.
- The network will cover 42 major corridors, with 1,092 ATCS intersections and 1,029 automated enforcement locations, supported by central Traffic Command and Control Centres.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Real-time traffic information is communicated through Variable Message Signs (VMS) and navigation platforms, while Tier-III data centres and disaster-recovery facilities support reliable and continuous operations.

5. Gandak River:

Context: Following torrential rainfall across its Himalayan upper catchment in Nepal and massive water discharge from the Valmikinagar barrage, the Gandak River breached multiple embankments and ring bandhas across districts in Bihar.

About Gandak River:

- The Gandak River is a major snow-fed transboundary river of Nepal and India, known as Kali Gandaki in its upper reaches, Narayani/Sapt Gandaki in Nepal and Gandak in India; it is a left-bank tributary of the Ganga.
- It originates near the Nepal–Tibet border from the Nhubine Himal Glacier and flows through Uttar Pradesh and Bihar, joining the Ganga at Sonepur (Harihar Kshetra) opposite Patna.
- The river has antecedent drainage, cutting through the Himalayas between Dhaulagiri and Annapurna I to form the spectacular Kali Gandaki Gorge.
- After crossing the Siwaliks, the sediment-rich river forms an extensive fluvial megafan across eastern Uttar Pradesh and north-western Bihar, creating fertile alluvial plains.
- The Valmikinagar Barrage regulates and diverts Gandak waters into canal systems for irrigation and hydropower, supporting agriculture and groundwater recharge.
- Its Himalayan catchment faces GLOF, heavy sedimentation and flood risks, while the river also forms an important transboundary ecological corridor linking Nepal's Chitwan landscape with Bihar's Valmiki Tiger Reserve; the Kali Gandaki is also famous for sacred Shaligram fossils.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Quick Bites:

- Indian Naval Ship Trishul arrived at Toulon, France, on 22 Sep 2026 to participate in the 24th edition of Exercise 'Varuna', the annual bilateral maritime exercise between the Indian Navy and the French Navy.
- Swyer syndrome is a rare 46,XY complete gonadal dysgenesis, in which individuals have an X and Y chromosome but develop female external genitalia and reproductive structures due to failure of normal testicular development during embryogenesis. It is a difference of sex development (DSD) caused by disruption of genes involved in the testis-development pathway. It often becomes evident during adolescence, particularly through primary amenorrhoea (absence of menstruation) and incomplete or absent normal puberty.
- The Misagh-2 is an Iranian man-portable, infrared-guided surface-to-air missile (MANPADS) reportedly being used by Russian forces to intercept Ukrainian unmanned aircraft. It is a variant of the Chinese QW-2 Vanguard system and is designed to engage low- and very-low-altitude targets such as fighters, attack aircraft and armed helicopters, while also providing point air defence for important military and strategic installations.
- The Schokari Sand Racer (Psammophis schokari), also called the Afro-Asian sand snake, was recently rediscovered during a forest patrol in Kutch, Gujarat, after more than 150 years without a conclusive regional record. It is a fast, diurnal and mildly venomous snake adapted to arid and desert environments, feeding mainly on small animals such as lizards and rodents and generally posing little threat to humans.
- The Times Higher Education (THE) World University Rankings 2027, released on 30 September 2026, evaluated 2,297 universities across 118 countries and territories based on five core areas—teaching, research environment, research quality, international outlook, and industry. The University of Oxford retained the world's No. 1 position for the 11th consecutive year, while UC Berkeley ranked as the top public university in North America and shared 9th place globally with Yale University. Asian universities continued to improve, with Tsinghua University at 11th, the National University of Singapore in the top 15, and three Asian universities entering the top 15 for the first time.
- Project Meridian is a United States Department of War initiative announced on 1 October 2026 to study the future of warfare. The panel will be co-led by Elon Musk, Palmer Luckey and Newt Gingrich, and will operate under the supervision of the department's Chief Technology Officer, Emil Michael.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The U.S. Department of War launched the FORTRESS America initiative on 30 September 2026 through a memorandum to strengthen the resilience of American defence infrastructure and domestic military installations. FORTRESS stands for Federal Operations for Resilience, Troop Resources, Energy, Supply, and Survivability. Its core objective is to make major U.S. military installations independent of the civilian power grid, ensuring uninterrupted military operations during cyberattacks, sabotage, power disruptions, and other emergencies. U.S. Secretary of War Pete Hegseth described it as a national insurance policy for the American homeland.
- The Indian Army conducted Exercise Jai Se Vijay on 29 September 2026 near the India-Pakistan International Border in Rajasthan. The drill used a stretch of National Highway-911 near Dantour as a temporary military runway for helicopter operations.
- Ahmedabad-based spacetech startup SatLeo Labs will launch its thermal-imaging satellite TAPAS-1 on 1 October 2026. The 3-kilogram payload will fly on a SpaceX Falcon 9 rocket as part of the Transporter-18 mission from Vandenberg Space Force Base in California, United States, through Dhruva Space's LEAP-2 platform.
- The People's Plan Campaign (PPC) 2026–27, themed "Sabki Yojana, Sabka Vikas", will begin across India on 2 October 2026 to initiate preparation of Gram Panchayat Development Plans (GPDPs) for 2027–28. Launched as a national exercise for decentralised, inclusive and participatory planning at the Gram Panchayat level, PPC has been implemented since 2018. So far, more than 2.55 lakh Gram Panchayats have prepared and uploaded their plans on the eGramSwaraj platform.
- The Centre's gross Goods and Services Tax (GST) revenue rose to ₹2.03 lakh crore in September 2026, a growth of 14.7% over the last year. However, the data also points to a changing trend of where India is earning its GST revenue from.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

03-10-2026

1. Buxa Tiger Reserve:

Context: In a significant milestone for tiger conservation in India, a tigress was released in Buxa Tiger Reserve (W. Bengal). It marks a fitting beginning of India's Wildlife Week 2026, with the initiation of a phased Tiger Reintroduction Programme aimed at restoring a viable and self-sustaining tiger population in this historically important tiger landscape.

About Buxa Tiger Reserve:

- **Location:** Situated in Alipurduar district, West Bengal, in the foothills of the Eastern Himalayas, within the Indo-Malayan biodiversity region.
- **Tiger Reserve:** Notified under Project Tiger in 1983 as the 15th tiger reserve of India and the second major tiger reserve of West Bengal.
- **Strategic Location:** Shares its northern boundary with Bhutan and is connected with Assam through forest corridors, making it important for transboundary wildlife movement.
- **Physiography:** Elevation ranges from about 60 m to 1,750 m, encompassing Terai, Bhabar and sub-Himalayan ecosystems.
- **Drainage:** Major rivers include Raidak, Sankosh and Jayanti, originating in Bhutan; their heavy sediment loads contribute to flooding and habitat alteration.
- **Flora:** Predominantly moist tropical forests, with over 1,000 plant species, including about 450 tree, 400 herb, 250 shrub and 150+ orchid species. Major trees include Sal, Champa, Gamar and Simul.
- **Fauna:** Supports elephant, gaur, sambar, chital, wild boar, leopard, clouded leopard and dhole. Important birds include hornbills, vultures and the endangered Bengal florican.
- **Tiger & Corridor Significance:** Tigers had almost disappeared after 1998, but camera traps recorded a male tiger in 2021 and 2023, followed by another adult male in January 2026.
- The sightings indicate continued wildlife dispersal through the India–Bhutan–Assam corridor, while the Asian elephant remains a key transboundary corridor species.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

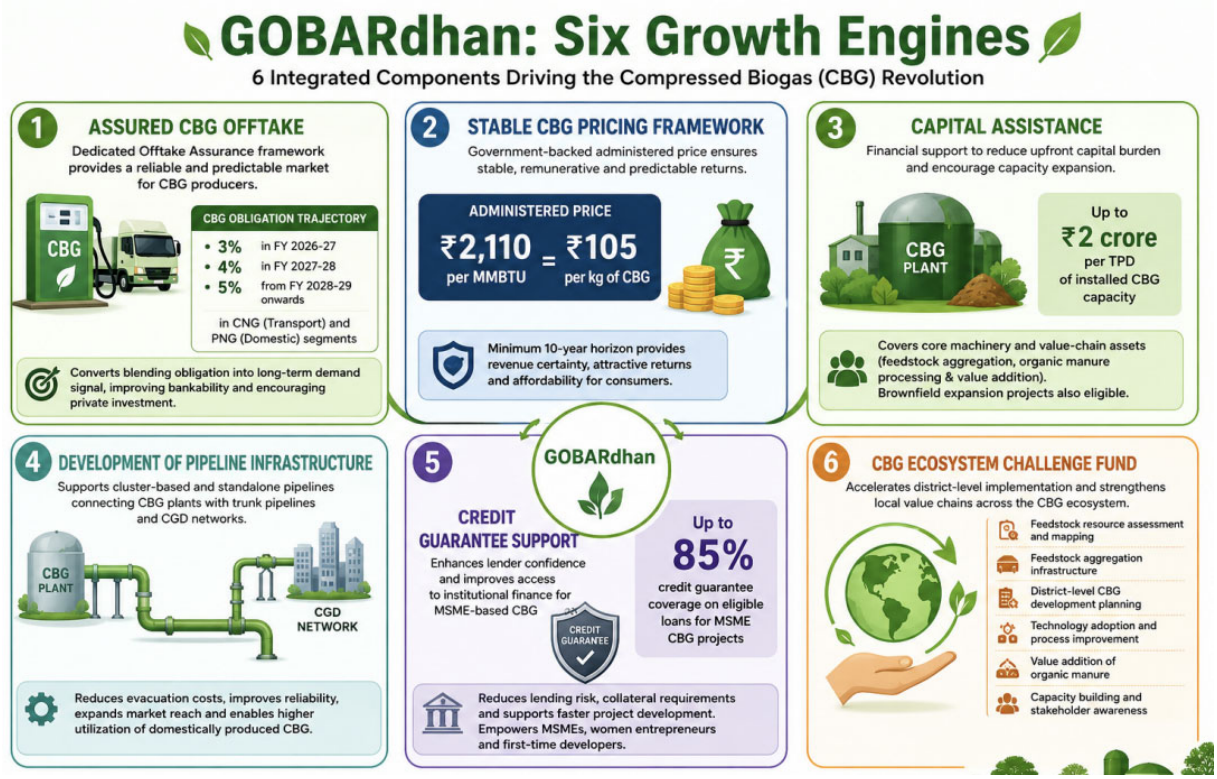
2. GOBARdhan scheme:

Context: The Union Government launched the GOBARdhan Central Sector Scheme on 1 October 2026 in New Delhi to accelerate India's Compressed Biogas (CBG) sector. The Union Cabinet approved the GOBARdhan National Circular Bioenergy Scheme on 6 August 2026 with an outlay of ₹23,731 crore for implementation over FY 2026-27 to FY 2035-36.

About GOBARdhan scheme:

- Galvanizing Organic Bio-Agro Resources Dhan (GOBARdhan) was originally launched under the Swachh Bharat Mission (Grameen) in 2018 as an integral component of Solid and Liquid Waste Management (SWM), converting bio-waste - animal waste, kitchen leftovers, crop residue and market waste, into biogas and bio-slurry, thereby ensuring cleanliness in villages and improving rural lives.
- Earlier, the Compressed Biogas (CBG) ecosystem was spread across four different ministries. To ensure better coordination and accelerate the sector's growth, the Government has consolidated the entire scheme under the Ministry of Petroleum and Natural Gas.
- **Nodal Ministry:** Ministry of Petroleum and Natural Gas (MoPNG).
- **Implementation Period:** FY 2026–27 to FY 2035–36 with a total outlay of ₹23,731 crore.
- **Objective:** To establish Compressed Biogas (CBG) as a major pillar of India's future clean energy mix.
- **Key Support Measures:** Assured demand, remunerative and stable pricing, capital assistance, pipeline infrastructure, credit guarantee, and technology development.
- **Production Target:** Increase domestic CBG production nearly ten-fold and accelerate nationwide expansion of the CBG sector.
- **Economic & Environmental Goals:** Mobilize large-scale private investment, promote waste-to-wealth initiatives, and develop a circular bioeconomy.
- **Vision:** Convert India's waste into clean energy, transform villages into clean energy hubs, and make farmers key partners in India's energy security.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com



3. Akash air defence system:

Context: India exported the Akash air defence system to Tajikistan and Turkmenistan as of 1 October 2026. Akash is an indigenous short to medium-range surface-to-air missile system developed by the Defence Research and Development Organisation and produced by Bharat Dynamics Limited and Bharat Electronics Limited.

About Akash air defence system:

- **Type:** Akash is a short-range surface-to-air missile (SAM) system designed to protect vulnerable areas, strategic points and assets from aerial threats.
- **Targets:** It can engage fighter aircraft, cruise missiles, drones and helicopters, providing point and area air defence.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Indigenous Development:** It was designed and developed indigenously by DRDO and is produced by Bharat Dynamics Ltd. (BDL), Hyderabad. It is in service with both the Indian Air Force and Indian Army.
- **System Components:** The system includes launchers, missiles, control centre, multifunctional fire-control radar, mission guidance system, digital autopilot, C4I centres and supporting ground equipment.
- **Propulsion & Speed:** The missile uses solid-fuel ramjet propulsion and can achieve speeds of approximately Mach 2.5–3.5.
- **Range & Altitude:** It has an engagement range of about 4.5–25 km and can engage aerial targets at altitudes ranging from approximately 100 m to 20 km.
- **Multi-target Capability:** Akash can simultaneously engage multiple targets in Group Mode or Autonomous Mode. Its Rajendra radar can track numerous targets and guide multiple missiles simultaneously.
- **Mobility & Effectiveness:** It is a fully mobile, automated system with built-in electronic countermeasures and can operate across different terrains. A two-missile salvo is stated to provide a kill probability of up to 99%.

4. TAPAS (Thermal Access Platform for Analytics & Solutions)-1:

Context: Recently, India's first dedicated commercial CubeSat-category thermal payload TAPAS-1 was successfully deployed in orbit by Space X's Falcon 9.

About TAPAS (Thermal Access Platform for Analytics & Solutions)-1:

- TAPAS (Thermal Access Platform for Analytics & Solutions) is India's first commercial private thermal-imaging payload, developed by Ahmedabad-based Satleo Labs.
- It uses Long-Wave Infrared (LWIR) sensing to detect heat and temperature variations that are not visible in conventional optical imagery.
- TAPAS-1 weighs 1.5 kg and operates at an altitude of about 500 km, providing high-resolution thermal images.
- It is a CubeSat-category payload, a class of small cubical nanosatellite systems.
- Agriculture: Helps monitor crop and water stress through surface-temperature variations.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Disaster management & urban planning:** Supports forest-fire detection and mapping of urban heat variations for addressing heat stress.

5. Himalayan tahrs:

Context: The Kedarnath Wildlife Division is preparing to restrict human activity in high-altitude meadows and clear rubbish from parts of its sanctuary after a survey found that visitors and local residents were feeding Himalayan tahrs.

About Himalayan tahrs:

- **Himalayan Tahr** (*Hemitragus jemlahicus*) is a large, wild, goat-like ungulate inhabiting the Himalayan mountain slopes and forests.
- **Distribution:** Found in southern Tibet, northern India, western Bhutan and Nepal, generally at elevations of 2,500–5,000 m.
- **Indian range:** Occurs in Jammu & Kashmir, Himachal Pradesh, Uttarakhand and Sikkim.
- **Features:** Sexually dimorphic; males are larger with horns up to 46 cm, which curve backward and help reduce injuries during fights.
- **Adaptations:** Has a dense reddish to dark-brown woolly double coat with a thick undercoat, providing insulation in the cold Himalayan climate.
- **Behaviour:** It is a gregarious animal, forming separate male and female herds that may contain up to 80 individuals.
- **Conservation status:** Classified as Near Threatened on the IUCN Red List.
- **Kedarnath Wildlife Sanctuary (KWS):** Located in Rudraprayag and Chamoli districts of Uttarakhand, established in 1972, covering 975.20 sq km.
- **Significance:** Also called Kedarnath Musk Deer Sanctuary, it is the largest protected area in the western Himalayas and lies in the upper catchments of the Alaknanda and Mandakini rivers.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Quick Bites:

- The Rogun Hydropower Project in Tajikistan is a large hydroelectric scheme on the Vakhsh River. The dam is designed to reach 335 metres, which would make it the world's tallest dam after completion.
- The NASA and SpaceX Crew-13 mission launched on 1 October 2026 at 11:10 a.m. EDT from Space Launch Complex 40 at Cape Canaveral Space Force Station in Florida. The mission carried four crew members to the International Space Station for a six-month science expedition aboard the Crew Dragon spacecraft named Grace, launched by a Falcon 9 rocket.
- India's BrahMos supersonic cruise missile exports are projected to exceed $600 million, with contracts and agreements involving the Philippines, Vietnam and Indonesia. The Philippines has already received systems worth about $330 million, while initial exports to Vietnam and Indonesia are estimated at around $100 million and $200 million, respectively. BrahMos is an Indo-Russian joint-venture missile available in land-, sea- and air-launched variants, with the air-launched version integrated with Sukhoi fighter aircraft.
- Two new islands have emerged off Indonesia's Anak Krakatau volcano following a 25-hour continuous eruption between 4 and 6 September 2026. The formations were first observed by mariners and volunteers around 22 September and confirmed through Sentinel satellite imagery on 23 September 2026. Anak Krakatau, meaning "Child of Krakatoa", is a volcanic island in the Sunda Strait between Java and Sumatra, formed after the catastrophic 1883 Krakatoa eruption.
- Scientists have discovered two new gecko species from Telangana—Hemidactylus cairnicola and H. koyaorum. H. cairnicola, named for its association with traditional stone cairns, grows up to 49 mm, has granular and enlarged keeled scales, dark-rock camouflage, and is primarily nocturnal. H. koyaorum, named after the Koya tribal community, grows up to 55.6 mm and has mostly homogeneous, non-keeled scales with grey dorsal colouration and four prominent white flower-like patterns.
- Hebbal Lake is a man-made urban lake in northern Bengaluru, Karnataka, covering around 150 acres and considered one of the city's oldest and ecologically important waterbodies. It was created in 1537 by Kempe Gowda, the founder of Bengaluru, by damming natural valley systems through bunds. The proposed 2.28-km tunnel road has raised environmental concerns over its potential impact on the lake and 1,000+ trees in its tank bed and surroundings.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Ukraine has reportedly deployed the FP-7 tactical ballistic missile, nicknamed "Pelican," in combat for the first time. Developed by Ukrainian defence company Fire Point, it is a ground-launched, short-range tactical ballistic missile intended to strike targets such as logistics hubs, air-defence sites and drone bases. It is also being adapted for air-defence applications and forms part of the Freyja common anti-ballistic system project.
- The Remission of Duties and Taxes on Exported Products (RoDTEP) Scheme has been extended up to 31 December 2026. Introduced under the Foreign Trade Policy 2015–20 and effective from 1 January 2021, it aims to refund uncredited taxes and duties embedded in exported products, thereby making Indian exports more competitive. The scheme is WTO-compliant and operates through an end-to-end digital platform for transparency and efficiency.
- A community-driven project in Solapur and Pune, Maharashtra aims to remove invasive fish species from the Ujani Dam catchment and restore native fish varieties. Ujani Dam, also called Bhima Dam, is located on the Bhima River, a tributary of the Krishna, and is the terminal and largest dam in the Bhima Valley. Constructed during 1977–1980, it is an earth-fill cum masonry gravity dam, 63 m high and 2,534 m long, with a 12 MW hydropower capacity.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

04-10-2026

1. Classical Languages:

Context: The Department of Higher Education, Ministry of Education, Government of India, has approved the establishment of five Centres of Excellence (CoEs) for studies in Classical Assamese, Classical Bengali, Classical Marathi, Classical Pali and Classical Prakrit. Centres of Excellence for the newly recognised classical languages will be established at five higher educational institutions: Classical Assamese at Tezpur University, Assam; Classical Bengali at Visva-Bharati University, West Bengal; Classical Marathi at Deccan College Post-Graduate and Research Institute, Pune; Classical Pali at Central University of Odisha; and Classical Prakrit at Central University of Gujarat.

About Classical Languages:

- Classical languages refer to languages that have a rich heritage and a long history of literary and cultural development.

Sl. No.	Classical Language	Date of Recognition
i.	Tamil	12.10.2004
ii.	Sanskrit	25.11.2005
iii.	Telugu	31.10.2008
iv.	Kannada	31.10.2008
v.	Malayalam	08.08.2013
vi.	Odia	01.03.2014
vii.	Marathi	04.10.2024
viii.	Assamese	04.10.2024
ix.	Bangla	04.10.2024
x.	Pali	04.10.2024
xi.	Prakrit	04.10.2024

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone 7799996602
ace.online | www.aceenggacademy.com

Criteria for classical language status:

- **High Antiquity:** The language must have a recorded history spanning 1500-2000 years.
- **Valuable Heritage:** It should possess a body of ancient literature and texts cherished by generations.
- **Originality:** The literary tradition must be unique and not borrowed from another linguistic community.
- **Distinctness:** The classical language and its literature should be distinct from modern forms or offshoots.

Promotion of Classical Languages: Upon being recognized as a classical language, the HRD Ministry provides various benefits, including:

- **International Awards:** Two major international awards for eminent scholars in classical Indian languages.
- **Centre of Excellence:** Establishment of a Centre of Excellence for studies in Classical Languages.
- **Professional Chairs:** Requesting the University Grants Commission (UGC) to create Professional Chairs for Classical Languages, initially in Central Universities.

2. Quantum Key Distribution (QKD):

Context: QNu Labs, in collaboration with Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N) and IIT Gandhinagar, has successfully demonstrated India's first free-space Quantum Key Distribution (QKD) link at a scale of 5.56 km. The field trial, established a secure quantum communication channel between BISAG-N and IIT Gandhinagar. Using QNu Labs' Pointing, Acquisition and Tracking system, the trial achieved a stable Quantum Bit Error Rate below 5% and generated secure keys at a rate of 230–260 bps. These keys were integrated with BISAG-N's post-quantum cryptography enabled Vedic Kavach platform, enabling successful end-to-end encryption and decryption of test messages.

About Quantum Key Distribution (QKD):

- Quantum Key Distribution (QKD), also called quantum cryptography, is a method for securely distributing and sharing secret encryption keys between legitimate users.
- Cryptography enables secure communication, while conventional encryption systems mainly depend on the mathematical complexity of algorithms; QKD derives security from the laws of quantum physics.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- In QKD, encryption keys are transmitted as qubits (quantum bits), generally encoded on photons and transmitted through optical fibre.
- QKD enables two distant users who do not initially share a long secret key to generate a common, random string of secret bits.
- The communication between legitimate users must be authenticated, allowing an authenticated channel to be transformed into a secure communication channel.
- A key advantage of QKD is its ability to detect eavesdropping: any attempt to measure or intercept the qubits disturbs their quantum state and introduces transmission errors.
- These errors alert the legitimate users to the presence of a possible unauthorised interception, making the key exchange secure.
- Classical computers use bits (0 or 1), whereas quantum computers use qubits, which exploit the principles of quantum mechanics and can exist in quantum states beyond simple 0 or 1.

3. Great Indian Bustard (GIB):

Context: In a significant milestone for the conservation of the critically endangered Great Indian Bustard (GIB), during the Wildlife Week 2026 Union Minister for Environment, Forest and Climate Change, today participated in the initiation of the process for release of two captive-bred Great Indian Bustards from the soft-release facility into the wild to be undertaken tomorrow at the Desert National Park, Jaisalmer.

About Great Indian Bustard (GIB):

- It is a ground bird with a height of about one metre with a body of brownish and a black patch spotted in white.
- It is protected under schedule-1 of the Wildlife Protection Act, 1972.
- It is largest among the four-bustard species found in India and other three being MacQueen's bustard, lesser florican and the Bengal florican.
- They feed on insects, lizards, grass seeds etc., and the bird, found mainly in Rajasthan and Gujarat.
- Its historic range included much of the Indian sub-continent but it has now shrunken to just 10 percent of it.
- Rajasthan initiated "Project Great Indian Bustard" on World Environment Day 2013.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- In 2015, the Central government launched the GIB species recovery programme.
- It is listed as critically endangered in the IUCN list.
- Bustard Recovery Programme is a collaborative initiative of MoEFCC, Rajasthan Forest Department and WII, with technical support from the International Fund for Houbara Conservation and funding through National CAMPA. It focuses on conservation breeding, habitat restoration, threat mitigation, scientific habitat management and community participation.
- Conservation breeding has made significant progress: GIB facilities at Sam and Ramdevra house 97 birds—40 from wild-laid eggs and 57 captive-bred. 24 live chicks were produced in 2025 and 29 in 2026, with 11 birds earmarked for release.
- The innovative 'jumpstart' approach places captive-laid eggs in wild nests for natural incubation; so far, 6 chicks in Rajasthan and 2 in Gujarat have successfully hatched through this method.

4. PM-SETU (Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIs):

Context: PM-SETU: One Year of Transforming India's ITIs. PM-SETU (Pradhan Mantri Skilling and Employability Transformation through Upgraded ITIs) was launched on 4 October 2025.

About PM-SETU:

- PM-SETU, a flagship initiative of the Government of India with an outlay of ₹60,000 crore, aims to transform 1,000 Government ITIs through an industry-led Hub-and-Spoke model.
- The scheme seeks to modernise infrastructure, strengthen industry engagement, improve employability outcomes, and establish National Centres of Excellence (NCoEs) in high-growth sectors, building, through stronger government-industry partnerships — a future-ready workforce equipped for advanced manufacturing and emerging technologies.
- Component I – Upgradation of 1,000 Government ITIs (200 Hub ITIs and 800 Spoke ITIs) in a Hub and Spoke model wherein upgradation includes smart classrooms, modern labs, digital content, and new courses aligned to industry needs.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Component II – Capacity Augmentation of five NSTIs located in Bhubaneswar, Chennai, Hyderabad, Kanpur, and Ludhiana, including setting-up sector-specific National Centres of Excellence for skilling, with focus on advanced training of trainers with global partnership.

5. Leprosy:

Context: India recorded 3,832 new leprosy cases among children in 2025-26, including 37 who had Grade-2 disability (G2D) at diagnosis — an indicator of delayed detection. The child caseload was 91.6% higher than the National Leprosy Eradication Programme's (NLEP) target of 2,000 cases for the year.

About Leprosy:

- **Cause:** Leprosy (Hansen's disease) is a curable infectious disease caused by *Mycobacterium leprae*, mainly affecting the skin, peripheral nerves, eyes and upper respiratory tract.
- **Global burden:** It is a Neglected Tropical Disease (NTD) occurring in 120+ countries, with around 2 lakh new cases annually.
- **Transmission:** It spreads mainly through respiratory droplets during prolonged, close contact with an untreated patient; casual contact such as handshakes or sharing meals does not normally transmit it. Infectivity falls rapidly after treatment begins.
- **Symptoms:** Typical signs include persistent skin lesions and loss of sensation to touch/pain. Untreated disease can cause permanent nerve damage, deformities, paralysis and blindness.
- **Treatment:** Leprosy is treated with multi-drug therapy (MDT) using dapsone, rifampicin and clofazimine.
- **Social dimension:** Despite being curable, leprosy continues to cause stigma, discrimination and social isolation, making early diagnosis and treatment important.

Quick Bites:

❖ Indian Naval Ships Sahyadri and Kulish concluded their participation in the ASEAN-India Maritime Exercise (AIME 2026), conducted in the Philippines under the theme 'Anchored in Trust, United at Sea'. The exercise provided opportunities for professional interaction, operational coordination and maritime training through the Harbour and Sea Phases.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- NABKISAN Finance Limited, a subsidiary of the National Bank for Agriculture and Rural Development (NABARD), on 1st October 2026 listed India's first Social Bond dedicated exclusively to the Water, Sanitation and Hygiene (WASH) sector on the National Stock Exchange (NSE), Mumbai. Social bonds are fixed-income debt instruments where issuers raise capital exclusively to finance or refinance projects with positive social outcomes, such as affordable housing, healthcare, education, and basic infrastructure.
- The RoDTEP (Remission of Duties and Taxes on Exported Products) Scheme has been extended up to 31 December 2026. Introduced under the Foreign Trade Policy 2015–20 and effective from 1 January 2021, it aims to refund embedded, un-rebated central, state and local taxes and duties on exported goods, thereby improving export competitiveness. The scheme is WTO-compliant, operates through an end-to-end digital platform, is administered by the Department of Revenue, Ministry of Finance, and replaced the MEIS.
- The Dnipro (Dnieper) River is a major transboundary river of Eastern Europe and the longest river in Ukraine. It originates in Russia's Valday Hills, flows through Russia, Belarus and Ukraine, and empties into the Black Sea through the Dnieper Liman. It is about 1,368 miles long, with major stretches in Ukraine, Belarus and Russia, and passes through cities such as Kyiv, Cherkasy, Dnipro and Zaporizhia. Historically, it has served as an important geographical divide between Ukraine's right and left banks.
- The RELIEF (Resilience & Logistics Intervention for Export Facilitation) Scheme, launched by the Ministry of Commerce & Industry under the Export Promotion Mission (EPM), aims to protect Indian exporters from rising logistics costs, higher insurance premiums and war-related risks affecting consignments to or through the Gulf region. It provides up to 100% risk coverage for eligible consignments during 14 February–15 March 2026 and up to 95% coverage for shipments planned between 16 March and 15 June 2026, with government support.
- Jawahar Dweep Marine Oil Terminal in Mumbai was declared plastic-free on 2 October 2026 by the Mumbai Port Authority. The terminal became India's first oil terminal to eliminate single-use plastics completely.Jawahar Dweep is also known as Butcher Island and is an offshore facility located about four kilometres off Mumbai's coast. It has five jetties and handles crude oil and petroleum products.
- The Northern Western Ghats in Maharashtra added a new subterranean amphibian species, Gegeneophis chandgadi, from the Kolhapur region in September 2026. The discovery placed the North Western Ghats

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

among important Indian localities for caecilian diversity, a group of legless amphibians that live underground.

- The Group of Seven (G7) agreed on 2 October 2026 to release 100 million barrels of oil and fuel products from emergency reserves. The coordinated release involves Canada, France, Germany, Italy, Japan, the United Kingdom, the United States, and the European Union, and it is managed through the International Energy Agency (IEA).

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

05-10-2026

1. Rashtriya Vayoshri Yojana (RVY):

Context: Recently, the Union Ministry of Social Justice and Empowerment distributed 662 aids and assistive devices, costing over ₹10 lakh to senior citizens under the Rashtriya Vayoshri Yojana (RVY)

About Rashtriya Vayoshri Yojana (RVY):

- **Scheme:** A Central Sector Scheme, launched in 2017 and fully funded by the Central Government, providing free assistive devices to eligible senior citizens.
- **Eligibility:** Targets BPL senior citizens with a monthly income of ₹15,000 or less; those aged 80 years and above can receive devices at their doorstep.
- **Assistive Devices:** Includes walking sticks, wheelchairs, hearing aids, spectacles, artificial dentures and crutches, based on individual needs.
- **Funding:** Expenditure is met from the Senior Citizens' Welfare Fund.
- **Selection:** Beneficiaries are identified by State Governments/UT Administrations through district-level committees headed by the Deputy Commissioner/District Collector.
- **Implementation:** Implemented by Artificial Limbs Manufacturing Corporation (ALIMCO), a PSU under the Ministry of Social Justice and Empowerment, which is the nodal ministry.

2. Udanti Sitanadi Tiger Reserve (USTR):

Context: Recently, during an inspection deep inside the Udanti Sitanadi Tiger Reserve (USTR) it was found that a number of trees, a majority of them Sal, Bija and Tendu, were found girdled in the Karka area.

About Udanti Sitanadi Tiger Reserve (USTR):

- **Location & Formation:** The reserve is located in Chhattisgarh and was formed by combining the Sitanadi and Udanti Wildlife Sanctuaries.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Geography:** It forms an important part of the Eastern Highlands of Central India and contains 19 named mountains; Deo Dongri is the highest point and Atānga Dongar is the most prominent.
- **Drainage:** The Mahanadi is the main river, with Udanti, Sitanadi, Indravan and Pairi as important tributaries.
- **Vegetation:** It is dominated by tropical dry and moist deciduous forests, with Sal (Shorea robusta) as the dominant tree species.
- **Flora:** Other important species include Teak, Bamboo, Tendu, Mahua, Bija and Harra.
- **Fauna:** The reserve supports Wild Buffalo, Tiger, Indian Wolf, Leopard, Sloth Bear and Mouse Deer, among other wildlife.

3. South China Sea:

Context: The Philippines accused China's military and coast guard on Sunday of harassing Filipino government aircraft and boats in two areas of the disputed South China Sea. A J-16 fighter interfered with a Filipino Cessna 208 turboprop that was conducting a "routine military patrol" near Scarborough Shoal on Saturday, a Philippine armed forces statement said.

About South China Sea:



Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- It is an arm of the western Pacific Ocean that borders the Southeast Asian mainland.
- It is bordered by China, Taiwan, the Philippines, Malaysia, Indonesia, Brunei, and Vietnam.
- It is connected by the Taiwan Strait with the East China Sea and by the Luzon Strait with the Philippine Sea.
- The two major archipelagos are known as the Paracel Islands, controlled by China, and the Spratly Islands.
- Busy international waterway, one of the main arteries of global trade worth more than $5 trillion and is growing year on year.
- It is a rich source of hydrocarbons and natural resources. There are 11 billion barrels of oil and 190 trillion cubic feet of natural gas in deposits.
- Rich fishing grounds and also important trade route
- UN Convention on the Law of the Sea (UNCLOS) ruling: The Permanent Court of Arbitration ruled that Chinese claims over 90 percent of the South China Sea area are illegitimate.
- China outrightly rejected the ruling. It said, China prefers bilateral negotiations with the other parties.
- But many of its neighbors argue that China's relative size and clout give it an unfair advantage.

4. Agnipath scheme:

Context: With the first batch of Agniveers set to complete their four-year tenure later this year, the Army, Navy, and Air Force have submitted recommendations to the Department of Military Affairs on ways to improve the implementation of the Agnipath scheme. Under the existing policy, up to 25% of each batch of Agniveers can be retained in the regular cadre based on organisational requirements and performance. Those retained go on to serve as regular armed services personnel, while the remaining 75% exit after four years.

About Agnipath scheme:

- It was introduced in 2022 to take in recruits for the Army, Navy, and Indian Air Force (IAF) on four-year contracts, including six months of training.
- At present, all sailors, airmen, and soldiers, except the technical cadre of the medical branch, are recruited to the services under the scheme.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- At the end of four years, up to 25% of recruits can apply to join the services on a regular basis, subject to merit and organisational requirements.
- Those between the ages 17.5 and 21 years will be eligible to apply.
- The required educational qualification will be Class 10-12, depending on the service and assigned role.
- The Centre will recruit Agniveers and the induction process will repeat every six months.
- Agniveers will not be eligible for any pensionary or gratuity benefits under the scheme.
- The Agniveers will receive an annual package of Rs. 4.76 lakh in the first year to Rs. 6.92 lakh in the fourth year.
- In addition to monthly salary, these recruits will be paid allowances for travel and uniform.
- Agniveers will contribute 30% of their salaries to a fund that will be matched by the government.
- This fund will accrue interest, and at the end of the four years, each soldier will get Rs.11.71 lakh as a lump sum tax-free amount.
- An Agniveer will be granted 30-day annual leave while sick leave will be based on medical advice.
- The Agniveers will be provided non-contributory life insurance cover of Rs. 48 lakh during their service in the armed forces.

5. Rabies:

Context: In 2025, India recorded 55 deaths by malaria, 131 deaths by dengue, and 27 deaths by kala-azar (black fever), according to data from the Union Health Ministry. However, there is no single comparable and comprehensive national measure of its annual human rabies mortality, even as the country looks to eliminate dog-mediated human rabies by the year 2030.

About Rabies:

- **Nature:** Rabies is a vaccine-preventable zoonotic viral disease caused by the Rabies virus (RABV), which affects the central nervous system.
- **Hosts:** It infects mammals, including dogs, cats, livestock and wildlife, and is classified as a neglected tropical disease (NTD).

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Transmission:** It spreads mainly through saliva, usually via bites, scratches or contact with mucous membranes/open wounds of an infected animal.
- **Clinical Forms:** Furious rabies causes hyperactivity and hallucinations, while paralytic rabies causes progressive paralysis and coma.
- **Symptoms:** Incubation is typically 2–3 months, but can range from one week to one year. Early symptoms include fever, pain and unusual tingling, pricking or burning at the wound site.
- **Fatality:** Once the virus reaches the central nervous system and clinical symptoms appear, rabies is virtually 100% fatal.
- **Prevention:** Mass vaccination of dogs, including puppies, is the most cost-effective strategy because it prevents transmission at its source; timely post-exposure vaccination can also prevent disease before symptoms develop.

Quick Bites:

❖ The Ministry of Road Transport & Highways will organise Chintan Shivir 2026 on 5–6 October 2026 at Ekta Nagar, Narmada District, Gujarat, bringing together senior representatives from the Centre, States and implementing agencies to deliberate on key issues concerning the development and delivery of highway infrastructure in the country.

❖ India's first national-level pilot housing project using 3D concrete printing technology was launched on October 4, 2026, in Andhra Pradesh. The foundation stone for the milestone initiative was officially laid by Union Minister for Rural Development Shivraj Singh Chouhan alongside Andhra Pradesh Chief Minister N. Chandrababu Naidu during an event in Guntur district. The project is being executed in the villages of Burripalem (Guntur district) and Obulnayudupalem / Pothuru.

❖ The Union Minister of Ports, Shipping and Waterways (MoPSW), Sarbananda Sonowal, will flag off the first international cargo voyage from Dibrugarh tomorrow, 5 October 2026, at 11:00 AM at Bogibeel Terminal, Dibrugarh. The maiden voyage will carry methanol produced by Assam Petro-Chemicals Limited (APCL) from Bogibeel to Pangaon Port in Dhaka, Bangladesh, via National Waterway-2 (river Brahmaputra) and the Indo-Bangladesh Protocol Route (IBPR). It will be the first time since Independence that a cargo consignment sails from Dibrugarh to a foreign port.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Drawida incomparabilis is a newly discovered earthworm species found in the evergreen and deciduous forests of the Western Ghats across Kerala and Tamil Nadu. It is relatively large, measuring about 217–392 mm in length, and is distinguished by its glandular prostates and unusually posteriorly positioned gizzards.
- An Indian Parliamentary Delegation, led by the Deputy Chairman of the Rajya Sabha, is participating in the 153rd Assembly of the Inter-Parliamentary Union (IPU) in Arusha, Tanzania. The IPU, established in 1889 in Paris, is an international organisation of parliaments that promotes representative democracy, democratic governance, parliamentary institutions and world peace.
- The Sewa-II Hydroelectric Project is a 120 MW run-of-the-river hydropower project on the Sewa River, a tributary of the Ravi River, in Kathua district, Jammu & Kashmir. It has a 53-m-high, 114-m-long concrete gravity dam and a 10.084-km headrace tunnel. Its surface powerhouse has three 40 MW units. Construction began in 2003, commercial operation started in 2010, and it is operated and maintained by NHPC.
- Scientists, policymakers, environmental practitioners, industry representatives and emerging researchers from across the world have gathered at the IIT-Hyderabad for the 17th International Conference on Mercury as a Global Pollutant (ICMGP 2026). For the first time in India, the six-day conference, which began on Sunday, connects mercury science, environmental health and global policy.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

06-10-2026

1. Central Secretariat Library:

Context: The Supreme Court has taken suo motu cognisance of the proposed relocation of the 135-year-old Central Secretariat Library, which reportedly has not been allocated space in the Central Vista redevelopment plan.

About Central Secretariat Library:

- Central Secretariat Library (CSL) is one of the oldest libraries of the Government of India and functions under the Ministry of Culture.
- It is located at Shastri Bhawan, New Delhi, and serves the information needs of various ministries and departments of the Government of India.
- It was originally established as the Imperial Secretariat Library in Kolkata in 1891 and shifted to Delhi after the British moved the capital in 1911.
- The library was subsequently shifted to North Block and finally to Shastri Bhawan in 1969.
- With more than 8.5 lakh books, rare publications, government records and gazettes, it is the second-largest Central Government library after the National Library, Kolkata.
- Its rare-book section contains a compilation of writings by a French traveller dating to 1702, regarded as its oldest book.

2. Ichamati River:

Context: The traditional Ichamati River Durga idol immersion in Taki has changed due to strict geopolitical borders, heightened surveillance and security mandates.

About Ichamati River:

- Ichhamati River is a transboundary river flowing through India and Bangladesh and also forms part of the India–Bangladesh international boundary.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- It is a bifurcation of the Mathabhanga River, a distributary of the Padma, and originates near Mahjdia village in Nadia district, West Bengal.
- It flows through Nadia and North 24 Parganas in West Bengal before forming part of the international border and entering Satkhira and Khulna districts of Bangladesh.
- The river travels about 216 km, eventually joining the Kalindi River at Hasnabad and ultimately reaching the Bay of Bengal near Moore Island.
- The Ichhamati and its tributaries form a large oxbow lake complex near Bangaon in North 24 Parganas.
- The river has undergone significant changes in its channel course due largely to human interventions, while siltation has reduced dry-season flow and contributed to flooding during the rainy season.

3. Petroglyphs

Context: A team of archaeologists recently discovered petroglyphs engraved on a granite rock near the recently restored umbrella stone site at Peralam-Kozhummal in Kannur district, Kerala.

About petroglyphs:

- Petroglyphs are symbolic images or engravings created by removing material from rock surfaces; the term comes from Greek *petros* (stone) and *glyphein* (to carve).
- Common techniques include pecking, incising, abrading, sculpting, polishing, drilling and scratching. Unlike painted or drawn rock art (petrographs), petroglyphs are carved into the rock and generally last longer.
- They commonly depict animals, humans, geometric patterns and symbolic figures, providing insights into the social, cultural and religious life of prehistoric communities.
- Petroglyphs occur on all continents except Antarctica, with major concentrations in Africa, the Americas, Australia and parts of Europe and Siberia.
- In India, the Edakkal Caves in Wayanad, Kerala are an important example of a petroglyph site.
- Petroglyphs served purposes beyond art, including communication, territorial marking, astronomical observation and mapping; some were also used as musical instruments known as “rock gongs.”

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

4. Ramappa Temple:

Context: Recently, the Kakatiya Heritage Trust has expressed concern over a proposed open-cast mining project by Singareni, alleging that it could pose a threat to the UNESCO World Heritage-listed Ramappa Temple and Ramappa Lake.

About Ramappa Temple:

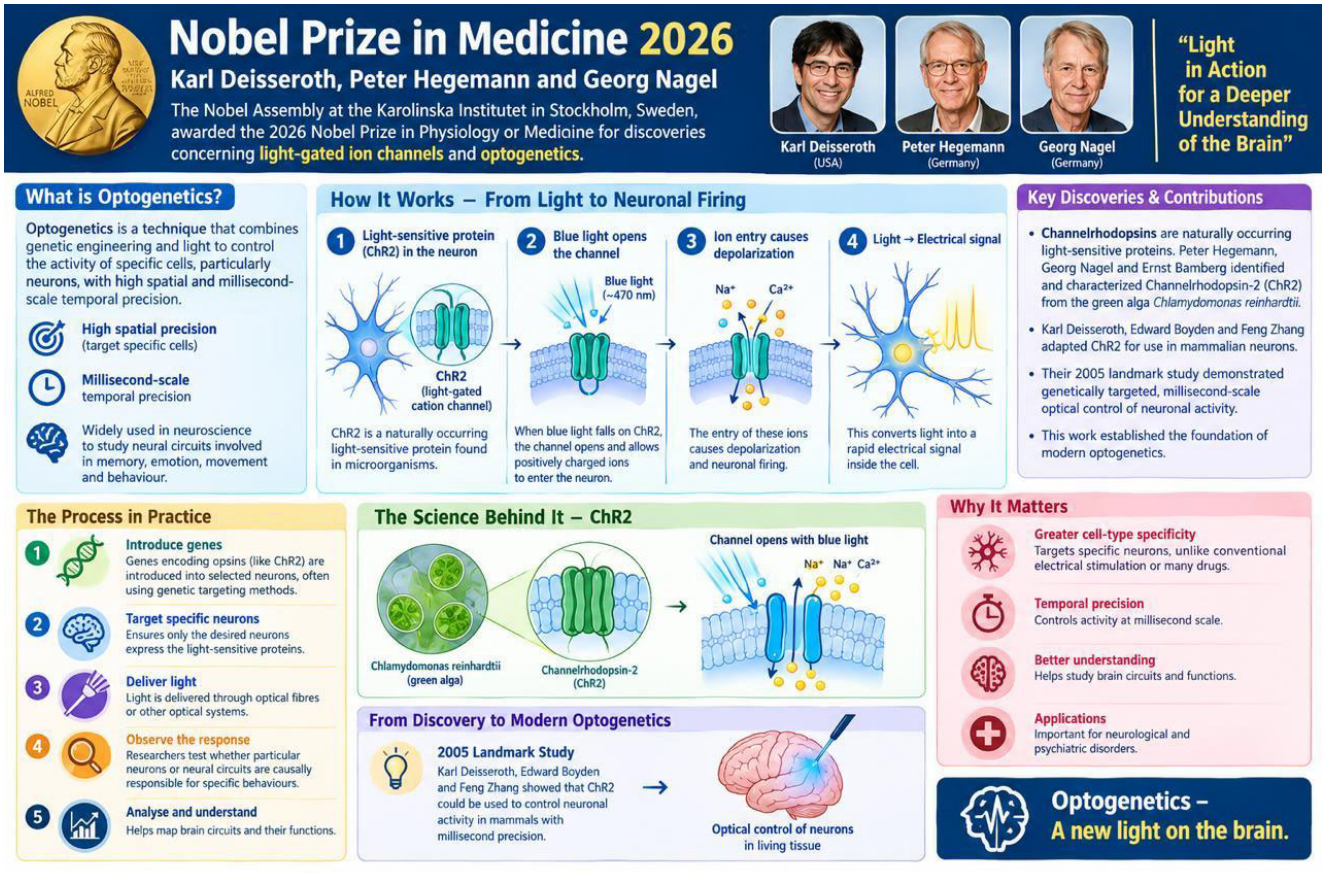
- Ramappa Temple, also known as the Rudreswara Temple, is located in Telangana and was constructed in 1213 AD during the Kakatiya period by Recharla Rudra, a general of King Ganapati Deva.
- The presiding deity is Ramalingeswara Swamy, and the temple is popularly called Ramappa after its chief sculptor Ramappa—notably, it is considered the only Indian temple named after its architect.
- In 2021, it was inscribed on the UNESCO World Heritage List as *Kakatiya Rudreshwara (Ramappa) Temple, Telangana*.
- The temple features intricately carved granite and dolerite pillars and beams, a distinctive stepped pyramidal Vimana, and stands on a 6-foot-high star-shaped platform.
- Its lightweight, porous bricks were made using materials including clay, acacia wood, chaff and myrobalan, contributing to the structure's lightness and resilience.
- The temple uses the sandbox technique, in which the foundation is filled with a mixture of sand, lime, jaggery and black myrobalan, acting as a cushion against seismic vibrations.

5. Nobel Prize in Medicine 2026:

Context: The Nobel Prize in Physiology or Medicine 2026 was awarded to Karl Deisseroth, Peter Hegemann and Georg Nagel on 5 October 2026. The Nobel Assembly at the Karolinska Institutet in Stockholm, Sweden, announced the prize for discoveries concerning light-gated ion channels and optogenetics.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

More details:



- Optogenetics is a technique that combines genetic engineering and light to control the activity of specific cells, particularly neurons, with high spatial and millisecond-scale temporal precision.
- It is widely used in neuroscience to study neural circuits involved in memory, emotion, movement and behaviour.
- Channelrhodopsins are naturally occurring light-sensitive proteins found in microorganisms. Peter Hegemann, Georg Nagel and Ernst Bamberg helped identify and characterize Channelrhodopsin-2 (ChR2) from the green alga *Chlamydomonas reinhardtii*.
- ChR2 functions as a light-gated cation channel. When blue light falls on ChR2, the channel opens and allows positively charged ions to enter the neuron.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The entry of these ions causes depolarization and neuronal firing, thereby converting light into a rapid electrical signal inside the cell.
- Karl Deisseroth, Edward Boyden and Feng Zhang adapted ChR2 for use in mammalian neurons. Their landmark 2005 study demonstrated genetically targeted, millisecond-scale optical control of neuronal activity.
- This work established the foundation of modern optogenetics, enabling precise control of neuronal activity in living tissue.
- The technique works by introducing genes encoding opsins into selected neurons, often using genetic targeting methods, and then delivering light through optical fibres or other optical systems. This allows researchers to test whether particular neurons or neural circuits are causally responsible for specific behaviours.
- **Significance:** Optogenetics revolutionised neuroscience by providing much greater cell-type specificity and temporal precision than conventional electrical stimulation or many pharmacological approaches. It has become an important tool for studying brain circuits and neurological/psychiatric disorders.

Quick Bites:

- The Uranium Corporation of India Limited (UCIL) began its Diamond Jubilee Year celebrations at Jaduguda on 4 October 2026. UCIL was incorporated in 1967 and operates as a Public Sector Enterprise under the Department of Atomic Energy (DAE). The Jaduguda mine started operations in 1967 and was the first uranium mine in India. UCIL is responsible for uranium mining and processing in India. Uranium is a radioactive metal used as nuclear fuel in atomic power reactors. India's uranium mining activity is linked to the domestic supply chain for the nuclear power programme.
- Raksha Mantri Shri Rajnath Singh will inaugurate the milestone event marking the delivery of the 2,000th aero-engine by Hindustan Aeronautics Limited (HAL), Koraput Division, in Odisha on October 06, 2026. The event will mark nearly six decades of HAL Koraput's contribution to India's aerospace and defence manufacturing capabilities and operational readiness of the Armed Forces.
- In a significant demonstration of India's indigenous shipbuilding capabilities, Raksha Mantri Shri Rajnath Singh will launch Fleet Support Ship-1 (FSS-1), lay the keel of Fleet Support Ship-5 (FSS-5) and also

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

inaugurate the upgraded Slipway-4 and 300-tonne Goliath Crane at Hindustan Shipyard Limited, Vishakapatanam, on October 06, 2026.

- The India-UAE Joint Military Exercise MOUNTAIN GUARDIAN 2026 commenced today at the Foreign Training Node, Chaubatia, Uttarakhand. The exercise, being conducted from 05 to 18 October 2026, aims to enhance interoperability, mutual understanding and cooperation, with a focus on Mountain Warfare.
- Union Minister for New and Renewable Energy, will inaugurate the 8th edition of Windergy India on October 8th, 2026, at the Chennai Trade Centre, setting in motion India's premier wind energy show. India added a record 6.05 GW of wind capacity in FY2025-26, with cumulative capacity reaching 58.52 GW by August 2026. With 28 GW under implementation supporting the goal of 100 GW by 2030.
- The National Statistics Office (NSO) under the Ministry of Statistics and Programme Implementation (MoSPI) has released the key indicators and findings from the first ever National Household Travel Survey (NHTS), conducted during July, 2025 – June, 2026 through a Factsheet. For the purpose of the survey, a trip is defined as travel covering a distance of more than 1 km.
- A new 12-week study found that creatine supplementation helped middle-aged adults gain muscle mass and strength even without a structured workout programme. Creatine is a naturally occurring nitrogen-containing organic compound that provides a readily available energy source for skeletal muscles, helping maintain energy supply during physical activity. About half of the body's creatine is obtained through the diet, particularly from red meat, seafood and animal milk, while the remainder is produced naturally by the body.
- The sal heartwood borer (Hoplocerambyx spinicornis) is a highly destructive beetle pest belonging to the order Coleoptera and family Cerambycidae. It is particularly damaging to Sal forests, attacking both standing trees and freshly felled timber. First recorded as a serious threat in 1897, the dark-brown beetle can cause catastrophic damage to Sal forests, with a major infestation currently reported in the Dindori forests of Madhya Pradesh.
- Uttar Pradesh renamed Bhadohi district as Sant Ravidas Nagar Bhadohi on 4 October 2026. The district was carved out of Varanasi district and became the 65th district of Uttar Pradesh on 30 June 1994.
- Doha, Qatar, formally received the Olympic Council of Asia Flag at the closing ceremony of the 20th Asian Games Aichi-Nagoya 2026 in Japan on 4 October 2026. The handover took place at Mizuho Park Athletic

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Stadium in Nagoya and marked the official transition of host responsibility for the 21st Asian Games in 2030.

- Indian Railways is using Project Plan Bee, along with AI-based Intrusion Detection Systems (IDS), speed restrictions and wildlife deterrence measures to reduce elephant–train collisions in vulnerable railway corridors. Under the system, Distributed Acoustic System (DAS) technology detects elephant movement near tracks and sends real-time alerts to loco pilots, station masters and control rooms. The Northeast Frontier Railway (NFR) reportedly saved 255 elephants between January and September 2026 across its Alipurduar, Lumding, Tinsukia and Rangiya divisions.
- The European Space Agency's JUICE (Jupiter Icy Moons Explorer) completed its third Earth gravity assist on 28 September 2026, passing about 8,640 km above Earth over the Indian Ocean and changing its trajectory by nearly 20°. A gravity assist uses a planet's or moon's gravity and motion to alter a spacecraft's speed and direction, helping reduce fuel requirements during long interplanetary missions.
- Israel's "Sufa 53" project, also called "Great Storm" or the "Sufa Line," is an Israeli engineering and military undertaking in the southern Quneitra countryside of Syria. The project involves a fortified military route, observation posts, trenches, and earthen berms along the separation line near the Israeli-occupied Golan Heights.



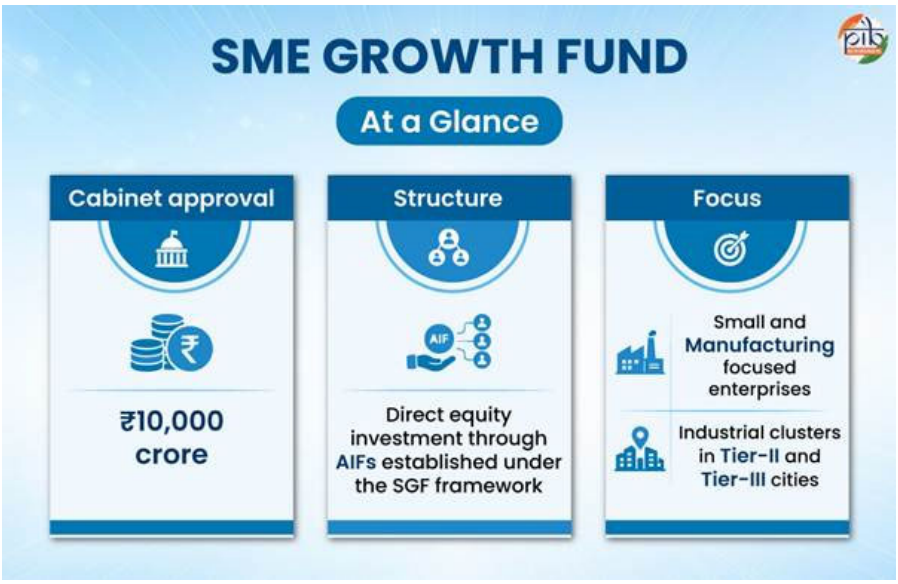
Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

07-10-2026

1. Small and Medium Enterprises Growth Fund:

Context: The Union Cabinet, chaired by Prime Minister Shri Narendra Modi, today approved the Government of India's commitment of Rs.10,000 crore towards the establishment of the SME Growth Fund (SGF) aimed at catalysing growth-oriented capital for India's Small and Medium Enterprises (SMEs) and enabling the emergence of champion Indian enterprises across manufacturing, services, technology, innovation-driven sectors, and strategic value chains as per Para 28 of Union Budget 2026-27.

About Small and Medium Enterprises Growth Fund:



- **Government commitment:** Union Cabinet approved a ₹10,000 crore commitment by the Government of India towards the SME Growth Fund (SGF), as announced in Union Budget 2026–27.
- **Objective:** To provide growth-stage equity capital to high-potential Small and Medium Enterprises and bridge the existing gap in long-term risk capital.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Funding structure:** The ₹10,000 crore government commitment will be provided to an Alternative Investment Fund (AIF) established under the SGF framework.
- **Target enterprises:** Focuses primarily on small and medium manufacturing enterprises, while also supporting SMEs in services, technology, innovation-driven sectors and strategic value chains.
- **Growth support:** Enables SMEs to expand capacity, adopt advanced technologies, scale operations, undertake acquisitions and enter international markets.
- **Regional focus:** The Fund will also consider SMEs operating in industrial clusters in Tier-II and Tier-III cities, promoting balanced regional industrial development.
- **Expected outcomes:** Aims to improve productivity, export competitiveness, global value-chain integration and high-quality employment generation.
- **Strategic significance:** Addresses the structural shortage of patient growth equity beyond existing funds that largely support early-stage and micro enterprises, helping create globally competitive Indian champion enterprises under the vision of Viksit Bharat 2047.

2. Integrated Transport & Logistics Authority (ITLA):

Context: The Union Cabinet, chaired by Prime Minister Shri Narendra Modi, today approved the setting up of a Special Purpose Vehicle (SPV), namely, Integrated Transport & Logistics Authority (ITLA) to strengthen research, planning, appraisal, monitoring and impact assessment within the broad domains of Transportation and Logistics.

About Integrated Transport & Logistics Authority (ITLA):

- **National apex institution:** ITLA will serve as the apex body for integrated transport and logistics planning, research, project appraisal, monitoring, policy support and data analytics.
- **National Transport Master Plan:** It will prepare a 10-year or longer-term National Transport Master Plan covering roads, railways, ports, shipping, aviation, inland waterways, coastal shipping, urban mobility and logistics.
- **Integrated planning:** ITLA will evaluate 5-year sectoral plans and annual plans of transport ministries to ensure alignment with the National Transport Master Plan and promote multimodal infrastructure.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Project appraisal & monitoring:** It will technically appraise and monitor Government of India transport infrastructure projects costing ₹500 crore or more, including post-implementation impact assessment.
- **National Transport Data Repository:** ITLA will create a unified NTDR integrating data from GSTN e-way bills, FASTag, VAHAN, GPS systems and urban traffic systems for freight-flow and origin-destination analytics.
- **Policy, skills & innovation:** It will support review of the National Logistics Policy (2022) and promote capacity building, training, skilling, research and innovation in transport and logistics.
- **Strategic significance:** ITLA aims to strengthen multimodal connectivity, infrastructure efficiency and logistics competitiveness, while reducing logistics costs and supporting India's Vision 2047.

3. eSanjeevani:

Context: In a landmark achievement, India's National Telemedicine Service, eSanjeevani, has crossed 50 crore (500 million) teleconsultations, marking a significant milestone in the Government's efforts to leverage digital technology to make quality healthcare more accessible, affordable and equitable for citizens across the country.

About eSanjeevani:

- eSanjeevani is a cloud-based integrated telemedicine platform of the Ministry of Health and Family Welfare, Government of India, providing doctor-to-doctor and doctor-to-patient consultations.
- It is designed, developed, deployed and maintained by the Centre for Development of Advanced Computing (C-DAC), Mohali.
- **eSanjeevani AB-HWC:** A doctor-to-doctor telemedicine service implemented at Health and Wellness Centres under the Ayushman Bharat Scheme; launched in 2019.
- **Hub-and-Spoke Model:** Health and Wellness Centres act as spokes connected to hubs comprising MBBS, specialist and super-specialist doctors for remote consultations.
- **eSanjeevani OPD:** A patient-to-doctor remote consultation service launched in 2020 during the COVID-19 lockdown, when physical outpatient departments were closed.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Significance:** Enables accessible healthcare and remote medical consultations, reduces travel requirements and improves access to doctors, particularly for people in rural and underserved areas.

4. Plague:

Context: A suspected case of pneumonic plague in Siberia has triggered heightened public-health precautions after a 28-year-old laboratory worker at an anti-plague research institute died following severe pneumonia.

About Plague:

- **Cause:** Plague is an infectious disease caused by the bacterium Yersinia pestis, commonly found in small mammals and their fleas.
- **Transmission:** Mainly transmitted between animals through infected fleas; humans can contract it through flea bites, contact with infected animal tissues/fluids, or inhalation of respiratory particles in pneumonic plague.
- **Bubonic plague:** The most common form, usually caused by an infected flea bite. *Y. pestis* travels through lymphatic vessels to nearby lymph nodes, causing painful, swollen lymph nodes called buboes.
- **Bubonic symptoms:** Sudden fever, chills, headache, body aches, weakness, nausea and vomiting, along with painful swollen lymph nodes.
- **Pneumonic plague:** The most virulent form, transmitted through respiratory droplets or particles, particularly during close and prolonged contact with an infected person or animal.
- **Pneumonic symptoms:** Can develop rapidly and include high fever, chills, cough, shortness of breath and blood-stained sputum.
- **Septicaemic plague:** Occurs when *Y. pestis* multiplies rapidly in the bloodstream and may develop from either bubonic or pneumonic plague.
- **Septicaemic effects:** May cause bleeding under the skin, cyanosis (bluish skin) and tissue necrosis, particularly in the extremities.
- **Treatment & prevention:** Antibiotics and supportive treatment can be effective when diagnosed early. There is no routinely recommended plague vaccine for the general public.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. Debrigarh Wildlife Sanctuary:

Context: Odisha Forest, Environment and Climate Change minister virtually inaugurated new accommodation and visitor facilities at Debrigarh Wildlife Sanctuary as part of the ongoing expansion of its community-managed ecotourism infrastructure.

About Debrigarh Wildlife Sanctuary:

- **Location:** Situated in Bargarh district, Odisha, near the Hirakud Dam on the Mahanadi River; spread over 347 sq km.
- **Historical significance:** Associated with Veer Surendra Sai, whose rebellion against the British used Barapathara, located within the sanctuary, as a base.
- **Vegetation:** Predominantly mixed and dry deciduous forests, with trees such as Sal, Asana, Bija, Aanla and Dhaura.
- **Fauna:** Hosts leopards, sloth bears, chousingha, sambar, gaur, wild boar and dhole.
- **Birdlife:** An important wintering ground for migratory birds including crested serpent eagle, flowerpeckers, red-vented bulbul, tree pie, drongo and oriental white-eye.

6. 2026 Nobel Prize in Physics:

Context: Francis Halzen, a Belgian particle physicist and professor at the University of Wisconsin-Madison, received the 2026 Nobel Prize in Physics on 6 October 2026. The Royal Swedish Academy of Sciences awarded the prize for decisive contributions to the IceCube Neutrino Observatory and the discovery of high-energy neutrinos of astrophysical origin.

About 2026 Nobel Prize in Physics:

- **Winner:** Francis Halzen was awarded the 2026 Nobel Prize in Physics on 6 October 2026.
- **Awarded for:** His decisive contributions to the IceCube Neutrino Observatory and the discovery of high-energy neutrinos of astrophysical origin.
- **IceCube Observatory:** A giant neutrino detector located at the South Pole, Antarctica, using about one cubic kilometre of Antarctic ice.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Detection system:** IceCube has more than 5,000 light sensors embedded deep in the ice that detect faint flashes of light produced when neutrinos interact with matter.
- **Neutrinos:** Extremely light, electrically neutral subatomic particles that interact very weakly with matter and can travel enormous distances without being significantly absorbed.
- **Astrophysical origin:** High-energy neutrinos originate from extreme cosmic environments and provide information about distant and energetic astrophysical phenomena.
- **Scientific importance: Neutrinos** can reveal cosmic processes that may be difficult to study through conventional electromagnetic observations because they can travel through matter and space relatively undisturbed.
- **IceCube observations:** By analysing the energy and direction of neutrino-induced light patterns, scientists can investigate their possible cosmic sources.
- **Significance:** The work has advanced neutrino astronomy and particle astrophysics, providing a new way to study some of the most powerful processes in the universe.

Quick Bites:

- The President of India, Smt. Droupadi Murmu graced the first convocation of AIIMS Bilaspur in Bilaspur, Himachal Pradesh.
- The Government has appointed Air Marshal Ashutosh Dixit, PVSM, AVSM, VM, VSM, presently serving as Vice Chief of the Air Staff as the 29th Chief of the Air Staff, in the rank of Air Chief Marshal, with effect from the afternoon of October 31, 2026. Thepresent Chief of the Air Staff, Air Chief Marshal Amar Preet Singh superannuates office on October 31, 2026.
- Raksha Rajya Mantri Shri Sanjay Seth will inaugurate the 12th National Maritime Search & Rescue Exercise (SAREX-2026) on 07 October 26, and witness SAR Demo off Paradip coast on 08 October 26 being organized by the Indian Coast Guard. A key highlight of this exercise is the international participation of 32 observers from 30 countries, underscoring the cooperative protocols, strategic importance, and global interoperability of the drill. The exercise will simulate a Mass Rescue Operation involving concurrent aeronautical and maritime distress situations; including ditching of a passenger aircraft at sea with 228 persons onboard and its impact with container vessel MV Zumba.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- General Dhiraj Seth, Chief of the Army Staff (COAS), today flagged in members of the Joint Indo-Argentine Army Mountaineering Expedition in New Delhi, following their successful ascent of Mt Abi Gamin (7,355 metres) on 17 September and Mt Kamet (7,756 metres) on 21 September 2026. Mt Kamet located in Chamoli district, Uttarakhand is the third-highest peak in India after Mt Kanchenjunga and Mt Nanda Devi.
- Defence Research and Development Organisation (DRDO) conducted the maiden live jump of the Advanced High-Altitude Parachute (AHAP) at one of the highest-altitude drop zones, Nyoma (Mudh DZ). Designed and developed by Aerial Delivery Research and Development Establishment (ADRDE), Agra, AHAP is a static line parachute system for mass drop of paratroopers. The system has been manufactured by Ordnance Parachute Factory (OPF) Kanpur, inspected by DGAQA and certified by CEMILAC, RCMA Kanpur.
- The Ministry of Defence signed a contract with BrahMos Aerospace Private Limited (BAPL) for procurement of BrahMos Fire Control System and Launchers for Indian Navy ships under Buy (Indian-IDDM) Category, on October 6, 2026 in New Delhi. Valued at Rs 661.50 crore, the contract was inked in the presence of Defence Secretary Shri Rajesh Kumar Singh.
- Raksha Mantri launches first indigenous Fleet Support Ship ' Surya' at Hindustan Shipyard Ltd in Visakhapatnam. Raksha Mantri Shri Rajnath Singh launched the first Fleet Support Ship (FSS-1), laid the keel of the fifth Fleet Support Ship (FSS-5) and inaugurated the upgraded Slipway-4 and 300-tonne Goliath Crane at Hindustan Shipyard Limited (HSL), Visakhapatnam on October 06, 2026. The milestone is a significant step in strengthening HSL's capacity to build larger and more complex ships and advancing India's indigenous maritime capability. Recalling the launch of the first ship built in independent India 'Jala Usha' at Visakhapatnam in 1948, RM highlighted India's longstanding maritime heritage, noting that the country's relationship with the sea dates back to ancient times.
- The Centre for Marine Living Resources and Ecology (CMLRE), an attached office of the Ministry of Earth Sciences (MoES), Government of India, hosted the ESTIC (Emerging Science, Technology, and Innovation Conclave) 2026 Curtain Raiser, at its office premises in Kochi today. The Curtain Raiser for the ESTIC 2026 theme 'Ocean Sciences & Maritime Technologies' was organised as a parallel event to a Stakeholder

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Engagement Workshop of the IndOBIS (Indian Ocean Biodiversity Information System) portal, developed to augment biodiversity research ongoing under the country's Deep Ocean Mission.

- The Department of Posts (DoP) is celebrating National Postal Week, from 9th to 15th October, commencing with the World Post Day on 9th October. The theme of this year's World Post Day is 'World Post Day: One Postal Network, Infinite Possibilities.'
- Jumping genes, scientifically known as transposable elements (TEs) or transposons, are DNA sequences capable of moving from one location to another within a genome. A recent study links the rapid diversification of ants after the dinosaur extinction to these genetic elements. They occur widely in both prokaryotes and eukaryotes and form about 50% of the human genome and up to 90% of the corn genome. Based on their movement mechanism, they are broadly classified into retrotransposons and DNA transposons.
- Cervavac, India's first indigenously developed gender-neutral quadrivalent Human Papillomavirus vaccine, has received World Health Organization prequalification. The vaccine was developed by Serum Institute of India in Pune and targets HPV types 6, 11, 16 and 18.
- India and Japan launched the Operational Manual for the Joint Crediting Mechanism (JCM) in New Delhi on 30 September 2026. The mechanism operates under Article 6.2 of the Paris Agreement and is designed for cooperative approaches on greenhouse gas emission reduction activities. The Joint Crediting Mechanism is a bilateral carbon cooperation framework between India and Japan. It supports projects that reduce or avoid greenhouse gas emissions and allows credits to be issued and transferred after verification.
- The Securities and Exchange Board of India launched the "Samajh Se Investing Simple" investor awareness and education campaign under Project Jagrook on 5 October 2026 at Panjab University, Chandigarh. The launch coincided with World Investor Week 2026, which was observed from 5 October to 11 October. Project Jagrook is an investor awareness initiative of the Securities and Exchange Board of India for financial literacy and securities market education.
- India won four gold medals and one silver medal at the 19th International Olympiad on Astronomy and Astrophysics (IOAA) 2026. The competition was held in Hanoi, Vietnam, from 25 September to 5 October 2026, and all five members of the Indian team won medals.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Exercise Tarang Shakti 2026 is the second edition of the Indian Air Force's multinational air exercise. It is being held from 26 September to 12 October 2026 at Air Force Station Jodhpur and adjoining airbases in Rajasthan. Germany has deployed an Airbus A400M military transport aircraft for the exercise.
- The 14th International Tourism Mart will be held in Tawang, Arunachal Pradesh, from 29 to 31 October 2026. The event is co-organised by the Union Tourism Ministry and the Government of Arunachal Pradesh, and it will bring together domestic stakeholders, tour operators, and influencers from 27 countries.
- IIT Ropar launched the digital learning platform AVNI – Grow with Nature on 6 October 2026 through its Centre of Excellence in AI for Digital Agriculture, ANNAM.AI. The app is designed for children to learn about plants, crops, food, and agriculture through surroundings, activities, and artificial intelligence tools.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

08-10-2026

1. Chamkharchhu-I Hydroelectric Project:

Context: Adani Power and Bhutan's state-owned generation utility, Druk Green Power Corporation Ltd (DGPC), have signed a Shareholders Agreement to develop the 770 MW Chamkharchhu-I Hydroelectric Project in Bhutan.

About Chamkharchhu-I Hydroelectric Project:

- **Location:** 770 MW run-of-river hydropower project on the Chamkharchhu River in Zhemgang district, central Bhutan.
- **Partnership:** Developed through a 49:51 equity partnership, with Adani Power – 49% and Bhutan's DGPC – 51%.
- **Model:** Implemented under the Build, Own, Operate and Transfer (BOOT) model with a 30-year concession from commercial operation.
- **Infrastructure:** Includes a 108-metre concrete gravity dam, 19.2-km headrace tunnel and an underground powerhouse.
- **Energy security:** Expected to meet Bhutan's peak winter electricity demand.
- **India–Bhutan trade:** Surplus electricity generated during summer can be exported to India, strengthening bilateral energy cooperation.

2. Veerangana Durgavati Tiger Reserve (VDTR):

Context: Madhya Pradesh is planning to establish its third cheetah habitat at Veerangana Durgavati Tiger Reserve (VDTR), earlier known as Nauradehi, with the first pair of cheetahs scheduled for release into the reserve.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Veerangana Durgavati Tiger Reserve (VDTR):

- **Location:** Rani Durgavati Tiger Reserve is spread across Sagar, Damoh and Narsinghpur districts of Madhya Pradesh.
- **Protected Areas:** It includes parts of Nauradehi and Durgavati Wildlife Sanctuaries and covers about 2,339 sq km.
- **Physiography:** The reserve lies on a plateau of the Upper Vindhyan Range and belongs to the Deccan Peninsula biogeographic region.
- **Rivers:** It spans the Narmada and Yamuna basins; Kopra, Bamner and Bearma rivers are major tributaries of the Ken River.
- **Vegetation:** Dominated by dry deciduous forests, with Teak, Saja, Dhaora, Ber and Amla as important flora.
- **Fauna:** Important species include tiger, leopard, wolf, jackal, striped hyena, Nilgai, Chinkara, Chital, Sambar and Blackbuck.
- **Vultures:** It is an important remaining stronghold of White-rumped and Indian vultures, both critically endangered raptors.
- **Other significance:** The reserve is named after Rani Durgavati, the Gond queen, and contains the historic Singorgarh Fort.

3. Nameri Tiger Reserve:

Context: Recently, a significant improvement has been observed in the tiger population of Nameri Tiger Reserve, with their numbers increasing from three to 12 in three years.

About Nameri Tiger Reserve:

- **Location:** It is situated in the northern Sonitpur district of Assam and shares its northern boundary with Pakke Tiger Reserve, Arunachal Pradesh.
- **Formation:** It comprises parts of Nameri National Park, Sonai-Rupai Wildlife Sanctuary, Naduar Reserve Forest and Balipara Reserve Forest.

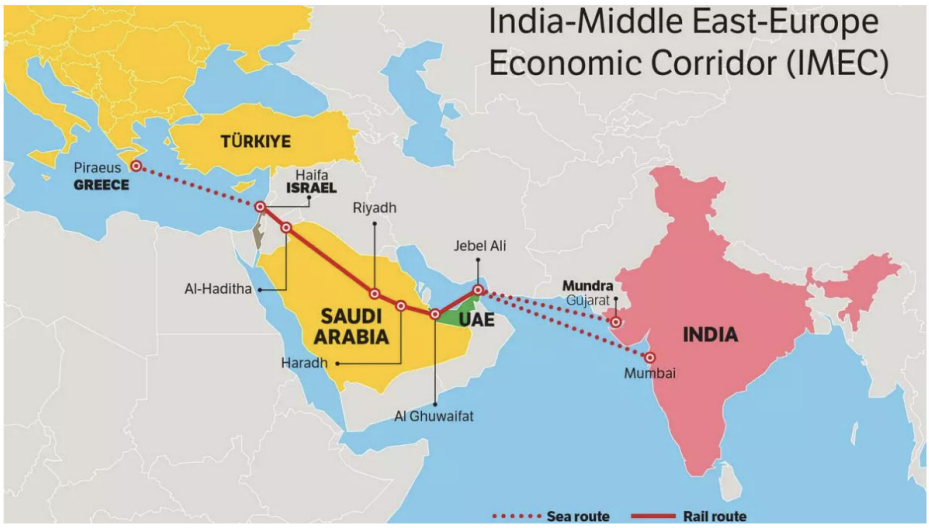
Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Rivers:** The area is drained by the Jia Bhoroli River and tributaries such as Diji, Dinai, Doigurung, Nameri, Dikorai and Khari.
- **Golden Mahseer:** The Jia Bhoroli River is famous for the Golden Mahseer, known as the *"Tiger of Indian rivers."*
- **Vegetation:** It includes tropical evergreen, semi-evergreen and moist deciduous forests, along with cane brakes and grasslands.
- **Biodiversity:** Important flora includes Hollong, Nahor, Simul, orchids and medicinal plants, while fauna includes leopard, clouded leopard, wild dog and Asian elephant.

4. India-Middle East-Europe Economic Corridor (IMEC):

Context: Oman, Egypt, Lebanon, Greece and Cyprus have formally expressed interest in joining the India-Middle East-Europe Economic Corridor (IMEC), as confirmed by French President's Special Envoy for IMEC Gérard Mestrallet on 6 October 2026. A ministerial-level meeting is anticipated later in 2026 to consider the corridor's geographical expansion.

About India-Middle East-Europe Economic Corridor (IMEC):



- India-Middle East-Europe Economic Corridor is a major connectivity initiative linking India, the Arabian Gulf, and Europe through integrated transport networks.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Its primary objective is to boost economic growth, trade, and regional economic integration among participating countries.
- IMEC aims to strengthen manufacturing, enhance food security, and build resilient supply chains.
- The corridor involves India, the United States, Saudi Arabia, the UAE, the European Union, Italy, France, and Germany.
- IMEC will combine railways, ship-to-rail networks, and road transport routes for seamless movement of goods.
- It consists of two corridors: the East Corridor connecting India to the Arabian Gulf and the Northern Corridor connecting the Gulf to Europe.
- Key Indian ports under IMEC include Mundra Port, Deendayal Port (Kandla), and Jawaharlal Nehru Port.
- Major UAE ports in the corridor are Port of Fujairah, Jebel Ali Port, and Khalifa Port.
- Key Saudi Arabian ports include King Abdulaziz Port and Ras Al Khair Port.
- IMEC is envisioned as a strategic trade and connectivity corridor to improve transport efficiency and reduce logistics costs between Asia, the Middle East, and Europe.

5. Joint Squad for Health (JOSH) Teams:

Context: The Union Ministry of Health and Family Welfare will launch Joint Squad for Health (JOSH) Teams nationally on 8 October 2026. The launch will take place at Bharat Mandapam in New Delhi, with Union Minister J.P. Nadda leading the event.

About Joint Squad for Health (JOSH) Teams:

- JOSH Teams are an initiative of the Ministry of Health and Family Welfare, in collaboration with the Ministry of Youth Affairs and Sports and Ministry of Defence.
- **Initial rollout:** The programme will cover 55 districts across 11 states.
- **Objective:** Strengthen youth-led mobilisation, awareness and community engagement for the TB Mukt Bharat Abhiyaan.
- **Team composition:** Each team will include Class-I officers, MY Bharat volunteers and NCC cadets.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Public outreach:** Teams will take the TB elimination message to grassroots communities through awareness and social mobilisation activities.
- **New initiatives:** The launch will include new IEC materials and an AI-powered "Khushi Avatar" chatbot for TB awareness.
- **Progress:** In 2025, 67,933 Panchayats across 697 districts were recognised as TB Mukt, highlighting the role of Panchayats in grassroots TB elimination.

6. 2026 Nobel Prize in Chemistry:

Context: Henri B. Kagan and Kenso Soai received the 2026 Nobel Prize in Chemistry on 7 October 2026 for discoveries concerning non-linear effects and autocatalysis in asymmetric organic synthesis. The Royal Swedish Academy of Sciences announced the award in Stockholm.

More details:

- **Nobel Prize in Chemistry 2026:** Awarded to Henri B. Kagan and Kenso Soai on 7 October 2026.
- **Awarding body:** Royal Swedish Academy of Sciences.
- **Awarded for:** Discovery of non-linear effects and autocatalysis in asymmetric organic synthesis.
- **Henri B. Kagan:** His work on non-linear effects in asymmetric catalysis showed that catalyst chirality and product chirality need not have a proportional relationship.
- **Kagan's significance:** His research demonstrated how small differences in molecular chirality can be amplified during chemical reactions.
- **Kenso Soai:** Developed the Soai reaction, a landmark example of asymmetric autocatalysis.
- **Soai reaction:** It can amplify a small initial preference for one mirror-image molecular form and produce more molecules with the same handedness.
- **Asymmetric organic synthesis:** Aims to preferentially produce one enantiomer (mirror-image form) over the other.
- **Importance:** Molecular handedness is particularly important in pharmaceutical chemistry, as enantiomers can interact differently with biological systems.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Non-linear effects:** A small change in the composition of a chiral catalyst can produce a much larger change in the chirality of the product.
- **Autocatalysis:** A reaction in which the product itself acts as a catalyst, accelerating further formation of the product.
- **Asymmetric autocatalysis:** A chiral product promotes the formation of more molecules with the same handedness, helping explain how molecular asymmetry can be amplified.

Quick Bites:

❖ Prime Minister Shri Narendra Modi will inaugurate the 10th edition of the India Mobile Congress (IMC) on 8 October 2026 at around 10 AM at Yashobhoomi, New Delhi. Organised jointly by the Department of Telecommunications (DoT) and the Cellular Operators Association of India (COAI), the event will be held from 7 to 10 October. The theme of IMC 2026 is "Scale Without Boundaries", reflecting India's growing capabilities in digital innovation, next-generation connectivity and technology-led growth.

❖ India and Ghana have strengthened cooperation in agricultural research, education and technology transfer with the signing of a Memorandum of Understanding (MoU) between the Indian Council of Agricultural Research (ICAR), New Delhi, and the Crops Research Institute (CSIR-CRI), Accra, Ghana. This MoU will strengthen India's focus on South-South and India-Africa collaboration.

❖ Raksha Rajya Mantri Shri Sanjay Seth inaugurated the Multinational Search and Rescue Exercise (SAREX-2026) on October 07, 2026, set to be conducted off Paradip on October 08, 2026. The exercise will witness the participation and observation of 32 delegates from 30 foreign friendly nations.

❖ The Maldharis are a semi-nomadic pastoralist community mainly found in Gujarat's Banni grasslands, Gir Forest and parts of Rajasthan. The term Maldhari means "keeper of livestock", reflecting their traditional dependence on cattle, sheep, goats and camels for milk, ghee, wool and handicrafts. Women play a major role in livestock rearing and are known for distinctive traditional embroidery, while men generally manage grazing, foraging and milk marketing. They mainly speak Kachchhi (Sindhi dialect) and are predominantly Muslim, with a smaller Hindu population. The Gujarat government has recently announced voluntary relocation of Maldharis from Barda Wildlife Sanctuary in Porbandar and Devbhumi Dwarka districts, which is being developed as a "second home" for Asiatic lions.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- France recently test-fired its new M51.3 submarine-launched ballistic missile (SLBM) from a nuclear-powered submarine. Developed by ArianeGroup, the M51.3 entered service in October 2025 as an advanced version of the M51 family and is intended to become the primary weapon system of France's next-generation SNLE 3G strategic nuclear submarines, which will gradually replace the Le Triomphant class after 2035. It is a solid-propellant, three-stage missile, over 50 tonnes in weight and about 12 metres long, equipped with the new TNO-2 oceanic nuclear warheads.
- The Grand Ethiopian Renaissance Dam (GERD), formerly called the Millennium Dam, is a major hydropower project on the Blue Nile in Ethiopia's Benishangul-Gumuz region, near Sudan. With a capacity of 6.45 GW, it is Africa's largest hydroelectric power plant. Construction began in 2011, and the project is owned by Ethiopian Electric Power. It consists of a 170-metre-high RCC gravity dam, two power stations and a secondary rockfill dam. Its reservoir covers about 1,875 sq km and can store up to 74 billion cubic metres of water, making GERD a major source of both Ethiopia's energy ambitions and regional tensions with Egypt and Sudan.
- Sagarmanthan: The Great Oceans Dialogue is scheduled to hold its third edition in New Delhi, India, from 7 October to 9 October 2026. The event is expected to bring together more than 1,200 speakers, delegates, and participants from nearly 75 countries for discussions on the global maritime sector. Sagarmanthan is an annual maritime dialogue launched in New Delhi in 2024. It is co-hosted by the Observer Research Foundation and the Ministry of Ports, Shipping and Waterways of India.
- The World Bank ranked India among the top 10 emerging-market performers in artificial intelligence readiness on 6 October 2026. The assessment appeared in the report titled India and Artificial Intelligence: Seizing the Development Opportunity. The report linked India's position to its technical workforce, globally integrated information technology sector, and digital public infrastructure.
- Professor Mahesh Kakde of the Indian Institute of Science (IISc), Bengaluru, received the Ramanujan Prize for Young Mathematicians from Developing Countries 2026 for his contributions to algebraic number theory. The award was announced by the International Centre for Theoretical Physics (ICTP) and the International Mathematical Union (IMU) on 30 September 2026. Instituted in 2005, the annual prize carries US$10,000 and recognises outstanding research by mathematicians under 45 from developing countries, particularly research conducted under challenging conditions.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

❖ The Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) on Wednesday raised the policy repo rate under the liquidity adjustment facility (LAF) by 25 basis points to 5.5% and shifted its stance from neutral to calibrated tightening, signalling that rate cuts are off the table in the near term. Consequently, the standing deposit facility (SDF) rate stands adjusted to 5.25%, and the marginal standing facility (MSF) rate and the bank rate to 5.75%. The policy repo rate, which was cut to 5.25% in December 2025, had been kept on hold at the next four MPC meetings. In the easing cycle, the MPC had cut the rate by 125 basis points in phases, from 6.5% to 5.25%, before increasing it on Wednesday.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

09-10-2026

1. Hidimba Temple:

Context: President Droupadi Murmu recently visited the historic Hidimba Temple in Manali, the second day of her visit to Himachal Pradesh.

About Hidimba Temple:

- **Location:** Hadimba Temple, also called Dhungari Temple, is located in Manali, Himachal Pradesh, amid the cedar forests of Dhungiri Van Vihar.
- **Deity:** Dedicated to Hidimbi Devi, wife of Bhima and a character from the Mahabharata.
- **History:** Built in 1553 during the reign of Kullu ruler Bahadur Singh (1546–1569).
- **Architecture:** A distinctive four-tiered Pagoda-style temple, influenced by architectural traditions of Nepal and Tibet, with a wooden structure.
- **Woodwork:** Its deodar-wood structure has 24 wooden pillars and intricate carvings depicting animals, plants, dancers, musicians and Mahabharata scenes.
- **Sanctum:** An enormous rock occupies the interior, with only a 7.5-cm brass image of Hidimba Devi representing the goddess.

2. Canine Distemper Virus (CDV):

Context: A tigress being treated for symptoms of Canine Distemper Virus (CDV) infection died in the Kanha Tiger Reserve in Madhya Pradesh recently.

About Canine Distemper Virus (CDV):

- Canine distemper is a contagious and serious viral disease caused by the Canine Distemper Virus (CDV).
- It primarily affects the respiratory, gastrointestinal and nervous systems and can have a high mortality rate.
- Puppies below four months and unvaccinated dogs are particularly vulnerable, though all dogs are at risk.
- CDV can also infect ferrets and various other mammals, especially carnivores.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Transmission occurs mainly through respiratory secretions such as saliva, nasal discharge and sneezing, and also through contaminated objects, food and water bowls.
- The virus does not survive long in the environment and is generally destroyed by most disinfectants, but infected dogs can shed it for weeks.
- Early symptoms include eye and nasal discharge, loss of appetite, coughing, pneumonia and fever.
- Severe infection may affect the nervous and digestive systems, causing vomiting, diarrhoea, seizures, tremors, muscle stiffness, weakness and loss of balance.
- There is no specific cure or approved antiviral treatment; vaccination is the most effective method of prevention.

3. Garo tribe:

Context: Elections to the Garo Hills Autonomous District Council (GHADC) got delayed till at least early next year as the Meghalaya cabinet recently approved a second six-month extension of the council's term.

About Garo tribe:

- **Identity & Location:** The Garo are a Tibeto-Burman tribal community, mainly concentrated in the Garo Hills of Meghalaya, with smaller populations in Assam, Tripura, Nagaland and West Bengal.
- **Language:** They speak Garo (Garrow/Mande), belonging to the Bodo branch of the Sino-Tibetan language family.
- **Livelihood:** Traditionally agriculture-based, practising both jhum cultivation and wet-rice cultivation, along with growing millet and vegetables.
- **Matrilineal Society:** Garo society is matrilineal, with property and clan lineage inherited through the female line; villages are organised into exogamous clans.
- **Religion:** Traditionally followed Songsarek, an animistic faith centred on spirits, nature deities and ancestors; Christianity is now predominant, though traditional practices continue.
- **Wangala Festival:** Wangala, the harvest festival, continues to preserve important elements of Garo cultural and spiritual heritage.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

4. Nobel Prize in Literature 2026:

Context: Nobel Prize in Literature 2026 has been awarded to Anne Carson, the Canadian poet, essayist and classicist, for her distinctive contribution to contemporary literature. The Swedish Academy recognised her "bold and inventive oeuvre that, in playful dialogue with the classical tradition, has created new forms for contemporary literature."

About Nobel Prize in Literature 2026:

- **Winner:** Anne Carson, Canadian poet, essayist, translator and classicist, received the Nobel Prize in Literature 2026.
- **Awarded for:** Her bold and inventive literary work that engages creatively with classical traditions to create new forms of contemporary literature.
- **Born:** 21 June 1950, Toronto, Canada.
- **Literary style:** Carson blends poetry, prose, essays, translation, criticism and drama, often crossing conventional literary boundaries.
- **Classical influence:** Her work draws strongly on Ancient Greek and Roman literature, which she translates, reinterprets and incorporates into modern literary forms.
- **Awarding body:** The Swedish Academy announced the award on 8 October 2026, highlighting her "playful dialogue with the classical tradition."

5. Shyamji Krishna Varma:

Context: The Prime Minister, Shri Narendra Modi has paid homage to great revolutionary and freedom fighter Shyamji Krishna Varma on his birth anniversary.

About Shyamji Krishna Varma:

- **Early Life:** Shyamji Krishna Varma was born on 4 October 1857 in Mandvi, Kutch district, Gujarat. A Sanskrit scholar, he became the first non-Brahmin to receive the title of 'Pandit' from the scholars of Kashi.
- **Arya Samaj:** Influenced by Swami Dayanand Saraswati, he became the first President of the Bombay Arya Samaj in 1877.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Administrative Career:** Served as Diwan (chief minister) of the princely states of Ratlam, Ajmer and Junagadh.
- **The Indian Sociologist:** Launched this English monthly journal in London in January 1905 to promote anti-colonial ideas and Indian nationalism.
- **Indian Home Rule Society:** Established it in London in February 1905 to advocate self-rule and oppose British colonial domination.
- **India House:** Founded India House in London in 1905 as a residence and centre for Indian students, which became a hub of revolutionary nationalism. It supported figures such as V.D. Savarkar and Virendranath Chattopadhyaya.
- **Legal Controversy:** The Inner Temple barred him from practising law in London in 1905 amid controversy over his anti-colonial writings; he was reinstated posthumously in 2015.
- **Final Years & Legacy:** He moved to Paris and later Geneva, where he died on 30 March 1930. His memorial, Kranti Teerth, was inaugurated near Mandvi in 2010.

Quick Bites:

- The Indian Air Force (IAF) commemorated its 94th Anniversary on 08 October 2026 at Air Force Station Hindan, Ghaziabad. The occasion showcased IAF's operational capabilities. technological advancement, professionalism and rich heritage.
- Indian Naval Ship Kulish arrived at Tuas Terminal, Singapore, on 06 Oct 2026 for Operational Turnaround (OTR) as part of the Indian Navy's ongoing Eastern Fleet Operational Deployment.
- Shri Ashwini Vaishnaw, the Union Minister for Electronics and Information Technology, launched the World Bank Group's World Development Report 2026: The Promise of Artificial Intelligence at an event held at The Oberoi, New Delhi. The Report examines the opportunities and challenges that Artificial Intelligence (AI) presents for developing economies, and sets out a framework for countries to harness AI for development through adoption, adaptation and advancement.
- Union Minister for New and Renewable Energy, Shri Pralhad Joshi, inaugurated the 8th edition of 'Windergy India 2026' in Chennai on October 8, 2026. This event marks the commencement of the premier global wind energy conference, being held from October 7–9, 2026. Windergy India 2026 brings together

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

the global wind energy ecosystem on a common platform, featuring participation from around 400 exhibitors representing more than 20 countries, 500 delegates and dedicated country pavilions from Denmark, Germany, and Spain.

- On the occasion of World Hydrogen and Fuel Cell Day, the Ministry of New and Renewable Energy (MNRE) organised an event at the Atal Akshay Urja Bhawan, New Delhi. World Hydrogen and Fuel Cell Day (also known as National Hydrogen and Fuel Cell Day) in 2026 is celebrated on October 8, 2026.
- Ladakh launched India's first high-altitude snow leopard wildlife safari on 7 October 2026, during Wildlife Week celebrations in Leh. Lieutenant Governor Vinai Kumar Saxena flagged off six specially designed open-back vehicles. The initiative is a collaboration between the Snow Leopard and High-Altitude Nature Conservation (SHAN) Society and the Department of Forest, Ecology and Environment, UT Ladakh. Ladakh hosts 477 of India's estimated 718 snow leopards.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

10-10-2026

Prelims articles:

1. Bharat 6G Alliance (B6GA):

Context: The 3rd International Bharat 6G Symposium 2026 concluded at Yashobhoomi, Dwarka, New Delhi, with a valedictory address by Dr. Chandra Sekhar Pemmasani, Union Minister of State for Communications and Rural Development. Organised by the Bharat 6G Alliance (B6GA) alongside India Mobile Congress 2026, the three-day event brought together global telecom leaders, policymakers, standards organisations, industry, academia and researchers to discuss the roadmap towards IMT-2030 and beyond.

About Bharat 6G Alliance (B6GA):

- **Launched:** Bharat 6G Alliance (B6GA) was launched on 3 July 2023 by the Union Minister of Communications.
- **Vision:** It was established to implement the Bharat 6G Vision, unveiled by Prime Minister Narendra Modi on 22 March 2023.
- **Nature:** It is an industry-led, government-facilitated alliance promoting collaboration in India's telecom innovation ecosystem.
- **Members:** Brings together industry, startups, academia, research institutions, public/private companies, and Standards Development Organizations (SDOs).
- **Purpose:** Strengthens the domestic R&D, innovation, and Intellectual Property Rights (IPR) ecosystem through industry–academia collaboration.
- **Key Functions:** Identifies technology gaps, develops advanced research projects, and creates 6G testbeds aligned with India's 6G Vision.
- **Major Goal:** Position India as a global leader and supplier of affordable 5G, 6G, and future telecom technologies, products, and intellectual property (IP).

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **6G Features:** Aims to deliver ultra-high speeds, ultra-low latency, high reliability, AI-enabled intelligent networks, and integrated wireless sensing & communication, surpassing 5G capabilities.
- **Long-term Target:** By 2030, deploy 6G as a force multiplier for India's digital economy while ensuring energy efficiency, sustainability, and reduced carbon footprint.

2. Mangrol:

Context: Mangrol, the third Anti-Submarine Warfare Shallow Water Craft (ASW-SWC) built by Cochin Shipyard Limited (CSL), Kochi, is set to be commissioned into the Indian Navy on 12 Oct 2026 at Naval Dockyard, Mumbai.

About Mangrol:

- **Naming:** Named after Mangrol, a coastal town and fishing harbour in Gujarat's Junagadh district, the ship continues the legacy of INS Mangrol (M85), a minesweeper that served the Indian Navy until 7 April 2004.
- **Indigenous Content:** Built by Cochin Shipyard Limited (CSL) with over 80% indigenous content under the Make in India and Aatmanirbhar Bharat initiatives.
- **Primary Role:** Designed to detect and counter underwater threats, particularly submarines, in coastal and shallow waters.
- **Weapons and Sensors:** Equipped with Abhay hull-mounted sonar, lightweight torpedoes, an indigenous anti-submarine rocket launcher and the Maareech Advanced Torpedo Decoy System.
- **Propulsion:** Powered by three diesel engines with waterjet propulsion, providing high manoeuvrability in shallow waters.
- **Additional Capabilities:** Can undertake underwater surveillance, Low-Intensity Maritime Operations and mine warfare-related tasks.
- **Strategic Significance**: Strengthens the Indian Navy's coastal anti-submarine warfare capabilities and protection of ports, harbours and coastal approaches, while supporting coordinated operations with maritime patrol aircraft, helicopters and other warships.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

3. Conservation Assured | Tiger Standards (CA|TS):

Context: Recently, Nameri Tiger Reserve in Assam has secured the Conservation Assured | Tiger Standards (CA|TS) Approved status.

About Conservation Assured | Tiger Standards (CA|TS):

- **About CA|TS:** Conservation Assured | Tiger Standards (CA|TS) is a global framework to assess the effectiveness of management and protection of tiger conservation areas.
- **Launch:** Launched at the first Asian Parks Congress in Japan in 2013.
- **Certification:** Provides global certification for effective management of tiger conservation areas.
- **Objectives:** Establishes benchmarks for protection, habitat management, community participation and wildlife monitoring.
- **Assessment Structure:** Consists of seven pillars, 17 elements and associated standards and criteria for managing tiger conservation areas.
- **Seven Pillars:** Importance and status, Management, Community, Tourism (optional), Protection, Habitat management and Tiger populations.
- **CA and TS Components:** Five pillars relate to general conservation area management (Conservation Assured), while the two tiger-specific pillars constitute Tiger Standards.
- **Implementing Partners in India:** The Global Tiger Forum (GTF) and WWF-India work with the National Tiger Conservation Authority (NTCA) on CA|TS assessment.
- **Accredited Tiger Reserves:** The 15 reserves listed include Kaziranga, Manas, Orang and Nameri (Assam); Sundarbans (West Bengal); Valmiki (Bihar); Dudhwa (Uttar Pradesh); Kanha, Panna and Satpura (Madhya Pradesh); Pench (Maharashtra); Anamalai and Mudumalai (Tamil Nadu); Parambikulam (Kerala); and Bandipur (Karnataka).

4. PRASHAST Portal:

Context: Recently, the Department of School Education & Literacy (DoSEL) organized the nationwide screening of a 30-minute Sensitization and Orientation Module on Inclusive Education for Children with Special Needs (CwSN) through the PRASHAST Portal in schools across the country.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About PRASHAST Portal:

- Pre-Assessment Holistic Screening Tool is a school-based tool for identifying children with probable disabilities.
- **Objective:** Helps screen children for 21 disability conditions covered under the Rights of Persons with Disabilities (RPwD) Act, 2016.
- **Purpose:** Serves as an initial screening and referral mechanism, not a substitute for formal diagnosis or disability certification.
- **Target Users:** Designed for regular teachers, special educators, counsellors and school heads.
- **Two-Part Structure:** Part 1 involves initial screening by regular teachers; Part 2 validates observations and tentatively identifies disability categories through special educators or counselors.
- **Screening Process:** Teachers observe students for 1–2 months across classrooms, playgrounds, co-curricular activities and social interactions. Children requiring further evaluation may be referred to competent authorities.
- **Significance:** Supports equitable, accessible and inclusive education in line with the National Education Policy (NEP), 2020 and the RPwD Act, 2016.

5. 2026 Nobel Peace Prize:

Context: Navanethem "Navi" Pillay was awarded the 2026 Nobel Peace Prize on 9 October 2026. The South African jurist was recognised for efforts to promote peace and international law. Jørgen Watne Frydnes, chair of the Norwegian Nobel Committee, announced the award in Oslo.

More details:

- **Award:** The Nobel Peace Prize 2026 was awarded to Navanethem "Navi" Pillay for her efforts to promote peace and international law.
- **Laureate:** Navi Pillay is an internationally recognised jurist who served as the United Nations High Commissioner for Human Rights.
- **International Justice:** Her work in historic international court cases has highlighted the role of legal mechanisms in addressing violence and conflict.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **International Law:** She has contributed to strengthening international law as a means of maintaining peace and security and preventing war.
- **Human Rights Accountability:** She has emphasised addressing past abuses, ending impunity and ensuring access to justice and remedies for victims.
- **Awarding Body:** The Norwegian Nobel Committee awards the Nobel Peace Prize, which recognises contributions to peace and international cooperation.

Quick Bites:

- The Ministry of Health and Family Welfare will observe World Mental Health Day on 10 October 2026, reaffirming the Government of India's commitment to making mental healthcare accessible, affordable, inclusive and people-centred. This year's global theme, "Lived experiences heard: real voices, real change," underscores the importance of listening to individuals with lived experiences of mental health conditions and ensuring their voices contribute to shaping responsive mental health policies and services.
- The Permanent Missions of India and Mali to the United Nations jointly organized an event on the theme "Cotton for Sustainability: Livelihoods, Value Addition and Partnership" at the United Nations Headquarters in New York on 7 October 2026, commemorating World Cotton Day.
- The Green Keelback (Macropisthodon plumbicolor) is a non-venomous, semi-aquatic snake native to South and Southeast Asia. It was recently spotted near Gangawadi village on the fringes of Biligiri Rangana Betta (BR Hills), in Yelandur taluk, Chamarajanagar district, Karnataka. Its distribution includes India, Sri Lanka, Bangladesh, Myanmar, Thailand, Malaysia and parts of Indonesia. It primarily inhabits wetlands such as ponds, rivers, streams, rice fields and marshes, preferring vegetation-rich areas where it can hunt both on land and in water.
- Bhavanisagar Dam, also known as the Lower Bhavani Dam, is located on the Bhavani River, a major tributary of the Cauvery River, in Erode district, Tamil Nadu. Constructed between 1948 and 1955, it is one of the world's largest earthen dams and the second-largest dam in Tamil Nadu. It is a multipurpose project that supports irrigation, hydroelectricity generation, drinking water supply and flood control. The dam supplies water to the Lower Bhavani Project Canal and forms part of the river system flowing eastward from the Western Ghats.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The Slaty Egret (Egretta vinaceigula) is a small, shy waterbird found in south-central Africa, with major populations in Botswana and Zambia, particularly in Botswana's Okavango Delta. It inhabits seasonal wetlands and floodplains and is characterised by slender legs and neck and slaty-grey plumage with a subtle purple tint. It is known for its distinctive "foot-ruffling" fishing technique, in which it stirs the water with its feet to flush out fish. Changes in its behaviour have been highlighted by UNEP officials as an example of shifts occurring in natural ecosystems.
- Scientists have discovered two new species of soil-dwelling springtails, ** Folsomia ciega and Folsomia unioculata **, in the Nilgiri Hills of the Western Ghats, increasing the number of known Folsomia species in India to 13. These tiny creatures belong to the genus Folsomia. Folsomia ciega, named after the Spanish word for "blind," lacks eyes and is pale, elongated and about 1 mm long. Folsomia unioculata, meaning "one-eyed" in Latin, has a single eye on each side of its head. Both species are distinguished by their specific morphological features.
- The National SC-ST Hub (NSSH) Scheme was launched in October 2016 as a flagship scheme of the Ministry of Micro, Small and Medium Enterprises (MSME) to enhance the capacity of SC-ST entrepreneurs and promote entrepreneurship among these communities. Implemented by the National Small Industries Corporation (NSIC), it supports machinery and equipment purchases, training, capacity building, market linkages, exhibition participation, credit facilitation, Udyam registration and GeM onboarding. Its major components include the Special Credit Linked Capital Subsidy Scheme (SCLCSS). As of 31 July 2026, it had assisted 1,90,414 beneficiaries and trained 54,499 candidates.
- The Uttar Pradesh Cabinet approved a proposal on 9 October 2026 to rename Noida International Airport at Jewar as "Narendra Modi International Airport, Noida-Jewar". Chief Minister Yogi Adityanath announced the decision in Lucknow after a Cabinet meeting. The airport is located at Jewar in Gautam Buddha Nagar district, Uttar Pradesh.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

11-10-2026

Prelims articles:

1. Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY):

Context: A Year of Implementation and Progress The PMDDKY dashboard became operational in the last week of October 2025. Monthly output-indicator rankings began in November 2025, providing a mechanism for monitoring progress across the 100 districts.

About Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY):

- Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY) was announced in the Union Budget 2025 to modernise agriculture, improve productivity and increase farmers' incomes, modelled on NITI Aayog's Aspirational Districts Programme.
- **Implementation Model:** Converges 36 existing schemes across 11 departments, with an annual outlay of ₹24,000 crore from 2025–26 to 2030–31, totalling ₹1.44 lakh crore, without a separate budgetary allocation.
- **Key Objectives:** Enhances agricultural productivity, promotes crop diversification and sustainable farming, improves irrigation and expands post-harvest storage and value addition.
- **Financial Support:** The provided material indicates an indicative distribution of 40% for subsidies, 30% for infrastructure, 20% for loans and 10% for training and market support.
- **District Selection:** Focuses on districts with low crop productivity, moderate cropping intensity and limited access to agricultural credit, while considering net cropped area and operational landholdings.
- **Coverage:** Plans to cover 100 districts, with at least one district selected from each State to promote balanced regional development.
- **Implementation Mechanism:** Operates under the Ministry of Agriculture and Farmers' Welfare. District Dhan-Dhaanya Krishi Yojana Samitis, chaired by District Collectors, prepare District Agriculture Development Plans, monitored by Central Nodal Officers.
- **Expected Outcomes:** Aims to benefit approximately 1.7 crore farmers, strengthen allied sectors such as dairy, livestock and fisheries, and improve self-sufficiency in foodgrains, pulses and oilseeds.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

2. Living planet report 2026:

Context: Recently, the Living Planet Report 2026 was released which found that there is a 73 per cent decline in the average size of monitored wildlife populations between 1970 and 2022.

Living planet report 2026:

- The Living Planet Report is published biennially by the World Wide Fund for Nature (WWF). The 2026 edition is stated to be its 16th edition and assesses global biodiversity trends and planetary health.
- **Living Planet Index (LPI):** Tracks average changes in the population sizes of monitored vertebrate species across terrestrial, freshwater and marine ecosystems.
- **Global Decline:** Monitored vertebrate wildlife populations declined by an average of 73% between 1970 and 2022.
- **Ecosystem-wise Decline:** Freshwater populations declined by 85%, terrestrial populations by 69% and marine populations by 59%.
- **Regional Decline**: Latin America and the Caribbean recorded a 95% decline, Africa 80%, and Asia and the Pacific 49% since 1970.
- **Wildlife Recovery:** Some species, including green turtles, bluefin tuna, tigers and southern African elephants, have shown recovery. Global wild tiger numbers reportedly increased from around 3,200 in 2010 to 5,700 in 2025.
- **Major Drivers:** Habitat loss and degradation, overexploitation, climate change, invasive species, pollution and disease are the major causes of wildlife population decline.

3. Sepahijala Zoological Park:

Context: Sepahijala Zoological Park of Sepahijala Wildlife sanctuary has welcomed three new Royal Bengal tiger cubs, taking the zoo's tiger population to seven.

Sepahijala Zoological Park:

- Location: Sepahijala Wildlife Sanctuary is located in Tripura and contains two natural lakes, Abasarika and Amrit Sagar.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Establishment: The Clouded Leopard National Park was established in 2007 as a core zone within the sanctuary.
- Vegetation: Mainly consists of moist deciduous forests, with 456 plant species, including Sal, Chamal, Garjan and Kanak.
- Fauna: Hosts primates such as rhesus macaque, pig-tailed macaque, capped langur and slow loris, along with leopards, clouded leopards, civets, barking deer and wild pigs.
- Special Features: The crab-eating mongoose, last reportedly seen in the 1930s, has reappeared. Birds include storks, whistling teal and white ibis.

4. Pong dam:

Context: Alleged movement of fishing boats and laying of nets in the restricted area of the Pong Dam in lower Kangra, including the right-side barrier and reserve zone of the Pong Dam Reservoir, also known as Maharana Pratap Sagar, has raised security concerns.

About Pong dam:

- **Location:** Pong Dam, also known as Beas Dam, is an earth-fill embankment dam on the Beas River in Kangra district, Himachal Pradesh, in the Shivalik hills.
- **Construction:** Work began in 1961 and was completed in 1974; the dam is approximately 133 m high and 610 m wide at the base.
- **Purpose:** Built primarily for hydroelectric power generation and irrigation.
- **Reservoir:** The dam created an artificial lake called Maharana Pratap Sagar, also known as Pong Reservoir or Pong Dam Lake.
- **Conservation Status:** Declared a bird sanctuary in 1983 and designated a Ramsar site in 2002.
- **Avifauna:** Important habitat for migratory waterbirds, including bar-headed geese, red-necked grebes, northern lapwings, common teals, spot-billed ducks and black storks.
- **Ecological and Economic Importance:** Spanning over 240 sq. km, the reservoir supports fish breeding and commercial fisheries.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Water Supply:** Fed by the perennial Beas River originating near Rohtang Pass, the reservoir retains water throughout the year, supported by dam operations.

5. Vikramasila university:

Context: Vikramshila University, an ancient centre of learning in Bihar, is set for revival following the revival of Nalanda University. The Archaeological Survey of India (ASI) is developing the historic site to promote tourism. The Bihar government has identified 202.14 acres in Antichak village, Bhagalpur, for establishing a Central University. Approved by the Centre in 2015 with an initial budget of ₹500 crore, the project faced delays due to land acquisition issues.

About Vikramasila university:

- **Location:** Vikramshila University was located in Bhagalpur, Bihar, on the banks of the Ganges.
- **Founder:** Established by King Dharmapala of the Pala dynasty during the late 8th to early 9th century AD.
- **Significance:** It became a major centre of Tantric and Vajrayana Buddhism, distinguishing it from Nalanda's broader curriculum.
- **International Reputation:** It attracted over 1,000 students and 100 teachers from India and abroad.
- **Famous Scholar:** The university produced Atisa Dipankara, who contributed significantly to the spread of Buddhism in Tibet.
- **Architecture:** Its central stupa was surrounded by 208 cells for student-monks engaged in study and meditation.
- **Curriculum and Administration:** Subjects included theology, philosophy, grammar, logic and tantra; it was headed by a Kulpati or Mahasthavir.
- **Decline:** The university was destroyed by Muhammad bin Bakhtiyar Khalji around 1203 AD, marking the end of this important Buddhist learning centre.

6. Barasingha:

Context: The reintroduced population of hard-ground Barasingha in Satpura Tiger Reserve reached approximately 303 individuals by 10 October 2026. The animals were brought from Kanha National Park under a reintroduction programme initiated by the Madhya Pradesh Forest Department in 2015.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Barasingha:

- Swamp deer (Rucervus duvaucelii), also known as barasingha, belongs to the family Cervidae and order Artiodactyla.
- **Habitat:** Inhabits open forests and grasslands, feeding mainly on wetland vegetation and herbaceous plants.
- **Distribution:** Found in scattered populations in Nepal and parts of India, including Assam and northern India; extinct in Bangladesh and Pakistan.
- Between 2015 and 2023, 98 animals were translocated from Kanha to Satpura across seven phases.
- **Subspecies:** Three subspecies are recognised—western swamp deer in Nepal, southern swamp deer in central and northern India, and eastern swamp deer in Kaziranga and Dudhwa National Parks.
- **IUCN Status:** Vulnerable.Legal Protection: Listed under CITES Appendix I and Schedule I of the Wildlife (Protection) Act, 1972.

Quick Bites:

❖ Telecommunication Engineering Centre (TEC), Department of Telecommunications (DoT), Ministry of Communications, Government of India hosted the Second meeting of the UN Global Initiative on AI for Agri-Food Systems (GI-AI4FS) alongside India Mobile Congress (IMC) 2026. It is a prominent international collaborative platform launched to harness AI and digital technologies to transform global food production and supply chains. The GI-AI4FS is a UN Global Initiative, coordinated by the International Telecommunication Union (ITU), in close collaboration with Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD) and World Food Programme (WFP).

❖ The Plan Bee System is an innovative acoustic deterrent developed by the Northeast Frontier Railway (NFR) to prevent train–elephant collisions. It uses amplified honeybee buzzing sounds to deter elephants from approaching railway tracks. Installed at 56 locations where railway lines pass through forests and elephant habitats, the system produces sounds audible from approximately 400 metres. NFR also uses AI-based alerts, speed restrictions and enhanced patrolling to improve elephant safety.

❖ The Trade and Development Report 2026, published annually by the United Nations Conference on Trade and Development (UNCTAD) since 1981, analyses global economic trends and international policy

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

challenges. According to the report, India accounted for 5.7% of global greenfield investments during 2020–2025, more than double China's share. Global trade reached a record $35 trillion in 2025 and is projected to grow by 4% in 2026, compared with 4.4% in the previous year.

- The BRICS Traditional and Indigenous Sports Demonstration Games 2026 will take place in Ahmedabad on 12 and 13 October 2026. Union Minister for Youth Affairs and Sports Dr Mansukh Mandaviya is scheduled to inaugurate the event at Veer Savarkar Sports Complex. The Games are being organised by the Ministry of Youth Affairs and Sports in collaboration with the Gujarat Government under India's BRICS Chairship 2026.
- Villagers from Assam and Meghalaya living along the Kulsi River have united to oppose a proposed hydropower project despite decades of boundary disputes between the two States. Announced in June 2025, the project involves a 55-megawatt hydropower-cum-irrigation dam planned at the confluence of the Dron, Shree and Dilma rivers, which form the Kulsi, a tributary of the Brahmaputra. The project has raised environmental concerns as the Kulsi River is a natural habitat of the endangered Gangetic river dolphin.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

12-10-2026

Prelims articles:

1. Nanda Devi Biosphere:

Context: A new report "Nanda Devi Biosphere Decadal Monitoring Campaign 2026", has found that landslide-prone zones in the core have nearly doubled over the past decade.

About Nanda Devi Biosphere:

- **Location:** Nanda Devi Biosphere Reserve is located in the Western Himalayas of Uttarakhand and is one of India's important protected mountain ecosystems.
- **UNESCO Recognition:** It includes Nanda Devi National Park and Valley of Flowers National Park, both UNESCO World Heritage Sites, and is recognised under UNESCO's Man and the Biosphere (MAB) Programme.
- **Geographical Features:** It comprises rugged mountains, deep gorges, glaciers and snow-covered peaks, with elevations ranging from about 1,800 m to over 7,800 m.
- **Glaciers and Rivers:** Major glaciers include Uttari Rishi, Dakshini Rishi, Trisul and Ramani. The Rishi Ganga joins the Dhauliganga, a tributary of the Alaknanda.
- **Vegetation:** The reserve features alpine meadows (bugyals), temperate forests and sub-alpine vegetation, including oak, deodar, blue pine, fir, spruce and rhododendron.
- **Fauna:** Important wildlife includes the snow leopard, Himalayan musk deer, Himalayan tahr, bharal (blue sheep), Asiatic black bear and common leopard.

2. Central Asian Flyway Digital Hub:

Context: The Central Asian Conservation Network (CACN) has launched a new Central Asian Flyway Digital Hub, according to a recent statement by the organisation.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Central Asian Flyway Digital Hub:

- **Developed By:** The Central Asian Flyway Digital Hub is developed by the Central Asian Conservation Network (CACN).
- **Objective:** It aims to strengthen knowledge-sharing and information exchange for conserving migratory birds along the Central Asian Flyway.
- **Information Repository:** It brings together information on bird species, important flyway sites, conservation initiatives, educational resources and public participation opportunities.
- **Educational Resources:** Provides awareness materials for children, teachers, local communities, birdwatchers and the general public.
- **Bird Collision Reporting Portal:** Enables documentation of bird deaths and injuries caused by infrastructure.
- **Ringing and Resighting Portal:** Allows users to record sightings of marked birds to understand migration routes; the hub will continue expanding its species data, conservation projects and monitoring resources.

3. Project seabird:

Context: Recently, the Chief of the defence staff inaugurated critical trunk utility and amenity infrastructure for the Indian Navy as part of Project Seabird Phase IIA at the naval base in Karnataka's Karwar.

About Project seabird:

- **Project Seabird:** It is India's largest naval infrastructure project, aimed at developing INS Kadamba at Karwar, Karnataka, on the western coast.
- **Scale and Facilities:** Spread over approximately 11,000 acres, it includes a deep-sea harbour, ship-lift system, docking facilities and a sealift facility for ships and submarines.
- **Phase I:** Commissioned in 2005, it included a deep-sea harbour, breakwaters, dredging, a naval township, hospital, dockyard uplift centre and ship lift.
- **Phase II:** Development began in 2011 and is divided into Phases 2A and 2B, envisaging additional berths for warships, a Naval Air Station and expanded infrastructure.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Future Capacity: Upon completion, it is expected to become the largest naval base in the Eastern Hemisphere, capable of accommodating around 32 warships, 23 submarines and several aircraft.

4. INS Shreyas:

Context: Recently, the INS Shreyas was launched by the Garden Reach Shipbuilders and Engineers Ltd.

About INS Shreyas:

- **INS Shreyas:** It is the third of four Next-Generation Offshore Patrol Vessels (NGOPVs) being built for the Indian Navy.
- **Builder and Name:** It is being constructed by defence PSU Garden Reach Shipbuilders and Engineers (GRSE) Ltd. 'Shreyas' is a Sanskrit word meaning 'Best' or 'Most Excellent'.
- **Dimensions:** The vessel measures approximately 113 metres in length and 14.6 metres in width.
- **Speed and Endurance:** It can achieve a maximum speed of 23 knots and has an endurance of 8,500 nautical miles.
- **Operational Role:** It is designed for coastal and offshore asset protection, maritime surveillance, maritime interdiction, mine warfare and special operations.

5. Bathukamma festival:

Context: Telangana's special festival of flowers Bathukamma, began with Engilipula Bathukamma.

About Bathukamma festival:

- **Bathukamma:** It is a floral festival celebrated predominantly by women in Telangana, symbolising feminine energy, nature and agricultural prosperity.
- **Meaning:** The term "Bathukamma" means "Mother Goddess Come Alive", reflecting the worship of the divine feminine.
- **Historical Background:** Folklore links the festival to Goddess Gauri and King Dhramangada and Queen Satyavati, while the Kakatiya dynasty is associated with its historical and cultural significance.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Period:** It is celebrated annually during September–October, coinciding with the monsoon-to-winter transition.
- **Duration:** The festival is celebrated for nine days during the period of Durga Navratri.
- **Cultural Traditions:** Women arrange seasonal flowers in tiered formations, sing traditional songs and perform dances. The festivities culminate in Saddula Bathukamma, also called Pedda Bathukamma.
- **State Festival:** Bathukamma is recognised as the official state festival of Telangana and is an important expression of its cultural identity.

6. TRISHNA (Thermal Infra-Red Imaging Satellite for High-resolution Natural Resource Assessment) Mission:

Context: The Indo-French satellite TRISHNA (Thermal Infra-Red Imaging Satellite for High-resolution Natural Resource Assessment) will be launched in the next 12-16 months, said Jasvinder Singh Khoral, Director (Projects) of the Indian Space Research Organisation's U.R. Rao Satellite Centre (URSC)

About TRISHNA mission:

- **TRISHNA Mission:** TRISHNA (Thermal Infra-Red Imaging Satellite for High-resolution Natural Resource Assessment) is a joint mission of the Indian Space Research Organisation (ISRO) and French space agency CNES.
- **Objective:** It aims to monitor Earth's surface temperature, emissivity, biophysical parameters and radiation variables at high spatial and temporal resolutions.
- **Water and Agriculture:** It will assess terrestrial water stress, water use, continental biosphere energy and water budgets, supporting precision agriculture and sustainable water management.
- **Environmental Applications:** It will monitor urban heat islands, inland and coastal water quality, volcanic thermal anomalies, geothermal resources, snowmelt runoff and glacier dynamics.
- **Payloads:** The satellite carries two primary payloads: the Thermal Infra-Red (TIR) payload developed by CNES and the Visible–Near Infra-Red–ShortWave Infra-Red (VNIR-SWIR) payload developed by ISRO.
- **Technical Specifications:** It will operate in a sun-synchronous orbit at an altitude of 761 km, with spatial resolutions of 57 metres over land and coastal areas and 1 km over oceans and polar regions.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- *Mission Life:* The satellite is designed for an operational life of five years and will provide data on atmospheric water vapour, aerosol optical depth and cloud cover.
- **Global Significance:** Its data will support GEOGLAM agricultural monitoring, the UN Sustainable Development Goals, Global Water Watch, Essential Agricultural Variables (EAVs) and Essential Climate Variables (ECVs).

Quick Bites:

- Indian Naval Ship Sahyadri arrived at Vladivostok, Russia, on 10 Oct 2026 to participate in Exercise INDRA 2026, a bilateral exercise between the Indian Navy and the Russian Federation Navy (RuFN) scheduled from 13 to 18 Oct 2026. The deployment provides an opportunity for professional engagements and operational interaction between the two navies, furthering maritime cooperation and interoperability.
- Indian Navy's guided missile stealth frigate INS Trishul arrived at Plymouth, United Kingdom. The ship is scheduled to participate in Exercise KONKAN-26 with the Royal Navy.
- The Union Minister of Health & Family Welfare, Shri Jagat Prakash Nadda, will lay the foundation stone of the ICMR Centre for High Altitude Medicine and Public Health Research (ICMR-CHAMP) at Keylong in Lahaul & Spiti district, Himachal Pradesh, on 12 October 2026. The Centre is being established by the Indian Council of Medical Research (ICMR) under the Department of Health Research, Ministry of Health & Family Welfare, Government of India, to strengthen multidisciplinary research, innovation and capacity building focused on India's high-altitude and climate-sensitive regions.
- Epstein–Barr virus (EBV), also known as human herpesvirus 4, belongs to the herpesvirus family and was identified by the WHO's International Agency for Research on Cancer (IARC) as a significant contributor to the global cancer burden in 2024. It spreads mainly through saliva, including kissing and sharing food, drinks or personal utensils. Many infected individuals remain asymptomatic, while others may experience fever, sore throat, swollen lymph nodes and severe fatigue.
- Smriti Mandhana has been named a celebrity advocate by UNICEF India, with the organisation seeking to leverage her influence to promote equal opportunities, health and well-being for adolescent girls.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

13-10-2026

1. India-Brazil-South Africa Maritime (IBSAMAR) Exercise 2026:

Context: Indian Naval Ship Tarkash, a frontline guided missile stealth frigate of the Indian Navy, is on an overseas deployment to South Africa to participate in the ninth edition of India-Brazil-South Africa Maritime (IBSAMAR) Exercise 2026.

About IBSAMAR Exercise 2026:

- **IBSAMAR:** A trilateral maritime exercise involving the Indian, Brazilian and South African Navies to enhance interoperability, maritime cooperation and mutual understanding.
- **Background:** Conducted biennially since 2008 under the India–Brazil–South Africa (IBSA) framework, it facilitates joint training and exchange of operational best practices.
- **Key Operations:** Includes surface warfare, anti-air and anti-submarine warfare, naval air operations, maritime interdiction, anti-piracy, VBSS, search and rescue, damage control and firefighting.
- **IBSAMAR IX:** Focuses on strengthening maritime cooperation and security in the Indian Ocean Region (IOR).
- **Theme:** "Stronger Together Towards a Shared Future in the Maritime Domain", emphasising collective maritime security and preparedness.
- **Participating Forces:** South Africa deploys SAS Amatola, SAS King Sekhukhune I, SAS Adam Kok III and submarine SAS Manthatisi; Brazil deploys BNS Barroso with a Lynx helicopter; India participates with INS Tarkash carrying a Chetak helicopter.

2. International Big Cat Alliance (IBCA):

Context: The new office premises of International Big Cat Alliance (IBCA) was inaugurated by the Union Minister of Environment, Forest and Climate Change, Shri Bhupender Yadav, at 55 Lodhi Estate, in New Delhi.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About International Big Cat Alliance (IBCA):

- **IBCA:** The International Big Cat Alliance is a treaty-based intergovernmental international organisation headquartered in India, dedicated to conserving seven big cats: lion, tiger, leopard, snow leopard, cheetah, jaguar and puma.
- **Financial Support:** The Government of India has pledged an initial contribution of ₹150 crore for five years, from 2023–24 to 2027–28.
- **Membership:** According to the provided information, 29 countries, including India, have joined as members; five countries have observer status, while 11 others have consented to become members.
- **Capacity Building:** Two training programmes have been organised under the Indian Technical and Economic Cooperation (ITEC) programme, sponsored by the Ministry of External Affairs.
- **Veterinary Support:** The PRIME Cat Health Programme was organised for veterinary doctors from 20 countries to strengthen big-cat healthcare capabilities.
- **Global Outreach:** IBCA has participated in international forums such as CITES Conferences of the Parties and UNFCCC COPs, alongside awareness initiatives, international webinars and global photography competitions.

3. Research, Development and Innovation Fund (RDIF):

Context: The Research, Development and Innovation Fund (RDIF), a flagship initiative of the Government of India, has announced the first cohort of 19 Second Level Fund Managers (SLFMs), marking a significant milestone in the implementation of the ₹1 lakh crore Fund.

About Research, Development and Innovation Fund (RDIF):

- RDIF is a flagship initiative under the Department of Science and Technology (DST) and a Special Purpose Fund under the Anusandhan National Research Foundation (ANRF).
- The RDI Scheme was approved by the Union Cabinet in 2025.
- It has an outlay of ₹1 lakh crore over six years to promote private-sector investment in research and development.
- It provides collateral-free, low-cost, long-term financing for high-risk, high-impact projects at Technology Readiness Level (TRL) 4 and above.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Priority sectors include AI, quantum technology, semiconductors, space, defence, robotics, clean energy and digital healthcare.
- Key objectives include research-driven entrepreneurship, technological self-reliance and acquisition of critical technologies.
- It aims to establish a dedicated Deep-Tech Fund of Funds and strengthen India's strategic autonomy.
- Funding is channelled through Alternative Investment Funds (AIFs), Development Finance Institutions (DFIs), NBFCs and Focused Research Organisations (FROs).
- Second-Level Fund Managers (SLFMs) route loans and select eligible technology entities for funding.
- The two SLFMs are the Technology Development Board (TDB) under DST and the Biotechnology Industry Research Assistance Council (BIRAC) under the Department of Biotechnology.

4. Chocolate Mahasheer:

Context: Recently, Sikkim Chief Minister released 'Chocolate Mahseer' fish into the Rangeet river, underlining the importance of conserving indigenous fish species and protecting the state's aquatic biodiversity.

About Chocolate Mahasheer:

- Chocolate Mahseer or Copper Mahseer (Neolissochilus hexagonolepis) is a freshwater fish belonging to the family Cyprinidae.
- Mahseer is the popular name for several freshwater fish species belonging to the genera Tor and Neolissochilus.
- It is locally known as 'Kha Saw' in Meghalaya and is designated as the state fish of Meghalaya and Sikkim.
- It is distributed across the northeastern states, including Meghalaya, Assam, Arunachal Pradesh, Sikkim, Manipur, Nagaland, Mizoram and Tripura.
- It inhabits clear, fast-flowing streams and rivers with stony, pebbly or rocky bottoms.
- It has powerful fins and excellent strength, enabling it to swim against strong currents. Females are generally larger than males of the same age group.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- It is a prized catch among anglers and an indicator of healthy river ecosystems. Major threats include habitat degradation, overfishing and environmental changes.
- **IUCN Red List status:** Near Threatened.

5. Global Innovation Index (GII) 2026:

Context: The World Intellectual Property Organization (WIPO) has released the Global Innovation Index (GII) 2026, which tracks and ranks science and technology hubs across the globe.

About Global Innovation Index (GII) 2026:

- The Global Innovation Index (GII) ranks economies based on their innovation performance and capacity.
- It was first launched in 2007 and is published annually by the World Intellectual Property Organization (WIPO).
- It serves as a global benchmark for comparing innovation performance and supports Science, Technology and Innovation (STI) policymaking.
- The index tracks innovation trends through investment, technological progress, adoption rates and socioeconomic impacts.
- The 19th edition (GII 2026) evaluates 139 economies and maps the world's top 100 innovation clusters.
- Switzerland ranks first for the 16th consecutive year, followed by Sweden and the United States.
- The Republic of Korea ranks 4th, Singapore 5th, China 10th, Japan 12th and Hong Kong, China 14th.
- India ranks 38th among 139 economies, 1st among 36 lower-middle-income economies and 1st among 11 economies in Central and Southern Asia.

6. Amrit Bharat Station Scheme (ABSS):

Context: Recently, the Prime Minister of India inaugurated five redeveloped railway stations in Tamil Nadu which have been modernised under the Amrit Bharat Station Scheme (ABSS).

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Amrit Bharat Station Scheme (ABSS):

- The Amrit Bharat Station Scheme (ABSS) was launched in 2022 to develop and upgrade railway stations across the Indian Railways network.
- It aims to make stations cleaner, more comfortable, accessible and passenger-friendly.
- The scheme follows a long-term approach involving master plans, multimodal connectivity and improved passenger access.
- Redeveloped station buildings incorporate local culture, heritage and architectural features.
- Amenities include improved waiting halls, toilets, lifts, escalators, free Wi-Fi, executive lounges, access roads and landscaping.
- Facilities are planned according to the specific needs of each station; some stations may include spaces for business meetings.
- The One Station One Product initiative promotes local products through station kiosks, while greening and landscaping improve the station environment.

7. Nobel Prize in Economics 2026:

Context: The 2026 Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel is given to Robert E. Hall (Stanford University) and Michael Woodford (Columbia University).

About Nobel Prize in Economics 2026:

- The Nobel Prize in Economics is officially called the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.
- It was established by Sweden's central bank, Sveriges Riksbank, in 1968 and first awarded in 1969.
- The prize is awarded by the Royal Swedish Academy of Sciences. The 2026 prize money is stated as 12 million Swedish kronor (SEK).
- The provided text identifies Robert E. Hall and Michael Woodford as the 2026 laureates, with the award ceremony scheduled for 10 December 2026 in Stockholm.
- Robert E. Hall is an American economist associated with Stanford University, known for research on macroeconomics, consumption, unemployment and business cycles.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Hall's 1978 research on the random walk hypothesis of consumption showed that consumption patterns depend on expectations about future income, not merely current income.
- Hall has also studied labour-market dynamics, persistent unemployment and why economic recovery can be difficult during prolonged downturns.
- Michael Woodford is an American economist associated with Columbia University, known for contributions to modern monetary economics and New Keynesian macroeconomic theory.
- New Keynesian economics explains how price and wage rigidities allow monetary policy to influence output and employment in the short run.
- Woodford's research on forward guidance examines how central-bank communication about future interest rates influences inflation expectations, borrowing, investment and spending.

Quick Bites:

- The BRICS Theatre Festival 2026, themed 'Shared Stories, Shared Futures', commenced today at the National School of Drama (NSD) in New Delhi. The three-day festival celebrates the diverse theatrical traditions, contemporary performance practices and shared cultural values of BRICS countries. Organised by the Ministry of Culture, Government of India, under India's BRICS Presidency 2026
- Chief Minister of Uttarakhand Shri Pushkar Singh Dhami flagged-in the 17-member Indian Coast Guard (ICG) mountaineering team at a grand ceremony on October 12, 2026 in Dehradun, Uttarakhand. The team successfully scaled Mount Mukut, a 7,045-metre peak, on October 07, 2026, under the expert guidance of the Himalayan Mountaineering Institute (HMI), Darjeeling.
- The inaugural function of the Atmospheric Processes and their Role in Climate (APARC) General Assembly 2026 took place today at the Indian Institute of Tropical Meteorology (IITM), Pune.
- The BRICS Traditional and Indigenous Demonstration Games 2026 were held on Monday, October 12, 2026 at the Veer Savarkar Sports Complex, Naranpura, Ahmedabad, Gujarat. The day-long event brought together dignitaries, country delegations, athletes, practitioners, technical officials, and partner institutions to celebrate the sporting heritage, cultural diversity, and people-to-people connections of BRICS countries.
- The Global Initiative on AI for Agri-Food Systems (GI-AI4FS) is a UN initiative coordinated by the International Telecommunication Union (ITU) in collaboration with the Food and Agriculture Organization

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

(FAO), International Fund for Agricultural Development (IFAD) and World Food Programme (WFP). It promotes the responsible use of artificial intelligence in agriculture and food systems by encouraging trustworthy, interoperable and farmer-centric AI solutions. Recently, the Telecommunication Engineering Centre (TEC), under the Department of Telecommunications, hosted its second meeting in India.

- Garba is a ritualistic and devotional dance originating in Gujarat, performed during the nine nights of Navratri to worship Goddess Ambe Maa and celebrate feminine energy or Shakti. It expresses the cultural, performative and visual aspects of the divine feminine. Traditionally, Garba is performed in homes and temple courtyards and is now widely celebrated across India during Navratri.
- Palamu Tiger Reserve (PTR) is located on the Chhotanagpur Plateau in Jharkhand and forms part of Betla National Park. It was among the first nine tiger reserves established under Project Tiger. In 1932, it became the site of one of the earliest tiger censuses using pugmark counts, conducted under J.W. Nicholson. Its undulating terrain comprises valleys, hills and plains, with geological formations including gneiss, granite and limestone. The reserve is drained by the North Koel, Auranga and Burha rivers.
- On 11 October 2026, Madhya Pradesh Chief Minister Dr Mohan Yadav released eight wild water buffaloes into a 17-hectare enclosure in the Supkhar range of Kanha Tiger Reserve. The animals came from Assam's Kaziranga National Park as part of a phased programme to restore the species in Madhya Pradesh, where it had disappeared from forests about a century ago.
- On 12 October 2026, French President Emmanuel Macron named Sunil Bharti Mittal a Chevalier, or Knight, of the National Order of the Legion of Honour. Mittal is the Founder and Chairman of Bharti Enterprises. France established the Legion of Honour in 1802 under Napoleon Bonaparte.
- Kolkata is hosting the 19th World Sudoku Championship and the 33rd World Puzzle Championship from 11 to 18 October 2026. The event is being held at The Westin in Rajarhat and organised by Logic Masters India (LMI), the national representative to the World Puzzle Federation since 2008. Participants from 35 countries are taking part.
- The Indian Army launched Bharat Rice for defence forces in New Delhi on 12 October 2026. Raksha Mantri Rajnath Singh and Minister of Consumer Affairs, Food and Public Distribution Pralhad Joshi attended the launch. An agreement between the Indian Army and the Food Corporation of India (FCI)

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

covers the use of FCI infrastructure for military supply needs during operational contingencies. Foodgrain Logistics in India.

- Ambaji Mohanthal Prasad, the traditional sweet offering at Ambaji Temple in Gujarat, received a Geographical Indication (GI) tag on 8 October 2026. Ambaji Temple is in Banaskantha district, Gujarat, and is among India's prominent Shaktipeeths. Mohanthal is made from gram flour, sugar and ghee. The sweet is offered as prasad at the temple and is associated with its religious and culinary traditions.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

14-10-2026

1. NRC 268 and NRC 270:

Context: Improved Soybean Varieties NRC 268 and NRC 270 Show Promising Signs of Yielding 20 Quintals per Hectare Despite Adverse Weather Conditions

More details:

- **Developed By:** NRC 268 and NRC 270 are improved soybean varieties developed by ICAR–National Soybean Research Institute, Indore.
- **Yield Assessment:** Soybean Harvest Day was organised on 9 October 2026 to assess the performance of these varieties.
- **Preliminary Yield:** Both varieties showed encouraging yields of approximately 20 quintals per hectare, based on preliminary harvesting data from one acre each.
- **Adverse Weather Performance:** The results indicate promising yield potential despite adverse weather conditions, subject to further scientific analysis.
- **National Comparison:** India's average soybean productivity is approximately 10–11 quintals per hectare; the preliminary yield is nearly double the national average.
- **Improved Cultivation Potential:** ICAR research indicates that improved varieties combined with appropriate production technologies can achieve 15–20 quintals per hectare, potentially reaching 22–25 quintals under favourable conditions.
- **Significance:** The assessment will help guide future soybean research and strategies to improve productivity and strengthen farmer incomes.

2. PM GatiShakti National Master Plan (PMGS NMP):

Context: The PM GatiShakti National Master Plan (PMGS NMP), launched by the Hon'ble Prime Minister Shri Narendra Modi in October 2021, is completing five years, marking significant progress in integrated infrastructure planning and development in the country.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About PM GatiShakti National Master Plan (PMGS NMP):

- **Launch:** PM GatiShakti National Master Plan was launched in October 2021 to promote integrated infrastructure development, initially envisaged with an investment of ₹100 lakh crore over five years.
- **Seven Economic Drivers:** It integrates railways, roads, ports, waterways, airports, mass transport and logistics, supported by energy, IT, water and social infrastructure.
- **Objective:** It aims to reduce logistics costs, improve multimodal connectivity, eliminate infrastructure gaps and enhance India's business competitiveness.
- **Digital Backbone:** It bridges macro-level planning with micro-level implementation and integrates schemes such as Bharatmala, Sagarmala and UDAN.
- **Geospatial Platform:** It integrates 200+ layers of geospatial data on a centralised portal to enable coordinated planning and visualisation of existing and proposed infrastructure.
- The PM GatiShakti geospatial digital platform has been developed indigenously under Atmanirbhar Bharat by the Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N).
- **Technology:** BISAG-N uses GIS-based spatial tools and ISRO satellite imagery for data-driven infrastructure planning and project monitoring.
- **Economic Hubs:** It prioritises connectivity to textile clusters, pharmaceutical hubs, defence corridors and agricultural zones to improve productivity and logistics efficiency.
- **Infrastructure Targets:** The original plan included 200 new airports, heliports and water aerodromes; 200,000 km of national highways; 454,200 circuit-km of power transmission lines; 17,000 km of gas pipelines; and enhanced rail freight capacity.

3. Namdapha National Park:

Context: Recently, employees of Namdapha National Park and Tiger Reserve in Arunachal Pradesh engaged under the Centre's Project Tiger have raised wage issues.

About Namdapha National Park:

- **Location:** Namdapha Tiger Reserve is located in Arunachal Pradesh and is named after the Namdapha River, originating from Daphabum, the reserve's highest mountain peak.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **History:** Originally a Reserved Forest, it was declared a Wildlife Sanctuary in 1972 and a Tiger Reserve in 1983 under Project Tiger.
- **Topography:** It features high hills, dense vegetation, rivers and seasonal streams.
- **Flora:** It is dominated by tropical evergreen rainforests with multi-layered vegetation, including bamboo, cane, wild banana and dense undergrowth.
- **Fauna:** It is known for four big cats—tiger, leopard, clouded leopard and snow leopard—and species such as hoolock gibbon, red panda, Mishmi takin, golden cat and Namdapha flying squirrel.

4. Sarus Crane:

Context: Recently, the Bombay Natural History Society (BNHS) has announced a nationwide survey to estimate the population of Sarus Cranes.

About Sarus Crane:

- **World's Tallest Flying Bird:** The Sarus Crane is the tallest flying bird in the world.
- **Habitat:** It inhabits wetlands, marshes, shallow water bodies, grasslands and agricultural landscapes.
- **Distribution:** Found in Southeast Asia, northern India and northern Australia; in India, it is concentrated in the Gangetic plains and eastern Rajasthan.
- **Resident Species:** It is generally non-migratory and serves as an indicator of healthy wetland and agricultural ecosystems.
- **Physical Features:** It has grey plumage, a bare red head and upper neck, and pale red legs.
- **Behaviour:** It is relatively less social, usually occurring in pairs or small groups, and is monogamous, with pairs generally mating for life.
- **Threats:** Major threats include wetland degradation, agricultural land-use changes, pesticides, power-line collisions and electrocution, and human disturbance.
- **Conservation Status:** IUCN — Vulnerable; CITES — Appendix II; Wildlife (Protection) Act, 1972 — Schedule I.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. MY Bharat platform:

Context: Recently, MY Bharat organized neighbourhood youth parliaments and Yuva Melas Across 1,469 locations as part of the Nasha Mukt Yuva for Viksit Bharat Abhiyan.

About MY Bharat platform:

- MY Bharat (Mera Yuva Bharat) is an autonomous body established by the Department of Youth Affairs, Ministry of Youth Affairs and Sports, and registered as a society under the Societies Registration Act, 1860.
- **Objective:** It aims to provide equitable access to opportunities for youth to realise their aspirations and contribute to building Viksit Bharat.
- **Target Group:** The digital platform is primarily designed for young people aged 15–29 years.
- **Technology-Driven Mechanism:** It provides an institutional framework for youth development and youth-led development.
- **Opportunity Linkage:** It connects young people with programmes, skill development and experiential learning opportunities offered by businesses, government departments and non-profit organisations.
- **Profiles and Networking:** Youth can create profiles highlighting their skills and activities, connect with peers and access potential mentors.
- **Expected Outcome:** It promotes mentorship, industry connections, community participation and youth leadership to transform young people into catalysts for community development.

6. Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC):

Context: India hosted the first-ever meeting of the Home Ministers of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) countries on Tuesday, where the regional bloc adopted a declaration to counter radicalisation, violent extremism conducive to terrorism, prevent the misuse of new and emerging technologies for terrorist purposes, and tackle terrorist recruitment. The “Delhi Declaration” signed by Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand, also called for curbing terror financing through adherence to internationally agreed counter-terror financing and anti-money laundering standards, consistent with domestic and international laws.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About BIMSTEC:

- BIMSTEC is an economic bloc that came into being in June 1997 through the Bangkok Declaration.
- BIMSTEC was initially formed with four member states- Bangladesh, India, Sri Lanka and Thailand on June 6, 1997.
- Currently, BIMSTEC has seven current member states: Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand
- Its Permanent Secretariat is located in Dhaka, Bangladesh.
- Its aim is to counter the onslaught of globalisation by accelerating regional growth through mutual cooperation by utilising regional resources and geographical advantages.
- It is sector-driven cooperative organisation in which, initially, 6 sectors had been included: Trade, Technology, Energy, Transport, Tourism and Fisheries
- As of now, BIMSTEC has 14 priority areas of cooperation.
- Climate change was added as the 14th priority area of cooperation in 2008.
- BIMSTEC has not had a charter for many years.
- BIMSTEC charter was signed and adopted during the 5th summit of the grouping in Sri Lanka, in 2022.
- With the endorsement of the charter by Nepal, all member states completed the ratification of the foundational document and the charter came into force on May 20, 2024.

Quick Bites:

- The 10th National Convention of Agrivision–2026 is being held on October 13th –14th at the ICAR–NASC Complex, Pusa, New Delhi, under the aegis of Agrivision, the ICAR Agricultural Education Division.
- In an effort to rekindle the joy of handwritten communication in an increasingly digital world, the Department of Posts, Ministry of Communications in collaboration with IndiGo, organised a unique Digital Detox Campaign on 12th October, celebrated as Philately Day during the ongoing National Postal Week celebrations (9th – 15th October). The initiative encouraged travelers to take a break from their digital devices, put their thoughts on paper and reconnect with their loved ones through letter writing.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The Indian Navy is set to commission Samarthak at Naval Base, Karwar on 16 Oct 2026. Built by M/s Larsen and Toubro Ltd under the Government of India's Make in India initiative, Samarthak is the first of four Multi-Purpose Vessels being inducted into the Indian Navy.
- The National Land Monetization Corporation (NLMC), under the Department of Public Enterprises (DPE), Ministry of Finance, Government of India, successfully conducted Day 1 of the e-auction of premium land parcels belonging to Rashtriya Ispat Nigam Limited (RINL), the corporate entity operating Visakhapatnam Steel Plant. The first phase marks a significant milestone for NLMC, as it is the Corporation's first end-to-end e-auction, demonstrating a structured, transparent and technology-driven approach towards monetising surplus public assets.
- The National Sports Development Fund (NSDF), Sports Authority of India (SAI), and Indian Oil Corporation entered into a partnership to strengthen boxing in India through a structured programme focused on talent identification and athlete development.
- BHARAT TULIP (Traditional Artisans' Upliftment Livelihood Programme) was launched in 2024 by the National Backward Classes Finance and Development Corporation (NBCFDC) under the Ministry of Social Justice and Empowerment. Recently introduced at the Mysuru Dasara Exhibition Grounds in Karnataka, it aims to empower marginalised artisans by connecting them with digital marketplaces and enabling their participation in domestic and international trade fairs, exhibitions and fashion shows, thereby promoting their livelihoods and market access.
- The World Economic Outlook (WEO) is a comprehensive report published twice a year, in April and October, by the International Monetary Fund (IMF), with updates usually released in January and July. It provides estimates and forecasts of global and country-level economic growth, inflation, GDP, current account balances and unemployment. According to the October 2026 WEO, India's GDP growth is projected at 7.4% in 2026 and 7% in 2027. Consumer price inflation is projected to rise to 5% in 2026, compared with 2% in 2025, while the current account deficit is expected to widen to 1.5% of GDP in 2026.
- Lakshadweep was declared a 100% literate Union Territory on 11 October 2026. Administrator Praful Patel made the announcement at a function in Kavaratti. The achievement was recorded under ULLAS – Nav Bharat Saaksharta Karyakram, a Centrally sponsored scheme for adult education. ULLAS, also known as the New India Literacy Programme, is a Centrally sponsored scheme that covers adults aged 15 years and

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

above who did not receive formal schooling. Its main aim is to provide foundational literacy and numeracy, together with critical life skills. The scheme uses community participation, including volunteer support, to facilitate learning and assessment.

- Microsoft unveiled Maia 300, its third-generation custom AI accelerator, on 12 October 2026. Production deployments are planned to begin in 2027, with the company aiming for more than one million chips and multi-gigawatt deployment across its Azure infrastructure.
- NASA's Perseverance rover set a record for the longest distance driven by a vehicle on another world, reaching 28.10 miles (45.22 kilometres) on Mars by 11 October 2026. It surpassed the previous record of 28.06 miles (45.16 kilometres), set by NASA's Opportunity rover during its 2004–2018 mission. Perseverance landed in Mars' Jezero Crater on 18 February 2021. The crater contains an ancient river delta and lake-basin features. The rover is exploring the crater's western rim, where scientists are investigating evidence of ancient hydrothermal systems that may have supported microbial life.
- The BRIC-CDFD–ONT India Genomics Centre of Excellence was jointly inaugurated in New Delhi on 12 October 2026 by Dr Jitendra Singh, India's Union Minister of State (Independent Charge) for Science and Technology, and Jonathan Reynolds, the UK Secretary of State for Business, Innovation, Science and Trade. The inauguration took place during the 8th India–UK Science and Innovation Council meeting.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

15-10-2026

1. National Social Assistance Programme (NSAP):

Context: The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the proposal of the Department of Rural Development for Continuation of the National Social Assistance Programme (NSAP) with a total outlay of Rs. 53,428 crore for five years from 2026-27 to 2030-31.

About National Social Assistance Programme (NSAP):

- The Union Cabinet approved the continuation of the National Social Assistance Programme (NSAP) with an outlay of ₹53,428 crore for five years (2026–27 to 2030–31).
- NSAP will be renamed Pradhan Mantri Samajik Sahayata Yojana.
- Indira Gandhi National Old Age Pension Scheme (IGNOAPS) will be renamed Pradhan Mantri Vridhavastha Pension Yojana.
- Indira Gandhi National Widow Pension Scheme (IGNWPS) will be renamed Pradhan Mantri Vidhawa Pension Yojana.
- Indira Gandhi National Disability Pension Scheme (IGNDPS) will be renamed Pradhan Mantri Divyangjan Pension Yojana.
- The National Family Benefit Scheme will be renamed Pradhan Mantri Parivar Labh Yojana.
- Disability pension assistance will be ₹375 per month for beneficiaries aged 0–79 years and ₹625 per month for those aged 80 years and above.
- The benchmark disability eligibility threshold has been reduced from 80% to 40%, and the minimum age criterion has been removed, allowing eligibility from birth.
- Old-age and widow pension schemes and the family benefit scheme will continue in their existing form.
- Around 3.20 crore beneficiaries across all 36 States and Union Territories are expected to benefit; revised disability pension guidelines will be implemented within three months.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Launched on 15 August 1995, NSAP supports poor households in line with Article 41 of the Constitution, under the Directive Principles of State Policy. The Rights of Persons with Disabilities Act, 2016, provides the basis for revising disability pension eligibility criteria.

2. Southern Indian Ocean Fisheries Agreement (SIOFA):

Context: Central Government has approved India's accession to the Southern Indian Ocean Fisheries Agreement (SIOFA), representing a strategic milestone that reinforces India's position in global fisheries governance.

About Southern Indian Ocean Fisheries Agreement (SIOFA):

- **Establishment:** SIOFA was adopted on 7 July 2006 in Rome, Italy, at a conference held at the headquarters of the Food and Agriculture Organization of the United Nations (FAO).
- **Entry into force:** The agreement entered into force on 21 June 2012.
- **Nature:** It is a legally binding, multilateral fisheries agreement for cooperation in managing fisheries resources in the Southern Indian Ocean.
- **Objective:** To ensure the long-term conservation and sustainable use of fishery resources and promote sustainable fisheries development.
- **Coverage:** It covers non-highly migratory fishery resources, including fish, molluscs, crustaceans and certain sedentary species, in its designated area.
- **Exclusions:** Highly migratory species and sedentary species under coastal States' fisheries jurisdiction are excluded.
- **Secretariat headquarters:** Located in Réunion, a French overseas department and region in the Indian Ocean.

3. India's Coir Sector:

Context: India's Coir Sector: Creating Livelihoods, Promoting Entrepreneurship and Driving Sustainable Growth.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About India's Coir Sector:

- Coir is a natural fibre extracted from the tough outer husk of coconuts and used to manufacture mats, mattresses, ropes, brushes and other utility products.
- **Global position:** India is the world's largest producer and exporter of coir and coir products, accounting for approximately two-thirds of global production.
- **Economic contribution:** The Indian coir industry has a turnover of around ₹16,000 crore and contributes close to 1% to India's GDP.
- **Exports:** In FY 2025–26, India's coir and coir product exports were valued at ₹6,614.40 crore.
- **Major export destinations**: The United States, China, the Netherlands, Spain and the United Kingdom.
- **Major exported products:** Coir pith, coir fibre, coir yarn and tufted mats.
- **Employment generation:** More than 21,000 coir units provide direct and indirect employment to over 7 lakh workers, around 80% of whom are women from rural households.
- **Sustainability:** The industry promotes the productive utilisation of coconut husks, eco-friendly manufacturing, value addition and rural livelihoods.
- **Government support:** The Ministry of Micro, Small and Medium Enterprises implements the Coir Vikas Yojana (CVY), a Central Sector Scheme aimed at sustainable sectoral development and support for coir artisans and enterprises, contributing to the vision of Viksit Bharat @2047.

4. Maritime State Development Council (MSDC):

Context: Recently, the 21st Maritime State Development Council (MSDC) concluded in Mumbai with landmark outcomes for India's maritime sector.

About Maritime State Development Council (MSDC):

- The Maritime State Development Council (MSDC) is an apex advisory body constituted in May 1997 for the development of India's maritime sector.
- The Indian Ports Act, 2025 grants statutory status to the Council.
- **Objective:** To promote the integrated development of major and non-major ports in coordination with State governments.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Chairperson:** Union Minister for Ports, Shipping and Waterways.
- **Composition:** Includes ministers responsible for ports from maritime States, UT administrators and representatives of agencies such as the Indian Navy and Indian Coast Guard.
- **Key functions:** Monitors the development of minor, captive and private ports and recommends measures for their integration with major ports, including improved road, rail and inland waterway connectivity.
- **Other roles:** Advises the Central Government on national port planning, legislative reforms, port efficiency, data collection, information dissemination and transparency across the maritime sector.

5. National Culture Fund:

Context: Recently, the Hindustan Aeronautics Ltd (HAL), the National Culture Fund and the Archaeological Survey of India (ASI) have signed a Memorandum of Agreement (MoA) for conservation and development of heritage sites.

About National Culture Fund:

- **Establishment:** The National Culture Fund (NCF) was established as a Trust on 28 November 1996 under the Charitable Endowments Act, 1890.
- **Objectives:** It supports the conservation, protection, preservation, maintenance and upgradation of monuments and cultural heritage.
- **Cultural promotion:** It facilitates training of cultural specialists and administrators, expansion of existing museums, construction of new museums and development of special galleries.
- **Preservation of traditions:** It documents cultural expressions, traditional art forms and practices that are fading or facing extinction.
- **Governance:** The Governing Council, chaired by the Union Minister of Culture, has a maximum of 25 members and formulates policies. The Executive Committee, headed by the Secretary (Culture), has a maximum of 11 members and implements them.
- **Funding and tax benefits:** NCF receives contributions from corporates, PSUs, trusts and individuals for heritage conservation and cultural projects. Donations are eligible for tax deductions under Section 80G of the Income Tax Act, subject to applicable provisions.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **CSR eligibility:** NCF is an eligible recipient of Corporate Social Responsibility (CSR) contributions under Schedule VII of the Companies Act, 2013, particularly for protecting national heritage, restoring historical sites, promoting traditional arts and handicrafts, and supporting public libraries.

6. Prosopis Juliflora:

Context: The Water Resources Department (WRD) started removing invasive Prosopis Juliflora from irrigation tanks along Palar River in Vellore, Tamil Nadu

About Prosopis Juliflora:

- Prosopis juliflora is a shrub or small tree belonging to the Fabaceae family, commonly known as mesquite, and is native to Mexico, South America and the Caribbean.
- **Introduction into India:** It was introduced to Delhi by the British in the 1920s during the development of the national capital.
- **Local names:** Bellary jaali, seemai karuvelam, seemai jaali, gando baval and vilayati kikar.
- **Adaptability:** It is highly adaptable to arid and semi-arid regions, growing in sandy, clayey, saline and alkaline soils, across elevations and a wide range of rainfall conditions.
- **Invasive nature:** Its rapid growth enables it to outcompete native vegetation, threatening indigenous plant species and natural grassland ecosystems.
- **Environmental impacts:** It can consume substantial amounts of water, contribute to groundwater stress and alter soil and ecosystem conditions. Its spread can also degrade native grasslands and threaten habitats of indigenous plants and animals.
- **Ecological concern:** Its invasion can reduce native biodiversity and contribute to land degradation, making its management important for restoring grasslands and protecting local ecosystems.

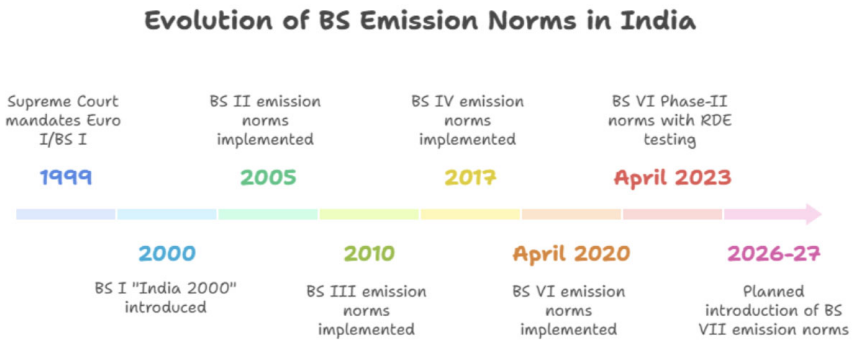
7. Bharat Stage Emission Norms:

Context: The Ministry of Road Transport and Highways (MoRTH) is planning to roll out stricter BS-VII emission standards for new cars and SUVs from April 1, 2029, according to a draft gazette notification.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

The ministry said in an October 12 draft notification that it will implement all new norms in three phases spanning 6 years from April 2029 to April 2035.

About Bharat Stage Emission Norms:



- **About BS Emission Norms:** Bharat Stage (BS) norms are legally enforced Indian standards regulating vehicular air pollutants. Framed by MoEFCC and implemented by CPCB, they are aligned with European (Euro) emission standards.
- **Pollutants Covered:** They prescribe progressively stricter limits on carbon monoxide (CO), hydrocarbons (HC), nitrogen oxides (NOx) and particulate matter (PM), promoting cleaner fuels and advanced engine and exhaust technologies.
- **Mashelkar Committee (2002):** Recommended a phased roadmap for implementing Euro-equivalent emission norms and gradually expanding them nationwide.
- **Evolution of Norms:** India progressed from BS-I (India 2000) to BS-IV in 2017, skipping BS-V to implement BS-VI nationwide in April 2020. The Supreme Court had mandated Euro-I/BS-I compliance in 1999.
- **BS-VI Phase II:** Implemented from April 2023, it introduced Real Driving Emissions (RDE) testing to assess compliance under actual on-road driving conditions.
- **BS-VI Emission Reductions:** Compared with BS-IV, petrol vehicles must reduce NOx emissions by 25%; diesel vehicles must reduce HC+NOx by 43%, NOx by 68% and particulate matter by 82%.
- **Cleaner Fuel:** BS-VI reduced the permissible sulphur content in fuel from 50 mg/kg under BS-IV to 10 mg/kg, enabling advanced emission-control technologies.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Delhi and Future Norms:** Delhi adopted BS-II in 2001, BS-III in 2005 and BS-IV in 2010 ahead of the national rollout, resulting in a mixed-standard vehicle fleet. BS-VII norms are being planned for 2026–27.

8. Jeypore ground gecko:

Context: The Jeypore ground gecko, an endangered, nocturnal reptile of the Eastern Ghats in Odisha and Andhra Pradesh, was rediscovered in 2010 after being presumed extinct for 130 years. Only four individuals were documented recently in Odisha's Balda hills, where its habitat faces threats from a proposed bauxite mining project. Its original habitat at Potangi has already been lost to mining, highlighting concerns over biodiversity conservation and the environmental impact of mining.

About Jeypore ground gecko:

- **About:** Jeypore ground gecko, also known as the Jeypore Indian gecko or Patinghe Indian gecko, is a reptile native to India, originally described in 1878 by British naturalist Richard Henry Beddome.
- **Appearance:** A nocturnal gecko, approximately 3.6 inches long, with a comparatively large head and yellow-orange body.
- **Habitat:** Inhabits semi-evergreen forests.
- **Distribution:** Restricted to high-elevation forests (900–1,400 metres) of the northern Eastern Ghats in southern Odisha and northern Andhra Pradesh.
- **Threats:** Habitat loss and degradation, forest fires, tourism, quarrying and mining activities.
- **Conservation Status:** IUCN Red List — Endangered; CITES — Appendix II.

Quick Bites:

❖ Prime Minister Narendra Modi will inaugurate and dedicate five development projects worth around ₹3,350 crore in Ladakh on 15 October 2026. These include the new passenger terminal at Kushok Bakula Rimpochee Airport, Leh (₹640 crore), the 298-km Nimmu–Padum–Darcha Road built by BRO connecting Leh with Darcha in Himachal Pradesh through Zanskar Valley, the 9 MW Hanu Small Hydroelectric Project, and the 66 kV Dah–Hanu–Khaltsi double-circuit transmission line to strengthen energy security. He

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

will also inaugurate India's first Petroglyph Conservation Park at Sindhu Ghat, Leh, preserving prehistoric rock carvings that provide insights into the region's ancient human history.

- IDBI Bank Ltd. is a scheduled commercial bank regulated by the Reserve Bank of India (RBI). Due to its poor financial health, the Bank required repeated infusion of capital, initially provided by the Government of India and later by the LIC. It was against this backdrop that the Cabinet Committee on Economic Affairs (CCEA) approved strategic restructuring of the IDBI Bank Ltd., and in compliance thereof, it was decided that an aggregate 60.72% of the equity stake in the IDBI Bank Ltd be sold to a Strategic Buyer, of which, the GoI share would be 30.48% and the LIC share would be 30.24%, leaving a residual shareholding of 15% with the GoI and 19% with the LIC.
- The Indian Council of Agricultural Research (ICAR) will organise a curtain-raiser event and media interaction on 15th October 2026 at the ICAR-Central Soil Salinity Research Institute (CSSRI), Karnal, Haryana, ahead of the Emerging Science, Technology and Innovation Conclave (ESTIC)-2026, scheduled to be held from 27 to 29 October 2026 at Bharat Mandapam, Pragati Maidan, New Delhi.
- The Telecommunication Engineering Centre (TEC), the National Standardization Body in the telecommunications sector under the Department of Telecommunications (DoT), Ministry of Communications, celebrated World Standards Day 2026 today at Manak Hall, TEC, New Delhi reaffirming India's commitment to strengthening its role in global technology development and standardization.
- The Government of India has constituted a committee under the chairmanship of Prof. Ramesh Chand, former Member of NITI Aayog, to examine issues raised by sugarcane farmers and recommend appropriate measures for addressing their concerns. The Committee will examine the demand for an increase in remunerative returns to sugarcane farmers, taking into account cultivation costs and other relevant factors. It will also examine the demand for revision of the ex-mill Minimum Selling Price (MSP).
- Strengthening India's capabilities in autonomous aerial systems and next-generation logistics, the Technology Development Board (TDB), Department of Science & Technology (DST), Government of India, has signed an agreement with ideaForge Technology Limited, Mumbai, Maharashtra for financial support of ₹151 crore under the Research Development and Innovation (RDI) Fund.
- Botanists from the Botanical Survey of India (BSI) have discovered a new plant species, Ceropegia tamilnaduensis, on the hill slopes of Nellai Wildlife Sanctuary, Tamil Nadu, at an elevation of

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

approximately 380 metres near a stream and evergreen forest. This perennial herb is characterised by solitary flowers emerging from leaf axils, drooping stems, a hairless central corona, a pollinial corpusculum with lateral wings, and unusually large seeds measuring up to 14 mm.

- On 14 October 2026, the Kerala State Biodiversity Board (KSBB) launched India's first Red List Assessment of Ecosystems (RLE) project in Kollam. The one-year assessment will examine ecosystem collapse risks across Kerala's 14 districts, from high-altitude mountain summits to coastal areas.
- The Indian Embassy in Jakarta launched an artificial intelligence (AI) avatar named Dewi in October 2026 for public outreach. The virtual guide is designed to share information on Indian culture, travel, scholarships, business, investment opportunities and consular services.
- Europe's Copernicus Sentinel-3C satellite was launched on 15 September 2026 aboard a Vega-C rocket from Europe's Spaceport in Kourou, French Guiana. In late September, it returned its first images and measurements from two instruments, about two weeks after launch. Sentinel-3C is the third spacecraft in the Sentinel-3 series, which forms part of the Copernicus Earth observation programme. The European Space Agency oversees its testing and commissioning, expected to continue for about five months before full operations.
- The Bangkok Blueprint was launched on 14 October 2026 by the International Monetary Fund (IMF) and World Bank Group (WBG), in coordination with the Bank of Thailand, during their Annual Meetings in Bangkok, Thailand. It provides countries with a framework to prevent, detect and address cyber-enabled fraud in digital financial services. It comprises 12 key considerations under five pillars: establishing strategic and legal foundations; strengthening the fraud-mitigation life cycle; leveraging existing risk-mitigation and enforcement frameworks; expanding domestic and cross-border cooperation; and promoting consumer protection and resilience.
- India's exports to China grew 40% in the first three quarters of 2026 to around $20 billion, although the trade deficit with the neighbouring country has continued to widen, already crossing $100 billion this year, according to data released on Wednesday by China's General Administration of Customs.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

16-10-2026

1. National Strategic Trade Command Centre (NSTCC):

Context: Union Minister of Commerce and Industry, Shri Piyush Goyal, launched the National Strategic Trade Command Centre (NSTCC) at Vanijya Bhawan, New Delhi.

About National Strategic Trade Command Centre (NSTCC):

- **About NSTCC:** The National Trade Statistical Command Centre (NSTCC) is a strategic initiative developed by the Department of Commerce, Ministry of Commerce and Industry, to strengthen monitoring and governance of India's international trade through data analytics.
- **Objective:** To provide policymakers with a consolidated view of trade performance, export promotion schemes, regulatory approvals, application processing and operational indicators.
- **Integrated Analytics Platform:** Uses interactive dashboards to convert trade-related data into actionable insights and identify emerging trends, bottlenecks and areas requiring intervention.
- **Multi-level Analysis:** Enables analysis of national trade performance, Regional Authorities, schemes, products, destination markets and individual applications, subject to role-based access.
- **Key Areas Covered:** Importer Exporter Code (IEC), Advance Authorisation, Export Promotion Capital Goods (EPCG), Certificate of Origin (CoO), SCOMET, restricted imports and exports, and other trade facilitation processes.
- **Integrated Monitoring:** Tracks trade trends, application pendency, processing timelines and emerging risks to support timely resolution of operational issues.
- **Performance Assessment:** Enables benchmarking of schemes, processes and Regional Authorities using defined indicators to identify performance gaps and improve efficiency.
- **Evidence-based Policymaking:** Helps identify procedural complexities, recurring bottlenecks and changing trade patterns to support policy simplification and targeted trade facilitation measures.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

2. GSAT 7 satellites:

Context: The Ministry of Defence has signed contracts worth a total of approximately Rs 4,106 crore for the acquisition of a dedicated communication satellite capability, GSAT-7C for the Indian Air Force, and Varunastra Heavy Weight Torpedoes for the Indian Navy.

About GSAT 7 satellites:

- GSAT-7 satellites are advanced communication satellites developed by ISRO to meet the communication requirements of India's defence services.
- **GSAT-7 (Rukmini):** Launched in August 2013 aboard an Ariane 5 ECA rocket from Kourou, French Guiana. Weighing about 2,650 kg, it provides communication coverage across nearly 2,000 nautical miles in the Indian Ocean region.
- **GSAT-7 Capabilities:** Primarily serves the Indian Navy, providing secure, real-time communication among naval bases, surface ships, submarines and aircraft through UHF, C-band and Ku-band payloads.
- **GSAT-7A:** Launched in December 2018 from Satish Dhawan Space Centre, Sriharikota, to strengthen communication for the Indian Air Force (IAF).
- **GSAT-7A Applications:** Connects ground radar stations, airbases and airborne early warning and control (AEW&C) aircraft. It also supports satellite-controlled operations of unmanned aerial vehicles (UAVs).
- **GSAT-7B:** Planned primarily to meet the Indian Army's communication requirements and strengthen surveillance in border areas through secure, military-grade, multi-band communication.
- GSAT-7B reduces the Army's dependence on satellites designed for other services and can integrate its communication systems into a common platform, improving operational coordination.
- **Strategic Significance:** Dedicated military communication satellites provide reliable, beyond-line-of-sight connectivity across India's diverse terrain and strengthen surveillance and security operations along sensitive borders.
- **GSAT-7C:** Proposed for the IAF, with the Defence Acquisition Council (DAC) clearing the proposal in 2021, to enable secure, real-time, beyond-line-of-sight communication using software-defined radio sets.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Overall Importance:** The GSAT-7 series strengthens India's space-based military communication infrastructure, operational coordination and surveillance capabilities, supporting the development of indigenous defence and space capabilities.

Other Military satellites:

- **EMISAT:** Developed by ISRO, the Electromagnetic Intelligence Gathering Satellite was launched in April 2019 aboard PSLV-C45 to strengthen India's electronic intelligence and surveillance capabilities.
- **Kautilya ELINT Package:** Its Electronic Intelligence (ELINT) payload intercepts ground-based radar signals, identifies their direction and helps determine radar locations.
- **Strategic Significance:** Operating in a near-polar orbit at approximately 748 km, EMISAT supports electronic surveillance and intelligence gathering, including monitoring radar systems in neighbouring countries.
- **RISAT-2BR1:** Launched in December 2019 from Sriharikota, it is a synthetic aperture radar (SAR) imaging satellite capable of high-resolution radar imaging.
- **Imaging Capability:** RISAT-2BR1 supports multiple imaging modes, with reported resolutions of 1 × 0.5 m and 0.5 × 0.3 m over a 5–10 km swath, supporting surveillance and reconnaissance.

3. Measles:

Context: Recently, one death due to measles, 161 confirmed cases have been reported in Kozhikode district so far this year.

About Measles:

- **About:** Measles is a highly contagious airborne disease caused by a virus belonging to the Paramyxoviridae family.
- **Transmission:** Spreads through infected respiratory droplets and aerosols released during coughing or sneezing, and through contaminated surfaces. The virus can remain active in the air or on surfaces for up to two hours.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Spread in the Body:** The virus initially infects the respiratory tract and can subsequently spread throughout the body, causing severe complications and even death.
- **Initial Symptoms:** High fever typically begins 10–14 days after exposure and lasts around 4–7 days, accompanied by a runny nose, cough, and red, watery eyes.
- **Characteristic Signs:** Small white spots inside the cheeks may appear, followed by a rash that usually begins on the face and upper neck.
- **Treatment:** No specific antiviral treatment is available; medical care focuses on managing symptoms and complications.
- **Prevention:** The measles-rubella (MR) vaccine is safe and effective and provides long-term protection against measles.

4. Trishna Wildlife Sanctuary:

Context: Recently, a rare sighting of Phayre's Leaf Monkeys, popularly known as Spectacle Monkeys, has been captured on camera at Trishna Wildlife Sanctuary in South Tripura.

About Trishna Wildlife Sanctuary:

- **Location and Establishment:** The sanctuary is located in Tripura and was established in 1988.
- **Vegetation:** It contains Tropical Semi-evergreen Forests, Moist Mixed Deciduous Forests and Savannah Woodland.
- **Floral Diversity:** It hosts around 230 tree species, 400 herbs, 110 shrubs and 150 climbers, including medicinal plants such as Kurcha, Tulsi, Vasak, Sarpagandha, Rudraksha and Bel.
- **Bamboo Species:** Oxytenanthera nigrociliata, locally known as Kaillai, is commonly found here.
- **Fauna:** Important species include Gaur (Indian Bison), Hoolock Gibbon, Capped Langur, Golden Langur and Phayre's Leaf Monkey.
- **Phayre's Leaf Monkey:** Also called the Spectacle Monkey due to pale markings around its eyes, it is primarily arboreal and feeds mainly on leaves and other plant matter.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Conservation Status and Threats:** Phayre's Leaf Monkey is classified as Endangered on the IUCN Red List. Habitat destruction, forest degradation, fragmentation and other human-induced pressures threaten its survival.

5. Alpine musk deer:

Context: A recent report said that the alpine musk deer faces mounting conservation concerns, with India's recognised zoos reporting just two living captive Himalayan musk deer—both male—and no females.

About Alpine musk deer:

- **Alpine Musk Deer (Moschus chrysogaster):** An Asian musk deer species; it is not a true deer and belongs to the family Moschidae.
- **Distinctive Features:** Males possess an externally visible musk sac and elongated canine teeth used for sparring during the mating season.
- **Habitat:** Inhabits coniferous and deciduous forests in mountainous regions at elevations of 3,000–5,000 m.
- **Distribution:** Mainly found in India, Nepal, Bhutan and China.
- **Behaviour and Diet:** Generally solitary and crepuscular; a ruminant herbivore that feeds on forbs, grasses, mosses, lichens, leaves, shoots and twigs.
- **Threats:** Poaching for musk, which is used in cosmetic products and perfumery, is a major threat.
- **Conservation Status:** Classified as Endangered on the IUCN Red List and listed in CITES Appendix I.

6. Shanghai Cooperation Organisation (SCO):

Context: Defence Minister Rajnath Singh will represent India at the upcoming two-day meeting of the Council of Heads of Government (Prime Ministers) of the Shanghai Cooperation Organisation (SCO) in Dushanbe, Tajikistan, on October 19 and 20, while Prime Minister Narendra Modi is expected to participate virtually.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Shanghai Cooperation Organisation (SCO):

- The Shanghai Cooperation Organisation (SCO) is a permanent regional intergovernmental organisation founded on 15 June 2001 in Shanghai, China, evolving from the Shanghai Five framework.
- **Founding Members:** China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan established the organisation.
- **SCO Charter:** Adopted in 2002 at St. Petersburg, the Charter came into force on 19 September 2003 and serves as the organisation's constitutional document.
- **Membership Expansion:** India and Pakistan joined in 2017, Iran in 2023 and Belarus in 2024, bringing the total to 10 permanent members.
- **Shanghai Spirit:** The organisation is guided by mutual trust, mutual benefit, equality, respect for cultural diversity and common development.
- **Headquarters and Languages:** The SCO Secretariat is headquartered in Beijing, China, while the Regional Anti-Terrorist Structure (RATS) Executive Committee is based in Tashkent, Uzbekistan. Its official working languages are Russian and Chinese.
- **Objectives:** Promote regional peace, security and stability; combat traditional and non-traditional threats; strengthen cooperation in trade, economy, energy, transport, science, education, culture and environmental protection; and support a more equitable, multipolar international order.
- **SCO Partners:** As of August 2025, the organisation had 17 partners. At the 2025 SCO Summit, the earlier categories of observer states and dialogue partners were merged into a single category called "SCO Partners," with Laos becoming the latest partner.

Quick Bites:

❖ The Vice-President of India, Shri C. P. Radhakrishnan, today called for greater scientific research into Ayurveda to establish the efficacy of traditional healthcare practices, strengthen patient confidence and enhance the global acceptance of India's traditional systems of medicine. He was addressing the inaugural ceremony of the third edition of the international conference on Kaumarabhritya, KAUMARACON-2026, organised by the All India Institute of Ayurveda (AIIA), New Delhi. Kaumarabhritya (also known as Bala

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Tantra or Balroga) is one of the eight classical branches (Ashtanga) of Ayurveda, dedicated to pediatric care, neonatology, and child development

- The Department of Agriculture & Farmers Welfare (DA&FW), Ministry of Agriculture & Farmers Welfare, Government of India, celebrated Mahila Kisan Diwas 2026 today (15 October 2026) at the Dr. B. R. Ambedkar International Centre, New Delhi, under the chairmanship of Shri Atish Chandra, Secretary, Department of Agriculture & Farmers Welfare.
- NITI Aayog's Frontier Tech Hub has released the Data Centre Evaluation Framework on 14 October 2026 to help States plan for sustainable growth of data centres. India's data-centre capacity has grown from about 375 MW in 2020 to approximately 1.5 GW currently, driven by the growing demand for Artificial Intelligence (AI), cloud computing, high-performance computing and data-intensive digital applications.
- Combined Task Force 154 (CTF 154) is the multinational maritime training task force of the Combined Maritime Forces (CMF), established in May 2023 to enhance maritime security through training programmes across the Middle East and surrounding regions. It operates alongside CTF 150 (Maritime Security), CTF 151 (Counter-Piracy), CTF 152 (Arabian Gulf Security) and CTF 153 (Red Sea Security). The Indian Navy is scheduled to hand over command of CTF 154 at a ceremony in Manama, Bahrain.
- India's largest integrated phenol and acetone plant was inaugurated in Haldia, West Bengal, on 14 October 2026. Developed by Adperma Private Limited, a wholly owned subsidiary of Haldia Petrochemicals Limited, the facility involved an investment of ₹6,000 crore. It is the first phenol manufacturing facility on India's eastern coast. Phenol is an aromatic organic compound with the formula C_6H_5OH. It is used to manufacture phenolic resins, bisphenol A and pharmaceuticals. Acetone, also known as propanone, has the formula C_3H_6O and is a widely used industrial solvent and chemical feedstock.
- Jindal Steel Limited won the 2026 Steelie Award for "Excellence in People" for its "Dakshata Engineering Safety: One Duty Position at a Time" programme. The World Steel Association announced the winners of the 17th Steelie Awards on 12 October 2026 in New Delhi.
- Solar Defence and Aerospace Limited (SDAL), a subsidiary of Solar Industries India, delivered 450 Nagastra-1R loitering munitions to the Indian Army on 13 and 14 October 2026. The supply is the largest single-batch delivery of loitering munitions to the Army by a manufacturer.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- A Bengaluru-born astronomer will be heading the $20-million NASA space telescope mission PUFFINS (Polarimetry in the ultraviolet to find features in interstellar dust). Ramya Anche, an assistant research professor at Steward Observatory, University of Arizona, has been selected as the Principal Investigator of the PUFFINS mission. PUFFINS is a small spacecraft (SmallSat) selected under NASA's highly competitive Astrophysics Pioneers programme. It is targeted for a 2030 launch and during the mission, a 10-inch telescope will observe ultraviolet light from about 70 distant stars to decode a 50-year-old mystery regarding how cosmic dust builds new stars and planets.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

17-10-2026

1. Ustad Bismillah Khan Yuva Puraskar:

Context: Shri Gajendra Singh Shekhawat, Union Minister of Culture and Tourism, Government of India will confer the Ustad Bismillah Khan Yuva Puraskar for the years 2024 and 2025 to 106 young artists in the field of music, dance and drama.

About Ustad Bismillah Khan Yuva Puraskar:

- The Ustad Bismillah Khan Yuva Puraskar was instituted by the Sangeet Natak Akademi in 2006 in the name of Bharat Ratna Ustad Bismillah Khan.
- **Eligibility:** It recognises outstanding young performing artists aged up to 40 years.
- **Fields Covered:** Music, dance, drama, folk and tribal arts, puppetry and other allied performing art forms.
- **Frequency and Presentation:** The award is conferred annually at special ceremonies held in Delhi and other locations.
- **Award Components:** It carries a cash prize of ₹25,000, a plaque and an angavastram.
- **Objective:** To encourage and motivate young artists and promote India's diverse performing art traditions.
- **About Bismillah Khan:** A renowned Indian shehnai maestro, he performed at India's first Republic Day celebration in 1950 and was the first Indian invited to perform at the prestigious Lincoln Center in the United States.

2. Ramsar Sites:

Context: India has added Sukhna Wetland and Sauj Jheel to the List of Wetlands of International Importance, bringing its total number of "Ramsar Sites" to 103.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

More details: Sukhna Wetland	Sauj Jheel
Located at the edge of Chandigarh, at the foothills of the Outer Himalayas.	Located in Uttar Pradesh, in the floodplain of the Ganga River.
Peri-urban reservoir regulating sediment and water flows from the surrounding catchment.	Shallow lake surrounded by farmland.
Habitats include open water, littoral vegetation, scrub and forests.	Supports wetland vegetation and forms part of a wider wetland network.
Important for resident waterbirds and migrants along the Central Asian Flyway.	Contributes to ecological connectivity and is located near Saman Bird Sanctuary.
Provides feeding, breeding, roosting and wintering habitats.	Supports diverse wetland-associated flora and fauna.
Flora: Diverse littoral vegetation, scrub and forest.	**Flora:** Sacred Lotus (Nelumbo nucifera) and Wild Sugarcane (Saccharum spontaneum).
Fauna: Vulnerable Common Pochard; endangered Pallas's Fish Eagle and Black Pond Turtle.	**Fauna:** Vulnerable Sarus Crane and Greater Spotted Eagle.

About Ramsar Sites:

- The Ramsar Convention provides guidelines for the conservation and wise use of wetlands worldwide.
- It is the only international environmental treaty focused on a specific habitat (wetlands).
- The Convention was adopted at Ramsar, Iran, in 1971 and came into force in 1975.
- Cobourg Peninsula (Australia) became the world's first Ramsar Site in 1974.
- India's first Ramsar sites were designated on October 1, 1981. There were two sites recognized simultaneously: Chilika Lake in Odisha and Keoladeo Ghana National Park in Rajasthan.
- India joined the Ramsar Convention on February 1, 1982.
- The Montreux Record identifies Ramsar sites requiring priority conservation attention. The Montreux Record was adopted in Brisbane in 1996.
- Keoladeo National Park (Rajasthan) and Loktak Lake (Manipur) were added to the Montreux Record in 1990 and 1993, respectively.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

3. Hornbill Festival:

Context: Recently, Nagaland has begun preparations for the 27th edition of the iconic Hornbill Festival.

About Hornbill Festival:

- **Hornbill Festival:** First organised in 2000, it is an annual cultural festival of Nagaland, popularly known as the "Festival of Festivals."
- **Location:** Celebrated at Naga Heritage Village, Kisama, approximately 12 km from Kohima, Nagaland.
- **Objective:** Promotes inter-tribal interaction, unity and preservation of Nagaland's cultural heritage by blending traditional practices with contemporary elements.
- **Duration:** Initially a three-day event, it was expanded to five days and subsequently to 10 days, coinciding with Nagaland Statehood Day on 1 December.
- **Name:** Named after the Hornbill bird, which holds an important place in the socio-cultural traditions of the Naga tribes.
- **Organisation and Significance:** Organised by the Nagaland Government's Departments of Tourism and Art & Culture, it showcases the diverse traditions, customs, music, dance, crafts and heritage of the state's tribes.

4. JWALA missile:

Context: JWALA, India's first private-sector micro-missile, is set for trials after successful solid rocket motor tests, strengthening indigenous counter-drone capabilities.

About JWALA missile:

- JWALA-MK1 is India's first indigenously developed private-sector micro-missile, developed by Indian defence technology company IG Defence.
- It is a short-range surface-to-air missile (SAM) designed as a hard-kill interceptor to physically destroy hostile drones and UAVs at relatively low cost.
- It operates within IG Defence's GRID Defend ecosystem, an AI-enabled battle-management network integrating sensors, command systems and weapons.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Propulsion and control: Uses a dual-pulse solid rocket motor and fin control.
- **Engagement range:** 2–5 km, with an altitude range of 50–5,000 metres.
- **Accuracy and warhead:** Circular Error Probable (CEP) of less than 2 metres at maximum range; carries a 0.5–1.5 kg pre-fragmented high-explosive warhead with a proximity fuze.
- It is designed to operate in electronic warfare and anti-jamming environments, enhancing its effectiveness against small aerial threats.

5. Varunastra:

Context: Recently, the Ministry of Defence has signed contracts worth Rs 4,106 crore for the acquisition of a dedicated communication satellite capability, GSAT-7C for the Indian Air Force, and Varunastra Heavy Weight Torpedoes for the Indian Navy.

About Varunastra:

- Varunastra is an indigenously developed, heavyweight, electrically propelled anti-submarine torpedo designed for launch from naval platforms.
- It was designed and developed by the Naval Science and Technological Laboratory (NSTL), Visakhapatnam, under the Defence Research and Development Organisation (DRDO).
- It can target quiet submarines in both deep and shallow waters, even in environments with intense countermeasures.
- **Speed and range:** Exceeds 40 knots (74 km/h) and has an operational range of around 40 km.
- **Warhead and depth:** Carries a 250 kg high-explosive warhead and can operate at depths of up to 600 metres.
- **Guidance system:** Uses active-passive acoustic homing, wire guidance and GPS/NavIC satellite guidance, supported by autonomous navigation algorithms and low-drift navigational aids.
- Its conformal array transducers provide a wider detection angle, while its multi-manoeuvring capability improves target engagement; it can be fired from compatible anti-submarine warfare ships.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

6. Weather Information Network and Data System:

Context: An ambitious Weather Information Network and Data System project by an Agriculture Ministry body to install automatic rain gauges and automatic weather stations in States is proceeding at a crawl due to shortage of land.

About Weather Information Network and Data System:

- Weather Information Network Data Systems (WINDS) is a national initiative under the Pradhan Mantri Fasal Bima Yojana (PMFBY) to strengthen India's agricultural weather-data infrastructure.
- It aims to establish a nationwide network of weather sensors to provide hyperlocal weather data for agricultural planning and risk assessment.
- It uses Automatic Weather Stations (AWS) and Automatic Rain Gauges (ARG) to collect weather data at Block and Gram Panchayat levels.
- It integrates data from the India Meteorological Department (IMD), State Governments, and public and private technical organisations through a unified national WINDS portal.
- The initiative is implemented by the Ministry of Agriculture and Farmers Welfare through the Mahalanobis National Crop Forecast Centre (MNCFC).
- Its primary purpose is to improve weather-based crop insurance assessment and the calculation of payouts under PMFBY.
- WINDS uses advanced weather-data analytics to provide actionable information for agricultural planning and weather-related decision-making.
- It seeks to bridge local weather-information gaps and empower farmers, policymakers and other stakeholders with reliable, grassroots-level weather data.

7. Global Hunger Index (GHI) 2026:

Context: Global Hunger Index (GHI) 2026 report was released and placed India at 100th rank out of 122 countries.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Global Hunger Index (GHI) 2026:

- The Global Hunger Index (GHI) is released by Irish humanitarian organisation Concern Worldwide and German aid agency Welthungerhilfe.
- It tracks global hunger and undernutrition using four indicators: undernourishment, child wasting, child stunting and under-five mortality.
- Undernourishment measures insufficient caloric intake among the population.
- Child wasting refers to low weight for height, while child stunting indicates low height for age among children under five.
- Under-five mortality measures the proportion of children who die before reaching five years of age.
- **Top-ranked countries:** 24 countries jointly occupy ranks 1–24, including Armenia, Belarus, China, Chile and Bulgaria, with low hunger levels.
- **Bottom three:** Somalia ranks 122nd (score 47.0), Democratic Republic of the Congo 121st (39.5) and Chad 120th (38.0).
- **India's rank:** India ranks 100th, tied with Ethiopia, with a GHI score of 24.1, placing it in the serious hunger category.
- **India's indicators:** Undernourishment is 9.8%, child wasting 19.0%, child stunting 29.3% and under-five mortality 2.7%.
- **India's progress:** Its GHI score improved from 38.1 in 2000 to 24.1 in 2026, while child stunting declined from 50% to 29.3%; child wasting remains a major concern.

8. Henley Passport Index 2026:

Context: The October 2026 Henley Passport Index places India 84th among 199 passports, with Indian passport holders able to access 55 destinations without obtaining a prior visa. India shares the position with Algeria and Mauritania.

About Henley Passport Index 2026:

- The Henley Passport Index ranks passports based on the number of destinations accessible without obtaining a visa before departure. It covers 199 passports and 227 travel destinations.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- It uses exclusive data from the International Air Transport Association (IATA) on destination entry requirements.
- Visa-free entry, visa on arrival, visitor permits and eligible electronic travel authorisations count as accessible without a prior visa; e-visas requiring advance approval generally do not.
- India ranked 84th in October 2026, improving from 85th in October 2025, despite its visa-free or equivalent access declining from 57 to 55 destinations.
- India's rankings during 2026 were 80th in January, 75th in February, 81st in July and 84th in October. It shares 84th place with Algeria and Mauritania.
- **Top-ranked passports:** Singapore ranks first with access to 193 destinations; Japan, South Korea and the United Arab Emirates share second place with 188 destinations each.

Quick Bites:

- The Vice-President of India, Shri C. P. Radhakrishnan, today commissioned INS Samarthak, the Indian Navy's first indigenous Multi-Purpose Vessel built by Larsen & Toubro (L&T), at Karwar, Karnataka.
- The Agricultural and Processed Food Products Export Development Authority (APEDA), under the Ministry of Commerce and Industry, Government of India, facilitated the flag-off of the maiden export consignment of 1.755 MT of NPOP- and EU-certified organic Palmyra Jaggery Powder (Palmyra Blossom Nectar) from Gobichettipalayam in Erode district of Tamil Nadu to Varna, Bulgaria, on 15 October 2026.
- In a significant step towards strengthening onion availability and ensuring affordable prices ahead of the festive season, the Department of Consumer Affairs is expanding the distribution of buffer onions under the Price Stabilization Fund (PSF), with the first-ever Kanda Express movement to Agartala, Tripura. The consignment, carrying approximately 440 MT of onions, is expected to reach Agartala by 18th October 2026.
- The World Health Summit (WHS) is an international, multi-stakeholder forum that brings together global health leaders, policymakers, scientists and other stakeholders to discuss key global health challenges. It is held annually in Berlin, Germany, and is organised by the WHS Foundation GmbH, a wholly owned subsidiary of Charité – Universitätsmedizin Berlin.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Masaya Volcano is an active basaltic shield-like caldera volcano in Nicaragua, Central America, about 20 km southeast of Managua. It lies along the Central American Volcanic Arc, formed by the subduction of the Cocos Plate beneath the Caribbean Plate. Its large El Ventarrón caldera formed through Plinian eruptions over the past 6,000 years, while the active Santiago crater formed between 1850 and 1853. The volcano is known for its persistent lava lake, high gas emissions, and Strombolian-to-Vulcanian activity, including ash emissions and lava fountains.
- Exercise Cambrian Patrol is the British Army's premier military patrolling event, held annually in Wales, United Kingdom, and hosted by Headquarters 160th (Welsh) Brigade. Known as the "Olympics of Military Patrolling," it tests participating teams through demanding military tasks and assessments to evaluate their operational capabilities. In 2026, troops of the Indian Army's Assam Regiment won the Gold Medal in the exercise.
- The Asian Development Bank (ADB) and the Government of Japan signed financing agreements on 15 October 2026 with AM Green Ammonia (India) Private Limited for a renewable-powered green ammonia plant in Kakinada, Andhra Pradesh. The project will convert a former natural gas-fuelled ammonia and urea plant into a facility producing ammonia using renewable energy.
- Indian social worker Reema Nanavaty received the Hillary Rodham Clinton Award on 15 October 2026 at the Georgetown Institute for Women, Peace and Security in Washington, D.C. Former US Secretary of State Hillary Clinton presented the award, which recognises leaders advancing women's rights and working for peace and security worldwide. Nanavaty is the Director of the Self-Employed Women's Association of India (SEWA).
- Samsung Semiconductor India Research (SSIR) and the Indian Institute of Science (IISc) inaugurated a Quantum Research Lab on 15 October 2026. The facility is located on the IISc campus in Bengaluru and was established with Corporate Social Responsibility support from SSIR. Its work covers quantum technologies and advanced semiconductors.
- On 16 October 2026, India's Aditya-L1 mission and the European Space Agency's (ESA) Proba-3 mission combined observations of solar eruptions. Data from Aditya-L1's Visible Emission Line Coronagraph (VELC) and Proba-3's ASPIICS instrument were used to measure the mass, density and energy of coronal mass ejections (CMEs) near the Sun.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Ethereal Exploration Guild (The Guild), a Bengaluru-based private space technology company, on Friday unveiled The Anchorage, a 150-acre rocket development and testing facility in Space City, about 40 km from the Satish Dhawan Space Centre (SDSC-SHAR) at Sriharikota in Tirupati district. The facility will provide ground infrastructure for the development and testing of Razor Crest Mk 1 (RCM1), the company's fully reusable medium-lift launch vehicle.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

18-10-2026

1. Kailadevi Wildlife Sanctuary:

Context: A new study by WWF-India, in collaboration with the Rajasthan Forest Department, highlights Kailadevi Wildlife Sanctuary as a key stronghold for wildlife conservation and tiger recovery in Rajasthan.

About Kailadevi Wildlife Sanctuary:

- Kailadevi Wildlife Sanctuary is located in Karauli district, Rajasthan, covers approximately 674 sq. km and was established in 1983.
- It forms the northern extension and buffer zone of Ranthambore Tiger Reserve, serving as a wildlife corridor connecting Ranthambore with the Chambal region.
- **Geography:** Characterised by rugged hills, deep gorges called khos and dry deciduous forests, with the Banas River along its western edge and the Chambal River to the southeast.
- **Conservation significance:** The sanctuary is known for community-led forest protection committees called Kulhadi Bandh Panchayats, which prohibit carrying axes into forests to prevent tree felling.
- **Flora:** Dominant tree species include dhok, khair and tendu.
- **Fauna and cultural importance:** Wildlife includes Bengal tigers, leopards, sloth bears, wolves, striped hyenas, nilgai, chinkara, sambar and chital, along with over 200 bird species. The Kaila Devi Temple within the sanctuary is an important pilgrimage site.

2. Glacial Lake Outburst Flood (GLOF):

Context: Recently, the country's first Glacial Lake Outburst Flood (GLOF) early warning system has been installed at Ghepan Ghat glacial lake in Himachal Pradesh's Lahaul and Spiti district.

About Glacial Lake Outburst Flood (GLOF):

- The Glacial Lake Outburst Flood (GLOF) Warning System is installed at Ghepan Ghat glacial lake in Himachal Pradesh to monitor potential glacial lake flood threats.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- It was developed by the Centre for Development of Advanced Computing (C-DAC) under a pilot project funded by the National Disaster Management Authority (NDMA).
- The system comprises three components: a floating buoy in the lake, an automatic weather station on the shore and a glacier vision unit equipped with two cameras.
- The floating buoy monitors changes in lake water and transmits data every 10 minutes under normal conditions and within 30 seconds during emergencies.
- The automatic weather station records 14 environmental parameters, while the two-camera vision unit continuously monitors the lake and its surroundings.
- All three components are interconnected through a supercomputer-based analytical platform for data analysis and hazard monitoring.
- The system enables timely risk assessment, early detection of abnormal lake conditions and improved disaster preparedness by authorities.
- It will strengthen GLOF monitoring in the ecologically sensitive Himalayas, raise public awareness of flood-prone areas and support disaster management planning.

3. National Security Guard (NSG):

Context: The Prime Minister recently extended greetings to personnel of the National Security Guard (NSG) on its Raising Day, lauding their courage, precision, and unwavering commitment to duty.

About National Security Guard (NSG):

- The National Security Guard (NSG) is India's premier specialised counter-terrorism force, popularly known as the Black Cats because of its black combat uniforms and balaclavas.
- It was raised in 1984 following Operation Blue Star and the assassination of Prime Minister Indira Gandhi, and established under the National Security Guard Act, 1986.
- The NSG functions under the administrative control of the Union Ministry of Home Affairs (MHA) and is modelled on the UK's Special Air Service (SAS) and Germany's GSG 9.
- Its motto is "Sarvatra Sarvottama Suraksha", meaning Best Security Everywhere, and its headquarters is in New Delhi.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Its major functions include counter-terrorism, hostage rescue, aircraft and land hijacking response, bomb disposal, post-blast investigation and VIP security.
- The NSG is intended for deployment only in exceptional situations, without replacing the regular functions of State Police Forces or other paramilitary forces.
- It follows a strategy of swift strikes and immediate withdrawal from the operational area; details of its deployments and operations are generally classified.
- The NSG is a two-tier composite force comprising the Special Action Group (SAG) and the Special Ranger Group (SRG).
- The SAG is the offensive assault component, staffed entirely by Indian Army personnel on deputation, while the SRG draws personnel from Central Armed Police Forces and State Police and handles support, perimeter security, VIP protection and logistics.
- The force also has specialised units for bomb disposal, electronic countermeasures and explosive detection, enabling it to respond to complex security threats.
- The National Bomb Data Centre (NBDC) collects, analyses and evaluates information on terrorist bombing incidents and shares relevant intelligence with law-enforcement agencies.

4. Pradhan Mantri Anusuchit Jaati Abhyuday Yojana (PM-AJAY):

Context: The Pradhan Mantri Anusuchit Jaati Abhyuday Yojana (PM-AJAY) has seen 18,093 villages declared Adarsh Grams as of September 8, 2026, reflecting efforts to improve infrastructure, basic services and quality of life in Scheduled Caste-majority villages.

About Pradhan Mantri Anusuchit Jaati Abhyuday Yojana (PM-AJAY):

- Pradhan Mantri Anusuchit Jaati Abhyuday Yojana (PM-AJAY) was launched in FY 2021–22 to promote the socio-economic development of Scheduled Castes (SCs).
- It merged three Centrally Sponsored Schemes: Pradhan Mantri Adarsh Gram Yojana (PMAGY), Special Central Assistance to SC Sub-Plan (SCA to SCSP) and Babu Jagjivan Ram Chhatrawas Yojana (BJRCY).
- It is implemented by the Ministry of Social Justice and Empowerment and is 100% funded by the Central Government; States/UTs may provide additional funds.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The scheme aims to reduce SC poverty through employment generation, skill development, livelihood promotion and income-generating activities.
- It seeks to improve socio-economic indicators by providing essential infrastructure and services in SC-dominated villages.
- It promotes SC literacy and educational enrolment by supporting hostels, residential schools and accommodation in quality educational institutions.
- **Adarsh Gram Development:** Develops SC-majority villages into model villages by addressing critical infrastructure and service gaps.
- **Grants-in-Aid:** Supports socio-economic projects, village infrastructure, hostels, residential schools, livelihood initiatives, skill development and assistance for loans used to create livelihood assets.
- **Implementation:** States/UTs submit Annual Action Plans (AAPs) through the PM-AJAY portal. Planning and project approval are decentralised at State and district levels.
- **Eligibility:** SC persons below the poverty line are eligible for specified livelihood and skill-development benefits; villages with 50% or more SC population are eligible for infrastructure grants.

5. Kigali Amendment to the Montreal Protocol:

Context: The Kigali Amendment to the Montreal Protocol marked its 10th anniversary on October 15, 2026, putting renewed focus on global commitments to curb potent hydrofluorocarbons (HFCs) to avert up to 0.5°C of warming by 2100.

About Kigali Amendment to the Montreal Protocol:

- **Kigali Amendment:** Legally binding amendment to the 1987 Montreal Protocol to phase down HFCs used in refrigeration and air conditioning.
- **Administration:** UNEP Ozone Secretariat, supported by the Multilateral Fund.
- **Background:** HFCs replaced ozone-depleting CFCs but are potent greenhouse gases with high global warming potential.
- **Adoption:** Adopted on 15 October 2016 in Kigali, Rwanda; entered into force on 1 January 2019.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Objective:** Reduce HFC production and consumption by over 80%, potentially avoiding 0.3–0.5°C of global warming by 2100.
- **Differentiated schedules:** Developed and developing countries follow different phase-down timelines; complete elimination is not mandated.
- **India's targets:** Ratified in 2021; freeze HFC levels in 2028, reduce by 10% by 2032 and by 85% by 2047.

Montreal Protocol:

- **Montreal Protocol:** Landmark international environmental treaty regulating the production and consumption of nearly 100 ozone-depleting substances (ODS).
- **Purpose:** Protects the stratospheric ozone layer, which shields Earth from harmful ultraviolet (UV) radiation.
- **Adoption:** Adopted on 16 September 1987 under the Vienna Convention; it has achieved universal ratification.
- **Key provisions:** Phases out ODS in stages, with different timelines for developed and developing countries (Article 5 countries).
- **Country obligations:** Binding, measurable targets; control of ODS trade; annual data reporting; and licensing systems for imports and exports.
- **Governance:** The Meeting of the Parties is the decision-making body, supported by the Open-ended Working Group and the UNEP Ozone Secretariat, headquartered in Nairobi, Kenya.

Quick Bites:

- Murud-Janjira Fort is a historic island fort located off the coastal village of Murud in Maharashtra's Raigad district. Surrounded by the Arabian Sea on all sides, it is considered one of India's strongest marine forts. Its history dates back to the 15th century, when the Siddis, rulers of African origin who settled in India centuries ago, established a powerful naval base along Maharashtra's western coast. The fort, temporarily closed during the monsoon for safety and cleaning work, has recently reopened to visitors.
- The spot-bellied eagle-owl (Ketupa nipalensis), also known as the forest eagle-owl, is a large bird of prey known for its distinctive appearance and elusive nature. It has been documented for the first time in

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Kozhikode, Kerala, marking a significant ornithological milestone. It closely resembles the barred eagle-owl, but the two species inhabit different geographical areas.

- ❖ Pakistan was designated incoming Chair of the Boards of Governors of the World Bank Group (WBG) and the International Monetary Fund (IMF) for 2027 on 16 October 2026. The announcement was made during the plenary session of the 2026 WBG-IMF Annual Meetings in Bangkok, Thailand.
- ❖ Acid mine drainage (AMD) is acidic, metal-rich water produced when sulfide minerals exposed by mining react with oxygen and water. It can contaminate surface water, groundwater and soils, harm ecosystems and pose risks to human health. Prevention limits this exposure; treatment removes acidity and dissolved contaminants.
- ❖ Researchers have developed an AI tool called MonoRace to pilot a racing drone. MonoRace uses one standard camera and a basic motion sensor. It processes information on the drone itself using a lightweight neural network and directly controls the motors, allowing lightning-quick responses and speeds of up to 100 km/hr. MonoRace won the 2025 Abu Dhabi Autonomous Drone Racing Competition, beating three human world champions.
- ❖ The Supreme Court has held that children, like any other individual, have a fundamental right to access and use the Internet. “We have no hesitation in saying that the right to access and use the Internet is a fundamental right of every individual under Article 21 read with Article 19(1)(a) of the Constitution. Our children, irrespective of their age, enjoy the same rights, and to deny the same altogether would be absurd,” a Bench of Justices J.B. Pardiwala and Vinod K. Chandran held in an order. The court said denying children this right would be akin to saying that individuals below a certain age did not have a conscience worth protecting or freedom of speech worth expressing.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

19-10-2026

1. Purple Potato:

Context: One important outcome of biofortification research in India has been the development of coloured potato varieties with enhanced nutritional value. These include red, purple, and blue-fleshed potatoes. These potatoes contain natural pigments, such as anthocyanins and carotenoids, which give them their distinctive colours. Coloured potatoes are rich in antioxidants and micronutrients such as iron and zinc.

More details:

- **Kufri Jamunia:** Biofortified purple potato variety developed by ICAR–Central Potato Research Institute (CPRI), officially released in 2024.
- **Distinctive features:** Dark purple skin and flesh, oblong tubers, shallow eyes and mealy texture; medium-maturing variety producing 10–12 tubers per plant.
- **Yield:** 32–35 tonnes/hectare under recommended practices; station trials recorded around 49 tonnes/hectare at 90 days.
- **Anthocyanins:** 42.05 mg/100 g in flesh and 80.66 mg/100 g in skin, contributing to its purple colour and antioxidant properties.
- **Other nutrients:** Contains vitamin C (42.75 mg/100 g), carotenoids (161 µg/100 g), zinc (22.77 ppm) and iron (32.23 ppm) in specified plant tissues.
- **Nutritional advantage:** Compared with conventional potatoes, it has higher levels of vitamin C, anthocyanins, carotenoids, zinc and iron.
- **Storage quality:** Medium dormancy of 6–8 weeks, low rottage and minimal weight loss, supporting better storage.
- **Culinary uses:** Suitable for curries, parathas, snacks, breakfast preparations, bakery products, soups and potato flour.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Cultivation suitability:** Recommended for the North Indian plains, based on stable performance in multi-location trials.
- **Other coloured varieties:** Kufri Neelkanth (2018) is the first purple-skinned specialty potato developed by ICAR-CPRI; Kufri Manik (2021) has deep-red skin and yellow flesh and is rich in anthocyanins, zinc and iron.

2. Martian Moons eXploration (MMX) mission:

Context: Japan is preparing to launch an ambitious Martian Moons eXploration (MMX) mission to one of Mars' mysterious moons, Phobos, by using Japan's H3 rocket.

About Martian Moons eXploration (MMX) mission:

- Martian Moons eXploration (MMX) is a mission by the Japan Aerospace Exploration Agency (JAXA) to investigate Mars' moons, Phobos and Deimos.
- **Objectives:** Study the moons' origins, evolution, topography, internal structure, composition and gravity, with primary focus on Phobos.
- **Sample return:** Aims to collect at least 10 grams of material from Phobos and return it to Earth in 2031.
- **Timeline and launch:** Planned to launch aboard Japan's H3 rocket from Tanegashima Space Center, reach the Martian system in 2027 and return samples in 2031.
- **Rover:** A small rover developed jointly by Germany's DLR and France's CNES will explore the surface of Phobos.
- **NASA contribution:** Provides the MEGANE instrument to analyse elemental composition and a pneumatic sampler that uses high-pressure nitrogen gas to collect surface particles.

3. Financial Services Institutions Bureau:

Context: Recently, the government reconstituted the Financial Services Institutions Bureau.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Financial Services Institutions Bureau:

- Financial Services Institutions Bureau (FSIB) is an autonomous body under the Department of Financial Services (DFS), Ministry of Finance, Government of India.
- **Predecessor:** It replaced the erstwhile Banks Board Bureau (BBB) in July 2022.
- **Chairman:** Headed by a Chairman nominated by the Central Government.
- **Composition:** Includes the DFS Secretary, IRDAI Chairman, an RBI Deputy Governor, three part-time banking experts and three insurance-sector experts.
- **Appointments:** Recommends candidates for whole-time director (WTD) and non-executive chairperson (NEC) positions in Public Sector Banks (PSBs), financial institutions (FIs) and Public Sector Insurers (PSIs).
- **Service matters:** Advises the Government on appointments, transfers, tenure extensions and termination of directors.
- **Governance and performance:** Recommends board-level management structures, performance appraisal systems, codes of conduct and ethics.
- **Capacity building:** Advises on training and development programmes and helps PSBs, FIs and PSIs formulate business strategies and capital-raising plans.

4. Brihadiswara Temple:

Context: The Archaeological Survey of India (ASI) recently launched conservation works on the upper rampart of Brihadiswara Temple in Thanjavur.

About Brihadiswara Temple:

- Brihadiswara Temple is a Hindu temple dedicated to Lord Shiva, located in Thanjavur, Tamil Nadu.
- **Other names:** Also known as Periya Kovil, RajaRajeswara Temple and Rajarajesvaram.
- **Construction:** Built by Chola emperor Rajaraja I between 1003 and 1010 CE.
- **Architectural style:** A masterpiece of Dravidian architecture, featuring pyramid-shaped towers, pillared halls, enclosed courtyards and sculpted walls.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **UNESCO World Heritage Site:** Part of the Great Living Chola Temples, along with Gangaikonda Cholapuram Temple and Airavatesvara Temple.
- **Construction material:** The temple is built entirely of granite, reportedly without mortar, and the complex covers over 40 acres.
- **Vimana:** The central tower is approximately 66 metres high and remains taller than the entrance gopurams, distinguishing it from many later Tamil temples.
- **Kumbam:** The apex structure atop the vimana is carved from a single rock and weighs approximately 80 tonnes.
- **Nandi statue:** A large sacred-bull statue, carved from a single rock, measures about 4.9 metres long and 4 metres high.
- **Temple complex:** Two concentric rectangular enclosures (prakarams) with massive walls surround the temple; ornate gateways called gopurams provide access. Fortified walls were probably added in the 16th century.

5. Exercise Akhand Prahar-II:

Context: The Indian Army, in a bid to strengthen combat readiness, recently conducted Exercise Akhand Prahar-II at Jaisalmer in the desert region of Rajasthan.

About Exercise Akhand Prahar-II:

- Exercise Akhand Prahar-II is a military exercise conducted by the Indian Army at Jaisalmer, Rajasthan.
- It was jointly conducted by the Army's Black Mace Brigade and Battle Axe Division in the desert region.
- It followed the success of Akhand Prahar-I, which demonstrated the Army's combat capability and operational readiness.
- The exercise focused on integrating New Generation Equipment (NGEs) and Force Multipliers (FMs) to enhance operational effectiveness.
- It tested integrated battle drills in a multi-domain operational environment, improving coordination among combat elements.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The exercise emphasised technological advancement, battlefield adaptability, precision and preparedness for the evolving challenges of modern warfare.

Quick Bites:

❖ The YJ-21 (Eagle Strike 21) is a Chinese hypersonic anti-ship ballistic missile designed to target high-value naval assets, particularly aircraft carriers. It entered service in 2022 and uses a solid-fuel, two-stage propulsion system. It can exceed Mach 6 during midcourse flight and reach terminal speeds of up to Mach 10. Initially deployed on naval platforms, its bomber-launched variant was revealed in May 2024. Chinese state media recently released footage showing its launch from a People's Liberation Army H-6K bomber for the first time, extending its potential operational reach.

❖ Thwaites Glacier, known as the "Doomsday Glacier," is a large, fast-flowing glacier in West Antarctica along the Amundsen Sea. Covering approximately 192,000 sq. km, it is comparable in size to Florida. A recent study suggests that its contribution to global sea-level rise could reach 3 cm by 2100, twice the amount estimated earlier. Its rapid ice loss poses a major concern for future sea-level rise and coastal communities worldwide.

❖ The Kamchatka Peninsula is located in far eastern Russia, between the Sea of Okhotsk to the west and the Pacific Ocean and Bering Sea to the east. It lies along the Pacific Ring of Fire, making it highly prone to earthquakes and volcanic activity. Known as the "land of fire and ice," it contains over 150 volcanoes, including 29 active ones, and is one of the world's most geothermally active regions. Its Volcanoes of Kamchatka is a UNESCO World Heritage Site.

❖ State-run oil marketing companies have barred ethanol made from sugar cane juice, sugar syrup and B-heavy molasses from their latest procurement tender for the 2026-27 supply year for blending in petrol, as the government seeks to protect domestic sugar supplies while sustaining its nationwide petrol-blending programme.

❖ Vasuki indicus is an extinct prehistoric snake whose fossils were discovered in 2005 at the Panandhro Lignite Mine in Kutch district, Gujarat, and formally identified as a new genus in 2024. Named after Vasuki, the mythical serpent associated with Lord Shiva, it belonged to the extinct Madtsoiidae family of

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

large, non-venomous constrictor snakes. Its estimated enormous size suggests that it may have rivalled the largest snakes known to have existed.

- The Port of Constanța is a major Romanian seaport located on the Black Sea. It is the only seaport directly connected to the Danube River through the Danube–Black Sea Canal, making it an important maritime and inland transport hub. The port facilitates trade for landlocked countries in Central, Eastern and South-Eastern Europe by linking them to international shipping routes. Recently, a chemical tanker carrying nine Indian seafarers, reportedly hit by a drone off Romania, reached the port safely.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

20-10-2026

1. International Organisation of Legal Metrology:

Context: India will host the 61st Meeting of the International Committee of Legal Metrology (CIML) for the first time from 26 to 28 October 2026 in New Delhi. The meeting is being organised by the Department of Consumer Affairs, Government of India, in association with the International Organization of Legal Metrology (OIML).

About International Organisation of Legal Metrology:

- The International Organisation of Legal Metrology is an international standard-setting body established in 1955, headquartered in Paris, France.
- **Membership:** India became a member in 1956 and signed the Metric Convention in the same year.
- **Functions:** Develops model regulations, standards and guidelines to harmonise national laws on legal metrology and measuring instruments.
- **Applications:** Its standards cover clinical thermometers, alcohol breath analysers, radar speed-measuring instruments, ship tanks and petrol dispensing units.
- **OIML Certificate:** A system for issuing, registering and using certificates and associated type evaluation/test reports for measuring instruments.
- **Global recognition:** With India's inclusion, the number of countries authorised to issue OIML certificates increased to 13.
- **Benefits for India:** Domestic manufacturers can export weighing and measuring instruments more easily, reducing duplicate testing requirements and associated costs.

2. Barak River:

Context: Two Bangladeshi nationals were arrested after allegedly jumping into the Barak River to evade police during an operation in Assam's Cachar district recently, with two police personnel reportedly injured in the process.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Barak River:

- The Barak is a transboundary river flowing through India and Bangladesh and is the second-largest river in Northeast India after the Brahmaputra.
- **Origin and course:** It rises in the Manipur hills, south of Mao in Senapati district, flows through Manipur and Assam, and enters Bangladesh.
- **Length:** The river is approximately 900 km long, of which about 524 km lies in India.
- **Course in Bangladesh:** It divides into the Surma and Kushiyara rivers, which eventually form the Meghna River and drain into the Bay of Bengal.
- **National Waterway:** The 121-km stretch between Lakhipur and Bhanga in Assam is designated National Waterway 16 (NW-16).
- **Basin:** The Barak basin extends across India, Bangladesh and Myanmar. In India, it covers Meghalaya, Manipur, Mizoram, Assam, Tripura and Nagaland.
- **Geographical features:** The basin is bounded by the Barail Range to the north and the Naga, Lushai and Mizo hills in other directions. Forests cover much of the basin, while terrace farming is common due to hilly terrain.
- **Barak Valley:** Located in southern Assam, it comprises Cachar, Hailakandi and Karimganj districts and is home to diverse tribal, linguistic and Bengali-speaking communities.
- **Tributaries and dams:** Major tributaries include Jiri, Jatinga, Dhaleswari, Longai, Sonai and Katakhal. Important dams listed in the supplied text include Khoupum, Mawphlang, Gumti Hydro and Myntdu-Leshka.

3. Valley of Flowers national park:

Context: Recently, Uttarakhand officials reviewed proposed eco-sensitive zones around Rajaji and Valley of Flowers national parks.

About Valley of Flowers national park:

- Valley of Flowers National Park is located in Uttarakhand and is a UNESCO World Heritage Site.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Biosphere Reserve: It forms one of the two core zones of the Nanda Devi Biosphere Reserve, the other being Nanda Devi National Park.
- **Geographical** features: Its gentle alpine landscape complements the rugged mountain wilderness of Nanda Devi National Park, together forming a transition zone between the Zanskar and Great Himalayan ranges.
- **Flora:** Famous for alpine meadows and rich biodiversity, it contains over 600 species of flowering plants, including orchids, poppies, primulas, marigolds, daisies and anemones.
- **Vegetation:** Sub-alpine forests of birch and rhododendron cover parts of the park.
- **Fauna:** Wildlife includes the grey langur, flying squirrel, Himalayan weasel, black bear, red fox, lime butterfly and snow leopard.

4. Space Docking Experiment (SpaDeX) satellites:

Context: The Indian Space Research Organisation's (ISRO) Space Docking Experiment (SpaDeX) satellites, SDX01 and SDX02, re-entered Earth's atmosphere on 12 October 2026 in UTC, about seven hours apart. Their re-entry marked the end of a mission lasting nearly 21 months.

About Space Docking Experiment (SpaDeX) satellites:

- SpaDeX (Space Docking Experiment) is an ISRO technology demonstration mission to validate the docking and undocking of two small satellites in low-Earth orbit.
- **Satellites:** The mission involved two satellites weighing around 220 kg each — SDX01 (Chaser) and SDX02 (Target).
- **Launch and orbit:** The satellites were launched aboard PSLV-C60 into a 460 km circular orbit inclined at 45°.
- **Primary objective:** Demonstrate spacecraft rendezvous, docking and undocking in orbit.
- **Secondary objectives:** Demonstrate electrical power transfer between docked spacecraft and validate composite spacecraft control systems.
- **Payload operations:** Test payload operations after undocking, supporting the development of technologies for future deep-space missions.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Significance:** With successful satellite docking, India became the fourth country, after the United States, Russia and China, to achieve this capability.

5. Cheer pheasant:

Context: Himachal Pradesh's Cheer pheasant conservation programme recorded a rise in the survival rate of released birds from 11.11% in 2019–20 to 100% in 2024–25. During Wildlife Week in October 2026, 12 captive-bred birds were soft-released near Koti in Shimla district.

About Cheer pheasant:

- Cheer Pheasant: Also known as Wallich's pheasant or chir pheasant, it belongs to the pheasant family, Phasianidae.
- Habitat: Inhabits steep, rocky hillsides with scrub, stunted trees and grassy slopes at elevations of 1,200–3,350 metres.
- **Distribution:** Found in the Western Himalayas, from northern Pakistan through Kashmir, Himachal Pradesh and Uttarakhand to central Nepal.
- **Nesting and behaviour:** Builds simple ground-scrape nests under vegetation or rocks and exhibits high natal philopatry, returning to or remaining near its birthplace to breed.
- **Food and habitat dependence:** Feeds on roots, tubers, bulbs, buried seeds, insect larvae and earthworms; depends on early-successional grasslands maintained by traditional grass cutting and burning.
- **Conservation status:** IUCN – Vulnerable; CITES – Appendix I; Wildlife (Protection) Act, 1972 – Schedule I.

6. Sirpur archaeological site:

Context: Sirpur, an archaeological site boasting of remains belonging to multiple religious traditions – Hinduism, Buddhism, and Jainism – and dating back from the 5th century up to the 12th century CE, has made it to the UNESCO's tentative list.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Sirpur archaeological site:

- Sirpur Archaeological Site is located in Mahasamund district, Chhattisgarh, on the banks of the Mahanadi River; it dates from the 5th to 12th centuries CE.
- **Historical Significance:** It flourished as the capital of Dakshina Kosala under the Panduvanshi and later Somavamshi rulers.
- **Discovery:** The site was documented by Alexander Cunningham in the 19th century; the supplied source mentions 1882 and 1871, so the exact discovery date requires verification.
- **Religious Diversity:** Excavations revealed 22 Shiva temples, five Vishnu temples, 10 Buddhist viharas and three Jain viharas, establishing Sirpur as a multi-religious centre.
- **Important Structures:** The 7th-century Lakshmana Temple is a notable brick temple dedicated to Vishnu; Surang Tila features a raised terrace and panchayatana shrine arrangement, while Tivaradeva Mahavihara contains a significant Buddha statue.
- **Buddhist and Commercial Centre:** Sirpur was an important Buddhist centre with viharas, meditation halls and stupas; a 6th-century market complex indicates its role in trade and commerce.

Quick Bites:

- The Curtain Raiser Press Conference for the fifth edition of the Indian Navy's flagship Naval Innovation and Indigenisation Seminar, Swavlamban 2026, was conducted in New Delhi on 19 Oct 2026 under the chairmanship of VAdm Ajay Kochhar, Vice Chief of the Naval Staff (VCNS).
- American lantana, scientifically known as Lantana camara, is an invasive shrub that has spread through forest ecosystems in India. As of October 2026, one estimate places its spread at more than 13 million hectares. The plant was introduced to India as a garden shrub in the 19th century.
- AdaniConneX, a joint venture between Adani Enterprises and EdgeConneX, and Google are developing data-centre campuses with an approximate combined capacity of 1 gigawatt (GW) in Visakhapatnam, Andhra Pradesh. The campuses at Mudasarlova and Tarluvada are designed to use air-cooling technology rather than conventional water-based evaporative cooling. The project is Google's largest investment in India, valued at US$15 billion.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The Central Industrial Security Force (CISF) will introduce an organisational restructuring on 1 November 2026. Approved by the Ministry of Home Affairs (MHA), the change replaces territorial supervision with a domain-based, sector-specific command structure for security oversight of critical infrastructure and strategic establishments.
- India repatriated a rescued Sumatran baby orangutan to Indonesia on 19 October 2026. Rescued in India in November 2024, the animal received veterinary care and appropriate habitat facilities from Indian wildlife authorities before its return from Gujarat. The operation involved wildlife protection agencies and the CITES Management Authorities of both countries.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

21-10-2026

1. UDAN (Ude Desh ka Aam Nagrik):

Context: As UDAN completes ten years, it has expanded regional air connectivity and improved access to air travel for citizens by connecting unserved and underserved airports.

About UDAN (Ude Desh ka Aam Nagrik):

- Regional Connectivity Scheme (RCS), also known as UDAN (Ude Desh ka Aam Nagrik), was launched on 21 October 2016.
- The scheme anchors its ambition on a simple yet transformative premise: making affordable yet economically viable and profitable air travel on regional routes.
- UDAN entered its operational stage with the inauguration of the first RCS-UDAN flight from Shimla to Delhi in April 2017. Since then, the scheme has expanded regional air connectivity.
- The UDAN (Ude Desh ka Aam Nagrik) Scheme was launched in October 2016 under the Regional Connectivity Scheme (RCS) to improve regional air connectivity.
- **Objectives:** To connect Tier-2 & Tier-3 cities, make air travel affordable, promote balanced regional development, and utilize underused airports.
- **Key Features:** Airlines are selected through competitive bidding, with Viability Gap Funding (VGF) to operate commercially unviable routes.
- **Affordable Airfare:** Around 50% of seats on UDAN flights are offered at a capped fare of about ₹2,500 per hour of flight.
- **Focus Areas:** Prioritizes connectivity to remote, hilly, tribal, island, underserved, and unserved regions.
- Initially financed through the Regional Connectivity Scheme (RCS) levy collected from flights on major routes to subsidize regional operations.
- **Achievements (till 2026):** Operationalised 669 routes, connected 95 airports, heliports, and water aerodromes, benefiting over 1.66 crore passengers.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Modified UDAN (2026):** Approved by the Union Cabinet on 25 March 2026 with an outlay of about ₹29,000 crore for the next 10 years to promote aviation-led development under Viksit Bharat 2047.
- **Infrastructure Expansion:** Aims to develop 100 aerodromes from unserved airstrips (₹12,159 crore), 200 modern helipads (₹3,661 crore), and provide ₹2,577 crore for airport Operations & Maintenance.
- **Regional Aviation Support:** Continues Viability Gap Funding (₹10,043 crore) and promotes indigenous aircraft and helicopters (e.g., HAL Dhruv and Dornier) under Atmanirbhar Bharat for connectivity in remote regions.

2. Agri Welfare Portal:

Context: Recently, the Union Agriculture and Farmers' Welfare Minister launched the upgraded Agri Welfare Portal.

About Agri Welfare Portal:

- The Agri Welfare Portal aims to provide farmers with easy mobile access to government schemes, financial assistance and reliable agricultural information.
- **Scheme Integration:** It brings initiatives such as PM-KISAN, AgriStack and Pradhan Mantri Fasal Bima Yojana onto a common digital platform, with eligibility checks and online application facilities.
- **Agricultural Information:** Provides updates on weather, scientific farming practices, seeds, fertilisers and market prices of agricultural produce.
- **Accessibility:** Designed for basic smartphones and weak internet connectivity, with simplified navigation and screen-reader support for persons with disabilities.
- **Farmer Assistance:** Training through Krishi Vigyan Kendras (KVKs) is planned to help farmers use the portal and other digital tools.
- **Stakeholder Integration:** Seeks to connect Farmer Producer Organisations (FPOs), Primary Agricultural Credit Societies (PACS), scientists, researchers and start-ups.
- **Transparency and DBT:** Promotes direct access to schemes and transfer of financial assistance through Direct Benefit Transfer (DBT), reducing intermediaries and improving transparency.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

3. Bud Rot Disease:

Context: Coconut growers of Tiptur taluk, Tumakuru district, Karnataka, are worried as coconut trees are increasingly affected by Bud Rot Disease causing their crowns to break and fall off.

About Bud Rot Disease:

- Coconut bud rot is a fatal disease caused by the fungus Phytophthora palmivora, which attacks the growing point and surrounding tissues of coconut palms.
- **Susceptibility:** It affects palms of all ages, but young palms are more vulnerable; once the growing point is destroyed, recovery is not possible.
- **Favourable conditions:** The disease becomes severe during the monsoon due to high relative humidity and is often observed along riverbanks prone to flooding.
- **Seasonal pattern:** Infection becomes less severe in dry weather, while the fungus may remain dormant in the leaf base.
- **Symptoms in seedlings:** Yellowing of young leaves, rapid rotting of leaf bases, easy removal of affected leaves, and withering and falling of the spindle leaf.
- **Advanced symptoms:** The crown tissues decay into a slimy, foul-smelling mass, eventually causing the crown to collapse and the palm to die.
- **Symptoms in adult palms:** The spear leaf turns pale, breaks at the base and hangs down; rotting progresses towards the meristem, accompanied by drooping of successive leaves.
- **Management:** Detect the disease early, remove rotted tissues, apply Bordeaux paste or a recommended fungicide to the affected bud and wound, and spray neighbouring palms preventively before and during the wet season.

4. Indian Cyber Crime Coordination Centre (I4C):

Context: The Indian Cyber Crime Coordination Centre (I4C) recently warned of a rise in financial fraud involving deceptive advertisements that use manipulated videos of the Prime Minister, the finance minister, and chief ministers to promote fake government welfare schemes.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Indian Cyber Crime Coordination Centre (I4C):

- Indian Cybercrime Coordination Centre (I4C) is established under the Ministry of Home Affairs (MHA) as the national-level nodal centre for combating cybercrime.
- **Launch:** It was dedicated to the nation on 10 January 2020 and is headquartered in New Delhi.
- **Coordination:** Provides a framework for law enforcement agencies (LEAs) to tackle cybercrime in a coordinated and comprehensive manner.
- **Stakeholder collaboration:** Brings together government, law enforcement, academia, industry and the public to prevent, detect, investigate and prosecute cybercrimes.
- **Protection of vulnerable groups:** Strengthens action against cybercrimes targeting women and children.
- **Complaint and trend analysis:** Facilitates easy filing of cybercrime complaints and identification of emerging trends and patterns.
- **Prevention and awareness:** Acts as an early-warning system for law enforcement agencies and promotes public awareness of cybercrime prevention.

5. Aditya-L1 satellite:

Context: Scientists have generated Doppler velocity images of activities taking place in the solar corona using data obtained with the Visible Emission Line Coronagraph (VELC) payload onboard India's maiden solar mission, Aditya-L1. The Aditya-L1 satellite generates Doppler velocity images of the solar corona, and these images are expected to provide information on the propagation of coronal mass ejections (CMEs) along the Sun-Earth direction, which has been unavailable to date.

About Aditya-L1 satellite:

- It is India's first space-based solar mission to study the Sun. It was launched on September 2, 2023.
- It was launched into a halo orbit around the Sun-Earth Lagrange point 1 (L1).
- Aditya-L1 would provide an uninterrupted view of the Sun for prolonged periods.
- Aditya-L1 launched using a PSLV XL launch vehicle.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- It aims to establish a solar observatory at a halo orbit around the L1 lagrangian point of the Sun-Earth system.
- It carries seven payloads to examine the Sun's properties using visible and X-ray spectrometers.
- This multi-wavelength observation capacity will probe the Sun's corona, the chromosphere, the photosphere, flares and coronal mass ejections.

Quick Bites:

- ❖ WWF-India's Programme Centre – Resource Partner (PC-RP), supported by Union Ministry of Environment, Forest and Climate Change, has launched a nationwide Green Diwali Campaign from 20.10.2026 to 08.11.2026, urging citizens to avoid firecrackers and celebrate a clean and green Diwali in line with Mission LiFE (Lifestyle for Environment).
- ❖ The Nine Days Shilp Samagam Mela 2026 successfully concluded with thousands of people visiting Dasara Exhibition Grounds at Mysuru in Karnataka. The Mela was organized by the Ministry of Social Justice and Empowerment, Government of India. The Mela aimed to provide a marketing platform for traditional handicraft and handloom products made by beneficiaries from Scheduled Castes, Other Backward Classes and Safai Karamcharis.
- ❖ The Rajmargyatra app, developed by the National Highways Authority of India (NHAI), is a citizen-centric mobile application providing information on National Highways and an efficient complaint redressal system. NHAI recently introduced the 'Toll Plaza Feedback' feature, enabling users to rate their toll plaza experience, report issues and suggest improvements. The app is available in English, Hindi and more than 13 regional languages.
- ❖ Exercise AUSTRAHIND 2026 is the 5th edition of the annual joint military exercise between the Indian and Australian armies, conducted at the Foreign Training Node, Thiruvananthapuram, Kerala. It aims to enhance interoperability, jointmanship and operational coordination, with the theme "Joint Sub-Conventional Operations in Island and Coastal Environment under Chapter VII of the UN Mandate."
- ❖ Osteoporosis is a disease in which bones lose density and mass, making them weak, porous and more prone to fractures. Under a microscope, affected bones show enlarged spaces in their honeycomb-like structure compared with healthy bones. Although commonly associated with ageing and postmenopausal women, it

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

is increasingly being observed among younger adults. Fractures most commonly affect the hip, vertebrae of the spine and wrist.

- A.P. Moller – Maersk plans to drydock its Singapore-flagged container vessel Maersk Chattogram at Larsen & Toubro's Kattupalli Shipyard near Chennai in October 2026. The vessel is expected to arrive on 20 October, subject to operational and weather conditions. This will be Maersk's first planned drydocking in India.
- India will host the first Shanghai Cooperation Organisation (SCO) Civilisational Dialogue Forum by the end of 2026. Union Defence Minister Rajnath Singh announced the plan on 20 October 2026 at the SCO Council of Heads of Government meeting in Dushanbe, Tajikistan, and invited all member countries to participate. Prime Minister Narendra Modi proposed creating the forum at the SCO summit in Tianjin in 2025. Its stated aims include strengthening people-to-people ties and sharing the heritage of ancient civilisations, art, literature and traditions.
- In a significant development concerning Chinese investment in Sri Lanka, state-owned China Merchants Port Holdings has withdrawn from a $392 million joint venture for a logistics hub at the Colombo port. In 2023, China Merchants Group announced its decision to invest in the proposed South Asia Commercial and Logistics Hub (SACLH) at the Colombo port, taking its cumulative investment in the island nation to $2 billion.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

22-10-2026

1. Lalit Kala Akademi awards:

Context: The President of India, Smt Droupadi Murmu presented Lalit Kala Akademi awards to selected artists of the 65th National Exhibition of Art in New Delhi today (October 21, 2026). She also felicitated

About Lalit Kala Akademi awards:

- **Establishment:** Inaugurated on 5 August 1954 by the then Education Minister, Maulana Abul Kalam Azad.
- **Legal Status:** Granted statutory authority status in 1957 under the Societies Registration Act, 1860.
- **Headquarters and Regional Centres:** Headquartered in New Delhi, with regional centres in Chennai, Lucknow, Kolkata, Bhubaneswar and Garhi.
- **Nodal Ministry:** Functions under the Ministry of Culture, Government of India.
- **Governance:** Operates through its General Council, Executive Board and other committees.
- **Promotion of Visual Arts:** Organises national and international exhibitions, artists' camps, workshops, scholarships, publications, research and cultural exchange programmes.
- **Preservation and International Outreach:** Preserves and documents contemporary, modern, folk and tribal art, while promoting Indian visual arts internationally through cultural agreements and exchange programmes.
- **National Exhibition of Art:** Its most prestigious annual event, providing a major platform for artists and strengthening India's visual arts ecosystem.

2. Nanjarayan Bird Sanctuary:

Context: Recently, it was observed that even after more than four years of notification, Nanjarayan Bird Sanctuary is yet to get through transformation befitting Ramsar Site.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Nanjarayan Bird Sanctuary:

- **Location:** A large, shallow wetland in the north-eastern part of Uthukuli Taluk, Tiruppur district, Tamil Nadu.
- **Historical Significance:** The lake was repaired and restored by King Nanjarayan, who ruled the region centuries ago.
- **Water Source:** Centred on a freshwater lake fed by the Nallar River, a tributary of the Noyyal River flowing through Tiruppur.
- **Conservation Status:** It is Tamil Nadu's 17th bird sanctuary and a Ramsar site of international importance.
- **Ecological Significance:** Located along the Central Asian Flyway, it serves as an important breeding and foraging habitat for resident and migratory birds.
- **Biodiversity:** The lake and its surroundings support around 191 bird species, 87 butterfly species, 7 amphibian species, 21 reptile species, 11 small mammal species and 77 plant species.

3. Kharg Island:

Context: Trump is reportedly considering strikes on Iran's strategic Kharg Island oil hub to pressure Tehran over its nuclear programme and the Strait of Hormuz, although the claims remain unconfirmed.

About Kharg Island:

- **Location:** Kharg is a small coral island in the northern Persian Gulf, about 30 km from the Iranian mainland and close to the Strait of Hormuz. It covers 25 sq. km.
- **Physical Features:** The island is 8 km long and 4.5 km wide. Its highest point is Mount Didehban (87 m), and it possesses natural freshwater resources.
- **Oil Discovery:** The discovery of offshore oil fields in the early 1960s led to the development of major petroleum and petrochemical facilities.
- **Oil Export Terminal:** Pipelines connect Kharg to offshore oil fields and the oil fields of Khuzistan province. By the early 1970s, it had become Iran's largest oil-loading terminal.
- **Strategic Advantage:** Despite its proximity to the mainland, the deep surrounding waters allow large oil tankers to dock.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **War Damage:** During the Iran–Iraq War (1980–1988), repeated bombing severely damaged its oil facilities, which were reconstructed in the early 1990s.
- **Oil Export Capacity:** Kharg handles up to 90% of Iran's oil exports, has a storage capacity of 28 million barrels, and can load Very Large Crude Carriers (VLCCs) and Ultra Large Crude Carriers (ULCCs). It can reportedly load up to 7 million barrels per day and accommodate 10 supertankers simultaneously.
- **Strategic Significance:** Its proximity to the Strait of Hormuz, a major global oil transit route, makes Kharg vital to Iran's economy and global energy security.

4. Baltic Sea:

Context: The Nordic Council Committee for a Sustainable Nordic Region announced a new initiative to combat pollution and to protect the marine environment of the Baltic Sea.

About Baltic Sea:

- **Location:** The Baltic Sea is a semi-enclosed inland sea of the Atlantic Ocean in Northern Europe and is often considered the world's largest brackish inland water body.
- **Origin:** It is one of the youngest seas on Earth, formed around 10,000–15,000 years ago as glaciers retreated at the end of the last Ice Age.
- **Surrounding Countries:** It is bordered by Sweden, Poland, Lithuania, Latvia, Finland, Estonia, Germany, Denmark, and Russia.
- **Branches and Basins:** Major sections include the Gulf of Bothnia, Gulf of Finland, Gulf of Riga, and Baltic Proper. The Danish straits, including Kattegat and Skagerrak, connect it to the North Sea.
- **Salinity and Islands:** Its salinity is lower than that of the oceans due to freshwater inflow from surrounding land and limited water exchange. Gotland, off Sweden's coast, is its largest island.
- **Environmental Issues:** Harmful algal blooms are a major environmental concern, affecting marine ecosystems and water quality.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. Asian Para Games 2026:

Context: The 5th edition of the Asian Para Games 2026 commenced in Aichi Prefecture and Nagoya, Japan, running from October 18 to 24, 2026. Featuring athletes from across the continent competing under the motto Imagine One Heart.

About Asian Para Games 2026:

- The Asian Para Games is a continental multi-sport event held every four years for Asian athletes with physical, visual and intellectual disabilities.
- **Organiser:** It is governed by the Asian Paralympic Committee (APC), recognised by the International Paralympic Committee (IPC), and is the world's second-largest multi-sport para-sport event after the Paralympic Games.
- **Host of 2026 Edition:** The 2026 Asian Para Games will be co-hosted by Aichi Prefecture and Nagoya City, Japan.
- **Mascot:** Uzumin is a blue, water-themed mascot inspired by Aichi's rivers and Japan's mythical Shachihoko, symbolising energy, unity and sporting enthusiasm.
- **History:** The event evolved from the Far East and South Pacific Games for the Disabled (FESPIC), first held in Oita, Japan, in 1975. After nine editions, the FESPIC Federation merged with the Asian Paralympic Council, leading to the formation of the APC.
- **Modern Editions:** The first Asian Para Games were held in Guangzhou, China, in 2010, followed by Incheon (2014), Jakarta (2018) and Hangzhou (2023).
- **Key Features:** The event features 18 para-sports, including athletics, swimming, shooting, wheelchair basketball, blind football, boccia and goalball.
- It brings together athletes from over 40 National Paralympic Committees (NPCs) and provides competitive exposure and potential qualification opportunities for the Los Angeles 2028 Paralympic Games.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Quick Bites:

- The ninth edition of the India-Brazil-South Africa Maritime (IBSAMAR) Exercise 2026 concluded at Simon's Town, South Africa, on 20 Oct 2026. It brought together the Indian, Brazilian and South African Navies for a series of professional interactions and maritime evolutions aimed at enhancing interoperability, strengthening operational cooperation and fostering greater mutual understanding among the three maritime forces.
- The 7th edition of the AgriVoltaics World Conference (AWC) 2026 commenced today at Bharat Mandapam, New Delhi, marking a definitive milestone in the country's efforts to integrate agriculture and renewable energy. This premier global summit is being hosted in the Global South for the first time in India, firmly reinforcing India's expanding stewardship in concurrently advancing global food security, energy self-reliance, and sustainable development.
- The Taleju Bhawani Temple is a 16th-century Hindu temple located in Kathmandu Durbar Square, Nepal, part of the Kathmandu Valley UNESCO World Heritage property. Dedicated to Goddess Taleju Bhawani, a form of Goddess Durga, it was constructed by King Mahendra Malla. The temple is closely associated with the Malla dynasty, which ruled the Kathmandu Valley from the 12th to the 18th century. It opens to the general public only once a year, on Maha Navami, the ninth day of Dashain.
- Puzhal Lake, also known as Red Hills Lake, is a man-made freshwater lake located in Red Hills, Tiruvallur district, Tamil Nadu. Constructed during the British period in the 19th century, it is one of Chennai's three major rain-fed reservoirs supplying water to the city, alongside Chembarambakkam Lake and Porur Lake. It serves as an important water-storage source, collecting rainwater and water from other sources.
- On 20 October 2026, three Indian properties were added to the UNESCO World Heritage Tentative List. They are the Karst-mud-volcano Complex of Baratang and Andaman Subduction Volcanoes in the Andaman and Nicobar Islands, and the Sirpur Cultural and Archaeological Landscape in Chhattisgarh. The Archaeological Survey of India (ASI) prepared heritage research and documentation for the sites.
- Chiricahua National Monument in Cochise County, Arizona, was redesignated as Chiricahua National Park on 20 October 2026. The designation made it Arizona's fourth national park and the 64th in the United States. The site covers approximately 12,000 acres and is known for volcanic rock formations, including tall spires and hoodoos.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- As of October 2026, India ranks third in the Ipsos Quality of Care Perception Index, behind Malaysia and Singapore. The Ipsos Health Service Report 2026 records that 68% of Indians positively rate the quality of healthcare available to them. The index measures public perceptions and is distinct from measures based on health outcomes or healthcare access.
- The Indian Navy will host the fifth edition of its Naval Innovation and Indigenisation Seminar, Swavlamban 2026, on 26 and 27 October at the Manekshaw Centre in New Delhi. The seminar brings together defence innovators, industry, academia, start-ups, MSMEs, investors and the armed services to develop indigenous naval capabilities.
- The Coal Controller Organisation (CCO), under the Ministry of Coal, received the SKOCH Gold Award 2026 for its SUVIKALP Initiative on 26 September 2026. The award was presented in the "Digital Operational Efficiency – Data Driven Decision Making" category. SUVIKALP is an in-house mine repurposing tool developed by CCO to support data-driven decisions on sustainable mine closure and the reuse of mined-out land.
- The 33rd edition of the Singapore–India Maritime Bilateral Exercise (SIMBEX-2026) commenced in Visakhapatnam on Wednesday, and was scheduled to be held till October 26. Republic of Singapore Navy (RSN) Ship, RSS Supreme, arrived in Visakhapatnam to participate in the exercise. The opening ceremony of SIMBEX-2026 was conducted onboard INS Nilgiri and INS Kamorta.
- Turkiye, Qatar, Pakistan, and Indonesia signed an agreement on Wednesday to boost defence cooperation and strengthen defensive capabilities, the Turkish Defence Ministry said. In a statement, the Ministry said the countries signed the "Badr Memorandum of Understanding" in Doha as a sign of their desire to further deepen cooperation and develop partnerships.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

23-10-2026

1. Centaurus X-3:

Context: Scientists have discovered that one of the brightest X-ray pulsars, Centaurus X-3 is gobbling up material through an accretion disk.

About Centaurus X-3:

- The X-ray pulsar is located in the constellation Centaurus, approximately 24,000 light-years from Earth.
- It is a high-mass X-ray binary (HMXB) consisting of a highly magnetised neutron star and an O-type companion star with more than 10 times the Sun's mass.
- The disk-fed pulsar has a rotation period of 4.84 seconds and orbits its companion every 2.087 days.
- In an X-ray binary, the neutron star's strong gravity draws matter from its companion, and the accretion process produces X-rays.
- Pulsars are rapidly rotating, highly magnetised neutron stars that emit regular pulses of radiation, with periods ranging from milliseconds to seconds.
- Their magnetic fields channel charged particles towards the magnetic poles, producing powerful beams of radiation; pulsars have primarily been observed at radio wavelengths.
- Pulsar masses generally range from 1.18 to 1.97 solar masses, with most having a mass of about 1.35 times that of the Sun.

2. Carbon Offsetting and Reduction Scheme for International Aviation:

Context: With just over two months remaining before CORSIA's mandatory phase kicks in, India is yet to finalise a comprehensive national Sustainable Aviation Fuel (SAF) policy.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Carbon Offsetting and Reduction Scheme for International Aviation:

- CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) is a global market-based mechanism adopted by the International Civil Aviation Organization (ICAO) in 2016 to address CO_2 emissions from international flights.
- It is the first global market-based measure designed for a specific industry sector and requires airlines to offset eligible emissions under the scheme.
- Airlines operating international flights between participating states must monitor, report and verify (MRV) their CO_2 emissions and purchase eligible emissions units to compensate for emissions growth above the baseline.
- The baseline was initially based on the average of 2019 and 2020 emissions but was revised to 2019-only levels due to the COVID-19 pandemic's impact on aviation.
- CORSIA applies only to international flights; domestic aviation emissions are addressed through national climate commitments under the UNFCCC and the Paris Agreement.
- The scheme includes a voluntary pilot phase (2021–2023), a voluntary first phase (2024–2026), and a mandatory phase (2027–2035), subject to specified exemptions.
- Least developed countries (LDCs), small island developing states (SIDS), landlocked developing countries (LLDCs), and states with very small shares of international aviation activity are exempt from the mandatory phase.
- Eligible offsets may come from renewable energy, clean cooking, methane capture, forestry and other emissions-reduction projects. ICAO approves eligible programmes to help ensure environmental integrity; reports for 2024–2026 emissions are due to national authorities by 31 January 2028.

3. eMudhra:

Context: The Ministry of Electronics and Information Technology (MeitY) recently formed a special team to investigate the leak of private keys associated with web security certificates issued by Bengaluru-based eMudhra.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About eMudhra:

- eMudhra is an Indian digital trust company that provides digital certificates, identity verification and electronic-signing services to secure online transactions.
- It operates as a Certificate Authority (CA), an organisation that issues digital certificates to verify the online identities of websites and other entities.
- A digital certificate acts like an identity card for a website, linking its domain name to a public key.
- Browsers check whether a certificate is valid and issued by a trusted authority before establishing a secure connection.
- HTTPS (Hypertext Transfer Protocol Secure) uses Transport Layer Security (TLS) to encrypt communication between a website and a browser.
- Digital certificates help protect passwords, payment details and private messages from being intercepted or altered during transmission.
- eMudhra provides Digital Signature Certificates (DSCs) and electronic-signing services that enable individuals and businesses to sign documents digitally.
- The company is listed by the Controller of Certifying Authorities (CCA), the Indian government body responsible for licensing and regulating certifying authorities.
- eMudhra is also associated with Aadhaar-linked electronic Know Your Customer (e-KYC) services, according to UIDAI.
- Other authorised digital-certificate providers in India include Protean, C-DAC, Capricorn and VSign.
- A valid HTTPS certificate helps verify a website's identity and secure data transmission, but it does not guarantee that the website itself is genuine, trustworthy or free from fraud.

4. Kushiyara River:

Context: The banks of Kushiyara River, which separates India and Bangladesh along the Sribhumi district, came alive recently as thousands of devotees gathered on both sides of the international border for the immersion of Durga idols on Vijayadashami.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Kushiyara River:

- The Kushiyara River is a transboundary river shared by India and Bangladesh and a distributary of the Barak River.
- It originates at the Amlshid bifurcation point near the India–Bangladesh border, where the Barak River divides into branches.
- Flowing westward, it forms part of the boundary between Assam in India and Sylhet District in Bangladesh before entering Bangladesh entirely.
- The river extends for approximately 160 km and eventually joins the Meghna River.
- Its important tributaries include the Juri, Manu (Monu) and Itakhola rivers.
- On 6 September 2022, India and Bangladesh signed the Kushiyara River water-sharing agreement, the first such agreement between the two countries since the 1996 Ganga Water Treaty.
- Under the agreement, Bangladesh is permitted to withdraw 153 cusecs of water from the river, which carries approximately 2,500 cusecs under the cited arrangement.
- The allocation supports dry-season (Boro) rice cultivation in Sylhet through the Rahimpur Canal project and aims to address seasonal water scarcity and flooding in the region.

5. Agrivoltaics:

Context: Operationalising just 10% of the agricultural land deemed suitable for agrivoltaics in India could generate enough electricity to meet the country's projected power demand for 2050, Union Minister for New and Renewable Energy (MNRE) said recently.

About Agrivoltaics:

- Agrivoltaics, also known as Agri-Photovoltaics (AgriPV), agrisolar or dual-use solar, involves using the same land for both agriculture and solar power generation.
- The concept dates back to the 1980s, with practical research and pilot projects emerging in Japan, followed by Germany and France.
- **Elevated systems:** Solar panels are mounted above the ground, allowing farming activities underneath.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Row-based and vertical systems:** Panels are arranged between crop rows or installed upright to reduce shading impacts and capture sunlight from both sides.
- **Greenhouse-integrated systems:** Solar panels are incorporated into greenhouse structures to regulate light and temperature while generating electricity.
- **Improved water efficiency:** Panel shading reduces soil evaporation and helps retain moisture, with studies indicating water savings of up to 30%.
- **Crop benefits:** Partial shade can regulate temperatures, reduce heat stress and improve yields for certain shade-tolerant crops, while supporting clean energy production.

Quick Bites:

- Defence Secretary Shri Rajesh Kumar Singh inaugurated the newly established Hindi library, 'GYANDEEP', in Sena Bhawan, New Delhi on October 22, 2026 as part of Special Campaign 6, being conducted by the Ministry of Defence from October 02 - 31, 2026. The initiative aims to promote Hindi books and literature, encourage the use of Hindi in official work, and strengthen the culture of working in Hindi in pursuit of excellence in the implementation of Rajbhasha.
- SAEINDIA is set to host APAC 23 – 23rd Asia Pacific Automotive Engineering Conference 2026, one of the region's prominent forums for automotive and mobility engineering, from 13–14 November 2026 at Yashobhoomi Convention Centre, New Delhi. SAEINDIA is a leading professional engineering society dedicated to advancing mobility knowledge and solutions in India.
- Ministry of Housing and Urban Affairs to organise 19th Urban Mobility India Conference and Exhibition on 23–24 October 2026 in Bhubaneswar.
- SUVIKALP is an in-house Mine Repurposing Tool developed by the Coal Controller Organisation (CCO) under the Ministry of Coal. It helps stakeholders select suitable mine-repurposing projects through a structured, data-driven process by evaluating and ranking projects based on technical, environmental, social and economic criteria. It received the SKOCH Gold Award 2026 under the category Digital Operational Efficiency – Data Driven Decision Making.
- Diamondiyne is a newly synthesised, three-dimensional allotrope of carbon that resembles diamond but has a more open structure. It is described as a carbo-mer of diamond, in which diyne units are inserted between

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

carbon centres in a diamond-topology network, expanding its structure. The material can be produced as a thin film where two liquids meet, using relatively inexpensive equipment.

- The ICAR-Central Marine Fisheries Research Institute (ICAR-CMFRI) unit at Vizhinjam has launched its first full-fledged open-sea mussel longline farming unit. Mussels are bivalve molluscs belonging to the marine family Mytilidae and the freshwater family Unionidae. They are commonly found in cool seas, while freshwater mussels inhabit streams, lakes and ponds. Marine mussels are generally wedge-shaped or pear-shaped, measuring about 5–15 cm, with smooth or ribbed shells that are often dark blue or greenish-brown externally and pearly on the inside.
- The Indian Institute of Technology Madras (IIT Madras) launched UDYOG, or Upskilling and Development for Young Graduates, in Chennai on 21 October 2026. The industry-oriented finishing school is designed to train graduates for biotechnology and biomanufacturing roles. Its first batch is scheduled to begin on 18 January 2027.
- Tadoba-Andhari Tiger Reserve (TATR), in Maharashtra's Chandrapur district, has introduced a sensor-based system on a pilot basis to manage water levels in wildlife waterholes. The system automatically starts and stops pumps according to water levels, with the stated aim of reducing water loss and maintaining water availability for wildlife.
- National Geographic released its annual "Best of the World 2027" list on 20 October 2026. The list features 25 destinations across six continents, including Jaipur, the capital of Rajasthan. Jaipur will mark 300 years since its foundation in 2027.
- The International Criminal Court and its embattled staff have won the European Union's top human rights honour, the Sakharov Prize. The Sakharov Prize for Freedom of Thought, commonly known as the Sakharov Prize, is an honorary award for individuals or groups who have dedicated their lives to the defence of human rights and freedom of thought. Named after Russian scientist and dissident Andrei Sakharov, the prize was established in December 1988 by the European Parliament.
- A two-day conference of the 12th BRICS Parliamentary Forum will be held in New Delhi on October 26 and 27, with discussions centred on "Fostering parliaments for people-centric development", Lok Sabha Speaker Om Birla said at a press conference.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

24-10-2026

1. Software Technology Parks of India (STPI):

Context: Software Technology Parks of India (STPI), a premier S&T organisation under the Ministry of Electronics and Information Technology (MeitY), Government of India, inaugurated its new incubation facility at IT Park, Sahastradhara Road, Dehradun, Uttarakhand. The new facility aims to strengthen the state's IT/ITeS ecosystem by providing modern infrastructure to technology companies and startups, while fostering innovation, entrepreneurship, product development and employment generation.

About Software Technology Parks of India (STPI):

- Software Technology Parks of India (STPI) is a premier Science and Technology organisation established in 1991 under the Ministry of Electronics and Information Technology (MeitY).
- **Main Objective:** Promotes software exports from India and supports the growth of the IT/ITES industry.
- **Key Schemes:** Implements the Software Technology Park (STP) Scheme and Electronics Hardware Technology Park (EHTP) Scheme.
- **Infrastructure Support:** Provides plug-and-play office spaces and IT infrastructure for software exporters.
- **Export Facilitation:** Assists with customs clearances, duty-free imports of eligible goods and compliance with export regulations.
- **Regulatory Guidance:** Helps companies meet export obligations and provides guidance on taxation, foreign exchange rules and other regulatory matters.
- **Startup Promotion:** Nurtures India's startup ecosystem through Centres of Entrepreneurship (CoEs) and the Next Generation Incubation Scheme (NGIS).

2. Financial Stability and Development Council (FSDC):

Context: Union Minister for Finance & Corporate Affairs Smt. Nirmala Sitharaman chairs 30th Meeting of Financial Stability and Development Council (FSDC) in New Delhi.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Financial Stability and Development Council (FSDC):

- The Financial Stability and Development Council (FSDC) was constituted by the Government of India in December 2010 as an apex-level forum.
- **Status:** It is a non-statutory body with no separate allocation of funds for its activities.
- **Objective:** Strengthens financial stability, improves coordination among financial regulators and promotes financial sector development.
- **Composition:** Chaired by the Union Finance Minister, it includes heads of financial regulators such as RBI, SEBI, PFRDA, IRDAI and FMC, along with senior Finance Ministry officials and the Chief Economic Adviser.
- **Key Functions:** Monitors macroprudential supervision, including the functioning of large financial conglomerates, and addresses inter-regulatory coordination issues.
- **Other Focus Areas:** Promotes financial literacy and financial inclusion alongside financial sector development.
- **Sub-committee:** An FSDC Sub-Committee, chaired by the RBI Governor, addresses financial stability, sectoral development and inter-regulatory coordination issues.

3. Kittur Rani Chennamma:

Context: The birth anniversary of Kittur Rani Chennamma and the 202nd Victory Celebration were commemorated with great grandeur today at Prerana Sthal in the Parliament premises, New Delhi, under the leadership of Union Minister of State for Railways and Jal Shakti and Member of Parliament from Tumakuru, Shri V. Somanna.

About Kittur Rani Chennamma:

- Rani Chennamma was born on 23 October 1778 in Kakati village, present-day Belagavi district, Karnataka, into a Lingayat family. She learned horse riding, sword fighting and archery.
- **Marriage:** She married Raja Mallasarja of Kittur and became queen following his death in 1816.
- **Revolt of Kittur (1824):** After the deaths of her husband and son, she adopted Shivalingappa as heir to the throne.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Resistance to British Rule:** The British East India Company refused to recognise the adoption and attempted to annex Kittur, prompting her to lead an armed rebellion.
- **Battle Against the British:** She defeated British officer John Thackery in the first battle, but the British later captured Kittur with a larger force.
- **Death:** She was imprisoned at Bailhongal Fort, where she died in 1829.
- **Legacy:** Considered one of India's earliest anti-colonial resistance leaders, she is remembered for her courage and women-led resistance. Her legacy continues through folk songs, ballads, theatre and the annual Kittur Rani Chennamma Utsav.

4. Pradhan Mantri Dakshata Aur Kushalta Sampann Hitgrahi (PM-DAKSH) scheme:

Context: Recently, the Department of Social Justice and Empowerment said that a total of 1,87,305 candidates were trained and 96,162 placed under the Pradhan Mantri Dakshata Aur Kushalta Sampann Hitgrahi (PM-DAKSH) scheme between 2020–21 and 2023–24.

About Pradhan Mantri Dakshata Aur Kushalta Sampann Hitgrahi (PM-DAKSH) scheme:

- Pradhan Mantri Dakshata Aur Kushalata Sampanna Hitgrahi (PM-DAKSH) Yojana is a Central Sector Scheme launched in 2020–21 under the Ministry of Social Justice and Empowerment.
- **Objective:** Provides quality skill development training to improve employability and livelihood opportunities for disadvantaged groups.
- **Target Groups:** Scheduled Castes (SCs), Other Backward Classes (OBCs), Economically Weaker Sections (EWS), De-notified Tribes (DNTs), Safai Karamcharis and waste pickers.
- **Eligibility:** Applicants must be aged 18–45 years. OBC and EWS candidates must have annual family income below ₹3 lakh; no income limit applies to SC, DNT and Safai Karamchari/waste-picker candidates.
- **Training Programmes:** Includes up-skilling/re-skilling, short-term training, long-term training and entrepreneurship development programmes. The scheme has been merged with the Pradhan Mantri Kaushal Vikas Yojana (PMKVY).
- **Implementation:** Implemented through NSFDC, NBCFDC and NSKFDC to facilitate skill development among the target groups.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. Iodine:

Context: Recently, on the occasion of World Iodine Deficiency Day the Ministry of Health and Family Welfare, has advised citizens to choose iodised salt and use it in moderation for better health.

About Iodine:

- Iodine is a non-metallic halogen belonging to Group 17 of the periodic table.
- **Physical Properties:** It is a bluish-black, lustrous crystalline solid at room temperature that sublimes into a violet vapour.
- **Chemical Properties:** Iodine forms stable compounds with metals and non-metals; it reacts with alkali metals to form iodides.
- **Occurrence:** It occurs naturally in small quantities in seawater, rocks and sediments and is essential for human and animal health.
- **Role in the Body:** Iodine is essential for producing thyroid hormones—thyroxine (T4) and triiodothyronine (T3)—which regulate metabolism, protein synthesis and enzymatic activity.
- **Medical and Nutritional Uses:** It is used in antiseptics, iodised salt to prevent iodine deficiency and nuclear medicine for thyroid diagnosis and treatment.
- **Industrial Uses:** Iodine is used in photographic chemicals and as a catalyst in various industrial processes.

6. Akash Missile System:

Context: India's reported sale of its indigenous Akash surface-to-air missile system to Tajikistan and Turkmenistan could mark an important step in the country's ambition to become a major global arms exporter.

About Akash Missile System:

- Akash is an indigenous surface-to-air missile (SAM) system designed to defend vulnerable areas and assets against fighter aircraft, cruise missiles, drones and helicopters.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Development:** Developed by the Defence Research and Development Organisation (DRDO) under the Integrated Guided Missile Development Programme (IGMDP), it is produced by Hyderabad-based Bharat Dynamics Limited (BDL).
- **Service:** The system is operational with both the Indian Air Force (IAF) and the Indian Army.
- **Components:** It includes launchers, missiles, a control centre, multifunctional fire-control radar, mission guidance systems, C4I centres and supporting ground equipment.
- **Technical Specifications:** The missile is 5.87 metres long, 350 mm in diameter and weighs approximately 710 kg.
- **Speed and Range:** It uses a solid-fuel, ramjet propulsion system, reaches speeds of Mach 2.5–3.5 and has an engagement range of approximately 4.5–25 km, against targets at altitudes of 100 metres to 20 km.
- **Target Engagement:** It can engage multiple aerial targets simultaneously in group or autonomous modes. Its Rajendra radar tracks targets and guides multiple missiles, while electronic countermeasures improve operational effectiveness.
- **Warhead and Mobility:** It carries a 60 kg pre-fragmented warhead with proximity fusing and is designed for mobility across different terrains.

7. Fund for Responding to Loss and Damage (FRLD):

Context: On 22 October 2026, the board of the UN's Fund for Responding to Loss and Damage (FRLD) agreed to set aside 20 million for Nepal's recovery from floods in August 2026. This is the fund's first allocation since its establishment, making Nepal its first beneficiary. The approved total for Nepal is 21.6 million, including $1.6 million for oversight fees.

About Fund for Responding to Loss and Damage (FRLD):

- The Fund for Responding to Loss and Damage (FRLD) is a dedicated multilateral financing entity under the United Nations Framework Convention on Climate Change (UNFCCC) to support developing countries facing unavoidable climate-related losses and damage.
- **Establishment:** It was established at COP27 (2022) in Sharm el-Sheikh, Egypt, and operationalised at COP28 (2023) in Dubai.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Objective:** Helps climate-vulnerable developing countries recover from disasters, rebuild infrastructure and manage the impacts of extreme weather events and slow-onset climate change.
- **Funding:** Relies primarily on voluntary, non-binding contributions from developed countries and other high-income partners; it does not impose binding compensation obligations or historical liability quotas.
- **Funding Gap:** Initial pledges were approximately $822 million, while the first funding call reportedly received 180 project proposals seeking $2.8 billion, highlighting the gap between available funds and demand.
- **Project Approval:** Uses an 11-step project pipeline involving proposal submission, completeness checks, technical assessment, country feedback, board approval and legal agreements before disbursement.
- **Access Mechanisms:** Funding can be channelled through direct budget support, programme sub-grants, national implementing entities and small-grant facilities for rapid recovery.
- **Coverage:** Addresses both economic losses, such as damage to livelihoods and infrastructure, and non-economic losses, including biodiversity decline, cultural heritage damage and community displacement.
- **Financing Approach:** Emphasises grant-based and highly concessional support to help vulnerable countries recover without increasing their debt burden.

Quick Bites:

❖ The National Academy of Agricultural Sciences (NAAS), New Delhi, showcased India's agricultural research excellence at the prestigious World Food Prize Foundation (WFPF) event entitled "2026 Norman E Borlaug International Dialogue" with a theme "Before Hunger Wins", held from October 20-22, 2026, in Des Moines, Iowa, USA. Also, Indian Student Ms. Ameena Nazreen A S Wins Global Youth Institute Award.

❖ The Centre for Development of Telematics (C-DOT), under the Department of Telecommunications, Ministry of Communications, signed an MoU with IIT (BHU), Varanasi, to establish its sixth Centre of Excellence (CoE). The CoE will focus on wireless communications, quantum technologies, cybersecurity and AI-driven communication systems, strengthening indigenous telecom R&D and India's telecom innovation ecosystem. C-DOT's existing CoE partnerships include IIT Kanpur, IIT Gandhinagar, IIT

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Roorkee, IIT Hyderabad and IISc Bengaluru through Foundation for Science Innovation and Development (FSID).

- Indian Naval Ship Sahyadri departed Vladivostok, Russia, on 20 October 2026, after successfully completing INDRA 2026, a bilateral naval exercise between the Indian Navy and the Russian Federation Navy. The exercise comprised Harbour and Sea Phases. The Harbour Phase included professional interactions, expert exchanges and cultural activities, while the Sea Phase involved coordinated manoeuvring, integrated communications, helicopter operations and medical evacuation drills, strengthening operational coordination, communication and interoperability between the two navies.
- Over a three-day period spanning 03, 04 and 05 Nov 2026, the Indian Navy will conduct the 2026 edition of the 'Indo-Pacific Regional Dialogue' (IPRD-2026), which is its annual apex-level international outreach conference pitched at the strategic level, at the Manekshaw Centre, New Delhi. Organised in close association with the National Maritime Foundation (NMF), which is the Navy's knowledge partner and principal organiser of the event, this year's conference will be centred upon the theme 'Science, Technology and Academic Cooperation in the Indo-Pacific'.
- The 19th Urban Mobility India (UMI) Conference and Exhibition 2026 was inaugurated in Bhubaneswar, Odisha, today. The two-day Conference, being held on 23–24 October 2026 at Hotel Mayfair Sanctuary, is being organised by the Ministry of Housing and Urban Affairs (MoHUA), Government of India, through the Institute of Urban Transport (India), with the support of the Government of Odisha.
- As part of bringing together artisans from across the country, including the North-Eastern States, the 08 days Shilp Samagam Mela 2026 is underway at Guwahati, the State Capital of Assam. The Mela is showcasing India's rich and diverse heritage of traditional handicrafts and handloom products. Organized by the Ministry of Social Justice and Empowerment, Government of India, the Mela will continue until October 28 Wednesday.
- France has reported the first known human case of Shamonda virus, in a patient who died. Shamonda virus is an insect-borne virus belonging to the Orthobunyavirus group, first detected in cattle in Nigeria in 1965. It is transmitted mainly by biting midges and primarily affects cattle, but can also infect sheep, goats, horses and alpacas. Symptoms in livestock include fever, diarrhoea, reduced milk production, abortions and foetal

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

malformations; neurological disorders have also been reported. No commercially available vaccine is currently available against the virus.

- The Emissions Gap Report (EGR) 2026, published annually by the United Nations Environment Programme (UNEP), warns that the 1.5°C global warming threshold is now unattainable, increasing climate risks. The report assesses the gap between projected global greenhouse gas emissions and the levels required to meet the Paris Agreement goals of limiting warming to well below 2°C while pursuing efforts to restrict it to 1.5°C. It is released annually ahead of the UN Climate Change Conference of the Parties (COP) and is co-produced by UNEP, the UNEP Copenhagen Climate Centre (UNEP-CCC) and partners.
- An analysis by the Centre for Research on Energy and Clean Air (CREA) found no consistent improvement in Delhi's winter air quality in the four years since the Graded Response Action Plan (GRAP) was revised in 2022. CREA is an independent, non-profit research organisation based in Helsinki, Finland, that investigates the causes, trends and health impacts of air pollution. It uses scientific evidence to support governments, businesses and organisations in promoting clean energy and clean air, with research covering fossil-fuel pollution, coal phase-out, industrial emissions and the environmental impacts of energy production.
- The Charles Correa Gold Medal, initiated in 1998 by Indian architect and urbanist Charles Correa, is an annual award recognising outstanding talent among undergraduate architecture students for their individual final-year thesis projects. It is administered by the Charles Correa Foundation (CCF). Eligible students must be nominated by Indian architecture colleges approved by the Council of Architecture (COA), with each college submitting one individual thesis project. A jury of eminent architects evaluates the submissions and selects the winner.
- Charles Correa (1930–2015) was a renowned Indian architect and urban planner, widely recognised for shaping modern architecture in post-Independence India. Born in Secunderabad, he studied at the University of Michigan and MIT and incorporated traditional materials, climatic sensitivity and the open-to-sky concept into his designs. His major works include the Mahatma Gandhi Memorial at Sabarmati Ashram, National Crafts Museum in New Delhi, Bharat Bhavan in Bhopal and Jawahar Kala Kendra in Jaipur. He played a key role in planning Navi Mumbai and founded the Urban Design Research Institute in

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Mumbai in 1984. His honours include the Padma Shri (1972), Royal Gold Medal (1984) and Padma Vibhushan (2006).

- The National Hydroelectric Power Corporation (NHPC) has sought clearance from the Union Environment Ministry to divert 3,278 hectares of high-conservation-value forest in Arunachal Pradesh for the Kamala Hydroelectric Project, formerly known as the Subansiri Middle Hydroelectric Project. The 1,720 MW, storage-based project is planned on the Kamala River, a major tributary of the Subansiri River, in Kamle district. It involves a 216-metre-high concrete gravity dam and an underground powerhouse. The project is expected to generate 6,869.92 million units (MU) of electricity annually and help moderate floods in the Brahmaputra Valley.
- A recent study found that the Upper Colorado River Basin lost significantly more groundwater than the Lower Basin during the 2020–2022 drought, despite having higher natural recharge. The Colorado River is a major North American river originating in the Rocky Mountains of Colorado, USA, and flowing about 2,330 km west and south towards the Gulf of California in northwestern Mexico. It flows through seven US states and two Mexican states, draining extensive semi-arid and arid regions. The name "Colorado" is Spanish for "reddish-coloured," referring to the river's historically silt-laden, reddish water.
- The United States will host the inaugural FIFA Women's Club World Cup from 5 to 30 January 2028. FIFA announced the host nation on 22 October 2026. The competition will bring together 19 top-tier women's clubs from the six continental football confederations.
- Solar Defence and Aerospace Ltd. (SDAL), based in Nagpur, is delivering its indigenous Nagastra-2 anti-tank loitering munition system to the Indian Army as of 23 October 2026. The system has day-and-night surveillance cameras, a 4 kg tandem shaped-charge warhead and an endurance of up to 60 minutes.
- Ahmedabad is hosting the inaugural Commonwealth Kabaddi Championship from October 23 to 31, 2026. The competition is being held at the Veer Savarkar Sports Complex and features 23 squads from 13 nations.
- Tamil Nadu Chief Minister C. Joseph Vijay launched the statewide 'Thuli' rainwater harvesting awareness campaign in Chennai on 21 October 2026. 'Thuli' means "drop" in Tamil. The launch included the unveiling of the campaign logo and mascot.
- Greece's Parliament passed a law on Friday banning children under 15 from social media, joining a growing number of countries imposing curbs on young people's use of the apps. The Bill, set to take effect

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

on January 1, will require age verification on social networks and impose penalties if companies fail to comply

- French and British air forces have for the first time staged a joint exercise simulating a nuclear strike, the countries' Defence Ministries said in a statement on Friday. The exercise, codenamed 'Rummy', took place on Tuesday and involved RAF Typhoon fighter jets alongside French Rafale aircraft over the Mediterranean Sea.

Scan QR Code to Follow us on **Social Media**

Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.

Phone
7799996602

ace.online | www.aceenggacademy.com

25-10-2026

1. Arabian Black Electric Ray:

Context: Researchers have discovered a new species of electric ray, named the Arabian Black Electric Ray (Tetronarce ramanamurthyi), in the deep waters of the southeastern Arabian Sea in the north.

About Arabian Black Electric Ray:

- Arabian Black Electric Ray was discovered in the Arabian Sea and represents the first confirmed record of the genus Tetronarce in the northern Indian Ocean.
- **Physical Features:** It has a uniformly dark bluish-black or dark brown upper surface and a whitish underside, with no skin bumps (papillae) around its spiracles.
- **Evolutionary Significance:** It forms an independent evolutionary lineage, distinctly separated from all other known electric ray species globally.
- **Characteristics of Electric Rays:** They are cartilaginous fishes with flattened bodies and enlarged pectoral fins fused to their heads.
- **Habitat and Diet:** Electric rays occur in tropical, subtropical and temperate waters worldwide, commonly inhabiting shallow waters. They are mesopredators that feed on smaller animals.
- **Electric Ability:** They produce electric shocks to stun prey, helping them capture food.

2. Indo-Tibetan Border Police (ITBP):

Context: Recently, the Prime Minister of India extended his greetings to all personnel of the Indo-Tibetan Border Police (ITBP) on their Raising Day.

About Indo-Tibetan Border Police (ITBP):

- **Establishment:** Raised in 1962 following the Sino-Indian War to guard India's border with China's Tibet Autonomous Region.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Border Coverage**: Guards the 3,488 km India-China border, extending from the Karakoram Pass in Ladakh to Jachep La in Arunachal Pradesh.
- **Legal Status:** Initially raised under the CRPF Act; the ITBPF Act was enacted in 1992, with rules framed in 1994. In 2004, it became a full-fledged Central Armed Police Force under the Ministry of Home Affairs.
- **Specialisation:** One of the world's specialised mountain forces, operating in harsh and remote Himalayan regions.
- **Training and Duties:** Trains personnel in mountaineering, skiing and tactical combat, besides undertaking disaster response and relief operations.
- **Leadership and Headquarters**: Headed by a Director General and headquartered in New Delhi.
- Motto: "Shaurya–Dridhata–Karma Nishtha," meaning Valour, Determination and Devotion to Duty.

3. Ranganathaswamy Temple:

Context: The Madurai Bench of the Madras High Court recently restrained registration authorities from registering documents relating to lands covered by an 1887 deed dedicating properties to the Sri Ranganathaswamy Temple in Srirangam.

About Ranganathaswamy Temple:

- Located at Srirangam near Tiruchirappalli (Trichy), Tamil Nadu, on an island formed by the Cauvery and Coleroon rivers.
- **Significance**: It is the largest functioning Hindu temple in India and one of the world's largest religious complexes.
- **Area and Deity:** Spread across approximately 156 acres, the temple is dedicated to Lord Ranganatha, a reclining form of Lord Vishnu.
- **Religious Importance:** It is considered the foremost of the eight self-manifested shrines of Lord Vishnu.
- **Historical Background:** The temple is believed to have existed since the 2nd century BCE, while its earliest available archaeological inscriptions date from the 10th century CE.
- **Royal Patronage:** It underwent successive changes under the Cholas, Cheras, Pandyas, Hoysalas, Vijayanagara rulers and Madurai Nayaks.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Vaishnava Leaders:** Yamunacharya, Ramanujacharya and Sudarsanacharya played important roles in shaping its religious practices and legacy.
- **Architecture:** The complex is a prominent example of Dravidian architecture, enclosed by seven concentric walls called prakarams and containing 21 gopurams.
- **Towers and Sanctum:** The Rajagopuram is approximately 236 feet tall, while the sanctum is crowned by a gold-covered vimana. A royal temple tower is also described as having a height of 196 feet.
- **Thousand-Pillared Hall:** Built during the Vijayanagara period (1336–1565), the hall is noted for its intricate sculptures. Inscriptions and historical structures reflect the contributions of several South Indian dynasties, and parts of Srirangam town lie within the outer temple enclosures.

4. Amur Falcons:

Context: Recently, the two satellite-tagged Amur Falcons (Falco amurensis) have returned to Manipur after travelling across 23 countries in Asia and Africa.

About Amur Falcons:

- A migratory raptor belonging to the falcon family, also known as the Eastern Red-footed Falcon, Manchurian Falcon and Red-legged Falcon.
- **Habitat:** Found in open forests, grasslands, wetlands and agricultural landscapes.
- **Distribution:** Breeds in southeastern Siberia and northern China, migrating in large flocks to southern and eastern Africa during winter.
- **Migration through India:** Large numbers pass through northeastern India, especially Nagaland, Manipur and parts of Assam and Arunachal Pradesh.
- **Physical Features:** Males are sooty grey with brownish-red thighs and vent, while females have a white underside with dark spots and a grey back. Both sexes have distinctive orange eye-rings, beak bases and feet.
- **Adaptations and Threats:** Possesses excellent eyesight, speed and strength for hunting.
- Major threats include hunting during migration, habitat loss at roosting sites and changing weather patterns.
- **Conservation Status:** IUCN Red List: Least Concern; Wildlife (Protection) Act, 1972: Schedule IV.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. Indo-Pacific Regional Dialogue (IPRD):

Context: The Indian Navy will host the 2026 edition of the Indo-Pacific Regional Dialogue (IPRD) in New Delhi from November 3 to 5.

More details:

- **Nature:** IPRD is the Indian Navy's annual apex-level international strategic dialogue, first conceptualised and conducted in 2018.
- **Organiser:** It is organised in association with the National Maritime Foundation (NMF), the Indian Navy's knowledge partner.
- **Objective:** It aims to translate the broad framework of the Indo-Pacific Oceans Initiative (IPOI) into specific, actionable proposals and supports India's MAHASAGAR vision.
- **IPRD 2026:** The eighth edition will be held at the Manekshaw Centre, New Delhi, under the theme "Science, Technology, and Academic Cooperation in the Indo-Pacific."
- **Expanded Scope:** The 2026 dialogue extends beyond traditional STEM disciplines to include social sciences, life sciences and humanities in maritime discussions.
- **Participation:** The three-day conference will bring together maritime practitioners, scientists, academicians, policymakers and experts from 18 Indo-Pacific countries.
- **Thematic Sessions:** Five sessions will cover joint research and human development; critical maritime infrastructure and monitoring; climate resilience and ocean dynamics; maritime resilience and responsible management; and dual-use maritime technologies.
- **Indo-Pacific Oceans Initiative (IPOI):** Proposed by Prime Minister Narendra Modi at the East Asia Summit in Bangkok on 4 November 2019, it promotes open, inclusive regional maritime cooperation through seven pillars: maritime security, maritime ecology, maritime resources, capacity building and resource sharing, disaster risk reduction and management, science and academic cooperation, and trade connectivity and maritime transport.
- **MAHASAGAR:** Stands for Mutual and Holistic Advancement for Security and Growth Across Regions and reflects India's vision for maritime security and regional cooperation.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **National Maritime Foundation (NMF):** India's first maritime think tank, inaugurated on 15 February 2005, it conducts independent, policy-relevant research on maritime affairs. It is an autonomous institution whose intellectual and organisational development is supported by the Ministry of Defence and the Indian Navy.

Quick Bites:

- A significant milestone towards enhancing Indian Navy's underwater capabilities has been achieved with the inauguration of 'Setting to Work Phase (STW)-2' activity of the Air Independent Propulsion (AIP) system Energy Module developed indigenously by Naval Materials
- Research Laboratory, DRDO. The AIP system boosts the underwater endurance of the diesel-electric submarines by reducing its dependence on atmospheric oxygen.
- Union Minister of State (Independent Charge) for Science and Technology and Earth Sciences, Dr. Jitendra Singh today inaugurated the world's first- of -its-kind 'Air Pollution Analysis' facility for Delhi NCR. Known as 'Integrated Atmospheric Chemistry and Aerosol Toxicity Analysis Laboratory ' (AATAL), it is also equipped to identify real-time sources of air pollution.
- Zuqar Island is a Yemeni island of approximately 130 sq. km. in the southern Red Sea and forms part of the Hanish Islands archipelago. Located between Yemen and Eritrea, near the Bab-el-Mandeb Strait, it lies along a major maritime route connecting the Red Sea with the Gulf of Aden. Despite its proximity to Africa, the island is considered part of Asia because it lies on the Asian continental shelf. Its strategic location makes it important for regional maritime security.
- Pavani Pasumarthi, a Carnatic music faculty member at Acharya Nagarjuna University (ANU), received the Ustad Bismillah Khan Yuva Puraskar for her contribution to Kuchipudi music. The Sangeet Natak Akademi presented the award at Rabindra Bhavan in New Delhi on 19 October 2026. Union Minister for Culture Gajendra Singh Shekhawat handed it to her.
- On 22 October 2026, the Tenkasi Forest Division in Tamil Nadu proposed expanding its Golden Jackal Ambassadors programme to include the Madras hedgehog, locally called 'mulleli'. The programme was launched in 2025 to promote golden jackal conservation through trained students and volunteers.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The UK government launched the "Be Ready" emergency preparedness initiative on 22 October 2026 through the Cabinet Office. The initiative is the first phase of a three-year public awareness campaign advising households on preparation for temporary disruptions to essential services.
- On 23 October 2026, the Ministry of Home Affairs (MHA) announced a joint initiative with the Indian Army to develop a nationwide Civil Defence network. The pilot aims to train 60,000 volunteers in 12 states and Union Territories (UTs), with expansion to other jurisdictions planned after assessment of the pilot.
- Ukraine joined the NATO Support and Procurement Agency's (NSPA) Security Cooperation Support Partnership (SCSP) on 22 October 2026. The arrangement gives Ukrainian defence companies access to NATO contracts and enables Ukraine to procure military equipment through the NSPA.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

26-10-2026

1. Advanced Emergency Braking Systems (AEBS):

Context: The Ministry of Road Transport and Highways (MoRTH) recently proposed making Advanced Emergency Braking Systems (AEBS) mandatory for all new car models from October 1, 2030, to help reduce road accidents.

About Advanced Emergency Braking Systems (AEBS):

- AEBS is an active vehicle safety technology that prevents collisions or reduces their severity by combining sensors and automatic braking.
- **ADAS Feature:** It is a key component of Advanced Driver Assistance Systems (ADAS), which include electronic technologies designed to improve road safety.
- **Detection Technology:** AEBS uses radar, cameras or Light Detection and Ranging (LiDAR) to assess obstacles, relative speed and the time remaining before a potential collision.
- **Warning Stage:** When a potential collision is detected, the system alerts the driver through dashboard warning lights and audible signals.
- **Partial Braking Stage:** If the driver fails to respond, the system may apply a brief brake pulse and pre-charge the braking system for faster response.
- **Emergency Braking Stage**: If the collision remains imminent, AEBS automatically applies maximum braking force to prevent or mitigate the impact.
- **Applications:** AEBS can help reduce head-on, rear-end, right-turn and pedestrian collisions.

2. Girdling:

Context: In an attempt to save over 500 trees, which were girdled allegedly by encroachers in Karka village deep inside the Udanti Sitanadi Tiger Reserve (USTR) recently, the Chhattisgarh forest department is seeking expert help – in the form of a "surgery" or bridge-grafting technique.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

More details:

- Girdling is a forest and habitat management technique that kills a tree without felling it, by removing a continuous ring of bark and cambium around its trunk.
- **Mechanism:** It destroys the cambium and disrupts the movement of water and nutrients, eventually causing the tree to die if the wound does not heal.
- **Control of Woody Species:** Girdling is used to control or eradicate unwanted large woody plants when physical removal is undesirable, unpopular or costly.
- **Wildlife Habitat:** Dead trees are left standing as snags, providing habitats for wildlife.
- **Aesthetic Benefits:** Since tree death occurs gradually over months to years, it reduces the sudden visual impact of removing an entire stand.
- **Replacement Plantings:** Gradual tree death allows replacement trees time to grow before the existing trees disappear.
- **Environmental Benefits:** Girdling is selective and does not disturb the soil, generally reducing impacts on cultural resources, erosion and surrounding habitats.
- **Cambium:** It is a layer of actively dividing cells between the xylem and phloem that produces secondary xylem inward and secondary phloem outward.
- **Plant Growth and Stem Structure:** Secondary growth increases the width of stems and roots, while primary growth increases plant height. From outside to inside, a typical woody stem consists of bark → phloem → vascular cambium → xylem → inner stem.

3. SAMHiTA Project:

Context: India and Sri Lanka are strengthening their cultural cooperation through the preservation of their shared Buddhist heritage, with the launch of the SAMHiTA Project at Colombo's Gangaramaya Temple.

About SAMHiTA Project:

- The South Asian Manuscript Histories and Textual Archive (SAMHiTA) Project aims to create a relational database and digital archive of Indian and broader South Asian manuscripts preserved outside India.
- **Meaning:** The Sanskrit word Samhita means "collection" or "compilation."

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Online Platform:** It seeks to consolidate manuscript information dispersed across libraries, archives and other repositories on a publicly accessible online platform.
- **PANDiT Database:** The collected information will be shared through PANDiT (Prosopographical Database of Indic Texts and Records), which focuses on South Asian intellectual history.
- **Implementing Institution**: The initiative is undertaken by the India International Centre, New Delhi, with grant assistance from the Government of India.
- **Government Support:** The project is supported by the Ministry of External Affairs (MEA).
- **Significance:** It aims to digitise and preserve ancient manuscripts and their historical, religious and cultural knowledge for future generations. It is described as the first attempt to bring repositories outside India and South Asia together on a common platform.

4. Oskar Klein Medal:

Context: Theoretical physicist Ashoke Sen has been awarded the 2026 Oskar Klein Medal, becoming the first Indian laureate to receive the honour, awarded by Stockholm University and the Nobel Committee for Physics of the Royal Swedish Academy of Sciences. The Medal recognises significant contributions to theoretical physics. Dr. Sen is the ICTS-Infosys Madhava Chair Professor at the International Centre for Theoretical Sciences (ICTS), Bengaluru. He also delivered the memorial lecture accompanying the Medal in Stockholm on October 22, titled “Gravity from Strings and Strings from Gravity”.

About Oskar Klein Medal:

- **Nature of the Award:** An international physics honour associated with the annual Oskar Klein Memorial Lecture, recognising distinguished researchers in physics.
- **Established:** The Oskar Klein Memorial Lectures have been organised since 1988 in memory of Swedish theoretical physicist Oskar Klein.
- **Awarding Institutions:** Stockholm University and the Nobel Committee for Physics of the Royal Swedish Academy of Sciences, Sweden.
- **Associated Lecture:** Each year, a distinguished researcher is invited to deliver the Oskar Klein Memorial Lecture and receive the medal. The lecture series is hosted in Stockholm.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **About Oskar Klein:** Oskar Benjamin Klein (1894–1977) was a Swedish theoretical physicist known for contributions to quantum mechanics, general relativity and cosmology.
- **Scientific Contributions:** He is associated with the Klein–Gordon equation, Kaluza–Klein theory and the Klein–Nishina formula.

5. Tropical Cyclones:

Context: Cyclone 'Arnab' to make landfall on Andhra Pradesh coast.

About Tropical Cyclones:

- Cyclones are low-pressure systems broadly classified into tropical cyclones, which form over warm tropical oceans, and extratropical cyclones, which develop in mid-latitudes due to interactions between contrasting air masses. Anticyclones are high-pressure systems.
- **Extratropical Cyclones:** They generally develop between 35° and 65° latitudes in both hemispheres along the polar front. They move predominantly from west to east and are common during winter in temperate regions.
- **Anticyclones:** These are high-pressure systems characterised by descending air and outward-diverging winds, generally producing clear skies and stable weather. They may cause heatwaves, cold waves and fog. Winds rotate clockwise in the Northern Hemisphere and anticlockwise in the Southern Hemisphere.
- **Wind Direction:** Cyclones have low pressure at the centre, with winds rotating anticlockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere. Anticyclones exhibit the opposite pattern.
- **Tropical Cyclones:** These intense low-pressure systems form over warm tropical and subtropical oceans, generally between 5° and 30° latitude. They bring strong winds, heavy rainfall and storm surges. Their energy comes primarily from heat and moisture supplied by warm ocean waters.
- **Favourable Conditions:** Tropical cyclones require sea-surface temperatures generally above 27°C, high atmospheric humidity, sufficient Coriolis force, low vertical wind shear, a pre-existing low-pressure disturbance, upper-air divergence and atmospheric instability.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Structure and Movement:** Tropical cyclones feature a low-pressure eye surrounded by dense cumulonimbus clouds and spiral rainbands. They generally move westward initially and may curve poleward under the influence of large-scale atmospheric circulation and the Coriolis effect.
- **Stages of Development:** Cyclone development involves three broad stages: initial formation through evaporation and condensation, the mature stage with intense convection and strong winds, and the decay stage when the storm moves over land or cooler waters and loses its energy supply.
- **Associated Hazards:** Tropical cyclones cause destructive winds, torrential rainfall, storm surges and coastal flooding. They usually weaken rapidly after landfall because their supply of warm ocean moisture is reduced.
- **Seasonality in India:** Tropical cyclones over the North Indian Ocean are particularly active during the pre-monsoon and post-monsoon seasons.
- **Cyclone Naming:** Names are selected from predetermined lists maintained by regional bodies under the WMO/ESCAP framework. In the North Indian Ocean, naming began in 2004, with the Regional Specialized Meteorological Centre (RSMC) in New Delhi responsible for assigning names.
- **Naming System:** From 2020, a revised list containing 169 names was adopted for the North Indian Ocean region. Names submitted by participating countries are used sequentially, column-wise, to facilitate clear communication and public warnings.

Quick Bites:

❖ Prime Minister Shri Narendra Modi today inaugurated the Reserve Bank of India's newly established Data Centre and Cybersecurity Training Institute in Bhubaneswar, Odisha.

❖ National Institute of Food Technology Entrepreneurship and Management, Kundli, Haryana (NIFTEM-K), hosted Hack the Fork, India's first AI × Food Tech Hackathon focused on leveraging Artificial Intelligence (AI) to address real-world challenges in the alternative protein industry.

❖ In a lethal blow against drugs by the Government, the Narcotics Control Bureau launches 'Operation Trident', with 38 teams striking 38 locations simultaneously across Assam, Mizoram, and Manipur. The network trafficked narcotics across the borders of India, Myanmar and Bangladesh through the Death

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Triangle Corridor. The offensive attests to India's Himalayan resolve to realise the mission of eradicating every drug network by 31 December 2029.

- Ophiorrhiza shidiensis and Ophiorrhiza pemae: Researchers recently identified two new plant species in Changlang district of Arunachal Pradesh. Both belong to the Rubiaceae family, commonly known as the coffee, madder or bedstraw family, which comprises about 611 genera and more than 13,150 species of herbs, shrubs and trees.
- China Zorrilla is the world's largest battery-electric vessel, built by Australian shipbuilding company Incat Tasmania for South American ferry operator Buquebus. Previously known as Incat Hull 096, it entered commercial service after its maiden trip between Buenos Aires, Argentina, and Colonia, Uruguay. The vessel is named after celebrated Uruguayan actress and theatre personality China Zorrilla and sails under the flag of Uruguay.
- A magnitude 6.5 earthquake recently struck the Bonin Islands region of Japan. The Bonin Islands, also known as the Ogasawara Islands, comprise around 30 volcanic islands and islets in the central Pacific Ocean, about 800 km southeast of Japan. They occupy a strategic position along the Pacific approaches to East Asia. Japan claimed the islands from Britain in 1875 and placed them under Tokyo Prefecture in 1880. During World War II, they served as a major Japanese military stronghold before U.S. occupation in 1945. They were returned to Japan in 1968 after being administered by the U.S. military.
- In January 2019, a rare glacial flood caused Lake Untersee to rise by two metres after a neighbouring lake released 17.5 million cubic metres of water. Located in Antarctica, Lake Untersee is an isolated freshwater lake and one of the continent's largest and deepest surface lakes, with a maximum depth of nearly 170 metres. Despite being a surface lake, it remains frozen throughout the year due to mean annual temperatures of around −10°C, with several metres of thick ice separating it from the atmosphere.
- A preliminary magnitude 6.9 earthquake recently struck off the coast of Vanuatu in the South Pacific Ocean, prompting a tsunami warning that was later rescinded. Vanuatu, officially the Republic of Vanuatu, is a Melanesian archipelago comprising 83 islands, of which 65 are inhabited. Most islands are volcanic in origin, and Espíritu Santo is the largest island. The islands extend about 650 km north to south in an irregular Y shape, approximately 800 km west of Fiji and 1,800 km east of Australia.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

27-10-2026

1. ADMM-Plus:

Context: Raksha Mantri Shri Rajnath Singh will lead the Indian delegation at the 13th Association of Southeast Asian Nations (ASEAN) Defence Ministers' Meeting (ADMM) - Plus at Cebu, Philippines from October 28 to 29, 2026. He will address the forum on 'Exchange of Views on Regional and International Security Issues'.

About ADMM-Plus:

- The ADMM is the highest defence consultative and cooperative mechanism in ASEAN.
- ADMM-Plus is a platform for ASEAN member states (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor Leste and Vietnam) and its eight Dialogue Partners (India, US, China, Russia, Japan, South Korea, Australia and New Zealand) to strengthen security and defence cooperation.
- India became the dialogue partner of ASEAN in 1992 and the inaugural ADMM-Plus was convened in Hanoi, Vietnam on October 12, 2010.
- Since 2017, ADMM-Plus Ministers have been meeting annually to bolster defence cooperation amongst ASEAN and the Plus countries.
- The Philippines is the chair of ADMM-Plus for 2026. Under the construct of ADMM-Plus, India is co-chairing the Experts Working Group on Counter-Terrorism with Malaysia for the cycle 2024-2027.

About Association of Southeast Asian Nations (ASEAN):

- Association of Southeast Asian Nations is a regional organization established to promote political stability, economic growth, and regional cooperation in Southeast Asia.
- ASEAN was established on 8 August 1967 through the Bangkok Declaration, and 8 August is observed as ASEAN Day.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- ASEAN's headquarters (Secretariat) is located in Jakarta, and its motto is "One Vision, One Identity, One Community."
- The five founding members were Indonesia, Malaysia, the Philippines, Singapore, and Thailand; the organization now includes Brunei, Vietnam, Laos, Myanmar, Cambodia, and Timor-Leste.
- Major milestones include the ASEAN Vision 2020 (1997), Bali Concord II (2003), Cebu Declaration (2007), ASEAN Charter (2008), and the launch of the ASEAN Community in 2015.
- The ASEAN Community is built on three pillars: Political-Security Community, Economic Community, and Socio-Cultural Community.
- ASEAN's key objectives are to accelerate economic growth, social progress, cultural development, and regional peace and stability in accordance with the United Nations Charter.
- ASEAN promotes economic integration, trade, agriculture, industry, connectivity, scientific and technical cooperation, and Southeast Asian studies among member states.

2. INS Vikrant:

Context: The Indian Navy recently commenced trials of the Rafale Marine fighter aircraft at the Shore Based Test Facility in Goa to validate modifications required for operations from the indigenous aircraft carrier INS Vikrant.

About INS Vikrant:

- INS Vikrant is India's first indigenously designed and manufactured aircraft carrier, designed by the Indian Navy's Warship Design Bureau and built by Cochin Shipyard Limited (CSL), Kochi.
- **Name and Commissioning:** It is named after India's first aircraft carrier, INS Vikrant (R11), which was decommissioned in 1997. The present INS Vikrant was commissioned into the Indian Navy in 2022.
- **Significance:** It is the largest warship constructed in India. Its induction gives the Indian Navy two aircraft carriers, the other being INS Vikramaditya.
- **Dimensions:** The carrier is 262.5 metres long and 61.6 metres wide, with a displacement of approximately 45,000 tonnes. It has 14 decks and around 2,200 compartments.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Indigenous Content:** Approximately 76% of the ship is indigenously built, including around 30,000 tonnes of specialised steel supplied by the Steel Authority of India Limited (SAIL).
- **Propulsion and Endurance:** It is powered by four gas turbines generating approximately 88 MW, can attain a maximum designed speed of 28 knots, and has an endurance of 8,600 nautical miles (approximately 13,890 km), with up to 45 days of independent operation at sea.
- **Aircraft Capacity:** It can operate an air wing of around 30 aircraft, including MiG-29K fighter jets, Kamov-31 and MH-60R helicopters, as well as indigenous Advanced Light Helicopters (ALH) and Naval Light Combat Aircraft (LCA).
- **Aircraft Operations and Strategic Importance:** INS Vikrant uses the Short Take-Off But Arrested Recovery (STOBAR) system, in which aircraft take off using a ski-jump ramp and land using arrester wires. Its induction strengthens India's indigenous warship-building and maritime defence capabilities.
- **STOBAR:** Aircraft use their own engine thrust to accelerate along the deck and take off with the help of a ski-jump ramp. They land using arrester wires.
- **CATOBAR:** Aircraft are launched using steam or electromagnetic catapults, which accelerate them to take-off speed. They also land using arrester wires.

3. International Centre for Integrated Mountain Development (ICIMOD):

Context: The Union ministry of environment, forest & climate change (MoEFCC) recently tasked Almora's GB Pant National Institute of Himalayan Environment (GBPNIHE) with coordinating activities of the International Centre for Integrated Mountain Development (ICIMOD) in India.

About International Centre for Integrated Mountain Development (ICIMOD):

- The International Centre for Integrated Mountain Development (ICIMOD) is an intergovernmental knowledge and learning centre working for the people of the Hindu Kush Himalaya (HKH). It was formally established and inaugurated on 5 December 1983.
- **Headquarters:** It is based in Kathmandu, Nepal.
- **Member Countries:** It serves eight regional member countries: Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Mission:** It aims to promote greener, more inclusive and climate-resilient development by generating and sharing knowledge, influencing regional policies and attracting investment.
- **Key Focus Areas:** ICIMOD helps mountain communities understand and adapt to globalisation and climate change, protect fragile mountain ecosystems, improve livelihoods and address upstream–downstream issues.
- **Regional Cooperation:** It supports transboundary programmes, facilitates knowledge and experience sharing among member countries, and strengthens partnerships and networks between regional and global centres of excellence.

4. Ranthambore Tiger Reserve:

Context: Recently, Tigress T-2403 was spotted with three cubs in Ranthambore Tiger Reserve in Sawai Madhopur.

About Ranthambore Tiger Reserve:

- Ranthambore Tiger Reserve is located in Sawai Madhopur district of southeastern Rajasthan and covers approximately 1,411 sq. km. It derives its name from the Ranthambore Fort, a UNESCO World Heritage Site, located within its precincts.
- **Geographical Location:** It lies at the junction of the Aravalli and Vindhyan ranges along the Great Boundary Fault. The reserve is bounded by the Banas River to the north and the Chambal River to the south.
- **Topography and Vegetation:** Its landscape includes rocky plateaus, lakes, rivers, historic forts and abandoned mosques. The vegetation mainly consists of dry deciduous forests and open grasslands.
- **Flora:** The Dhok tree (Anogeissus pendula) is the dominant tree species. Other vegetation includes Acacia, Capparis, Ziziphus and Prosopis.
- **Fauna:** Major mammals include tigers, leopards, caracals, jungle cats, sambar, chital, chinkara and wild boar.
- **Lakes and Avifauna:** Important lakes include Padam Talab, Raj Bagh Talab and Malik Talab. Birds found in the reserve include peacocks, partridges, green pigeons, parakeets, sparrows, prinias and warblers.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. Hydroseeding:

Context: Tata Steel introduced hydroseeding technology at its West Bokaro Division in Ramgarh district, Jharkhand, covering over 50 acres of mined land, nurseries, and overburden dumps in a first-of-its-kind initiative in the state.

About Hydroseeding:

- **Hydroseeding (Hydraulic Seeding):** A mechanised planting technique that sprays a slurry of seeds, fibrous mulch, fertilisers, binders and soil conditioners over bare ground using high-pressure equipment.
- **Aim:** It rapidly establishes vegetative cover on disturbed land, stabilises slopes, prevents wind and water-driven soil erosion, and reclaims degraded overburden dumps.
- **Slurry Formulation:** Water, customised seed mixtures, wood-fibre or cellulose mulch, biofertilisers and tackifiers are mixed in a truck-mounted agitation tank to form a uniform slurry.
- **High-Pressure Application:** The slurry is sprayed using specialised cannons or hoses, enabling coverage of inaccessible, steep and hazardous slopes without requiring workers to climb them.
- **Moisture Retention:** The mulch forms a protective layer that retains soil moisture, regulates temperature and protects seeds from intense sunlight and birds, promoting germination and root establishment.
- **Customised Ecological Restoration:** Seed mixtures can include native grasses, shrubs and legumes, along with soil-specific organic conditioners suited to local climatic and soil conditions.
- **Advantages:** Hydroseeding enables rapid, large-scale vegetation establishment, improves erosion control and slope stability, and is generally faster than dry seed broadcasting or conventional manual planting.

Quick Bites:

❖ The Government e-Marketplace (GeM) is promoting 'The AABHAR Collection', a dedicated digital storefront showcasing curated gift items and hampers that reflect India's rich cultural heritage. The collection features products associated with the One District, One Product (ODOP) initiative and Geographical Indication (GI) tags, providing government buyers with convenient access to distinctive regional products while supporting artisans, weavers, rural entrepreneurs and women-led enterprises.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- India is hosting the 61st Meeting of the International Committee of Legal Metrology (CIML) from 26 to 28 October 2026 at New Delhi. For the first time, India is hosting this prestigious international meeting of the International Organization of Legal Metrology (OIML), bringing together delegates, senior officials and technical experts from across the world to advance cooperation in measurement standards, consumer protection and fair trade.
- Rugda Mushroom is a wild, edible subterranean fungus scientifically known as Astraeus hygrometricus or Astraeus asiaticus. It is an important non-timber forest produce (NTFP) that provides seasonal income to tribal households, particularly across the Chhotanagpur Plateau in Jharkhand, Odisha, Chhattisgarh and West Bengal. It emerges beneath the forest floor after the first monsoon showers and is hand-foraged for only a few weeks each year. It grows in association with sal tree roots through an ectomycorrhizal relationship, in which the fungus and tree exchange nutrients.
- Saidongar-1 Pumped Storage Project is a major hydro-energy initiative developed by Torrent Power in Karjat taluka, Raigad district, Maharashtra. Located in the Sahyadri-Western Ghats ranges, it is adjacent to the Bhimashankar Wildlife Sanctuary in Pune district. With a planned capacity of 3,000 MW, it is expected to become India's largest pumped storage project (PSP). However, the project has faced opposition from environmental activists and political parties over the alleged large-scale cutting of hundreds of trees.
- Osbeckia assamensis is a newly identified flowering plant species discovered in the grasslands of Manas National Park, Assam, in the Himalayan foothills. It belongs to the Melastomataceae family, one of the ten largest families of flowering plants. It is a perennial shrub that typically grows to a height of 2–2.5 metres.
- On 25 October 2026, Lieutenant Governor Vinai Kumar Saxena declared Ladakh India's first 100% organic Union Territory. The declaration followed a phased initiative across Leh and Kargil districts to end the use of synthetic fertilisers, chemical pesticides and toxic soil additives in agriculture.
- Prime Minister Narendra Modi inaugurated Arvind Limited's textile manufacturing plant at Khochwan, Mirzamurad, in Varanasi, Uttar Pradesh, on 25 October 2026. The facility, built at an approximate cost of ₹150 crore, covers about 7–8 acres and is the company's first major manufacturing plant in the Purvanchal region.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- The Ministry of Road Transport and Highways (MoRTH) has amended the Central Motor Vehicles Rules, 1989, to permit the use of ethanol-based fuels containing up to 100% ethanol (E100) in vehicles, paving the way for flex-fuel vehicles that run either on petrol, ethanol blends of varying proportions, or pure ethanol.
- The Defence Acquisition Council, or DAC, chaired by Defence Minister Rajnath Singh, on Monday accorded Acceptance of Necessity (AoN) for capital acquisition proposals worth approximately ₹2.12 lakh crore for the three Services, with about 82% of the procurements to be sourced from the domestic industry. For the Indian Army, the DAC cleared procurement of high mobility vehicles (HMVs), self-propelled tracked gun systems, gun shot response systems (GSRSs), light multi-role helicopters (LMRHs), very short-range air defence systems (VSHORADS), platform-based counter-unmanned aerial systems (C-UAS), long-range unmanned aerial systems, surveillance UAVs, integrated surveillance and strike systems, and long-range kamikaze drones.
- Violence during a 12-hour shutdown paralysed parts of Arunachal Pradesh's Upper Subansiri district on Monday, leading to the cancellation of a public hearing on the proposed 1,605-megawatt Subansiri Upper Hydroelectric Project, also known as the Menga Dam.
- The United States and Japan launched Keen Sword 27, the largest joint field-training military exercise in their shared history, across the waters and islands of southwestern Japan.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

28-10-2026

1. National Startup Awards (NSA 6.0):

Context: The Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India, has launched the 6th Edition of the National Startup Awards (NSA 6.0) under the Startup India initiative to recognise innovation and entrepreneurship and strengthen India's startup ecosystem.

About National Startup Awards (NSA 6.0):

- National Startup Awards have emerged as a flagship initiative under Startup India, providing a national platform to recognise entrepreneurial excellence and showcase innovative solutions addressing critical challenges across sectors.
- The National Startup Awards recognise startups demonstrating outstanding performance in innovation, scalability, sustainability and socio-economic impact.
- Building upon the success of the previous five editions, NSA 6.0 seeks to strengthen India's startup ecosystem by encouraging innovation-led entrepreneurship, fostering inclusive participation and promoting globally competitive startups.
- NSA 6.0 will recognise innovation, entrepreneurship and excellence across 20 sectoral categories and three special award categories, reflecting India's evolving startup ecosystem, emerging technologies and national development priorities.
- This edition introduces 12 new sectoral categories: Biomanufacturing; Consumer Industries; Defence & Security; Rural Economy, Traditional Industries & Livelihoods; Education & Skilling; Electronics, Semiconductors & Advanced Manufacturing; Sports, Fitness & Sports-Tech; Future Mobility & Automotive; Ocean & Blue Economy; Space-Tech, Drones & Aerospace; Telecom, Connectivity & Digital Infrastructure; and Travel, Tourism & Hospitality.
- The three special award categories are Women-Led Startup of the Year, North-East Startup Excellence and the newly introduced Student Innovator / Aspiring Entrepreneur Award. Introduced for the first time, the

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

student award aims to foster a culture of innovation and entrepreneurship among school and college students across all 36 States and Union Territories.

- Winning startups across the 20 sectoral categories and the two startup-focused special categories will be eligible for a cash prize of ₹25 lakh per category, subject to the applicable award guidelines. The Student Innovator / Aspiring Entrepreneur Award will carry a total prize pool of ₹25 lakh across four sub-categories.
- In addition to monetary recognition, the National Startup Awards seek to facilitate mentorship, investor engagement, market access, industry partnerships and enhanced visibility within India's startup ecosystem.

2. Yard 1283 (Srishti):

Context: Yard 1283 (Srishti), Next Generation Offshore Patrol Vessel (NGOPV), was launched at Goa Shipyard Limited (GSL), Goa on 27 Oct 2026.

About INS Srishti:

- It is indigenously designed and built ship that augment the existing OPVs/ NOPVs for multi domain operations, such as maritime surveillance, Search and Rescue, protection of offshore assets, Humanitarian Assistance and Disaster Relief (HADR) and anti-piracy missions.
- The construction of NGOPVs is concurrently being undertaken at two shipyards (GSL, Goa & GRSE, Kolkata).
- These ships derive their names from India's rich heritage, with this ship being named as 'Srishti', meaning 'Creation' or 'Act of Creating' in Sanskrit.
- The launch marks yet another significant milestone in Indian Navy's pursuit towards indigenous shipbuilding and is in consonance with Government of India's vision of Aatmanirbhar Bharat and Make in India initiatives.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

3. Convention on Biological Diversity(CBD):

Context: Union Minister for Environment, Forest and Climate Change, Shri Bhupender Yadav, today delivered India's National Statement at the High-Level Segment of the 17th Conference of the Parties to the Convention on Biological Diversity (CBD COP-17) in Yerevan, Armenia.

About Convention on Biological Diversity (CBD):

- CBD is a comprehensive, legally binding international agreement for biodiversity conservation and the sustainable use of natural resources, with 196 contracting parties.
- **Adoption:** It was opened for signature at the UN Conference on Environment and Development in Rio de Janeiro in 1992.
- **Three Objectives:** Conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of benefits arising from the utilisation of genetic resources.
- **Scope:** It covers biodiversity at three levels: ecosystem diversity, species diversity and genetic diversity.
- **Governing Body:** The Conference of the Parties (COP) is the supreme decision-making body. It meets every two years to review progress, set priorities and approve work plans.
- **Secretariat:** The CBD Secretariat is headquartered in Montreal, Canada.
- **Cartagena Protocol:** Adopted in 2000 and entered into force in 2003, it regulates the transboundary movement of living modified organisms (LMOs).
- **Nagoya Protocol:** Adopted in 2010, it establishes a legally binding framework for access to genetic resources and the fair and equitable sharing of benefits arising from their use.

4. Veeranam Lake:

Context: Greater flamingos, usually found in coastal wetlands, have been recently spotted at Veeranam Lake in Cuddalore district, Tamil Nadu, in a rare occurrence that researchers say could be linked to altered rainfall patterns.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Veeranam Lake:

- Veeranam Lake, also known as Veeranarayanan Lake, is a man-made lake in Cuddalore district, Tamil Nadu. It is among the oldest and largest artificial lakes in the state.
- **Dimensions:** The lake is approximately 16 km long and 8 km broad, with a water spread of about 15 sq. km.
- **Construction:** It was built in the 10th century CE by Rajaditya Chola, son of Parantaka Chola I, showcasing Chola engineering and irrigation planning.
- **Purpose:** It was constructed to strengthen irrigation and support the northern territories of the Chola kingdom.
- **Water Sources and Uses:** The lake is fed by the Vadavar River and Sengal Stream. It supports regional agriculture and supplies drinking water to Chennai through the New Veeranam Water Supply Scheme.
- **Literary Association:** Veeranam Lake is associated with Ponniyin Selvan, the celebrated historical novel by Kalki Krishnamurthy.
- Greater flamingos inhabit Africa, the Middle East, southern Europe and the Indian subcontinent. They occur in shallow saline lagoons, salt pans, alkaline or saline lakes and estuaries.
- **Breeding:** They breed on sandbanks, mudflats, sandy or rocky islands and open beaches.
- **Physical Features:** They have a large body, long slender neck and extremely long legs. Their plumage is predominantly pale pink, with darker pink wings and black wingtips. The thick, downward-curved beak is pink with a black tip, and the legs are bright pink.
- **Juveniles:** Young flamingos are mainly grey-brown, with some pink on the underparts, tail and wings. Their legs and beak are predominantly brown.

5. Raimona National Park:

Context: A tigress brought from Bihar and released into West Bengal's Buxa Tiger Reserve earlier this month has crossed into Assam's Raimona National Park within three weeks.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Raimona National Park:

- The park is located in Assam, along the India-Bhutan border, at the foothills of the Eastern Himalayas.
- **Connectivity:** It is connected with Phibsoo Wildlife Sanctuary and Jigme Singye Wangchuck National Park in Bhutan.
- **Major Rivers:** The Sankosh River flows along its western boundary, the Saralbhanga River lies to the east, and the Pekua River forms the southern boundary.
- **Vegetation:** It comprises moist sal forests, sub-Himalayan semi-evergreen forests, moist mixed deciduous forests, savannah forests, and riverine and khoir-sisoo forests.
- **Flora:** The park has around 380 plant species, including numerous orchids and riverine grasslands.
- **Fauna:** It is known for the Golden Langur, Asian Elephant, Bengal Tiger, Clouded Leopard, Wild Water Buffalo and Spotted Deer.

Quick Bites:

- The 12th BRICS Parliamentary Forum, which was inaugurated by Lok Sabha Speaker Shri Om Birla yesterday, concluded today with the adoption of a Joint Declaration. The declaration formally reiterates member nations' dedication to the principles of the United Nations Charter, sovereign equality, mutual respect, non-interference in internal affairs, and the peaceful settlement of international disputes.
- The ICAR–Mahatma Gandhi Integrated Farming Research Institute (ICAR-MGIFRI), Motihari, Bihar under the Department of Agricultural Research and Education (DARE) organised a farmer awareness and field interaction programme under Khet Bachao Abhiyan 2026 at Kothia Hariram village in Mehsi Block of East Champaran on 27th October, 2026.
- The Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India, has launched the 6th Edition of the National Startup Awards (NSA 6.0) under the Startup India initiative to recognise innovation and entrepreneurship and strengthen India's startup ecosystem. The year 2026 marks the completion of ten years of the Startup India initiative, launched in January 2016 to build a strong, inclusive and innovation-driven entrepreneurial ecosystem in the country.
- Project Arunank of the Border Roads Organisation (BRO) celebrated its 19th Raising Day at Naharlagun, Arunachal Pradesh, on October 24, 2026, marking nearly two decades of dedicated service in strengthening

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

strategic infrastructure and improving connectivity across the challenging terrain of Arunachal Pradesh. Raised in 2008, Project Arunank has been instrumental in developing and maintaining vital border infrastructure amid rugged mountains, dense forests and difficult climatic conditions.

- The 33rd edition of the Singapore-India Maritime Bilateral Exercise (SIMBEX-2026), hosted by the Indian Navy at Visakhapatnam, concluded on 26 Oct 2026. The exercise further strengthened the longstanding maritime cooperation and operational engagement between the Indian Navy and the Republic of Singapore Navy (RSN).
- Launching of first Sullage Barge (Yard 142), Keel Laying of third Sullage Barge (Yard 144), and Keel Laying of first Bottom Opening Dumb Barge (Yard148) were held on 26 Oct 2026 at M/s Suryadipta Projects Pvt Ltd, Thane.
- The 11th edition of the India-Indonesia Joint Special Forces Exercise GARUDA SHAKTI has commenced at Banyuwangi, Indonesia. The exercise is being conducted from 27 October to 06 November 2026. The Indian contingent comprises troops from the Parachute Regiment (Special Forces), while the Indonesian contingent comprises personnel from the Indonesian Special Forces.
- The Ministry of Tribal Affairs will observe Janjatiya Gaurav Pakhwada across the country from 1 to 15 November 2026, culminating in Janjatiya Gaurav Diwas on 15 November, the birth anniversary of Dharti Aaba Bhagwan Birsa Munda. More than a commemoration, the Pakhwada is a focused, time-bound drive to accelerate the Ministry's flagship programmes, take their benefits to tribal families at the last mile, and build awareness of schemes and entitlements among tribal communities, students and citizens.
- Hon'ble Union Minister of Youth Affairs & Sports Dr. Mansukh Mandaviya chaired the third formal meeting of the COP10 Bureau and the fourth formal meeting of the Fund's Approval Committee for 2026–27 under the UNESCO International Convention against Doping in Sport in New Delhi.
- Harry Kane won the Men's Ballon d'Or on 26 October 2026 at the 70th ceremony, held at the London Palladium. He became the first English winner of the men's award since Michael Owen, who received it in 2001. The Ballon d'Or is an annual football award presented by the French magazine France Football. The award began in 1956, with England's Stanley Matthews as its first recipient. Alexia Putellas claimed the women's prize for a third time. Luis de la Fuente was named men's coach of the year for leading Spain to

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

World Cup glory. Barcelona's Pere Romeu scooped the prize for women's coach of the year. Spanish duo Unai Simon and Cata Coll were named best men's and women's goalkeeper.

- On 26 October 2026, the Maharashtra State Board for Wildlife, chaired by Chief Minister Devendra Fadnavis, approved proposals to declare two forest areas as wildlife sanctuaries and establish 14 conservation reserves across seven districts. The proposals include upgrading the Kolamarka Conservation Reserve in Gadchiroli district, known for its wild buffalo population, to a wildlife sanctuary and granting sanctuary status to an expanded area adjoining the existing Tansa Wildlife Sanctuary.
- INOX India and its partners inaugurated the SemiOrbit Skill Excellence Centre on 26 October 2026 at the Paldi campus of ITM SLS Baroda University in Vadodara, Gujarat. The centre is a collaboration among INOX India (INOXCVA), ITM SLS Baroda University, INOX Air Products and Swagelok Bombay. Its programmes are designed for students, engineers and working professionals preparing for technical roles in semiconductor manufacturing.
- The Indian Olympic Association (IOA) announced a 17-member Indian contingent for the Dakar 2026 Summer Youth Olympic Games on 26 October 2026. The Games are scheduled from 31 October to 13 November 2026 in Senegal. Dakar 2026 is the first Olympic event scheduled to be hosted on the African continent. The Youth Olympic Games (YOG) is an international multi-sport event organized by the International Olympic Committee (IOC) for young athletes aged 14 to 18.
- India will hold the first "Civilisational Dialogue Forum" of the 10-nation Shanghai Cooperation Organisation (SCO) grouping, that includes Pakistan, from November 20-22 in Delhi, sources confirmed to The Hindu. The dialogue, which will be organised by the Ministry of Culture and the Ministry of External Affairs, was proposed by Prime Minister Narendra Modi at the SCO leaders' Summit in Tianjin last year and adopted by the SCO Council. According to the sources, the government has invited Pakistan's Minister for National Heritage and Culture Aurangzeb Khan Khichi, for the event. Culture Ministers from the 10 member states, including China, Russia, Iran, Belarus and Central Asian states, 15 Dialogue partners and observer countries have been invited.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

29-10-2026

1. Pradhan Mantri Viksit Gram Swaraj Yojana (PM VGSY):

Context: The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, has approved a Centrally Sponsored Scheme (CSS), namely, the Pradhan Mantri Viksit Gram Swaraj Yojana (PM VGSY), a next-generation governance transformation initiative aligned with the national vision of Viksit Bharat. The scheme is approved for implementation from 2026-27 to 2030-31 (co-terminus with the Sixteenth Finance Commission period).

About Pradhan Mantri Viksit Gram Swaraj Yojana (PM VGSY):

- The scheme aims to support the preparation of 2.55 lakh holistic Gram Panchayat Development Plans (GPDPs) annually through the eGramSwaraj Portal, integrating local priorities, government schemes and available resources.
- **Financial Outlay:** The scheme has an outlay of ₹7,395.55 crore, comprising a Central Share of ₹4,869.48 crore and a State Share of ₹2,526.07 crore.
- **Beneficiaries and Coverage:** It will benefit around 32 lakh elected representatives, Panchayat functionaries and other stakeholders across more than 2.55 lakh Panchayats and Traditional Local Bodies, covering all States and Union Territories.
- **Awareness Generation:** Each coordinated awareness exercise will reach at least 1 crore citizens through digital platforms, Gram Sabhas and Panchayat forums to improve awareness of government schemes and national initiatives.
- **Capacity Building:** It will strengthen the governance capabilities of around 32 lakh elected representatives and other stakeholders through training, digital support, improved planning and citizen communication.
- **Digital Governance and Transparency:** The scheme will integrate information on government schemes, beneficiaries, community assets and resources on a common digital platform, building on existing e-Panchayat systems. It will also support at least 2.55 lakh online audit plans annually through AuditOnline.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Financial Accountability:** It aims to improve accounting, auditing, public disclosure, utilisation of Finance Commission grants and mobilisation of Own Source Revenue (OSR), promoting financially self-reliant Panchayats.
- **PANCHAM Platform:** The scheme will use PANCHAM, an AI-enabled, multilingual, two-way communication platform available in 17 Indian languages, to connect national priorities with local needs and encourage community participation.
- **Employment and Development Impact:** No permanent posts will be created, but need-based contractual personnel may be engaged at State, District and Block levels. The scheme seeks to strengthen grassroots governance and support the vision of Viksit Bharat.

2. Khelo India Sports Goods Manufacturing Scheme:

Context: The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, has approved the Khelo India Sports Goods Manufacturing Scheme with a total outlay of Rs.1,856.67 crore for the period 2026 to 2033-34.

About Khelo India Sports Goods Manufacturing Scheme:

- Announced in Union Budget 2026–27 to promote investment, domestic manufacturing, innovation and exports in the sports goods sector.
- **Manufacturing Zones:** Establishes dedicated Sports Goods Manufacturing Zones (SGMZs), linked to the BHAVYA Scheme and NICDC Industrial Parks.
- **Investment Support:** Provides ₹1,130 crore through anchor investment and turnover-linked support to attract manufacturers, expand production and create jobs.
- **MSME Development:** Focuses on upgrading MSME clusters and providing shared manufacturing facilities to improve productivity.
- **Quality Certification:** Allocates ₹105 crore to help manufacturers obtain certifications from international sports federations.
- **Research and Innovation:** Promotes Centres of Excellence, sports-related research and startups through collaboration with the Anusandhan National Research Foundation and Startup India.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Skill Development:** Supports workforce training in collaboration with the Ministry of Skill Development and Entrepreneurship.
- **Export Promotion:** Encourages export branding and overseas market access through the Export Promotion Mission.
- **Policy Alignment:** Supports Khelo Bharat Niti 2025, Make in India and Atmanirbhar Bharat, while complementing Khelo India and Fit India.

Khelo India Scheme

- **Launched in 2017:** brought the Rajiv Gandhi Khel Abhiyan, the Urban Sports Infrastructure Scheme and the National Sports Talent Search Scheme into one framework for sports development.
- **Five pillars:** training centres to identify talent; capacity building for coaches and support staff; sports science and technology; competitions and leagues; and sports infrastructure.
- **Reach as of July 2026:** 349 sports infrastructure projects approved with an investment of ₹3,176 crore; 1,067 Khelo India Centres; 267 academies supported; and 2,745 Khelo India Athletes supported with coaching, equipment, medical care and a monthly allowance.

3. Container Manufacturing Promotion Scheme (CMPS):

Context: The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, has approved the Container Manufacturing Promotion Scheme (CMPS) with budgetary outlay of Rs.10,000 crore upto FY 2039-40.

About Container Manufacturing Promotion Scheme (CMPS):

- Announced in Union Budget 2026–27 to build a globally competitive container manufacturing ecosystem and reduce import dependence.
- **Interest Subvention Assistance (ISA):** Outlay of ₹859 crore to provide 3% annual interest subvention on eligible term loans for new facilities and expansion of existing units.
- **Operational Expenditure Assistance (OEA):** Outlay of ₹8,891 crore to support containers manufactured to global shipping standards and improve domestic cost competitiveness.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Testing and Certification:** ₹150 crore allocated for common testing facilities, including dynamic longitudinal impact testing.
- **Capacity Expansion:** Aims to increase annual domestic manufacturing capacity nearly ten-fold to 7.5 lakh TEUs.
- **Export Potential:** Seeks to establish India as a globally competitive manufacturing base and potential export hub for quality shipping containers.
- **Supply-Chain Resilience:** Strengthens India's maritime and logistics supply chains while reducing reliance on imported containers.
- **Employment Generation:** Expected to create around 3,000 direct and over 50,000 indirect jobs, supporting ancillary industries such as specialised steel, corner castings, wooden frames and paints.

4. Punah Bharan Mobile Application:

Context: The Union Minister of Jal Shakti has launched the Punah Bharan Mobile Application, developed by Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N), in collaboration with the National Water Mission (NWM), Department of Water Resources, RD&GR, Ministry of Jal Shakti to support scientific groundwater recharge planning.

About Punah Bharan Mobile Application:

- It aims to support scientific groundwater recharge planning.
- The mobile application enables users to identify potential artificial recharge zones within a radial distance of up to 3 km and explore suitable recharge structures based on local conditions.
- The web portal provides access to village-level Artificial Recharge Structure (ARS) zonation maps, GIS tools and thematic layers, supporting informed planning for sustainable groundwater management.
- The platform utilises geospatial datasets, including rainfall, groundwater levels, groundwater yield, slope and drainage, to help identify potential recharge areas and plan appropriate interventions.
- Punah Bharan — advancing scientific groundwater recharge planning through geospatial technology.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. Emerging Science, Technology and Innovation Conclave (ESTIC) 2026:

Context: During his address at the inauguration of the Emerging Science, Technology and Innovation Conclave (ESTIC) 2026, PM called on India's scientists to create innovations that strengthen self-reliance and benefit humanity.

About Emerging Science, Technology and Innovation Conclave (ESTIC) 2026:

- India's premier Science, Technology and Innovation (STI) platform, promoting collaboration and supporting the vision of Viksit Bharat 2047.
- **Theme:** "Creative Minds, Catalysing Science, Empowering Technologies."
- **Venue:** Bharat Mandapam, New Delhi.
- **Organiser:** Council of Scientific and Industrial Research (CSIR), under the guidance of the Office of the Principal Scientific Adviser to the Government of India.
- **Duration:** Three-day event featuring plenary talks, technical sessions, panel discussions, exhibitions and technology showcases.
- **Participants:** Nobel Laureates, global experts, policymakers, innovators, startups, industry representatives and emerging scientific leaders.
- **Thematic Areas:** Covers 12 areas, including advanced manufacturing, quantum communications, semiconductors, AI, robotics, synthetic biology, healthcare, agricultural technology and space science.
- **Significance:** Showcases cutting-edge research and deep-tech innovations while strengthening collaboration among academia, industry, government and startups.

6. F-16 jets:

Context: Defence Minister Rajnath Singh on Wednesday raised India's concerns over Washington's support package for Pakistan's F-16 fighter aircraft with U.S. Secretary of War Pete Hegseth during a bilateral meeting on the sidelines of the ASEAN Defence Ministers' Meeting-Plus (ADMM-Plus) in Cebu, Philippines.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About F-16 jets:

- The F-16 Fighting Falcon is a compact, multirole fighter aircraft designed for air-to-air combat and air-to-surface attacks.
- **Development:** Developed by General Dynamics for the US Air Force in the 1970s; the aircraft programme is now associated with Lockheed Martin.
- **Manoeuvrability:** Features a frameless bubble canopy for better visibility, side-stick controls and a fly-by-wire flight control system.
- **Speed and Range:** Capable of speeds exceeding Mach 2, with a stated combat radius of around 550 km. Mach 1 is approximately the speed of sound.
- **Weapons:** Can carry AIM-9 Sidewinder and AIM-120 AMRAAM missiles, JDAM and Paveway bombs, and an M61 Vulcan 20 mm cannon.
- **Avionics:** Advanced variants can feature APG-83 AESA radar, digital flight controls and upgraded targeting systems for precision strikes.
- **Multirole Capabilities:** Performs air superiority, ground attack, reconnaissance and electronic warfare missions. External fuel tanks and aerial refuelling can extend its operational range.
- **Global Use and India**: Operated by the US, Pakistan, Israel, Turkey, Egypt, South Korea and other countries. India does not operate the F-16 and uses aircraft such as Tejas, Mirage 2000, Su-30MKI, Rafale and MiG-29 for comparable roles.

Quick Bites:

- The Ministry of Agriculture and Farmers' Welfare is organising the 'Khet Bachao Abhiyan–Rabi 2026' across the country from 22 October to 30 November 2026 through its two departments. The primary objective of the campaign is to ensure that farmers receive direct information about the latest agricultural technologies and government schemes through awareness programmes organised in villages.
- Mexico and India take an important step towards strengthening their economic and trade relations with the signing of the Terms of Reference for negotiations on a Preferential Trade Agreement (PTA), which establish the framework, scope, modalities and roadmap for negotiations aimed at creating new economic opportunities for both countries.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Indian Naval Ship Sahyadri, an indigenously designed and built guided missile stealth frigate of the Indian Navy, arrived at Busan Naval Harbour, Republic of Korea, on 26 Oct 2026 to participate in the India-Republic of Korea Navy (IN-RoKN) Bilateral Exercise.
- Union Minister of State (Independent Charge) for Ayush and Union Minister of State for Health and Family Welfare, Shri Prataprao Jadhav, today launched the fourth edition of the Tobacco-Free Youth Campaign (TFYC 4.0) at the Atal Bihari Vajpayee Institute of Medical Sciences (ABVIMS) and Dr. Ram Manohar Lohia (Dr. RML) Hospital, New Delhi, calling for a nationwide people's movement to protect young people from tobacco use and nicotine addiction.
- The Ministry of New and Renewable Energy (MNRE), Government of India, is organising the Bharat Renewable Energy Summit & Expo (BRESE) 2026 from 2–5 November 2026 at Bharat Mandapam, New Delhi. The Hon'ble Prime Minister, Shri Narendra Modi, will inaugurate the Summit on 2nd November 2026.
- Union Minister of Ports, Shipping and Waterways, Sarbananda Sonowal, today met Chung Ki-sun, Chairman of HD Hyundai, in Seoul and discussed the next steps for India's proposed greenfield shipyard at Thoothukudi, Tamil Nadu. The meeting took place during Sonowal's four-day visit to South Korea, which is focused on deepening India–Korea cooperation in shipbuilding and the wider maritime industry.
- The Ministry of Tourism, Government of India, in association with the Government of Arunachal Pradesh and other North Eastern States, is organising the 14th edition of the International Tourism Mart (ITM) for the North Eastern Region from 29–31 October 2026 at Tawang, Arunachal Pradesh. The three-day event will be held at Hotel Vivanta, Tawang, bringing together domestic and international tourism stakeholders to showcase the region's diverse tourism potential and strengthen business partnerships.
- Reflecting the Central Government's continued commitment to senior citizens, an amount of ₹ 77.98 Crore has been released as Grant-In-Aid to 755 projects under the Integrated Programme for Senior Citizens (IPSrC) component of Atal Vayo Abhyuday Yojana (AVYAY), for the quarter ending 30 September 2026 in the financial year 2026–27. AVYAY is one of the flagship schemes of the Ministry of Social Justice And Empowerment that embodies the principles of 'Ageing with Dignity' and 'Ageing in Place', recognising the importance of ensuring that older persons can live with respect, security and independence.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- Scientists from the Zoological Survey of India (ZSI) have discovered and described Allocaecilius nilgiriensis, a new species of barklouse in the Nilgiri Hills. It is only the second record of this genus in India, taking the global total of known Allocaecilius species to 13. It is distributed across the southern Western Ghats of Tamil Nadu and Kerala, inhabiting the damp, shaded canopies and understories of high-altitude shola forests and evergreen rainforests.
- Chhattisgarh is set to get its first official state butterfly, with the Orange Oakleaf (Kallima inachus) winning a public online poll. It is a nymphalid butterfly found across Tropical Asia, from India to Japan. Its distinctive camouflage makes its folded wings resemble a dry, withered leaf, while open wings display bright orange, jet-black and deep blue colours. It commonly inhabits subtropical and temperate forests with dense undergrowth and abundant leaf litter.
- Angioplasty is a minimally invasive medical procedure used to widen narrowed or blocked arteries and improve blood flow. It most commonly treats atherosclerosis, a condition in which fatty deposits containing cholesterol and other substances build up in artery walls. Angioplasty may help prevent serious complications, including heart attacks and strokes, when clinically indicated.
- The Earthshot Prize 2026 will be held in Mumbai on November 16–17, 2026, marking the award's first event in India. Founded by Prince William in 2020, it supports innovative solutions to global environmental challenges. Its five categories are Protect and Restore Nature, Clean Our Air, Revive Our Oceans, Build a Waste-Free World, and Fix Our Climate. The sixth annual Awards Night is scheduled for November 17, 2026.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

30-10-2026

1. Dearness Allowance:

Context: The Cabinet recently approved a 3% hike in dearness allowance and dearness relief, benefiting over 1.17 crore central government employees and pensioners.

About Dearness Allowance:

- Dearness Allowance (DA) is an allowance provided to government employees, public sector employees and pensioners in India to compensate for rising living costs and inflation.
- **Calculation:** DA is calculated as a percentage of basic pay or basic pension. For example, if basic pay is ₹40,000 and DA is 60%, the DA amount is ₹24,000.
- **Purpose:** It helps employees and pensioners maintain their purchasing power as the prices of essential goods and services increase.
- **Industrial Dearness Allowance (IDA):** Applicable to employees in the public sector, IDA is generally revised quarterly based on changes in the Consumer Price Index (CPI).
- **Variable Dearness Allowance (VDA):** Applicable mainly to certain categories of workers covered under minimum wage provisions, VDA is generally revised twice a year, in January and July, based on CPI changes.
- **Components of VDA:** It includes Fixed Variable DA, a Base Index and the Consumer Price Index (CPI), which influences changes in the allowance.
- **Private-Sector Employees:** They do not automatically receive DA. Employers may instead provide special allowances, flexible benefits or performance-related pay.
- **Taxation:** DA is generally fully taxable under the Income-tax Act, subject to applicable provisions.
- **Salary Component**: DA is added to basic pay and other applicable salary components, such as House Rent Allowance (HRA) and special allowances.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

2. Noyyal river:

Context: A recent comment by the Tamil Nadu Minister for Environment and Climate Change, that soap and shampoo used by the public can also cause excessive foaming in the Noyyal River, which flows through Tiruppur district, has sparked criticism.

About Noyyal river:

- associated with the Nilgiri Biosphere Reserve.
- **Tributary of Cauvery:** It is an important tributary of the Cauvery River in western Tamil Nadu.
- **Historical Name:** The river was originally known as Kanchi Nadi. According to the provided source, its name was later changed to Noyyal in 1750 AD, after the place where it joins the Cauvery.
- **Course:** It flows through Coimbatore, Tiruppur and Erode districts before joining the Cauvery at Noyyal village in Karur district.
- **Length and Nature:** The river is approximately 158 km long and seasonal, with rapid flows during the monsoon.
- **River Management System:** Its watershed is connected to 32 tanks, 14 major canals, 23 anicuts and 55 check dams.
- **Historical Significance:** Many anicuts and check dams were constructed by the Chola kings between the 9th and 12th centuries to support irrigation and control downstream floods.
- **Tributaries:** Its two main tributaries are the Cheyyar (Chadiaar) River and Kanchimanadhi River.
- **Dams:** Aathupalayam Dam and Orathuppalayam Dam are important dams associated with the Noyyal River.

3. Unified Logistics Interface Platform (ULIP):

Context: After the Road Ministry recently sought an audit of users accessing the Centre's logistics portal following complaints that multiple apps and websites were selling vehicle information, the Unified Logistics Interface Platform (ULIP) rejected the allegations of its misuse.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Unified Logistics Interface Platform (ULIP):

- ULIP is a digital gateway that enables logistics stakeholders to access logistics-related datasets from various government systems through API-based integration.
- **Concept and Development:** It was conceptualised by NITI Aayog and developed under the PM Gati Shakti National Master Plan (PMGS-NMP).
- **Launch:** It was launched by the Prime Minister on 17 September 2022 as part of the National Logistics Policy (NLP).
- **Implementation:** The platform is maintained and operated by NICDC Logistics Data Services (NLDS), a 50:50 joint venture between the Government of India, represented by NICDIT, and Japan's NEC Corporation.
- **Data Integration:** According to the provided source, ULIP integrates 44 government systems across 11 ministries through 129 APIs, covering over 1,800 data fields.
- **Key Databases:** It integrates logistics-related systems such as VAHAN, SARATHI, FASTag, Freight Operations Information System (FOIS), ICEGATE and Port Community Systems.
- **Objectives:** It aims to provide a single-window logistics platform, improve end-to-end visibility, enable optimal use of different transport modes and simplify compliance, documentation, certification and approval processes.
- **Data Exchange:** It facilitates information sharing between government and private entities across India's logistics ecosystem, supporting greater efficiency and coordination.

4. BioSentinel:

Context: BioSentinel is a NASA astrobiology mission designed to study the effects of deep-space radiation on living organisms.

About BioSentinel:

- BioSentinel is a biological research mission developed by NASA's Ames Research Center to study the effects of deep-space radiation on living organisms using budding yeast (Saccharomyces cerevisiae).

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Significance:** It was the first mission in more than 40 years to collect direct experimental data from a biological study beyond Low Earth Orbit.
- **Mission Profile:** Launched on 16 November 2022 aboard NASA's Artemis I, BioSentinel was the mission's only biological experiment and one of ten secondary payloads.
- **Spacecraft:** It is a low-cost 6U CubeSat measuring approximately 10 × 20 × 30 cm and weighing about 14 kg.
- **Orbit:** After a lunar flyby, the spacecraft entered an Earth-trailing heliocentric orbit, travelling around the Sun while following Earth at a distance.
- **Biological Experiment:** The mission studies changes in yeast cells and DNA repair under prolonged exposure to space radiation, where Earth's magnetic field provides less protection than in Low Earth Orbit.
- **Radiation Measurement:** BioSentinel carries a Linear Energy Transfer (LET) spectrometer to measure energy deposited by radiation in matter and characterise the deep-space radiation environment. As of 31 July 2024, the spectrometer was still operating during the solar maximum period.

5. Pro-Active Governance and Timely Implementation (PRAGATI):

Context: Prime Minister Narendra Modi chaired the 54th Pro-Active Governance and Timely Implementation (PRAGATI) meeting at Seva Teerth on 28 October 2026. The meeting reviewed infrastructure projects worth more than ₹16,000 crore across 31 States and Union Territories.

About Pro-Active Governance and Timely Implementation (PRAGATI):

- PRAGATI is a multi-purpose, multi-modal platform for addressing public grievances and monitoring important Central Government programmes, projects and initiatives flagged by State Governments.
- **Launch:** It was launched on 25 March 2015.
- **Development:** The platform was designed in-house by the Prime Minister's Office (PMO) with the assistance of the National Informatics Centre (NIC).
- **Technologies:** It integrates three technologies: digital data management, video conferencing and geospatial technology.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Cooperative Federalism:** It brings together Union Government Secretaries and State Chief Secretaries on a common platform to resolve issues through coordinated action.
- **Three-Tier System:** Its three levels are the PMO, Union Government Secretaries and State Chief Secretaries.
- **PRAGATI Day:** The Prime Minister interacts with officials through video conferencing once a month, on the fourth Wednesday at 3:30 PM.
- **Database Integration:** It integrates and strengthens databases of CPGRAMS for public grievances, the Project Monitoring Group (PMG) for project monitoring, and the Ministry of Statistics and Programme Implementation.
- **Issue Selection and Review:** Issues are selected from public grievances, ongoing programmes, pending projects and correspondence received by the PMO. They are uploaded seven days before PRAGATI Day, on the third Wednesday of the month, enabling review with real-time data and ground-level visuals.

Quick Bites:

❖ AIIA-iCAINE Marks Sixth Foundation Day with Launch of National Ayurveda AI Challenge in Collaboration with Techfest, IIT Bombay. The All India Institute of Ayurveda (AIIA), New Delhi, celebrated the sixth Foundation Day of its incubation centre, AIIA-iCAINE, with the launch of a national innovation challenge in Artificial Intelligence (AI) for Ayurveda, the signing of two strategic Memoranda of Understanding (MoUs), the launch of an Intellectual Property Rights (IPR) Facility for Ayurveda and a capacity-building workshop on entrepreneurship and design thinking.

❖ Prime Minister Shri Narendra Modi will release the 24th instalment of the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) tomorrow (30 October 2026) at Banaskantha, Gujarat. The instalment will transfer more than ₹18,690 crore directly to the bank accounts of over 9.34 crore farmers across the country, which focuses the Government's commitment towards the welfare and economic empowerment of farmers.

❖ Raksha Rajya Mantri Shri Sanjay Seth will inaugurate (VISV-2026: Vision, Innovation, Synergy, Values), being organised by the Defence Research and Development Organisation (DRDO), in collaboration with the Centre for Joint Warfare Studies (CENJOWS), on October 30, 2026, at Manekshaw Centre, New Delhi. The event, themed "Showcasing Defence Capabilities, Strengthening Global Partnerships," aims to

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

showcase India's indigenous defence technology capabilities and strengthen engagement with friendly partner nations.

- Indian pilot Smit Machchhar was awarded the UAE's First Class Order of Zayed II for his bravery in protecting 174 passengers aboard a Flydubai flight during an alleged attack by his Omani co-pilot. The award is a prestigious UAE civilian decoration named after Sheikh Zayed bin Sultan Al Nahyan, the UAE's founding president (1971–2004), and is generally conferred on foreign diplomats, senior officials and distinguished international figures for significant contributions to the UAE or its international relations.
- Researchers discovered a new gecko species, Cyrtodactylus dimensis, in the Umrangso area of Assam's Dima Hasao district. It belongs to the bent-toed gecko group. Dima Hasao is part of the Indo-Burma biodiversity hotspot, known for its rich biodiversity. With this discovery, the number of described Cyrtodactylus species recorded in Assam has increased to eight.
- India voted in favour of a United Nations General Assembly (UNGA) resolution calling for an end to the economic, commercial and financial embargo imposed by the United States against Cuba, reiterating that the restrictions should be lifted to help the Caribbean nation pursue its development aspirations.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

31-10-2026

1. Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):

Context: The government has released the 24th instalment of the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) on 30 October 2026, at Banaskantha, Gujarat. More than 9.34 crore eligible farmers received around ₹18,690 crore in direct financial assistance.

About Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):

- PM-KISAN is a centrally sector scheme launched on February 24, 2019.
- The scheme seeks to provide assured income support to landholding farmer families nationwide with cultivable land. Under the scheme, each eligible farmer family receives annual financial assistance of ₹6,000.
- This is disbursed in three equal installments of ₹2,000 into their Aadhaar-seeded bank accounts.
- The assistance provided under PM-KISAN has enabled farmers to make timely investments in seeds, fertilizers, irrigation, agricultural machinery and other agricultural requirements.
- This has enhanced farmers' productive capacity, reduced their dependence on informal credit and strengthened the financial stability of rural households.
- State Governments are responsible for identifying eligible farmer households and developing a comprehensive beneficiary database. This database includes key details such as name, age, category, Aadhaar number, bank account information, and mobile number.
- Farmers can register grievances through the PM-KISAN portal and the Centralized Public Grievance Redressal and Monitoring System (CPGRAMS). This facilitates timely resolution and transparent grievance management.
- In September 2023, the Government introduced Kisan-eMitra, an AI-enabled chatbot integrated with the PM-KISAN digital ecosystem. It was developed with technical support from the EkStep Foundation and

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

BHASHINI. The chatbot provides farmers with real-time information on payments, registrations, and eligibility under the scheme in multiple Indian languages.

2. Ayushman Vay Vandana initiative:

Context: The Ayushman Vay Vandana initiative completed two years and recorded 23.46 lakh authorised hospital admissions worth ₹5,668.80 crore.

About Ayushman Vay Vandana initiative:

- Launched in 2024, it extends the benefits of Ayushman Bharat–Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) to senior citizens aged 70 years and above.
- Objective: To improve access to healthcare and reduce the financial burden of hospitalisation among elderly citizens.
- Implementation: Implemented by the National Health Authority (NHA) under the Ministry of Health and Family Welfare.
- Coverage: It aims to benefit approximately 6 crore senior citizens belonging to 4.5 crore families across India.
- Health Coverage: All citizens aged 70 years and above are eligible for health coverage of up to ₹5 lakh per family annually for secondary and tertiary care hospitalisation.
- Additional Top-up: Senior citizens belonging to families already covered under AB PM-JAY receive an additional top-up cover of up to ₹5 lakh annually, exclusively for themselves. This is separate from the existing family cover available to members below 70 years.

3. Talacauvery Wildlife Sanctuary:

Context: Recently, Karnataka Forest department personnel arrested "eight poachers" inside the Talacauvery Wildlife Sanctuary.

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

About Talacauvery Wildlife Sanctuary:

- Located in Karnataka, it borders the Ranipuram and Kottencheri Hills in Kasaragod district of Kerala.
- **Name and Origin:** Named after Talacauvery, the source of the Cauvery River. The river originates at Brahmagiri Peak, located within the sanctuary. 'Tala' means head or source.
- **Vegetation:** Comprises tropical evergreen forests, tropical semi-evergreen forests and grasslands.
- **Flora and Fauna:** Important trees include Champak, Ironwood, Ebony, Indian Mahogany and Poon spar. Major fauna include Asian elephants, tigers, leopards, wild dogs, gaurs and sloth bears.
- **Avifauna:** It is an Important Bird Area (IBA), supporting species such as the Nilgiri wood pigeon, Asian fairy-bluebird, Malabar trogon and Great hornbill.

4. Sankosh river:

Context: More than 10,000 people have been recently moved to shelters in West Bengal's Alipurduar district following a glacial lake outburst in neighbouring Bhutan, as authorities placed the Sankosh river system on red alert over fears of a sudden flood surge.

About Sankosh river:

- It is a major river flowing through Bhutan and India and is one of the important north-bank tributaries of the Brahmaputra. It is known as Puna Tsang Chu in Bhutan.
- **Origin:** It originates in northern Bhutan and is fed by Himalayan glacial melt and snow.
- **Formation:** It is formed by the confluence of the Phochu and Mochu rivers.
- **Course:** It flows south through Bhutan before entering India. It passes through Dhubri district of Assam and joins the Brahmaputra near Gauripur. Its lower course forms part of the Assam–West Bengal boundary.
- **River Profile:** It flows through narrow gorges and steep gradients in Bhutan before entering the flatter plains near the Indo-Bhutan border.
- **Length:** Its total length is approximately 321 km, of which 214 km lies in Bhutan and 107 km in India.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

5. Gangetic Dolphin:

Context: Recently, the United Nations Environment Programme (UNEP) report recognized India's Ganges River dolphin (Platanista gangetica) species recovery program.

About Gangetic Dolphin:

- It is a freshwater dolphin and one of the few river dolphins in the world. It inhabits the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India and Bangladesh.
- **Other Names:** Also known as Blind Dolphin, Ganges Susu, Hihu, Side-swimming Dolphin and South Asian River Dolphin.
- **National Aquatic Animal:** It has been recognised as India's National Aquatic Animal.
- **Physical Features:** It has a long, thin snout, rounded belly, stocky body and large flippers. Its eyes lack lenses, making it functionally blind.
- **Feeding and Echolocation:** It feeds mainly on freshwater fish and invertebrates. Its highly developed biosonar system uses ultrasonic sounds to locate and catch prey in murky waters.
- **Breathing:** Being a mammal, it must surface every 30–120 seconds to breathe. It is popularly called 'Susu' because of the sound it makes while breathing.
- **Conservation Status:** IUCN Red List: Endangered; CITES: Appendix I; Wildlife (Protection) Act, 1972: Schedule I.

6. GSLV-F18/NVS-03:

Context: The GSLV-F18 successfully launched the NVS-03 satellite from the Satish Dhawan Space Centre, Sriharikota, placing it into the intended geosynchronous transfer orbit in about 18 minutes. Weighing 2,250 kg, NVS-03 is the third satellite in the next-generation navigation system designed to ensure continuity of services under NavIC (IRNSS).

About GSLV-F18/NVS-03:

- NVS-03 is the third satellite in ISRO's second-generation NVS series, designed to replace ageing first-generation IRNSS satellites. It has a planned mission life of 12 years.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

- **Navigation Services:** After successful deployment and commissioning, it could increase the number of operational NavIC satellites from three to four, meeting the minimum requirement for basic standalone positioning.
- **Indigenous Atomic Clock:** It carries an indigenous Rubidium atomic clock developed by the Space Applications Centre (SAC), Ahmedabad, to address failures of imported atomic clocks in earlier satellites.
- **Civilian L1 Band:** Unlike the earlier generation, NVS-03 incorporates the civilian L1-band signal, improving compatibility with modern commercial devices.
- **Frequency Bands:** It supports L1, L5 and S-band signals for navigation services.
- **Significance:** It is expected to strengthen the indigenous NavIC navigation system and expand its usability in smartphones, smartwatches and fitness trackers.

About NavIC (Navigation with Indian Constellation):

- NavIC is the operational name of the Indian Regional Navigation Satellite System (IRNSS), an indigenous regional satellite navigation system developed by ISRO to provide precise positioning and navigation services.
- **System Architecture:** It consists of three segments: Space Segment (navigation satellites), Ground Segment (control, monitoring and timing infrastructure) and User Segment (navigation receivers).
- **Service Coverage:** Its Primary Service Area covers India and up to 1,500 km beyond its borders. The Extended Service Area extends up to a region bounded by 30° South–50° North latitude and 30° East–130° East longitude.
- **Navigation Services:** It provides Standard Positioning Service (SPS) for civilian users and encrypted Restricted Service (RS) for authorised users, including strategic and defence applications. SPS is designed for positioning accuracy better than 20 metres and timing accuracy better than 40 nanoseconds (2σ) in the primary service area.
- **First Generation (IRNSS Series):** The first-generation constellation comprised seven satellites, IRNSS-1A to IRNSS-1G, launched between 2013 and 2018, with a 10-year mission life.
- **First-Generation Setbacks:** IRNSS-1H failed to reach orbit in 2017 due to heat-shield separation failure

Scan QR Code to Follow us on **Social Media**
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

and was replaced by IRNSS-1I in 2018. Several first-generation satellites faced imported atomic clock failures or approached the end of their mission life.

- **Second Generation (NVS Series):** Developed to improve reliability, the NVS satellites have a planned 12-year mission life and support the L1 frequency band along with L5 and S bands. L1 improves compatibility with GPS and modern civilian devices such as smartwatches.
- **Key NVS Satellites:** NVS-01, launched in 2023, carries an indigenous rubidium atomic clock and is operational. NVS-02, launched in 2025, faced onboard technical issues that prevented it from reaching its final operational orbit. NVS-04 and NVS-05 are planned future satellites.
- **Constellation Status:** The fully operational NavIC system is designed to comprise seven satellites: three in Geostationary Orbit (GEO) and four in Inclined Geosynchronous Orbit (IGSO). Three satellites—IRNSS-1B, IRNSS-1I and NVS-01—are currently operational.

Quick Bites:

❖ The 19th Session of the India–Belgium–Luxembourg Economic Union (BLEU) Joint Economic Commission (JEC) was held in Luxembourg on 29 October 2026. The meeting provided a platform for India, Belgium and Luxembourg to review bilateral trade and investment relations and discuss opportunities to further strengthen economic cooperation across key sectors.

❖ Union Minister for Environment, Forest and Climate Change, visited the Commission for Air Quality Management's (CAQM) newly developed Integrated Command and Control Centre (I3C), named PAVAN (Platform for Air quality Vigilance and Analytics for NCR), in New Delhi. Developed as a single-window digital nerve centre, PAVAN-I3C integrates more than 30 APIs and data streams, including air quality, emissions, meteorological, satellite, camera, mobility, complaint and compliance data from multiple agencies. It also integrates data from 111 Continuous Ambient Air Quality Monitoring Stations (CAAQMS) operational in Delhi-NCR

❖ The Government of India has constituted a High Level Committee on Banking for Viksit Bharat to undertake a review of India's banking sector and recommend structural, institutional, regulatory and legislative reforms necessary to make it globally competitive, financially inclusive, and resilient for Viksit

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com

Bharat, 2047. Shri Suresh N. Patel, former Central Vigilance Commissioner will be the Chairman of the Committee.

- Sakurajima Volcano: Located at the southern tip of Kyushu Island near Kagoshima city in southern Japan, Sakurajima lies in Kagoshima Bay (Kinkowan Bay), on the southern edge of the Aira Caldera. It is one of Japan's most active volcanoes, with frequent eruptions. Situated along a convergent plate margin, it is an andesitic stratovolcano, formed by layers of lava and ash. It has an elevation of 1,117 metres and a circumference of approximately 50 km.
- India's extreme poverty rate fell from 27.1% in 2011 to 2.6% in 2023, with an estimated 496 million people moving out of poverty, the World Bank's October 2026 Poverty and Equity Brief says.
- At the 29–30 October 2026 EU–Canada Summit in Montreal, Quebec, Prime Minister Mark Carney, European Commission President Ursula von der Leyen and European Council President António Costa launched the Alliance for the Future. The EU and Canada will form its core, focusing on critical minerals, resilient supply chains and defence; other countries may join. The stated aims include protecting sovereignty and reducing reliance on US trade and defence amid concerns over economic and military coercion.
- A Rafale Marine fighter jet made its maiden landing on the Indian Navy's indigenous aircraft carrier, INS Vikrant, on 29 October 2026. The jet also completed its first take-off from the carrier that day.
- Manisha Bhanwala scripted history as she rallied to beat USA's Pan-American champion Abigail Elizabeth Nette 8-6 in the 59kg final and became the first Indian woman to win a gold medal at the World wrestling championships in Astana, Kazakhstan.
- The Relentless Sprinter is a book written by renowned strength and conditioning coach Basu Shanker. It explores the science, discipline and training methods involved in fine-tuning an elite athlete's body and achieving peak physical performance. The book has also received recognition and discussion from prominent sporting figures, including Rahul Dravid.

Scan QR Code to Follow us on Social Media
Head Office:
3rd Floor, Suryalok Complex, Rosary Convent School Road, Gun Foundry, Basherbagh, Hyderabad, Telangana - 500001.
Phone
7799996602
ace.online | www.aceenggacademy.com