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13TH INDIA-UAE JOINT DEFENCE COOPERATION COMMITTEE (JDCC) MEETING

Context

- India and the United Arab Emirates (UAE) reaffirmed their commitment to strengthening bilateral defence cooperation during the 13th India-UAE Joint Defence Cooperation Committee (JDCC) meeting, held in New Delhi.

Key Outcomes of the 13th JDCC Meeting

- Joint Manufacturing:** India and UAE agreed to pursue joint manufacturing initiatives, replicating the model of collaboration between ICOMM (India) and CARACAL (UAE) for small arms production.
- Technology Co-Development:** Discussions were held on co-developing next-generation technologies in emerging areas such as **Artificial Intelligence, autonomy, and cybersecurity**.
- Memorandum of Understanding (MoU)** was signed between the **Indian Coast Guard and the UAE National Guard** to deepen collaboration in Search and rescue operations, Anti-piracy missions, Pollution control response and Maritime situational awareness.

Significance of the Defence Cooperation

- Counterbalance to Regional Conflicts:** India's balanced approach in West Asia enhances its role as a stabilising, non-hegemonic partner, fostering regional trust amid ongoing tensions.
- Maritime Security:** The UAE's strategic location near the **Strait of Hormuz** complements India's naval presence in the Arabian Sea and enhances **collaborative maritime security**.
 - Joint maritime efforts strengthen sea lane security, trade route protection, and anti-piracy measures.
- India's defence export** and production capabilities receive a major boost through such partnerships, helping meet its target of **35,000 crore** in defence exports by **2025**.

UAE and India relations

- Political:** India and the United Arab Emirates (UAE) established diplomatic relations in 1972.
- Multilateral Cooperation:** India and the UAE are currently part of several plurilateral platforms such as **I2U2 (India-Israel-UAE-USA)** and **UFI (UAE-France-India) Trilateral**, etc.

- UAE was also invited as a Guest Country to the G-20 Summit.
- Economic & Commercial: The Comprehensive Economic Partnership Agreement (CEPA)** was signed in 2022, since the agreement, bilateral merchandise trade has nearly doubled from USD 43.3 billion in FY 2020-21 to **USD 83.7 billion** in FY 2023-24.
- UAE is the second largest export destination** of India (after the US) with an amount of nearly US\$ 31.61 billion for the year 2022-23.
- The Bilateral Investment Treaty (BIT)** was signed in 2024 to protect and encourage bilateral investments by providing investor safeguards.
- Defence cooperation:** It is steered through a Joint Defence Cooperation Committee (JDCC) at the Ministry level, with the signing of **Agreement on Defence Cooperation in 2003**, which came into effect in 2004.
- The Desert Cyclone exercise 2024**, marked a milestone in military cooperation.
- Space Cooperation:** Indian Space Research Organisation (ISRO) and the UAE Space Agency signed an MoU regarding cooperation in the exploration and use of outer space for peaceful purposes in 2016.
- Indian Community:** Indian expatriate community of approximately **3.5 million** is the largest ethnic community in UAE constituting roughly about **35%** of the country's population.

Conclusion

- The deepening India-UAE defence partnership reflects a maturing strategic relationship that now encompasses not just trade and diaspora ties but also critical areas like defence innovation, regional security, and strategic autonomy.
- Joint defence engagements align with India's broader objective of establishing a **rules-based, multipolar regional order**, especially in the Indo-Pacific and West Asia.

Source: PIB

LINGUISTIC REORGANISATION OF STATES IN INDIA

Context

- The Tamil Nadu Governor recently criticised the linguistic division of states in India, calling it a factor in the creation of "second-class citizens".

Background

- **At Independence in 1947**, India inherited a patchwork of provinces and princely states shaped by colonial administrative imperatives. These included:
 - ♦ Provinces under direct British rule,
 - ♦ 565 princely states under indirect control.
- The Constitution, which came into force on **January 26, 1950**, declared India to be a “Union of States”. The country, at the time, was divided into 28 states, falling under four categories.
 - ♦ **Part A states (governors’ provinces in British India):** Assam, Bihar, Bombay, East Punjab, Madhya Pradesh, Madras, Orissa, Uttar Pradesh, and West Bengal.
 - ♦ **Part B states (former princely states or group of princely states):** Hyderabad, Jammu & Kashmir, Madhya Bharat, Mysore, Patiala and East Punjab States Union (PEPSU), Rajasthan, Saurashtra, and Travancore-Cochin.
 - ♦ **Part C states** included both the former chief commissioners’ provinces and some princely states: Ajmer, Bhopal, Bilaspur, Coorg State, Delhi, Himachal Pradesh, Kutch, Manipur, Tripura, and Vindhya Pradesh.
 - ♦ **Part D state:** Andaman and Nicobar Islands, which was governed by a lieutenant governor appointed by the President.
- **Post-Independence**, people expected the new democratic government to respect and reflect linguistic aspirations in governance.

Development in Later phases

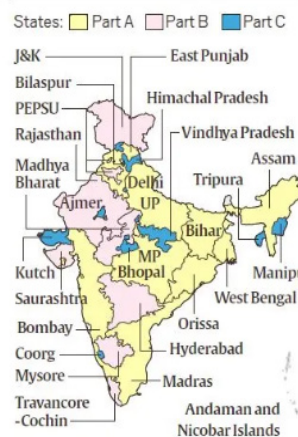
- **JVP Committee (1948–1949):** The Indian National Congress set up the Linguistic Provinces Committee in December 1948, comprising **Jawaharlal Nehru, Vallabhbhai Patel, and Pattabhi Sitaramayya**.
 - ♦ **Findings:** The committee formally **rejected language as the basis for reorganisation** and emphasised the risks of national disintegration due to linguistic division.
- **Creation of Andhra State:** **Potti Sriramulu’s** 56-day hunger strike for a **Telugu-speaking state** led to his death in 1952, triggering mass protests.
 - ♦ In response, the Government **created Andhra State in October 1953** by separating Telugu-speaking areas from Madras State, marking the first linguistic state in India.

- **States Reorganisation Commission (SRC), 1953:**
- Government of India appointed (December, 1953) a **three member States Reorganisation Commission** under the **chairmanship of Fazl Ali** with other two members were **K.M. Panikkar and H.N. Kunzru**.
- The Commission broadly accepted language as a valid criterion but rejected the idea of “**one language—one state**.”

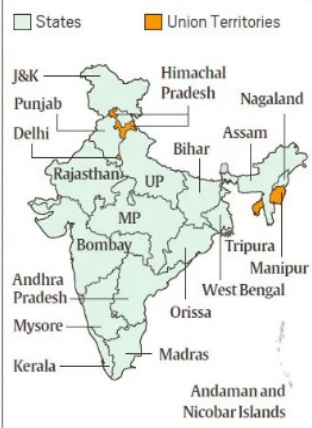
The States Reorganisation Act, 1956

- The Act abolished the existing classification of states into Part A, B, C, and D, establishing a **unified system of 14 states and 6 union territories**.
- It led to the formation of states like **Kerala, Karnataka**, and enlarged existing states by merging territories based on linguistic majority.
- **The Bombay Reorganisation Act (1960)** later created **Maharashtra and Gujarat**.
- **Created further reorganisations:** Punjab (1966), North-Eastern states (1963–1987), Chhattisgarh, Jharkhand, Uttarakhand (2000), and Telangana (2014).

ON JANUARY 26, 1950



AFTER 1956 REORGANISATION



Impact and Success of Linguistic Reorganisation

- **Preservation of Unity through Diversity:** Contrary to fears of fragmentation, linguistic states have strengthened national unity.
 - ♦ **The linguistic pluralism** has helped tame secessionist tendencies, unlike in Pakistan and Sri Lanka where language imposition caused conflict.
- **Improved Governance:** By creating smaller and often more homogeneous states, the Act aimed to bring governance closer to the people and enhance administrative efficiency.

- **Promotion of Regional Identity:** It recognized and fostered the unique linguistic and cultural identities of various communities, promoting cultural pride and integration.
- **The Second Administrative Reforms Commission (2008)** noted that major secessionist movements (e.g., in Nagaland, Punjab, Kashmir) were based on ethnicity, religion, and territory, not language.

Way Ahead

- There is a need to strengthen cooperative federalism to address regional aspirations without fuelling divisive tendencies.
- Periodic assessment of state boundaries, governance challenges, and inter-state equity should be undertaken through institutional mechanisms, without compromising national integration.

Source: IE

INDIA'S STRATEGIC FOCUS IN THE INDIAN OCEAN REGION (IOR)

In Context

- In a written reply to the Lok Sabha, the Minister of State for External Affairs reaffirmed India's robust and comprehensive engagement with **countries of the Indian Ocean Region (IOR)**.

About

- Underlining the significance of **Neighbourhood First Policy and MAHASAGAR** (Mutual and Holistic Advancement for Security and Growth Across Regions), he reaffirmed that Sri Lanka, Maldives, and Mauritius occupy a central role in India's maritime diplomacy.

Significance of IOR

- **Energy Security:** 80% of India's crude oil imports and 95% of trade by volume flows through the Indian Ocean.
- **Trade and Economic Lifeline:** Critical sea lanes (Strait of Hormuz, Malacca, Bab el-Mandeb) pass through the IOR, facilitating global and regional trade.
- **Geopolitical Leverage:** Central position in the IOR gives India leverage over major maritime chokepoints, enhancing its influence as a regional power.
- **Disaster and Environmental Resilience:** India's 11,000km coastline faces threats from cyclones, sea-level rise, and other climate impacts;

leadership in disaster relief (CDRI, humanitarian missions) and marine science is crucial.

Challenges

- **Growing Chinese Presence:** China's port investments and naval presence (Gwadar, Hambantota, Djibouti) encircle India and heighten strategic rivalry.
- **Maritime Security Threats:** Piracy, terrorism, trafficking, and recent cyber-attacks on maritime infrastructure threaten commerce and stability.
- **Environmental Degradation:** Overfishing, marine pollution, and rising sea levels threaten coastal communities and marine biodiversity.
- **Infrastructure Gaps:** Gaps remain in Indian port/shipbuilding capabilities, surveillance technologies, and logistics networks.
- **Regional Instability:** Unstable political climate in IOR nations and external power contestations add complexity

India's Steps Taken

- **Defence and Naval Expansion:** Commissioning of aircraft carriers (INS Vikrant), indigenous submarines, and expanded naval fleets.
- **Mission-Based Deployments:** Permanent presence at key choke points—Strait of Malacca, Bab el-Mandeb, Aden, etc.
- **Strengthened Regional Partnerships:** Enhanced ties via IORA, BIMSTEC, QUAD, deepening engagement with Seychelles, Mauritius, and Maldives.
- **Port and Infrastructure Expansion:** Development of Chabahar (Iran), Sittwe (Myanmar), Sabang (Indonesia), and domestic port modernization (Sagarmala).
- **Blue Economy and Science Missions:** Deep Ocean Mission, marine biotech, sustainable fishing practices, climate adaptation on coasts, and digital twin technology in ports.
- **Information Sharing:** IFC-IOR and networked maritime awareness for better threat response and governance.

Way Forward

- **Expand Naval and Surveillance Capacity:** Invest in next-gen warships, undersea surveillance, and cyber-resilient systems.
- **Deepen Regional Diplomacy:** Forge stronger bilateral and multilateral ties, expand joint naval exercises (MALABAR, MILAN, etc.), and position India as a dependable regional partner.

- **Sustainable Blue Economy:** Lead on sustainable aquaculture, ocean energy, and climate-adaptive infrastructure.
- **Infrastructure and Tech Leap:** Accelerate port and logistics upgrades, invest in marine data/AI/space-based monitoring.
- **Inclusive Maritime Policy:** Engage coastal communities, promote regional prosperity, and support smaller IOR states.
- **Balanced Geostrategic Approach:** Balance hard power projection with soft power—cultural diplomacy, disaster aid, and developmental partnerships.

Source: AIR

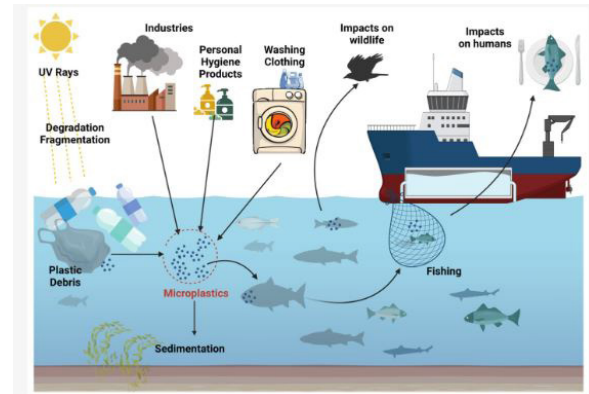
MICROPLASTICS DETECTED IN HUMAN BRAINS

Context

- Recent scientific studies have found microplastics in human brains, raising concerns about potential health risks and need for a **Global Plastics Treaty**.

What is Plastic and Microplastics?

- The word plastic is derived from the Greek word **plastikos**, meaning “**capable of being shaped or moulded**.”
- Plastic refers to a **wide range of synthetic or semi-synthetic materials** that use **polymers** as a main ingredient with their defining quality being their **plasticity** – the ability of a solid material to undergo permanent deformation in response to applied forces.
 - ♦ This makes them extremely **adaptable, capable of being shaped as per requirement**.
- The basic building blocks of plastics are **monomers**, which are small molecules that can join together to form long chains called **polymers** through a process called **polymerization**.
- **Microplastics:** Plastics break down into their smaller units called **microplastics** – officially defined as plastics **less than five millimetres in diameter**.
- **Types of Microplastics:**
 - ♦ **Primary:** Manufactured small on purpose (e.g. microbeads in cosmetics).
 - ♦ **Secondary:** Result from breakdown of larger plastic items (e.g. bottles, bags).



Impact of Plastic Pollution

- **Neurological concerns:** Microplastics in the brain may cause inflammation, cognitive dysfunction, and neurodegenerative diseases.
- **Soil and water contamination:** Microplastics affect soil fertility and contaminate freshwater and marine ecosystems.
- **Threat to marine life:** Ingestion of microplastics by marine organisms leads to bioaccumulation and death.
- **Transfer of Pollutants:** Microplastics can absorb other harmful chemicals from the environment, acting as carriers for these contaminants into organisms and potentially leading to toxicity.

What is the Global Plastics Treaty?

- It was Initiated by the **Intergovernmental Negotiating Committee (INC)** under **UN Environment Assembly Resolution 5/14 in 2022**.
- It aims to develop a **legally binding international instrument** to end plastic pollution.
 - ♦ It mandates a full lifecycle approach, including **upstream (production), midstream (use), and downstream (waste management) processes**.
- **The second part of the fifth session** of the Intergovernmental Negotiating Committee (**INC-5.2**) is being held in Geneva from August 5–14, 2025, to finalise the Global Plastics Treaty.
 - ♦ At the heart of the treaty discussions is **Article 6**, which focuses on regulating plastic supply, specifically production, imports, and exports.

Tackling Plastic Waste: India and Global Efforts



Way Ahead

- The detection of microplastics in human brains is a stark reminder of how deeply plastic pollution has infiltrated human health and ecosystems.
- **The Global Plastics Treaty**, especially Article 6, offers a unique opportunity to tackle the problem at its source.
- For the treaty to be effective, it must adopt ambitious, enforceable, and science-backed measures to regulate plastic production and promote a circular economy for a healthier planet and population.

Source: TH, DTE

RAMSAR COP15 CONCLUDED IN ZIMBABWE

In News

- The 15th Meeting of the Ramsar Convention (COP15), held in Victoria Falls, Zimbabwe, concluded with new resolutions on wetland restoration, protection of migratory birds and wetland species, and equitable governance.

Wetlands

- Wetlands are areas where water is the primary factor controlling the environment and the associated plant and animal life. They occur where the water table is at or near the surface of the land, or where the land is covered by water.
- Wetlands take many forms including rivers, marshes, bogs, mangroves, mudflats, ponds, swamps, billabongs, lagoons, lakes, and floodplains.
 - ♦ Most large wetland areas often include a combination of different types of freshwater systems.

Convention on Wetlands

- It is the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.
- It was adopted in the **Iranian city of Ramsar in 1971** and came into force in 1975.
 - ♦ Since then, almost 90% of UN member states, from all the world's geographic regions, have acceded to become "Contracting Parties"
- India is one of the Contracting Parties to Ramsar Convention, signed in Ramsar, Iran, in 1971. India became a signatory to the convention on 1st February 1982.

15th Meeting of the Ramsar Convention (COP15)

- The **Ramsar COP15** conference in Zimbabwe attended by some 3,000 delegates, was the second time that Africa has played host to a Ramsar Convention conference after Uganda hosted COP9 in 2005.
 - ♦ The conference, themed "**Protecting Wetlands for Our Common Future**", gathered global stakeholders to address freshwater ecosystem threats.
- COP16 will be hosted by **Panama** in 2028.
 - ♦ Zimbabwe took over the three-year Ramsar Convention on Wetlands presidency from China.

Major Outcomes

- At COP15 of the Ramsar Convention, all 13 proposed resolutions were adopted, marking significant progress in global wetland protection and restoration.
- The resolutions focused on **national action, monitoring, capacity building**, integrating wetlands into climate adaptation, and disaster risk reduction.
- A key outcome was the **Victoria Falls Declaration**, emphasizing political will, resource mobilisation, and investment in sustainable wetland management.
- Its Highlights include commitments to **restore degraded freshwater ecosystems, protect migratory birds, and adopt clearer criteria** for designating Wetlands of International Importance.
- A new **strategic plan with four goals and 18 targets** was approved, though a major breakthrough in long-term financing was not achieved.
- The core budget was increased by 4.1% to CHF 15.5 million for 2025–2027.
 - ♦ Additional resolutions addressed equitable governance, urban wetlands, traditional knowledge, and youth engagement.

India's Position

- At the Ramsar COP15 in Victoria Falls, Zimbabwe, India successfully introduced and passed a resolution titled 'Promoting Sustainable Lifestyles for the Wise Use of Wetlands'.
- The resolution, widely supported by 172 Ramsar Contracting Parties and international organizations, emphasizes the critical role of individual and societal choices in wetland conservation and promotes a 'whole-of-society' approach.

Importance

- Wetlands are among the most productive and valuable ecosystems on Earth, supporting rich biodiversity and providing essential services such as **water supply, food production, flood control, and climate regulation**.
- They are critical for the survival of numerous species and offer major economic benefits through fisheries, agriculture, timber, energy, and tourism.
- They also hold deep cultural and spiritual significance for many communities.

Threats

- Wetlands face threats from pollution, climate change, dams, agriculture and aquaculture, and development
- Despite their importance, wetlands are under severe threat due to drainage, pollution, overuse, and land conversion.
- Global freshwater demand has drastically increased, contributing to water stress in many regions, with climate change further intensifying the crisis.

Wetlands in India

- In June 2025, two more wetlands from India were added to the list of **Ramsar sites, taking the number of such sites in the country to 91**.
 - The latest to join the list of Ramsar sites in India are Khichan in Phalodi and Menar in Udaipur, both in Rajasthan.
- India is home to a rich diversity of wetlands, many of which hold cultural and religious significance.
 - These wetlands are protected under various national laws, **including the Indian Forest Act (1927), the Forest (Conservation) Act (1980), and the Indian Wildlife (Protection) Act (1972)**.

Source :DTE

Samaj Societies are operating across the state, conducting marriages without verifying age and violating the anti-conversion law.

Arya Samaj Marriage

- Arya Samaj** was founded by **Swami Dayanand Saraswati in 1875** as a **Hindu reformist movement**.
- It promoted **inter-caste and interfaith marriages** and allowed conversions through a **“shuddhi” (purification) ritual**.
- The Arya Marriage Validation Act, 1937** legally recognised such marriages, even between different castes or religions, if both parties declared themselves Arya Samajis.

Why Do Couples Prefer It?

- Arya Samaj weddings are **quick, simple, and legally recognised** under the **Hindu Marriage Act, 1955** (for Hindus, Buddhists, Jains, and Sikhs).
 - People from other religions can marry by first converting through a quick shuddhi ritual.
 - Unlike the Special Marriage Act (SMA), Arya Samaj weddings do not require a 30-day public notice, helping couples avoid harassment.
- Why It's Controversial Now:** Many states (like Uttar Pradesh and Madhya Pradesh) have passed anti-conversion laws requiring: Pre- and post-conversion declarations, A 60-day notice, Official inquiries.
 - These rules clash with Arya Samaj's informal conversion process, making such marriages potentially illegal.
 - Courts have found that some Arya Samaj organisations solemnised child marriages, used fake documents, or ignored conversion laws.
- The Supreme Court and several High Courts have **questioned the legality of these marriages, with investigations ordered**.

Source: IE

PM NATIONAL DIALYSIS PROGRAMME**In Context**

- The Government of India has significantly expanded the reach of the **Pradhan Mantri National Dialysis Programme (PMNDP)**, with the initiative now operational across all 36 States and Union Territories, covering 751 districts.

NEWS IN SHORT**ARYA SAMAJ MARRIAGES****Context**

- The Allahabad High Court has asked the **Uttar Pradesh government** to probe **how fake Arya**

Burden of ESRD in India

- About 2.2 lakh new cases of end-stage renal disease (ESRD) are diagnosed annually, creating a demand for nearly 3.4 crore dialysis sessions each year. The high cost of dialysis can cause severe financial distress, particularly for families living below the poverty line (BPL).

PM National Dialysis Programme (PMNDP)

- About:** It is a flagship scheme under the National Health Mission (NHM) that offers free dialysis services to economically vulnerable patients with end-stage renal disease (ESRD).
- Launched:** April 2016, as part of the Union Budget 2016–17.
- Ministry:** Ministry of Health and Family Welfare.
- Objectives:** To provide equitable and affordable dialysis care, reduce the financial burden on BPL families, and strengthen renal-care infrastructure.
- Service Components:**
 - Hemodialysis (HD):** Dialysis centers are established at district hospitals to provide HD to patients.
 - Peritoneal Dialysis (PD):** Expanding access to PD for those who cannot avail of HD.

Source: PIB

SIKKIM BECOMES 1ST STATE TO LAUNCH SABBATICAL LEAVE SCHEME FOR GOVT EMPLOYEES

Context

- Sikkim has become the first state in India to implement a Sabbatical Leave Scheme for government employees.

About

- Introduced in August 2023**, the scheme aimed at empowering the workforce by providing time for personal and professional development without sacrificing job security.
- The policy allows **regular state government employees** who have completed at **least five years of continuous service** to avail of leave from **365 days up to a maximum of 1,080 days** while receiving 50% of their basic pay during their absence.
 - The scheme **preserves their seniority**, ensuring continuity in service, and the government retains the right to recall the employee with **one month's notice**.

- Temporary employees** become eligible after **six months** of continuous service, with the same structural provisions in place.

Recent Reforms in the Scheme

- Delegation of Approval Authority:**
 - Group A & B:** Require approval from the Secretary, Personnel Department.
 - Group C & D (including temporary staff):** Leave can now be granted by Heads of Departments.
- This decentralisation streamlines processes and accelerates decision-making.

Source: AIR

INDIA POST PAYMENTS BANK (IPPB)

In News

- Recently, India Post Payments Bank (IPPB) has launched a nationwide Aadhaar-based Face Authentication facility for customer transactions, enhancing secure, inclusive, and accessible banking—especially for the elderly and differently-abled.

India Post Payments Bank (IPPB)

- It has been established under the Department of Posts, Ministry of Communication with **100% equity owned by the Government of India**.
- IPPB was launched on September 1, 2018.

Mandate

- Its mission is to provide accessible, affordable, and trusted banking to the unbanked and underbanked, using India's vast postal network of around 1.65 lakh post offices and 3 lakh postal employees.
- It is Built on India Stack and offers paperless, cashless, and presence-less banking through biometric-enabled smartphones, delivering services at customers' doorsteps.

Relevance

- It serves 11 crore customers across 5.57 lakh villages and towns in 13 languages and it supports **Digital India** and financial inclusion, emphasizing that every customer, transaction, and deposit matters.
- It aims to promote dignified and barrier-free banking through this initiative, aligning with its mission "Aapka Bank, Aapke Dwaar."

Source: PIB

BLUEBIRD COMMUNICATIONS SATELLITE

In News

- The Indian Space Research Organisation (ISRO) will launch Block 2 BlueBird communication satellite in next three to four months

About the BlueBird communications satellite

- The BlueBird communications satellite is developed by the U.S.-based AST SpaceMobile.
- It weighs 6,500 kg and is expected to arrive in India by September.
- It will be launched from the Satish Dhawan Space Centre in Sriharikota using ISRO's most powerful launcher, the LVM3, previously known as the GSLV-Mk III.

Do you know?

- The Indian National Satellite System (INSAT) is a series of multipurpose **Geo-stationary satellites** launched by ISRO to satisfy the telecommunications, broadcasting, meteorology, and search and rescue needs of India.
- Commissioned in 1983, **INSAT is the largest domestic communication system in the Asia Pacific Region.**
- The satellites also incorporate transponder(s) for receiving distress alert signals for search and rescue missions in the South Asian and Indian Ocean Region, as ISRO is a member of the COSPAR-Sarsat programme.

Source :TH

PSLV-C61/EOS-09 MISSION

In News

- ISRO Chief V. Narayanan confirmed that a minor issue in the third stage caused the failure of the PSLV-C61/EOS-09 mission in May.
 - Despite a successful launch, the satellite was not placed in its intended orbit.

PSLV-C61/EOS-09 mission

- EOS-09** is an **earth observation satellite** which is expected to boost India's surveillance capabilities in all-weather conditions.
 - The mission aimed to place the **EOS-09** into a **Sun Synchronous Polar Orbit.**
- It is equipped with C-band synthetic aperture radar enabling capturing of high-resolution

images of the Earth's surface under all-weather conditions 24/7.

- It was designed to provide continuous and reliable remote sensing data for operational applications across various sectors.
- It carried a **Synthetic Aperture Radar (SAR) payload** capable of providing images for various earth observation applications under all-weather conditions.

Do you know?

- Sun-synchronous orbit (SSO)** : It is a type of polar orbit where satellites stay in sync with the Sun, passing over the same location at the same local time daily.
 - This consistent lighting enables accurate, long-term monitoring of environmental changes such as weather patterns, forest fires, and sea level rise.
- Polar Satellite Launch Vehicle (PSLV)** is India's third-generation and first launch vehicle with liquid stages.
 - PSLV** earned its title '**the Workhorse of ISRO**' through consistently delivering various satellites to Low Earth Orbits.
 - It can take up to 1,750 kg of payload to **Sun-Synchronous Polar Orbits of 600 km altitude.**
 - Notably, it launched Chandrayaan-1 (2008) and the Mars Orbiter Mission (2013).

Source :TH

HUMAN OUTER PLANET EXPLORATION (HOPE)

Context

- To prepare for future manned missions to the **Moon and possibly Mars**, Bengaluru-based space science organisation **Protoplanet** has launched the **Human Outer Planet Exploration (HOPE) initiative** at Tso Kar, Ladakh.

About HOPE

- It is a high-altitude research station designed to simulate **deep space environments on Earth.**
- Selected crew members will undertake **10-day isolation missions** to test human **adaptability and resilience.**
- The mission includes **physiological, psychological, and epigenetic studies** to aid long-duration space travel.

- **Tso Kar's** cold desert and high-altitude conditions closely mimic the environment of the **Moon and Mars**. The location was researched for nearly **nine years** before setup.

Do you know?

- Similar to HOPE, there are research stations such as the **Mars Desert Station** (United States), **Flashline Mars Arctic Research Station** in Canada and **BIOS-3** in Russia which look to simulate the challenges that astronauts might face in adapting to alien worlds.

Source: TH

NATIONAL FILM AWARDS

Context

- The **71st National Film Awards** were announced.

About

- The best male actor award was shared by **Shah Rukh Khan for Jawan and Vikrant Massey for 12th Fail**.
- **12th Fail** won the best feature film award.
- **Rani Mukerji** was awarded the best female actor for her role in **Mrs Chatterjee vs Norway**.

National Film Awards

- The **National Film Awards (NFA)** were established in **1954** to promote cinematic excellence in India.
- They are presented **every year** by the Government to celebrate **excellence in filmmaking**.
 - ♦ These awards recognise the best films, performances, and technical achievements across various languages and genres.

- **Eligibility:** Films certified by the **Central Board of Film Certification (CBFC)** between January 1 and December 31 of the previous year are eligible.
- The awards are announced by a **jury appointed by the Directorate of Film Festivals** and are **presented by the President of India**.
- The **first Best Actor and Best Actress awards** were given to Uttam Kumar and Nargis, respectively, in **1968**.
 - ♦ The Best Actress award was initially called **'Urvashi'** and the Best Actor award was called **'Bharat'**.

Source: PIB

PATALPANI-KALAKUND LINE

Context

- Western Railway has resumed operations of the **9.5 km metre-gauge** heritage train on the **155-year-old Patalpani–Kalakund** line in **Madhya Pradesh**, after a brief suspension due to reduced tourist footfall.

About the Line

- Located on the **Dr. Ambedkar Nagar (Mhow)–Khandwa section**, the Patalpani–Kalakund line lies in the heart of Madhya Pradesh's hilly terrain.
- **History:** Maharaja **Tukoji Rao Holkar II**, who reigned from 1844 to 1886, proposed the construction of a railway line from Indore to Khandwa, which would include the Patalpani–Kalakund section.
- The project was completed in **1878**, and called the **Holkar State Railways** which, in **1881-82**, was merged with the **Rajputana-Malwa Railway**.

Source: IE