7. Shortnews

1. Liberalised Remittances Scheme (LRS)

India's outward remittances under the RBI's Liberalised Remittance Scheme fell to a two-year low in November 2025, driven by declining foreign education and travel spending.

Key Trends in Outward Remittances

Total outward remittances- Fell to $1.94 billion, lowest since November 2023. Foreign education spending- Declined sharply to $120.9 million, lowest since April 2020, reflecting reduced overseas enrolments. Foreign travel spending- Dropped to $1.1 billion, amid global uncertainty and tighter visa and policy conditions.

About the Liberalised Remittance Scheme (LRS)

LRS is an RBI-facilitated framework that allows resident individuals to remit funds abroad for permitted current and capital account transactions.

Launched- 2004 by the Reserve Bank of India.

Remittance limit- Up to USD 250,000 per individual per financial year. Remittances beyond this limit require prior approval from the RBI.

Objectives- Facilitate education, travel, medical treatment, and maintenance of relatives abroad. Enable overseas investments, asset acquisition, and financial diversification. Promote orderly integration of India with global financial systems.

Eligibility Criteria- The scheme is available to all resident individuals, including minors and students. Exclusion- Corporates, partnership firms, Hindu Undivided Families (HUFs), trusts, and other entities are excluded from the scheme.

Permissible Uses- Funds remitted under LRS may be used for education, business travel, employment, medical treatment, gifts, investments, and other personal purposes, subject to FEMA and RBI guidelines.

Prohibited Transactions- purchase of lottery tickets, margin trading, speculative activities, or certain real estate transactions, as notified by RBI.

Taxation under LRS-

1. Remittances under LRS are subject to Tax Collected at Source (TCS) as per the Income Tax Act.
2. Exclusion- TCS is not applicable if the remitter furnishes a declaration that the funds are used for manufacturing, processing, production, or power generation, and not for resale.

2. ASC Arjun

In a significant step towards improving passenger safety, security and service delivery, Indian Railways has introduced a humanoid robot named "ASC ARJUN".

About ASC ARJUN

It is the first humanoid robot introduced on the Indian Railways network.

Location- Deployed at Visakhapatnam Railway Station.

Purpose- Primarily to enhance passenger safety, security, and service delivery, while working alongside Railway Protection Force (RPF) personnel.

Development- Fully designed and developed in Visakhapatnam using home-grown (indigenous) technology.

Key Features and Capabilities-

1. Intrusion Detection- Equipped with Face Recognition System (FRS).
2. AI-based Crowd Monitoring- Real-time alerts to RPF control rooms.
3. Multilingual Announcements- Automated guidance in English, Hindi, and Telugu.
4. Semi-Autonomous Navigation- Moves along predefined paths with obstacle avoidance.

5. 24×7 Patrolling- Continuous surveillance of platforms.
6. Emergency Response- Fire and smoke detection systems for timely alerts.

3. Terawave Communication Network

Blue Origin has announced TeraWave, a massive satellite communications constellation to provide ultra-high-speed global connectivity using optical laser links.

About TeraWave Communication

TeraWave is a next-generation satellite communications constellation announced by Blue Origin. Capacity & Speed- Designed to deliver data speeds of up to 6 Terabits per second (Tbps) anywhere on Earth. It is far higher than existing satellite networks like Starlink.

Primary Focus- Targets enterprise, government, data centers, and mission-critical users rather than general consumer broadband.

Working Technology of TeraWave

LEO Satellite Constellation- TeraWave uses a dense constellation of 5,408 Low-Earth Orbit and Medium Earth Orbit (MEO) satellites, enabling low latency and continuous global coverage.

Optical Inter-Satellite Links- Satellites communicate with each other using optical laser links, allowing ultra-high-speed data transfer without routing all traffic through Earth.

Space-to-Ground Data Transmission- Data is beamed from satellites to ground gateway terminals.

Integration with Terrestrial Networks- Ground gateways connect with existing high-capacity fiber, cloud, and data-centre infrastructure, enabling seamless data flow between space and Earth systems.

About Blue Origin

Blue Origin is a USA based private aerospace company.

Established- Blue Origin was founded in 2000 by Jeff Bezos with a long-term vision of enabling millions of people to live and work in space.

Focus on Reusable Rockets- The company emphasizes reusable rockets to reduce launch costs.

Key Launch Vehicles-

1. New Shepard- Suborbital rocket for space tourism and research.
2. New Glenn- Heavy-lift orbital rocket crucial for deploying large satellite constellations like TeraWave.

SpaceX Starlink- Starlink is an existing low-Earth-orbit (LEO) satellite internet constellation providing broadband connectivity worldwide. It was developed and operated by SpaceX.

Scale- ~10,000 satellites already in orbit (largest constellation globally), with more planned.

Users- Consumers, businesses, governments, and defence agencies.

Coverage- Available in 140+ countries, especially useful for remote and disaster-prone regions.

4. Advanced Chemistry Cell–PLI (ACC-PLI) Scheme

India's ACC-PLI scheme for advanced battery manufacturing faces major delays, with limited capacity commissioned, amid technology gaps, localisation challenges, and supply-chain constraints.

About the Advanced Chemistry Cell–PLI (ACC-PLI) Scheme

The ACC-PLI scheme was launched in October 2021 by the Ministry of Heavy Industries to promote domestic manufacturing of next-generation battery cells.

Objectives

1. Establish 50 GWh of battery cell manufacturing capacity by 2026.
2. Reduce import dependence, especially on China.
3. Build a local battery value chain (cathode, anode, electrolyte).
4. Support EV adoption and energy storage at competitive costs.

Key Components

1. Outlay- ₹18,100 crore.
2. Incentive- Up to ₹2,000 per kWh of battery sold.
3. Local Value Addition- 25% within 2 years, 60% within 5 years.

Eligibility**-** Minimum investment of ₹1,100 crore.

Key Gaps in Scheme Achievement

Delayed Capacity Creation- Only 1.4 GWh commissioned on time against a 50 GWh target. 8.6 GWh under development but delayed

Technology & Skill Deficit- Lack of domestic expertise in cell manufacturing and mineral refining. Delays in visas for Chinese technical specialists slowed equipment installation

Weak Incentive Outcomes- Zero incentives disbursed by October 2025. Job creation far below expectations (0.12% of target) generated only 1,118 jobs against an estimated 1.03 million jobs

Demand for Batteries in India

EV-Driven Demand- EV sector accounts for 70–80% of lithium battery demand.

Energy Transition Needs- Growing demand from renewable energy storage systems.

Slowing Growth Signals- EV sales growth (FY 2024-25) at 15.3%, below earlier projections of 49% growth predicted for 2022 -2030.

About Advanced Chemistry Cell (ACC)

ACCs are next-generation rechargeable battery cells that use advanced chemical compositions (beyond conventional lead-acid batteries) to deliver high energy density, longer life, faster charging, and improved safety. They mainly include lithium-ion and emerging battery chemistries designed for modern energy and mobility needs.

Applications

1. Electric Vehicles (EVs)- Power electric cars, two-wheelers, buses, and commercial fleets.
2. Renewable Energy Storage- Store solar and wind energy for grid stability and peak demand management.
3. Consumer Electronics- Used in smartphones, laptops, wearables, and power tools.
4. Grid-Scale Storage- Support smart grids, backup power, and frequency regulation.
5. Defence & Space- Reliable power for unmanned systems, satellites, and strategic equipment.

5. Pangolakha Wildlife Sanctuary

Recently a forest fire affected about 12 hectares inside Pangolakha Wildlife Sanctuary, intensified by dry weather, high winds, steep terrain, and restricted access.

About Pangolakha Wildlife Sanctuary

Pangolakha Wildlife Sanctuary is a high-altitude protected area in East Sikkim, known for its rich biodiversity, strategic location, and role as an Important Bird Area (IBA). Established- 2002.

Location- Situated in East Sikkim, along the Indo-China border

Forms an ecological corridor with Bhutan forests and Neora Valley National Park (West Bengal). Lies along the Pangolakha Range, extending below the Chola Range, separating Sikkim from Bhutan.

Geography-

1. **Altitude-** ~1,300 m to over 4,000 m
2. **Terrain-** Steep mountainous slopes, alpine meadows, marshes, and forested valleys.
3. **Mountain Passes-** Nathu La and Jelep La, historically important and ecologically sensitive.
4. **Water Bodies-** High-altitude lakes such as Bedang Tso and nearby lakes including Tsongmo, vital for migratory birds.

5. **Rivers-** Headwaters of Rangpo and Jaldhaka originate nearby.

Vegetation- Alpine–temperate–subtropical gradient, Rhododendron, Silver Fir, Juniper, moss-rich oak forests, and dense bamboo thickets.

Fauna- Tiger, Leopard, Takin, Red Panda, Musk Deer, Serow, Asiatic Black Bear, Red Panda is also the State Animal of Sikkim

6. Red-Eared Slider Turtle

Recently, red-eared slider turtles were found in Coimbatore wetlands, Tamil Nadu, raising concerns about invasive species threats to freshwater ecosystems. Released from the pet trade, they are now spreading in Indian urban lakes and wetlands.

Red-Eared Slider Turtle (Trachemys scripta elegans)

The red-eared slider turtle is one of the world's most widely introduced freshwater turtles, primarily spread through the global exotic pet trade.

Native Range- Native to the United States, especially the Mississippi River basin and surrounding regions.

Distribution- Now established on all continents except Antarctica. In India, sightings are increasing in urban lakes, tanks, and wetlands, especially near cities.

Key Features

1. **Appearance-** Distinct red stripes behind each ear.
2. **Habitat-** Predominantly aquatic; becomes semi-terrestrial while expanding range.
3. **Adaptability-** Survives in sub-optimal temperatures and diverse habitats.
4. **Behaviour-** Aggressive hunter, especially during breeding periods.
5. **Lifespan-** 20–50 years in the wild.

IUCN Status- Least Concern (globally), but invasive outside native range.

Impact on Indian Ecosystems- Breeds rapidly due to absence of natural predators. Competes with native turtles for basking sites, nesting areas, and food. Aggressive feeding reduces fish populations, disturbing freshwater food chains. Alters wetland ecology, threatening local biodiversity.

Ways to Tackle Its Invasion

Strict regulation and monitoring of exotic pet trade and imports. Public awareness campaigns discouraging release of pet turtles into natural water bodies. Early detection and removal, with reporting by fishermen, citizens, and local authorities.

7. Shadow Fleet

Recently, the U.S. imposed fresh sanctions on Iran's "shadow fleet" to curb oil exports allegedly funding protest repression and regional destabilisation.

What is a Shadow Fleet?

A shadow fleet refers to a network of ageing, often anonymously owned oil tankers used to evade international sanctions by concealing the origin, ownership, and destination of cargo.

Key Features of a Shadow Fleet

1. Opaque Ownership- Vessels are registered through shell companies across multiple jurisdictions.
2. Evasion Techniques- Frequent ship renaming, flag-hopping, disabling Automatic Identification System (AIS) transponders, and ship-to-ship transfers at sea.
3. Informal Logistics- Operates outside mainstream insurance, financing, and compliance systems.

Impact of Shadow Fleets

1. Sanctions Evasion- Enables sanctioned states like Iran to continue exporting oil and petroleum products despite restrictions.
2. Security Risks- Revenues may finance weapons programmes, proxy groups, and internal repression.
3. Maritime Safety & Environment- Poorly regulated vessels increase risks of accidents, oil spills, and legal disputes.

8. Meteotsunami

A rare meteotsunami struck the coastal town of Santa Clara del Mar, Argentina**.**

What is a Meteotsunami?

A meteotsunami is a tsunami-like sea-level oscillation caused by rapid atmospheric disturbances, not by seismic activity.

Distinct from Earthquake Tsunami- Unlike conventional tsunamis triggered by undersea earthquakes, meteotsunamis are generated due to meteorological factors.

Triggering Mechanism-

1. Atmospheric Pressure Changes- Sudden drops or fluctuations in air pressure over the ocean surface.
2. Wave Formation Process- The atmospheric disturbance transfers energy to the ocean surface, creating long waves that travel toward the coast and are often amplified by shallow continental shelves, bays, inlets, or harbours.

Behaviour and Characteristics-

1. **Rapid Onset-** The phenomenon occurs suddenly with little or no warning.
2. **Sea Withdrawal-** Water may initially recede from the shoreline before surging back forcefully.
3. **Wave Height and Impact**- Meteotsunamis can reach wave heights of 6 feet or more, posing risks to coastal infrastructure, vessels, and human safety.

Geographical Occurrence- They have been recorded in several regions, including the Great Lakes, Gulf of America, Atlantic Coast, and the Mediterranean and Adriatic Seas.

Difference from Seismic Tsunami- Unlike seismic tsunamis, which originate from tectonic activity, meteotsunamis are weather-induced, though their physical behaviour and coastal impact can appear very similar.