

# NEXT IAS THE CRUX

January Issue;  
2026

Chief Editor

B. Singh (Ex. IES)

CMD, NEXT IAS & MADE EASY Group



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# 77TH REPUBLIC DAY OF INDIA

Republic Day 2026 marked 77 years since the Constitution of India came into force on 26 January 1950, transforming India into a sovereign democratic republic.

## Theme and Participation

- The Republic Day celebrations were organised around the theme “150 Years of Vande Mataram,”.
- The celebration featured cultural tableaux, public participation, and military displays, including the first-ever participation of a European Union military contingent.

## Republic Day 2026 Celebrations

- **National Parade:** The main celebration at **Kartavya Path** showcased India's military strength, cultural diversity, technological progress, and federal unity through **30 tableaux**.
- **Public Observance:** Schools, colleges, government institutions, and Indian missions abroad marked the day through flag hoisting, the national anthem, and cultural programmes.

## Key Highlights of the 77th Republic Day Parade

- **Cultural and Developmental Tableaux:** States and Union Territories highlighted heritage, freedom struggle, social reform, and modern achievements such as **digital literacy and infrastructure development**.
- **Defence Display:** The parade featured advanced defence platforms and joint military capabilities, reflecting India's shift towards integrated warfare.
- **Notable Tableaux Themes:**
  - ◆ **Sub-theme: Swatantrata ka Mantra – Vande Mataram and Samridhi ka Mantra – Atmanirbhar Bharat.**
  - ◆ **Assam** highlighted **Asharikandi village** and its **terracotta craft tradition**.
  - ◆ **Gujarat** honoured **Madam Bhikaji Cama** and traced the **evolution of the Indian National Flag from 1906 to 1947**, ending with Mahatma Gandhi and the Charkha.
  - ◆ **Uttar Pradesh** presented **Bundelkhand's cultural heritage** alongside modern development.
  - ◆ **Maharashtra** showcased **Ganeshotsav** as a mass social movement begun by **Lokmanya Tilak for national unity**.
  - ◆ **West Bengal** traced the origins of **Vande Mataram** by **Bankim Chandra Chatterjee** and featured leaders like **Subhas Chandra Bose, Matangini Hazra, and Khudiram Bose**.
    - ◆ **Punjab** paid tribute to **Guru Tegh Bahadur** as **Hind Di Chadar** on the **350th year of his martyrdom**.
  - ◆ **Kerala** displayed the **Kochi Water Metro** and its achievement of **100% digital literacy**.
  - ◆ The **Tri-Services tableau**, under “**Operation Sindoor – Victory Through Jointness**,” showed **Rafale jets, BrahMos missiles, S-400 air defence, and HAROP systems**.

- ◆ The **Ministry of Culture** depicted **150 years of Vande Mataram**.
- ◆ The Ministry of Home Affairs (NDMA and NDRF) highlighted **recovery efforts after the 2001 Bhuj earthquake**.
- **Beating Retreat Ceremony 2026:**
  - ◆ The Beating Retreat ceremony formally marked the end of Republic Day celebrations with military bands and ceremonial displays.
  - ◆ It represents discipline, tradition, and the pride of India's armed forces.



## Chief Guests for Republic Day 2026

- The **Presidents of the European Commission and the European Council** attended as Chief Guests, reflecting deepening India–EU strategic relations.
- Their presence coincided with the India–EU Summit, highlighting cooperation in trade, technology, security, and global governance.

## Historical Significance of Republic Day

### ➤ Purna Swaraj Legacy:

- ♦ The Indian National Congress adopted the Purna Swaraj resolution at the **Lahore Session in December 1929** and declared **26 January 1930** as the day to assert complete independence from British rule.
- ♦ The date of the **Republic Day** was deliberately selected to honour the **Purna Swaraj declaration of 1930**, symbolically linking the Constitution with the independence movement.

### ➤ Constitutional Transition:

- ♦ Although India became independent on 15 August 1947, it functioned as a British Dominion until the Constitution was adopted on **26 November 1949** and enforced on **26 January 1950**.
- ♦ On this day, the Government of India Act, 1935 was replaced, the President became the Head of State, and India formally became a **Sovereign Democratic Republic**.

## Awards and Honours on Republic Day 2026

### ➤ Padma Awards 2026:

- ♦ A total of 131 Padma Awards were announced, including 5 Padma Vibhushan, 13 Padma Bhushan, and 113 Padma Shri.
- ♦ These honours recognised contributions in public service, arts, science, sports, and social work.

### ➤ Gallantry Awards:

- ♦ Seventy Armed Forces personnel received gallantry medals such as **Ashok Chakra, Kirti Chakra, Shaurya Chakra, Sena, Nao Sena, and Vayu Sena Medals**.
- ♦ These awards acknowledged acts of exceptional courage and devotion in peace and conflict situations.

### ➤ Defence Decorations: The President conferred 301 defence decorations, including **Param Vishisht Seva, Uttam Yudh Seva, Ati Vishisht Seva, Yudh Seva, Sena, Nao Sena, Vayu Sena, and Vishisht Seva Medals**. Bars to some medals recognised further acts of distinguished or devoted service.

### ➤ Coast Guard Honours:

- ♦ Indian Coast Guard personnel received the **President's Tatrakshak Medal (PTM) and Tatrakshak Medal (TM)**.
- ♦ These awards recognised conspicuous gallantry, exceptional devotion to duty, and meritorious service.

### ➤ Internal Security and Services Medals: A total of 982 personnel from Police, Fire Services, Home Guard & Civil Defence, and Correctional Services were awarded medals.

- ♦ Decorations included the **President's Police Medal for Distinguished Service, Police Medal for Gallantry, and Police Medal for Meritorious Service**.

### ➤ Jeevan Raksha Padak Awards: Jeevan Raksha Padak awards honoured civilians for saving lives. They are given in three classes i.e. **Sarvottam, Uttam, and Jeevan Raksha Padak** and these may be awarded posthumously.

## Constitutional Importance of Republic Day

### ➤ Supremacy of the Constitution: Republic Day reaffirms that the Constitution is the highest authority governing India.

### ➤ Democratic Values: It reinforces ideals of equality, liberty, justice, fraternity, and the rule of law.

## Role of the Constitution in Strengthening Democracy

### ➤ Democratic Framework: The Constitution guarantees universal adult franchise, fundamental rights, and an independent judiciary.

### ➤ Inclusive Governance: Federalism, separation of powers, and affirmative action ensure representation, accountability, and social justice.

## Vande Mataram: Key Facts

### ➤ Origin and Composition:

- ♦ Vande Mataram, written by Bankim Chandra Chatterjee, first appeared in Bangadarshan in 1875 and later in the novel Anandamath (1882).
- ♦ Set to music by Rabindranath Tagore, it became a symbol of unity, sacrifice, and devotion to the motherland.

### ➤ National Status: On 24 January 1950, President Rajendra Prasad announced that **Jana Gana Mana would be the National Anthem, while Vande Mataram would be honoured as the National Song** for its role in the freedom movement.

- ♦ The Constitution does not mention a national song, but Article 51A(a) calls on citizens to respect the Constitution, National Flag, and National Anthem.

### ➤ Vande Mataram in the Freedom Movement:

- ♦ **Congress and Mass Adoption:** Rabindranath Tagore sang Vande Mataram at the 1896 Congress session in Kolkata.
- ♦ In 1905, the Varanasi session adopted it for all-India occasions.
- ♦ **Organisations and Press:** The **Bande Mataram Sampradaya**, formed in North Calcutta in 1905, promoted devotion to the motherland.
- ♦ The English daily **Bande Mataram**, launched in 1906 under **Bipin Chandra Pal** and later joined by **Sri Aurobindo**, advocated Swadeshi, unity, and resistance.
- ♦ **Anti-Partition Movements:** On 7 August 1905, students in Calcutta used Vande Mataram as a political slogan during anti-partition protests. Its popularity led British authorities, including Lord Curzon, to crack down on its public singing.
- ♦ **Influence Abroad:** In 1907, Bhikaji Cama unfurled a tricolour with "Vande Mataram" written on it in Stuttgart, Germany. Madan Lal Dhingra's reported last words in 1909 and welcome for Gopal Krishna Gokhale in Cape Town in 1912 also echoed the slogan.



# INDIA-EU RELATIONS

On January 27, 2026, India and the European Union officially concluded negotiations for their comprehensive Free Trade Agreement (FTA). This brings a definitive end to nearly twenty years of intermittent and often stalled discussions.

The objectives of our foreign policy are the preservation of world peace and the enlargement of human freedom.

Pt. Jawaharlal Nehru

## About

- India and the European Union have taken a decisive and historic step by formally **signing the India-EU Free Trade Agreement (FTA)**. With bilateral trade already standing at **\$136 billion** and the EU contributing nearly **16% of India's Total Foreign Direct Investment (FDI)**, this agreement is expected to unlock approximately **\$75 billion in additional exports**.
- Frequently referred to as the **"mother of all deals"** by leadership on both sides, the agreement represents a sophisticated blend of strategic ambition and political pragmatism.

## India-EU Relations

- **Political Cooperation:** India-EU relations date to the early **1960s**, and a cooperation agreement signed in **1994** took

the bilateral relationship beyond trade and economic cooperation. **The first India-EU Summit, in 2000**, marked a landmark in the evolution of the relationship.

- ♦ At the **5th India-EU Summit at The Hague in 2004**, the relationship was upgraded to a **'Strategic Partnership'**.
- **Economic Cooperation:** India's bilateral trade in goods with the **EU was USD 137.41 billion in 2023-24**, making it the largest trading partner of India for goods. **EU is India's largest trading partner** for goods, 17% of India's exports go to the EU and 9% of EU exports come to India.
- **India-EU Free Trade Agreement (FTA) Negotiations:** Its objective is to finalize a comprehensive trade agreement covering goods, services, investments, and geographical indications.
  - ♦ The EU and India are working to announce a **'Free Trade' Agreement (FTA)** during the visit of E.U. leaders Republic Day later this month.
- **Other Areas of Cooperation:** The **India-EU Water Partnership (IEWP)**, established in 2016, aims to enhance technological, scientific, and policy frameworks in water management.

## Key Provisions of India-EU Free Trade Agreement

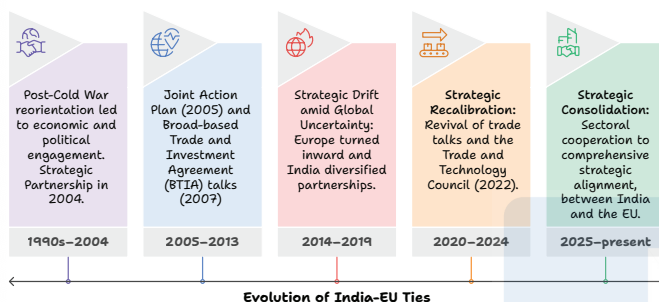
- **Goods Trade Tariff Cuts:** Over 99% of India's exports will get preferential EU market access. Immediate zero-duty entry for key labour-intensive products. Phased tariff cuts with special quotas for autos, steel, and agriculture.
- **EU Exports to India:**
  - ♦ **Market Access:** India offers tariff relief on 92.1% of tariff lines covering 97.5% EU exports.
  - ♦ **Industrial Goods:** Gradual tariff elimination over 5-10 years for sensitive items.
  - ♦ **Agricultural Quotas:** Limited fruit imports through Tariff Rate Quotas.
  - ♦ **Technology Access:** Easier import of high-tech EU inputs lowers Indian production costs.
- **Rules of Origin:** The agreement includes strict **Product-Specific Rules of Origin (PSRs)** to ensure that only goods with substantial processing in India or the EU benefit from the tax breaks, **preventing third-country trade deflection**. Aligns with global value chains and helps small businesses. Exporters can certify origin themselves to save costs.
- **Agricultural Trade:** The agreement ensures favorable access for Indian tea, coffee, spices, fruits, and processed foods. India has adopted a **highly calibrated approach in the agricultural sector by not granting market access in sensitive areas such as dairy, cereals, poultry, and soymeal**. These sectors are considered critical for domestic food security and rural employment.
- **Services Sector:** The FTA opens 144 service sub-sectors to Indian IT, professional, and education services. Opens 102 sub-sectors to EU service providers.
- **Professional Mobility:**
  - ♦ **Work Categories:** Covers company transfers, business visitors, contract workers, and professionals.
  - ♦ **Family Support:** EU allows ICT dependents and family members to work and study.
  - ♦ **AYUSH Access:** Traditional Indian practitioners can work in EU countries without local rules.
  - ♦ **Social Security:** Five-year plan to reduce double social security payments.
- **Non-Tariff Barriers:** EU simplifies customs, safety standards, and SPS measures for Indian goods. Joint work on customs, trade facilitation, and technical standards.
- **Carbon Border Adjustment:** India gets the same CBAM flexibilities given to other countries. Cooperative approach protects India's development priorities.

- ♦ In 2020, there was an **agreement for research and development cooperation** in the peaceful uses of nuclear energy between the **European Atomic Energy Community and the Government of India**.

- ♦ India and the EU established the **Trade and Technology Council (TTC)** in 2023. The TTC is a forum for the two parties to collaborate on trade, technology, and security. The TTC's goals.

#### ➤ India's Two Levels of Engagement:

- ♦ **EU as a Bloc:** Regular summits, strategic dialogues on trade, tech, security, foreign policy.
- ♦ **Bilateral with major EU members:** Deepening ties with France, Germany, Nordic and Eastern European countries.



### Factors Shaping India-Europe Relations

- **Global Security Shifts:** The return of conflict in Europe between Russia and Ukraine has disrupted stability.
  - ♦ Multilateral institutions face growing challenges worldwide.
- **Europe's Strategic Realignment:** Europe wants more independence from US influence, particularly after the Trump period. India seeks a balanced multipolar world by expanding partnerships beyond traditional allies like the US, Russia, and China.
- **US Policy Uncertainty:** The Trump government's unclear stance on European defence commitments has pushed Europe toward new alliances. India emerges as a reliable democratic partner with consistent reliability.
- **Economic Influence:** India and the EU together represent nearly two billion people and over 25% of world GDP. This economic strength could shape global trade standards through closer coordination.
- **Trade and Investment Ties:** The EU ranks among India's largest trading and investment partners. Both sides have finalised the India-EU Free Trade Agreement and Investment Agreement.
  - ♦ The **India-Middle East-Europe Corridor (IMEC)** opens new routes for connectivity and commerce.
- **Technology Partnership:** India and Europe share goals of treating digital technologies as global public goods.
  - ♦ India can leverage Europe's expertise in advanced technology, semiconductors, and digital production.
- **Defence Collaboration:** Europe supplies significant defence equipment to India. India pursues joint development, co-production, and technology transfers with European nations.

- ♦ Europe's rearmament due to the Ukraine conflict aligns with India's self-reliance goals.

- **Indo-Pacific Focus:** Europe increasingly prioritises the Indo-Pacific region strategically. India collaborates with France, Germany, and other European countries to support a free and open Indo-Pacific.

### Challenges in the India-EU Relations

- **India's Stand on Ukraine War:** Europe expects India to be more critical of Russia; India maintains strategic neutrality.
- **EU's Stand on Pakistan and Terrorism:** India expects the EU to hold Pakistan accountable for state-sponsored terrorism.
- **Slow Progress on Trade Agreements:** The India–EU Free Trade Agreement (FTA) negotiations have faced multiple deadlocks.
- **Carbon Border Adjustment Mechanism (CBAM)** imposed by the EU creates additional trade barriers for India.
- **Human Rights and Normative Pressure:** EU often adopts a prescriptive stance on India's internal matters. India views this as interference in domestic affairs, causing diplomatic friction.
- **Regulatory and Standards Barriers:** EU's strict regulations on data privacy, digital taxation, environmental standards, and labour laws are hurdles for Indian exporters and tech firms.
- **Media stereotypes and limited public awareness in Europe with respect to India** hinder people-to-people ties.

### Way Ahead

- **Fast-Track Trade and Investment Agreements:** EU and India must conclude the long-pending India–EU Free Trade Agreement and Investment Protection Agreement.
- **Deepen Strategic and Defence Cooperation:** Move beyond buyer-seller relationship to joint development and co-production of defence technologies.
- **Expand Mobility and Education Partnerships:** Finalise a comprehensive mobility agreement for skilled professionals, students, and researchers.
- **Build Resilient Supply Chains:** Diversify away from China by promoting trusted, transparent supply chains. Leverage initiatives like IMEC (India-Middle East-Europe Corridor) for logistics, energy, and trade.
- **Enhance People-to-People and Cultural Ties:** Promote tourism, media engagement, and cultural exchanges to break stereotypes and deepen mutual understanding.

### Conclusion

- The EAM's first official visit of 2026 to Europe signals that India has made a **conscious strategic choice** to elevate Europe from a secondary economic and political relationship to a **centerpiece of its foreign policy**.
- The FTA conclusion would create a trade corridor with deepened defense, technology, and supply chain integration.
- The EU and India are moving closer together at a time when the rules-based international order is under unprecedented pressure through wars, coercion, and economic fragmentation.

# GROUNDWATER MANAGEMENT

Recently, experts have highlighted that rapid population growth, urbanisation, and economic development are placing severe stress on India's groundwater resources, demanding sustainable management.



Water is life, and scarcity of water is scarcity of life.

Mahatma Gandhi



## Background: Groundwater and the Indian Scenario

- Groundwater refers to freshwater stored beneath the Earth's surface in soil and rock formations, known as aquifers, which store and transmit water.
  - ♦ It sustains rivers, wetlands, agriculture, and ecosystems, and can be accessed through wells, tube wells, and borewells.
  - ♦ Globally, groundwater constitutes nearly 99 percent of Earth's liquid freshwater, making it critical for drinking water, food security, and climate resilience.
- In India, groundwater forms the backbone of water security. It supplies nearly 62 percent of irrigation needs, about 85 percent of rural drinking water, and nearly 50 percent of urban water demand.
- This heavy reliance grew after the Green Revolution, when subsidised electricity, affordable drilling technologies, and private tube wells expanded irrigation rapidly.
  - ♦ While this boosted agricultural output and rural incomes, regulation and scientific management remained weak.
- India currently operates over 43,000 groundwater monitoring stations through the Central Ground Water Board, which regularly tracks water levels and quality. Despite this, over-extraction, pollution, and uneven recharge have intensified stress.
- Climate variability, erratic rainfall, and rising demand have made groundwater depletion a national concern, requiring integrated and long-term management.

## Necessity and Significance

- **Foundation of India's food security and agricultural stability:**
  - ♦ Groundwater remains the backbone of Indian agriculture, supplying about **62% of irrigation demand** (Central Ground Water Board, 2025). States such as Punjab, Haryana, Rajasthan, and Uttar Pradesh rely heavily on tube-well irrigation.
  - ♦ However, the **National Groundwater Assessment 2025** shows that **nearly 60% of assessed blocks are semi-critical, critical, or over-exploited**, making sustainable groundwater management essential to protect crop productivity and farmer incomes under rising climate stress.
- **Critical source of drinking water for rural and urban populations:**

- ♦ Groundwater meets **around 85% of rural drinking water needs and nearly 50% of urban demand** (Ministry of Jal Shakti, 2025). Rapid urbanisation and population growth have increased extraction pressure in cities like Delhi, Bengaluru, and Chennai.
- ♦ Without effective groundwater regulation and recharge, urban water security risks intensifying, especially during heatwaves and droughts projected to increase under climate change.
- **India as the world's largest groundwater extractor:**
  - ♦ India accounts for **approximately 25% of global groundwater extraction**, making it the largest user worldwide (World Bank, 2025).
  - ♦ Water tables are declining by **more than 0.5 metres per year** in several north-western and peninsular regions. Groundwater management is therefore necessary not only for national sustainability but also for global water security and climate commitments.
- **Escalating groundwater quality and public health concerns:**
  - ♦ Groundwater contamination poses serious health risks. The **Central Ground Water Board (2025)** reports arsenic contamination in **over 200 districts**, fluoride in **more than 370 districts**, and rising nitrate levels linked to fertiliser overuse.
  - ♦ Poor groundwater management directly affects public health, causing fluorosis, arsenicosis, and unsafe drinking water exposure, particularly among rural and low-income populations.
- **Climate resilience and drought buffering role:**
  - ♦ Groundwater acts as a natural buffer against rainfall variability and droughts. The **Intergovernmental Panel on Climate Change (IPCC, 2023)** highlights that South Asia will face more erratic monsoons and frequent dry spells.
  - ♦ Over-extraction reduces aquifer storage, weakening India's capacity to cope with droughts. Sustainable groundwater management is therefore central to climate adaptation and disaster risk reduction strategies.
- **Protection of ecosystems and surface water systems:**
  - ♦ Aquifers sustain river base flows, wetlands, and ecosystems during dry seasons. Studies by the **Central Water Commission (2024–25)** indicate reduced base flows in rivers such as the Yamuna and Sabarmati due to excessive groundwater pumping.
  - ♦ Managing groundwater is necessary to maintain ecological balance, biodiversity, and livelihoods dependent on surface water systems.



## Challenges and Concerns

### ➤ Unsustainable over-extraction and falling groundwater levels:

- ♦ India faces severe groundwater over-extraction driven by agriculture, urban demand, and weak regulation.
- ♦ The **Central Ground Water Board National Assessment 2025** reports that **nearly 60% of assessed groundwater units are semi-critical, critical, or over-exploited**, especially in Punjab, Haryana, Rajasthan, and parts of peninsular India.
- ♦ Falling water tables increase pumping costs, energy use, and farmer indebtedness, making groundwater use economically and environmentally unsustainable.

### ➤ Weak regulatory framework and fragmented governance:

- ♦ Groundwater remains largely treated as a private resource linked to land ownership, limiting effective control. Although the **Model Groundwater Bill** has been adopted by several states, enforcement remains uneven.
- ♦ According to **NITI Aayog (2025)**, most states lack real-time extraction monitoring and licensing systems. Institutional fragmentation between agriculture, rural development, urban bodies, and water departments weakens coordinated groundwater governance.

### ➤ Deteriorating groundwater quality and public health risks:

- ♦ Groundwater quality degradation is a major concern. The **Central Ground Water Board (2025)** identifies **arsenic contamination in over 200 districts, fluoride in more than 370 districts, and rising nitrate levels across agricultural belts**.
- ♦ Industrial effluents, mining, sewage leakage, and fertiliser misuse worsen contamination. Poor-quality groundwater increases disease burden, particularly in rural and economically weaker regions with limited alternative water sources.

### ➤ Climate change intensifying stress on aquifers:

- ♦ Climate variability is increasing groundwater stress. The **Intergovernmental Panel on Climate Change (IPCC)** notes that South Asia will experience more erratic monsoons and longer dry spells. Reduced recharge during weak monsoons and higher withdrawals during droughts accelerate aquifer depletion.
- ♦ The **India Meteorological Department (2025)** reports increasing frequency of extreme rainfall events, which cause runoff rather than recharge, reducing effective groundwater replenishment.

### ➤ Energy–water nexus and perverse incentives

- ♦ Subsidised or free electricity for agriculture encourages excessive groundwater pumping. **NITI Aayog (2025)** highlights that electricity subsidies distort water use decisions, especially in north-western states.
- ♦ This leads to inefficient cropping patterns such as water-intensive paddy in arid regions. The absence of metering and volumetric pricing reduces incentives for conservation, worsening aquifer stress.

### ➤ Limited community participation and data gaps:

- ♦ Groundwater management remains technocratic and top-down in many regions.
- ♦ Despite **over 43,000 monitoring stations**, data is often under-utilised at the Panchayat level (Central Ground Water Board, 2025).
- ♦ Community awareness of aquifer limits remains low, reducing ownership of conservation efforts. This weakens sustainability of recharge and demand-management initiatives.

## Government and Institutional Efforts

### ➤ Regulatory and governance strengthening through Model Groundwater Bill:

- ♦ To address weak regulation and uncontrolled extraction, the **Model Groundwater (Sustainable Management) Bill** provides a legal framework for states to regulate groundwater use, promote aquifer-based management, and recognise groundwater as a common resource.
- ♦ As of **2025, 21 States and Union Territories have adopted or aligned laws** with the model framework. However, enforcement varies due to capacity constraints at district levels (Ministry of Jal Shakti, 2025).

### ➤ Scientific aquifer mapping under NAQUIM 2.0:

- ♦ The **National Aquifer Mapping and Management Programme (NAQUIM 2.0)**, implemented by the **Central Ground Water Board**, tackles data gaps and poor planning by generating **high-resolution aquifer maps up to Panchayat level**. By **2025, over 85% of India's geographical area has been mapped**, improving identification of over-exploited zones. Yet, translating scientific data into local action remains uneven (Central Ground Water Board, 2025).

### ➤ Demand management and community participation via Atal Bhujal Yojana:

- ♦ The **Atal Bhujal Yojana (Atal Jal)** directly addresses over-extraction and low community ownership by promoting **community-led groundwater management** in water-stressed blocks of seven states. With a **₹6,000 crore outlay**, the scheme links funding to measurable water savings.
- ♦ By **2024–25, participating blocks recorded improved water budgeting and reduced extraction trends**, though scalability beyond selected states is still limited (World Bank; Ministry of Jal Shakti).

### ➤ Recharge and conservation through Jal Shakti Abhiyan and Amrit Sarovar:

- ♦ To counter declining water tables and climate variability, the **Jal Shakti Abhiyan: Catch the Rain** focuses on rainwater harvesting, recharge structures, and water body restoration.
- ♦ The **Mission Amrit Sarovar** complements this by creating large ponds across districts. By **2025, over 60,000 Amrit Sarovars were completed**, enhancing local recharge,

although maintenance and long-term monitoring remain challenges (Ministry of Jal Shakti, 2025).

#### ➤ Addressing quality and resilience through integrated water missions:

- ◆ Groundwater quality and climate stress are tackled through convergence with **Jal Jeevan Mission**, **National Water Quality Sub-Mission**, and climate commitments under **India's Nationally Determined Contribution**.
- ◆ These efforts improve testing, safe drinking water access, and resilience planning.
- ◆ However, **arsenic and fluoride contamination persists in hundreds of districts**, showing the need for stronger pollution control and aquifer protection (Central Ground Water Board, 2025; Intergovernmental Panel on Climate Change).

### Way Forward

#### ➤ Shift decisively to aquifer-based governance:

- ◆ India must move from administrative boundaries to **aquifer-based groundwater management**, using outputs from **NAQUIM 2.0**. Integrating aquifer maps into district and Panchayat plans will align extraction with recharge capacity.
- ◆ Countries like Australia have reduced over-extraction through aquifer zoning. In India, institutional coordination across states sharing aquifers remains a key implementation challenge (Central Ground Water Board, 2025).

#### ➤ Strengthen enforcement and state capacity:

- ◆ Adoption of groundwater laws must be matched with **regulatory capacity at district and block levels**. Dedicated groundwater authorities, trained staff, and digital monitoring tools are essential.

- ◆ The **NITI Aayog (2025)** notes that enforcement gaps, not policy absence, explain continued over-extraction in many states. Fiscal incentives can encourage states to strengthen compliance mechanisms.

#### ➤ Scale up community-led demand management:

- ◆ Programmes like **Atal Bhujal Yojana** should be expanded nationally, as evidence shows community water budgeting reduces extraction sustainably.
- ◆ By 2025, pilot blocks showed behavioural change in cropping patterns and pumping practices.
- ◆ However, long-term success depends on sustained awareness, farmer incentives, and integration with agricultural pricing and subsidy reforms (World Bank; Ministry of Jal Shakti).

#### ➤ Integrate groundwater with agriculture and energy policy:

- ◆ Groundwater sustainability requires aligning **crop choices, electricity pricing, and irrigation incentives**.
- ◆ Promoting millets, pulses, and micro-irrigation under schemes like **Pradhan Mantri Krishi Sinchayee Yojana** can reduce water stress. Without reforming free or flat-rate power, efficiency gains from recharge initiatives will remain limited (NITI Aayog, 2025).

#### ➤ Enhance climate resilience and quality protection:

- ◆ Climate variability demands increased focus on **managed aquifer recharge**, urban rainwater harvesting, and pollution control. Expanding **Mission Amrit Sarovar** and enforcing industrial discharge norms are crucial.
- ◆ Persistent arsenic and fluoride contamination in over 300 districts highlights the need for preventive aquifer protection, not just treatment (Central Ground Water Board; Intergovernmental Panel on Climate Change).

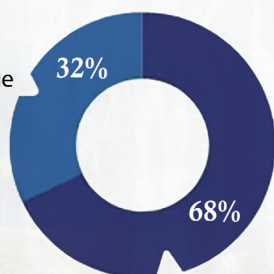
### GROUNDWATER SOURCES

#### Others

Canal seepage, Return flow from irrigation, Recharge from tanks, ponds and water conservation structures.

#### Rainfall

Direct ingress of Rainwater into ground.



### GROUNDWATER USAGE

#### Domestic

Second-highest usage for household works.

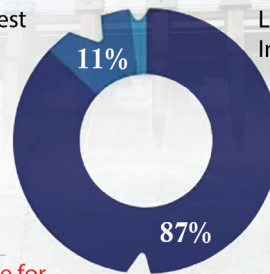
2%

#### Industrial

Lowest share of Industrial sector.

#### Agriculture

Highest usage for irrigation in agriculture sector.





# EMPLOYMENT & SOCIAL TRENDS REPORT 2026

The International Labour Organization's 2026 employment report highlights persistent global labour market inequalities despite economic growth and technological advancement.



Poverty is not just a lack of income; it is a lack of capability to live a decent life.

Amartya Sen



## Background

- Employment and labour market monitoring emerged after the First World War to address worker exploitation, unemployment, and social instability, leading to the creation of the International Labour Organization in 1919.
- Its aim was to promote decent work, fair wages, and social protection through global cooperation. Over decades, labour markets evolved with industrialisation, globalisation, and later digitalisation, creating new jobs but also informal work, job insecurity, and wage inequality. While economic growth lifted millions out of poverty, employment quality did not improve equally across regions.
- Earlier policy approaches focused mainly on growth, assuming jobs would follow automatically. This worked partly in advanced economies but failed in many developing countries where informality, low productivity, and weak social protection persisted.
- Structural issues such as skill mismatches, gender norms, weak industrial bases, and unequal trade integration limited progress. Technological change, especially automation and artificial intelligence, further disrupted labour demand.
- The issue is urgent today because global unemployment is stagnating at high levels, youth joblessness is rising, and nearly 300 million workers remain extremely poor despite working. The 2026 report highlights that labour underutilisation affects over 400 million people globally.
  - ◆ For example, rapid population growth in low-income countries is not translating into productive employment, risking long-term inequality and social instability.

## Concerns Highlighted by the Report

### ➤ Reveals stagnation in global employment recovery:

- ◆ The report is significant because it shows global unemployment stagnating at 4.9 percent in 2026, affecting around 186 million people despite economic recovery.
- ◆ This signals that growth alone is insufficient for job creation. India reflects this trend, as real Gross Domestic Product growth above 7 percent has not proportionately reduced urban unemployment, which remained around 6.6 percent in 2024–25 (Periodic Labour Force Survey, Ministry of Statistics and Programme Implementation; International Labour Organization).

### ➤ Highlights persistence of working poverty and informality:

- ◆ The report draws attention to nearly 300 million workers globally living in extreme poverty despite employment, largely due to informality.
- ◆ India mirrors this challenge, with over 80 percent of its workforce still informal in 2025, limiting income security and social protection coverage.
- ◆ This matters because informality weakens productivity and tax bases, despite India's expansion of social security codes and digital welfare delivery (International Labour Organization; Economic Survey 2024–25).

### ➤ Brings urgency to the global youth employment crisis:

- ◆ Youth unemployment rising to 12.4 percent in 2025, with 260 million youth not in education, employment, or training, highlights demographic risk.
- ◆ India faces similar pressure, as youth unemployment exceeded 15 percent in urban areas in 2024–25 despite rising education levels.
- ◆ Skill mismatch and automation exposure threaten India's demographic dividend, especially in services and technology sectors (International Labour Organization; Periodic Labour Force Survey).

### ➤ Exposes stalled progress on gender equality in labour markets:

- ◆ Women forming only 40 percent of global employment reflects persistent structural barriers. In India, female labour force participation rose modestly to around 37 percent in 2024–25 but remains constrained by unpaid care work, safety concerns, and limited childcare infrastructure.
- ◆ This is significant because increasing women's participation could substantially boost India's Gross Domestic Product, as noted by NITI Aayog and the International Labour Organization.

### ➤ Connects trade uncertainty and demographic shifts to job instability:

- ◆ The report links trade disruptions and demographic shifts to uneven job creation. India benefits from trade-linked employment in sectors like information technology services and manufacturing, yet global supply chain shocks affect export-oriented jobs.
- ◆ While trade supports millions of Indian livelihoods, uneven regional industrialisation and rapid population growth strain job absorption, reinforcing inequality trends highlighted in the 2026 outlook (International Labour Organization; Ministry of Commerce and Industry).

## Government and Institutional Efforts

### ➤ Addressing weak job creation despite economic growth:

- ♦ The International Labour Organization recommends employment-intensive growth rather than growth driven only by capital and technology.
- ♦ India's increased public capital expenditure and Production Linked Incentive schemes aim to expand manufacturing jobs, yet Employment Elasticity of Growth remains low at around 0.3, showing limited job absorption (Economic Survey 2024–25; International Labour Organization).

### ➤ Reducing informality and working poverty:

- ♦ The International Labour Organization promotes universal social protection to break the cycle of working poverty.
- ♦ India's e-Shram portal has registered over 300 million informal workers, improving visibility and access to welfare schemes like Ayushman Bharat, although income security and pension coverage remain partial (Ministry of Labour and Employment, 2025; World Employment and Social Outlook).

### ➤ Tackling youth unemployment and skill mismatch:

- ♦ The International Labour Organization's Decent Jobs for Youth framework aligns with India's Skill India Mission and Pradhan Mantri Kaushal Vikas Yojana, expanding training coverage.
- ♦ However, Periodic Labour Force Survey data shows educated youth unemployment above 13 percent, highlighting gaps between training and labour market demand (International Labour Organization; National Statistical Office, 2025).

### ➤ Closing gender gaps in labour force participation:

- ♦ The International Labour Organization supports gender-responsive labour policies to unlock growth. India's Mission Shakti, maternity benefit expansion, and childcare initiatives address barriers, yet female labour force participation remains near 37 percent due to unpaid care work and informal employment concentration (World Bank Gender Update 2025; International Labour Organization).

### ➤ Managing trade uncertainty and demographic pressures:

- ♦ The International Labour Organization emphasises linking trade with decent work. India's Foreign Trade Policy 2023 and logistics reforms support export-linked employment, but automation and global trade volatility continue to suppress wage growth in labour-intensive sectors like textiles (International Labour Organization; Ministry of Commerce and Industry, 2025).

## Way Forward

### ➤ Shift growth strategy towards employment-intensive sectors:

- ♦ India must rebalance growth towards labour-intensive manufacturing, construction, care services, and green jobs to improve employment elasticity.

- ♦ The International Labour Organization (ILO, 2026) and Economic Survey 2024–25 recommend targeted incentives for Micro, Small and Medium Enterprises and labour-absorbing sectors to convert output growth into sustainable job creation.

### ➤ Formalisation beyond registration through enforceable protections:

- ♦ Worker registration should be followed by enforceable social security and contract coverage. Expanding the e-Shram database into portable social protection, health insurance, and pension delivery can reduce informality.
- ♦ The ILO (2026) stresses that formalisation succeeds only when benefits, compliance, and enforcement move together, not through identification alone.

### ➤ Align skills development with future labour demand:

- ♦ India needs tighter alignment between education, skilling, and labour market needs, especially in digital, green, and care economies.
- ♦ The ILO (2026) and World Bank (2025) recommend employer-linked apprenticeships and continuous reskilling to address youth job mismatches, particularly for educated workers facing automation-driven displacement.

### ➤ Enable women's employment through care infrastructure and flexibility:

- ♦ Raising female labour participation requires public investment in childcare, eldercare, safe transport, and flexible work arrangements.
- ♦ Evidence from the World Bank (2025) shows that countries expanding care infrastructure experience sustained female employment gains. India's progress depends on scaling such support beyond urban and formal sectors.

### ➤ Strengthen trade resilience and job security:

- ♦ To protect trade-linked employment, India must diversify export markets, support small exporters, and strengthen labour standards in global value chains.
- ♦ The ILO (2026) highlights that decent work clauses and wage protection reduce vulnerability during trade disruptions, especially in labour-intensive sectors like textiles and food processing.

## Conclusion

- The Employment and Social Trends 2026 Report shows that global job challenges are no longer temporary but structural in nature. Persistent unemployment, informality, youth exclusion, and gender gaps highlight limits of growth without inclusion.
- For countries like India, the findings stress the need to align skilling, industrial policy, social protection, and technology adoption. Only coordinated, people-centric reforms can convert demographic potential into decent, productive, and resilient employment in a rapidly changing global economy.



# UGC EQUITY REGULATIONS, 2026

The University Grants Commission has notified the University Grants Commission  
(Promotion of Equity in Higher Education Institutions) Regulations, 2026.

There will be outcastes as long as there are castes. Nothing can emancipate the outcaste except the destruction of the caste system.

Dr. B.R. Ambedkar

## Reason for Change

- These regulations replace the 2012 framework, which was advisory in nature. It lacked enforcement powers and did not explicitly include OBCs. The previous regulation also failed to provide clear procedures for complaint redressal.

### What is discrimination?

Discrimination is unfair, biased, or differential treatment in educational settings. It could be based on caste, religion, race, gender, place of birth, or disability, either individually or in combination.

### What does the law focus on?

The law focuses on the impact of discriminatory actions, covering practices that impair equality or human dignity, rather than the intent behind them.

### DEFINITION OF DISCRIMINATION

## Need for New Regulations

- Discrimination:** Repeated reports of caste-based discrimination in universities and colleges revealed the inadequacy of existing mechanisms.
- Rising Cases:** Official data showed a 118.4 percent increase in reported caste-based discrimination cases over five years. This demanded stricter and enforceable rules.

## Evolution from Draft to Final Regulations

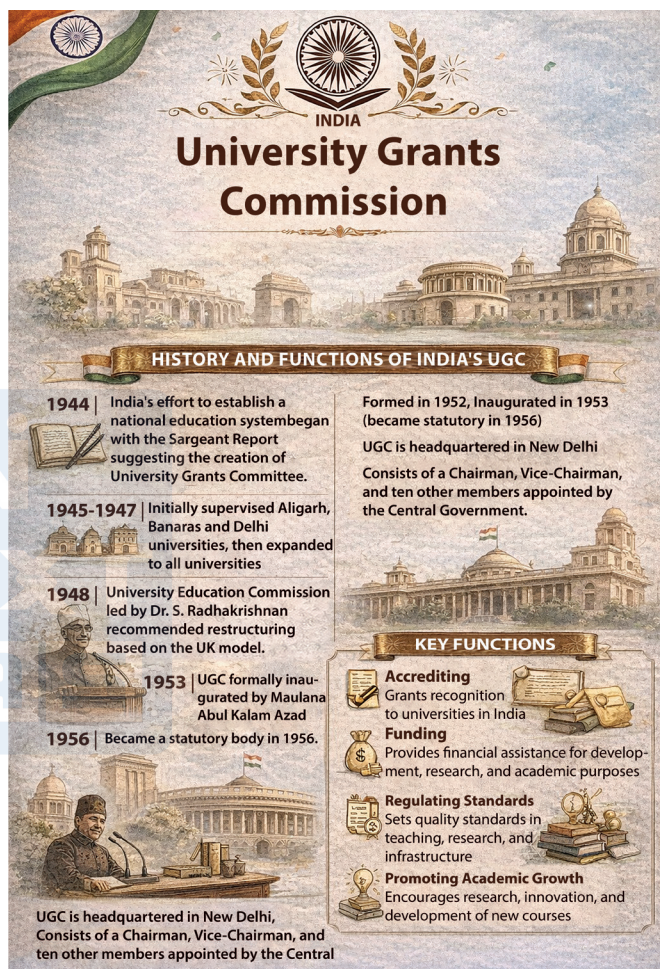
- Issues:** The draft released in February 2024 was criticised for excluding OBCs, proposing penalties for false complaints, and offering an unclear definition of discrimination.
- Corrections:** The 2026 regulations explicitly include OBCs, remove penalties related to false complaints, and expand the definition of discrimination.

## Key Provisions

### Coverage

- Protected Groups:** The regulations apply to Scheduled Castes, Scheduled Tribes, and Other Backward Classes.

- Policy Shift:** This marks a significant expansion of the anti-discrimination framework by formally recognising OBCs.



## Equal Opportunity Centres (EOCs)

- Mandatory Requirement:** Every higher education institution is required to establish an Equal Opportunity Centre.
- Functions:** These centres are responsible for **promoting equity, fostering social inclusion**, and addressing complaints related to discrimination.
- Equity Committees under EOCs:**
  - Composition:** Each institution must constitute an Equity Committee chaired by the head of the institution and comprising **representatives of SCs, STs, OBCs, persons with disabilities, and women.**
  - The regulatory framework establishes a **time-bound redressal mechanism**. The **Equity Committee** must convene within **24 hours** of a grievance and finalize its findings within **15 days**.

- ♦ Subsequently, the institutional head is obligated to act on the report within **7 days**.
- ♦ To maintain a safe campus environment, the guidelines mandate proactive measures, including **mobile Equity Squads**, a **24x7 dedicated helpline**, and the appointment of **Equity Ambassadors** to foster an inclusive culture.

### Monitoring and Reporting Framework

- ➔ **Reporting:** Equal Opportunity Centres **must submit bi-annual reports**, while **institutions are required to submit annual compliance reports** to the UGC.
- ➔ **National Monitoring Committee:** The UGC will establish a National Monitoring Committee with representatives from statutory bodies and civil society to review implementation and recommend corrective measures.

### Enforcement and Penalties

- ➔ **For Non-compliance:** Institutions that violate the regulations may be barred from UGC schemes, **prohibited from offering degree or online programmes**, or removed from the list of recognised institutions.
- ➔ **Enforceable Regulation:** These provisions convert the equity framework from advisory guidelines into enforceable regulation.

### Significance of the Regulations

- ➔ **Stronger Protection:** The regulations strengthen legal and institutional safeguards against caste-based discrimination in higher education.
- ➔ **Inclusive Approach:** Explicit inclusion of OBCs ensures broader social justice coverage.
- ➔ **Accountability:** Clear duties and penalties improve institutional responsibility and compliance.

### Key Criticisms of the UGC Equity Regulations 2026

- ➔ **Lack of Accountability for Malicious Allegations:**
  - ♦ The final 2026 regulations omit a critical safeguard present in the 2025 draft: the provision to penalize **false or malicious complaints**.
  - ♦ Critics argue that removing this deterrent creates a **"procedural asymmetry"** that could lead to the weaponization of the grievance mechanism for personal or ideological vendettas.
  - ♦ There is a significant fear that this lack of balance may unfairly cast general-category students as **"presumptive offenders,"** potentially violating the **principle of Natural Justice**.
- ➔ **Compromised Due Process due to Accelerated Timelines:**
  - ♦ The mandate for immediate action (such as convening committees within 24 hours and concluding reports in 15 days) raises concerns about the **quality of adjudication**.
  - ♦ Such compressed schedules may not allow for a thorough evaluation of evidence or a fair hearing for the accused.

- ♦ In complex academic environments, where **"discrimination"** can be subtle or contested, **"procedural closure"** might take precedence over substantive justice.

### ➔ Institutional and Financial Constraints:

- ♦ The regulations impose a heavy administrative burden that may be unfeasible for **smaller or under-resourced colleges**.
- ♦ Operationalizing dedicated Equal Opportunity Centres (EOCs), 24x7 helplines, and "Equity Squads" requires significant faculty time and financial investment.
- ♦ For many institutions already struggling with staff shortages, these requirements could result in **"paper compliance"** rather than genuine cultural change.

### SC Stay on New Regulations

- ➔ The Supreme Court (SC) has granted an interim stay on the University Grants Commission (Promotion of Equity in Higher Education Institutions) Regulations, 2026, because it fears they might create divisions and harm unity on campuses.
- ➔ The Court observed that the new rules raise important questions which, if left unexamined, could have "very sweeping consequences" and "divide society".
  - ♦ **Old Rules Stay in Place:** Because the 2012 rules were cancelled to make way for the new ones, the Court used its special powers to bring the 2012 rules back for now. This ensures there is still a system to protect students while the case is decided.
  - ♦ **Issues with Definitions:** The main problem is that one part of the 2026 rules only defines "discrimination" as something happening to SC, ST, and OBC students. The Court noted that this excludes students from the general category, even though another part of the law already protects everyone regardless of their religion, race, or gender.
  - ♦ **Gaps in Protection:** The Court is worried that the new rules don't clearly cover other types of bullying, such as harassment based on which state a student is from, "ragging," or situations where wealthy individuals mistreat others from their own caste. Also, the rules don't have a way to punish people who make fake complaints.
  - ♦ **A Step Backward:** The judges used a legal idea called "no-regression." This means that laws for social justice should move forward, not backward. They questioned why the 2026 rules seem less inclusive and less protective than the older 2012 version.

### Conclusion

- ➔ The UGC Equity Regulations, 2026 represent a decisive step toward addressing caste-based discrimination in higher education by introducing enforceable standards, institutional accountability, and inclusive coverage.
- ➔ However, their effectiveness will depend on fair implementation, adequate capacity building, and sustained oversight to ensure justice for all stakeholders.



# FREEBIES v/s WELFARE FOR THE MARGINALISED

The Supreme Court of India has distinguished between essential welfare schemes and populist "freebies", and clarified that the large-scale transfer of state funds to individuals for electoral gain is different from investment in public welfare.

No society can be said to be civilized if it neglects the welfare of the weakest sections.

Dr. B.R. Ambedkar

## About

- A collection of petitions has sought a judicial declaration to classify **'irrational freebies offered by political parties to entice voters'** as a "corrupt practice."
- **SC Observations:** The Bench noted that welfare initiatives like **free healthcare and education** are not mere gifts but constitutional obligations under the Directive Principles of State Policy (DPSP).
- **Economic Concerns:** However, the Court expressed alarm that unregulated handouts strain state treasuries, escalate public debt, and cannibalize funds meant for long-term developmental infrastructure.
- **Behavioral Impact:** Excessive reliance on freebies may foster a culture of dependency, potentially discouraging workforce participation and long-term economic contribution.

### Freebies

#### Non-Merit Benefits

Freebies are non-merit, consumption-based benefits that fail to create long-term public assets. They are typically intended for immediate relief or to enhance electoral appeal.

#### 'Revdī' Metaphor

Often referred to metaphorically as "Revdī," these handouts describe the practice of distributing free goods or services during campaigns to secure votes.

#### Representation of the People Act

Section 123 defines "corrupt practices" include any gift, offer, or promise of gratification made to voters, directly or indirectly, by a candidate or their agent.

## Arguments against Freebies

- **Financial Burden:** The cost of these schemes often leads to a fiscal deficit, diverting capital away from essential sectors like healthcare infrastructure and research.
- **Dependency Trap:** Constant handouts may erode the culture of self-reliance, creating an entitlement mindset instead of promoting sustainable skill development.
- **Infrequency of Impact:** These measures often tackle the symptoms of poverty rather than the root causes, offering "band-aid" solutions instead of permanent economic growth.
- **Populist Distortion:** Such practices can be manipulated to sway voter sentiment, potentially compromising the integrity of the democratic process.
- **Lack of Sustainability:** Governments may eventually struggle to fund these promises without increasing the tax burden on the general population or sacrificing fiscal health.

## Important SC Judgments

- **S. Subramaniam Balaji vs. State of Tamil Nadu (2013):**
  - The Court upheld the **right of parties to offer freebies** in manifestos but urged responsible distribution.
  - It noted that only an individual candidate, not the party as a whole, can currently be charged with "corrupt practice" under the RP Act for such promises.
- **PIL on Freebies (2022):**
  - The Court refrained from a definitive ban but directed the Election Commission of India (ECI) to formulate recommendations.
  - It highlighted the need to balance political promises with long-term governance and fiscal sustainability.

## Arguments in Favor of Freebies

- **Social Welfare:** They provide a vital safety net for the economically vulnerable, helping to mitigate poverty and social inequality.
- **Empowerment:** Freebies can uplift marginalized groups—specifically women and students—by providing access to opportunities like education or mobility (e.g., free transport) that were previously unaffordable.
- **Consumption Stimulus:** By providing essentials like electricity or grain for free, disposable income increases. This allows households to spend on other necessities, thereby driving economic demand.
- **Governance Metric:** They serve as a direct reflection of a government's responsiveness to the basic survival needs of its citizenry.

## Way Ahead

- **Strict Regulation:** The government should implement guidelines to ensure that welfare is targeted and aligned with long-term goals rather than short-term electoral cycles.
- **Electoral Reform:** The ECI must enforce transparency, requiring parties to explain how they intend to fund their promises.
- **Fiscal Responsibility:** States should adhere to fiscal discipline to ensure that welfare does not lead to an unmanageable debt-to-GDP ratio.
- **Public Awareness:** Moving the voter mindset from demanding "immediate gifts" to demanding "structural growth" like job creation and better infrastructure.



# CENTRAL VIGILANCE COMMISSION

The President of India, exercising authority under Section 4(1) of the Central Vigilance Commission Act, 2003, has appointed Shri Praveen Vashista as the Vigilance Commissioner in Central Vigilance Commission.

Constant vigilance is required to see that the vast beautiful tree of our country is not eaten up by weeds and pests.

M. Venkaiah Naidu

## Central Vigilance Commission

- ➔ **Genesis and Evolution:** The Central Vigilance Commission (CVC) stands as the apex statutory body mandated to combat corruption and institutionalize integrity within the Central Government of India. It was formed in 1964 through an executive resolution based on the recommendations of the **K. Santhanam Committee on Prevention of Corruption (1962–64)**.
  - ♦ Initially, the CVC operated as a non-statutory executive body. However, following a Supreme Court directive in the **Vineet Narain case (1997)**, the Union Government granted it statutory status via an ordinance in 1998.
  - ♦ This was later formalized through the enactment of the **Central Vigilance Commission Act, 2003**.

## Composition, Appointment, and Tenure

The CVC is designed as a multi-member body to ensure collective wisdom and objective decision-making.

- ➔ **Structure:** It consists of a **Central Vigilance Commissioner (Chairperson)** and not more than two **Vigilance Commissioners**.
- ➔ **Appointment Mechanism:** As per the 2003 Act, the President appoints the members based on the recommendations of a High-Powered Committee (HPC). This committee includes:
  - ♦ The Prime Minister (Chairperson).
  - ♦ The Minister of Home Affairs (Member).
  - ♦ The Leader of the Opposition in the Lok Sabha (Member).
- ➔ **Tenure:** To ensure stability, members serve for **a term of four years from the date they enter office or until they attain the age of 65 years**, whichever occurs earlier. Upon completion of their term, they are **not eligible for further employment** under the Central or State Governments.

## Independence and Autonomy

To function effectively as a watchdog, the CVC is insulated from political and administrative pressure through several legal safeguards:

- ➔ **Service Conditions:** The salary, allowances, and service conditions of the Central Vigilance Commissioner are equated to those of the UPSC Chairman. Similarly, Vigilance Commissioners are equated to UPSC Members. These **conditions cannot be altered to their disadvantage after appointment**.

- ➔ **Financial Autonomy:** All expenses of the Commission, including salaries, pensions, and staff allowances, are **"charged" to the Consolidated Fund of India**. This means they are not subject to the annual vote of Parliament, ensuring the body cannot be stifled through budgetary cuts.

### Removal Procedure:

- ♦ **The President can remove a member only on specific grounds:** insolvency, conviction for an offence involving moral turpitude, engaging in paid employment outside the office, or physical/mental infirmity.
- ♦ **The Misbehavior Clause:** For removal on grounds of "proved misbehavior" or "incapacity," a special protocol is followed. The President must refer the matter to the Supreme Court for a formal enquiry. Removal can only proceed if the Supreme Court upholds the charges and advises the President accordingly.

## Functions and Mandate

The CVC Act, 2003, and subsequent amendments have endowed the Commission with a wide-ranging mandate to ensure transparency and accountability:

- ➔ **Anti-Corruption Inquiries:** It inquires into offences alleged to have been committed under the **Prevention of Corruption Act, 1988**, by central government employees, All India Services officers (on Central deputation), and specified officials in **Public Sector Undertakings (PSUs)**.
- ➔ **Superintendence over CBI:** The CVC exercises superintendence over the functioning of the Central Bureau of Investigation (CBI) in matters relating to the investigation of offences under the Prevention of Corruption Act. It reviews the progress of investigations and monitors delays in the grant of sanction for prosecution.
- ➔ **Whistleblower Protection:** Under the **Public Interest Disclosure and Protection of Informers (PIDPI) Resolution**, the CVC is the designated agency to receive and act upon complaints from whistleblowers regarding corruption or misuse of office.
- ➔ **Advisory Role:** It advises the Central Government on all vigilance-related matters.
- ➔ **Regarding PMLA:** The CVC is the **notified authority** to receive information regarding **suspicious transactions** under the **Prevention of Money Laundering Act (PMLA), 2002**.

## Expanded Role Post-Lokpal Act, 2013

The enactment of the Lokpal and Lokayuktas Act, 2013, significantly enhanced the CVC's operational scope:

- The Lokpal can refer complaints against Group A, B, C, and D employees to the CVC for a preliminary inquiry.
- The CVC chairs the committees that recommend the appointment of the **Director of Enforcement (ED)** and senior officers (SP level and above) in the **CBI (excluding the Director)**.

## Jurisdiction

*The CVC's jurisdiction is extensive, covering:*

- Members of All India Services serving in connection with the affairs of the Union.
- Group A Officers of the Central Government.
- Senior officers (Scale V and above) in **Public Sector Banks, RBI, NABARD, and SIDBI**.
- Top-tier management in PSUs and Insurance Companies.

## Organizational Structure

- The Commission operates through a **Secretariat, a Chief Technical Examiners' (CTE) Wing** for technical audits of construction and procurement works, and **Commissioners for Departmental Inquiries (CDIs)** who conduct formal oral inquiries against public servants.

## Chief Vigilance Officers (CVOs)

- The CVO acts as the primary link between the specific department, the CVC, and the CBI.
- They handle internal vigilance functions and ensure that the Commission's directives are implemented at the ground level.

## Working of CVC

*The CVC operates with the powers of a civil court while conducting inquiries. It can summon witnesses, require the discovery of documents, and receive evidence on affidavits.*

- **Reporting:** The Commission is **accountable to the President of India**, to whom it submits an Annual Report. The President causes this report to be laid before both Houses of Parliament.
- **Accountability:** If a department rejects the advice of the CVC, it must record the reasons in writing, ensuring that the Commission's recommendations are not ignored without justification.

## Limitations of the Central Vigilance Commission (CVC)

- **Advisory Role:** The CVC is an advisory body. This means the government can choose to follow its suggestions or simply ignore them.
- **Small Staff:** It does not have enough people or money to handle the large number of complaints it receives.
- **Limited Authority:** It cannot tell the CBI to investigate high-ranking officials (like Joint Secretaries) on its own. It must first get permission from the official's department.
- **Limitations with Criminal Cases:** The CVC cannot register criminal cases. It only handles internal discipline and corruption checks within government departments.
- **Issues with Fair Appointment:** Even though the Opposition is involved in choosing the leaders of the CVC, the central government still has the most influence over who gets the appointment.

## Lokpal and Lokayukta

- The Lokpal and Lokayukta are independent "Ombudsman" bodies in India created to investigate corruption among public officials. The Lokpal operates at the national level, while the Lokayuktas function within individual states.
- **Key Highlights:**
  - ♦ **Purpose:** They handle complaints against ministers and high-ranking officials. The Lokpal's reach even includes Indian public servants working abroad.
  - ♦ **Leadership:** Both are headed by panels of judges or retired judges to ensure fairness.
  - ♦ **History:** The concept originated in Sweden in 1809. In India, the names "Lokpal" and "Lokayukta" were coined by Dr. L.M. Singhvi in 1963.
  - ♦ **Long Journey to Law:** Although first proposed in the 1960s, the bill failed to pass multiple times over several decades.
  - ♦ **The Turning Point:** In 2011, a massive public protest led by activist Anna Hazare (the "India Against Corruption" movement) pressured the government to act. This led to the official passing of the Lokpal and Lokayuktas Act in 2013.

## Corruption Prevention Framework in India



**Prevention of Corruption Act**  
Primary law to stop corruption, setting punishments for dishonest government officials.



**Central Bureau of Investigation**  
Main agency investigating that catching government workers involved in corruption.



**Vigilance Commissions (CVC and State Level)**  
Offices where citizens report corruption complaints in government departments.



**National Human Rights Commission**  
Handles complaints when basic rights are violated due to corruption.



**Conduct Rules (1964, 1968)**  
Strict handbooks for government employees, forbidding gifts and bribes.



**Administrative Tribunals**  
Special courts quickly handling legal disagreements related to government agencies.

# PRAVASI BHARATIYA DIVAS

The Pravasi Bharatiya Divas (PBD) is celebrated once in two years on 9th January. The 18<sup>th</sup> edition of the Pravasi Bharatiya Diwas took place in 2025 and the 19th is expected in 2027.

The Indian diaspora is India's ambassador, advancing both soft power and hard power

Narendra Modi, Prime Minister

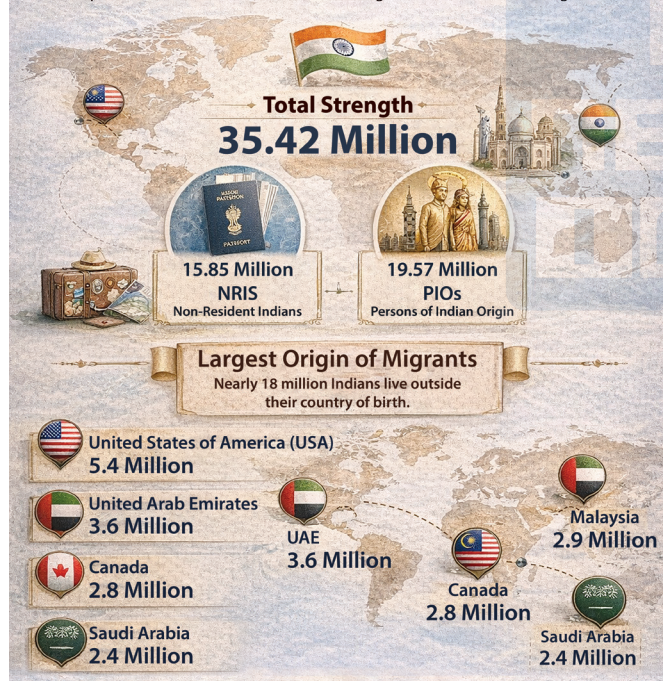
## Historical Significance and Evolution

- The date 9th January was chosen to commemorate the **return of Mahatma Gandhi to India from South Africa in 1915**.
- His return marked a turning point in India's freedom struggle, highlighting the impact a member of the diaspora can have on the country's destiny.



## Statistical Snapshot (2024-2026)

According to the Ministry of External Affairs (2024) and the UN World Migration Report 2024, India remains the world's leading source of international migrants.



## Distribution of Overseas Indians

Country	Overseas Indian
USA	5,409,062
UAE	3,568,848
Saudi Arabia	2,463,509
Malaysia	2,914,127
Canada	2,875,954

Myanmar	2,002,660
UK	1,864,318
South Africa	1,700,000
Kuwait	995,528
Oman	686,635

- **Commencement:** The PBD Convention was first conceptualized and established in 2003 as the flagship outreach event of the MEA.
- **Biennial Shift:**
  - ◆ Since 2015, the format has evolved into a **biennale event**.
  - ◆ While the main convention occurs every two years, theme-based conferences and smaller outreach programs are held during the intervening years to maintain continuous engagement.

## Mapping the Global Indian Diaspora

- The term "diaspora" refers to a diverse group encompassing individuals who can trace their ancestry to India (**People of Indian Origin - PIOs**) or Indian citizens living abroad temporarily or permanently (**Non-Resident Indians - NRIs**).

## Strategic Importance of the Diaspora

*The diaspora is no longer viewed merely as an "emigrated population" but as a vital strategic asset for India's global standing and domestic growth.*

- **Economic Contribution and Remittances:**
  - ◆ India holds the world record for inward remittances.
  - ◆ In 2024, the country received an estimated \$129.1 billion, the highest ever recorded by any nation in a single year.
  - ◆ By 2025, India's share in global remittances reached 14.3%, marking the highest share for any country since the turn of the millennium. These funds are critical for:
    - ◆ Bolstering foreign exchange reserves.
    - ◆ Supporting rural household incomes and poverty reduction.
    - ◆ Driving investment in real estate, startups, and national infrastructure.
- **Knowledge and Innovation Transfer:**
  - ◆ Indian-origin professionals, **particularly in Silicon Valley and global academia**, facilitate knowledge transfer and act as mentors for Indian startups.



- ♦ Their presence in top-tier global corporations creates vital innovation linkages for India's tech sector.
- ➔ **Addressing Global Issues:**
  - ♦ Diaspora participation in local environmental drives and climate advocacy bolsters India's role as a sustainable development leader.
  - ♦ Using their global clout, they influence international policies to spotlight priorities matching India's growth agenda.
- ➔ **Soft Power and Diplomacy:**
  - ♦ **Cultural Ambassadors:** The diaspora promotes **Indian culture, including Yoga, cuisine, cinema (Bollywood), and languages**, enhancing India's "Soft Power."
  - ♦ **Policy Advocacy:** In countries like the USA and UK, the diaspora has successfully influenced foreign policy decisions to align with India's national interests.
  - ♦ **Citizen Diplomacy:** They help manage bilateral tensions by providing a balanced narrative during times of negative media coverage or diplomatic friction.

## Challenges and Vulnerabilities

*Despite their success, various segments of the diaspora face significant hurdles:*

- ➔ **Legal and Political Barriers:** The absence of Dual Citizenship in India limits the political rights of PIOs and can sometimes weaken the emotional bond with the homeland.
- ➔ **Discrimination:** There has been a concerning rise in **racism and xenophobia (a fear or hatred of foreign people and cultures)**, with reported attacks on Indians in the USA, UK, Australia, and South Africa.
- ➔ **Labor Exploitation:**
  - ♦ In the Gulf region (UAE, Saudi Arabia), low-wage migrant workers often face unsafe housing, long hours, wage delays, and exploitative 'Kafala' type contracts.
  - ♦ **Kafala System:** The Kafala System refers to a **binding contract between migrant workers and their local sponsor**, under which they can only work for the specific employer throughout the period of their residence in the country.
  - ♦ Under the Kafala System, the employer, who is also the sponsor of the migrant workers, had an **undue legal advantage over them** as they were not allowed to switch jobs without the Kafala's consent.
- ➔ **Identity Crisis:** Second and third-generation Indian-origin youth in Western nations often struggle with **cultural alienation** and a **sense of dual identity**.
- ➔ **Anti-Immigrant Sentiment:** Economic downturns in host countries often lead to a rise in anti-immigrant rhetoric, affecting visa regimes (like H-1B in the USA) and work permit certainties.

## Support and Engagement Attempts

The Government of India has institutionalized several mechanisms to support and leverage the diaspora:

- ➔ **Overseas Citizenship of India (OCI) Card:** Provides lifelong visa-free entry and most economic rights (excluding voting and agricultural land purchase) to PIOs up to the 4th generation.
- ➔ **Know India Programme (KIP):** An orientation program for youth (21-35 years) to reconnect with their Indian roots.
- ➔ **e-Migrate & Madad Portal:** Digital platforms to protect workers from exploitation and provide a 24/7 grievance redressal system for consular and legal issues.
- ➔ **VAJRA Scheme:** A specialized initiative inviting Indian-origin scientists to collaborate with Indian labs on advanced research projects.
- ➔ **Global Pravasi Rishta Portal:** A unified digital platform to connect the diaspora directly with Indian diplomatic missions worldwide.
- ➔ **Pravasi Bharatiya Divas (PBD) Conventions:**
  - ♦ **Origins of PBD Conventions:** Launched in 2003 during the tenure of Prime Minister Late Shri Atal Bihari Vajpayee, the PBD Convention serves as a key forum to honor and connect with the global Indian community.
  - ♦ **Highlights of the 18th PBD Convention (2025):** Prime Minister inaugurated the Pravasi Bharatiya Express, a dedicated tourist train for diaspora members, operated under the Ministry of External Affairs' Pravasi Teertha Darshan Yojana.
  - ♦ An exhibit featured rare records of migrants from Gujarat's Mandvi to Oman's Muscat.
  - ♦ The PM emphasized the role of Girmityas—indentured workers from colonial India sent to Fiji, Mauritius, Trinidad and Tobago, and similar nations—and proposed building a detailed Girmitya database.
- ➔ **Pravasi Bharatiya Samman Award (PBSA):**
  - ♦ The highest civil honor bestowed upon members of the diaspora for their excellence and contribution to India's image.
  - ♦ This top accolade under the Pravasi Bharatiya initiative recognizes **NRIs, PIOs, or their organizations/institutions**.
  - ♦ It celebrates their efforts in boosting India's global image, advancing national interests, and aiding overseas Indian communities.

# PRESIDENT OF UAE VISIT TO INDIA

President of the United Arab Emirates Sheikh Mohamed bin Zayed Al Nahyan paid an official visit to India.

In the area of community and culture, what India-UAE have achieved is a model for the world.

PM Narendra Modi

## Background

- In time of intensifying geopolitical volatility in the West Asian and Gulf region, India and the United Arab Emirates (UAE) have significantly bolstered their Comprehensive Strategic Partnership.
  - ♦ This instability is characterized by the **ongoing crises in Gaza and Yemen** alongside **internal instability in Iran**.
- During a high-level diplomatic visit to New Delhi by **UAE President Sheikh Mohamed bin Zayed Al Nahyan**, both nations formalized a **Letter of Intent (LoI)** aimed at establishing a robust and long-term **Strategic Defence Partnership**.



## Major Outcomes

- **Defence:** Letter of Intent between India and the United Arab Emirates on the **Strategic Defence Partnership**.
- **Energy:** India signed a \$3 billion deal to buy liquefied natural gas from the United Arab Emirates, making it the UAE's top customer.
  - ♦ In a major move to boost energy security, India's **HPCL** and the UAE's **ADNOC Gas** have signed a 10-year deal.
  - ♦ Under this agreement, HPCL will buy **0.5 million metric tonnes** of Liquefied Natural Gas every year from ADNOC.
  - ♦ The supply is scheduled to begin in **2028** and will continue for a decade.
- **Bilateral Trade:** The two sides **agreed to double bilateral trade to over US\$ 200 billion** by 2032.
- **Nuclear Cooperation:** India and the UAE are expanding their cooperation in the nuclear energy sector. They are looking into working together on **large nuclear power plants**, **Small Modular Reactors (SMRs)**, and improving **nuclear safety and operations**.
  - ♦ This collaboration is supported by India's **SHANTI Act** (Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India), which aims to modernize and grow India's nuclear energy capacity.
- **Investment:** Letter of Intent on Investment Cooperation between Gujarat, India and the United Arab Emirates for Development of **Dholera Special Investment region**.
- **Supercomputing Hub:** India's **C-DAC** and the **UAE's G-42** have agreed to work together to build a Supercomputing Cluster

in India. This will provide massive computing power for advanced research, AI development, and data processing.

## Digital and Financial Partnership:

- ♦ **Data Protection:** Both countries are exploring the idea of **"Digital or Data Embassies."** These are secure, physical locations in one country that allow another country to store its sensitive **"sovereign data"** under its own legal protections.
- ♦ **Easy Payments:** There is a plan to link national payment systems (like India's UPI) to make sending money across borders faster and cheaper.
- ♦ **Trade Support:** Both nations will support projects like **Bharat Mart (a trade hub for Indian products in Dubai)**, a **Virtual Trade Corridor**, and the **Bharat-Africa Setu** to boost trade between India, the UAE, and Africa.

## Security and Anti-Terrorism:

- ♦ **Zero Tolerance:** Both nations have reaffirmed a "zero tolerance" policy toward terrorism, specifically highlighting the need to stop cross-border terrorism.
- ♦ **Financial Safety:** They committed to working together through the **FATF (Financial Action Task Force)** to stop the flow of money to terrorists and prevent money laundering.
- **Space:** Letter of Intent between the **Indian National Space Promotion and Authorisation Centre (IN-SPACe)** of India and the **Space Agency of the United Arab Emirates** for a Joint Initiative to Enable Space Industry Development and Commercial Collaboration.

## Significance of the Visit

- **Strategic & Geopolitical Significance:** The visit is important because it comes in the backdrop of the **sharp escalation** in tensions between the **UAE and Saudi Arabia over Yemen**.
  - ♦ Signals UAE's support for India's role as a **net security provider in the Indian Ocean Region (IOR)**.
- **Economic & Trade Cooperation:** The President's visit builds momentum around the **Comprehensive Economic Partnership Agreement (CEPA)**. UAE is among India's top trading partners and major investors.
- **Regional Security Realignments:** The speculation of a new **Islamic Nato** comprising Saudi Arabia and Pakistan, along with Turkey, is also of great concern to the UAE.
  - ♦ This has left the UAE to look for an independent security partner in India.
- **Concerns Related to Iran:** The UAE has a strong interest in preventing further escalation involving Iran, as any military confrontation could destabilise the entire Gulf region.



- ♦ India's balanced diplomacy and goodwill with regional stakeholders are seen as stabilising factors contributing to regional de-escalation.
- ➔ **Invitation to Board of Peace:**
  - ♦ US has invited India to join the '**Board of Peace**', the body formed and led by the US to oversee peace and reconstruction in **Gaza**.
  - ♦ UAE is a part of this Board however India has not accepted the invitation, some experts view this visit as a way to convince India to join suit.
- ➔ **People-Centric Ties:** With 3.5 million Indian expatriates in UAE, there is renewed emphasis on labour mobility, skill exchanges, and cultural links.

## Bilateral Ties between India and UAE

- ➔ **Political:**
  - ♦ India and the United Arab Emirates (UAE) established diplomatic relations in 1972.
  - ♦ Relationships were upgraded to a Comprehensive Strategic Partnership (CSP) in 2017.
- ➔ **Economic & Commercial:**
  - ♦ 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.
  - ♦ Bilateral trade is expected to surpass \$97 billion, with targets to hit \$100 billion in non-oil trade.
- ➔ **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.
  - ♦ Extradition and mutual legal assistance treaties to combat transnational crime.
- ➔ **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.
- ➔ **Multilateral Cooperation:** India and the UAE are currently part of several plurilateral platforms such as India-Middle East EU Economic Corridor (IMEC), I2U2 (India-Israel-UAE-USA) and UFI (UAE-France-India) Trilateral, etc.

## Challenges

- ➔ **Trade Imbalances:** India has a trade deficit with the UAE, primarily due to high oil imports from the UAE, which makes the economic relationship uneven despite growing non-oil trade.
- ➔ **Geopolitical Tensions in the Region:** Political instability in the Middle East and the Gulf region affect bilateral relations, especially with India's strategic interests in the region.
- ➔ **Labor and Migration Issues:** India is one of the largest sources of migrant labor in the UAE, and issues related to the welfare and rights of Indian workers have been a point of concern.
- ➔ **Foreign Policy of UAE:** India's relations with countries like Iran and Pakistan sometimes complicate its relations with the UAE, which maintains different strategic priorities in the region.
- ➔ **Avoiding Alignment Trap:**
  - ♦ India must ensure that its close ties with one country aren't seen as "teaming up" against another.
  - ♦ It is advised to use economic deals like **CEPA (Comprehensive Economic Partnership Agreement)** to bring UAE and Gulf money into programs like **Make in India** and **Atmanirbhar Bharat**.
  - ♦ India has the difficult task of maintaining friendly relations with countries that are often rivals, such as Israel and Iran, or Saudi Arabia and the UAE.
- ➔ **Dealing with Regional Chaos:**
  - ♦ The Middle East is often unstable due to wars and threats to shipping lanes (maritime insecurity).
  - ♦ India makes continuous Diplomatic Engagement to encourage peace and de-escalation, as a stable West Asia is vital for India's energy security and the safety of millions of Indian workers there.

## Conclusion

- ➔ The **Strategic Defence Partnership** shows that the relationship between India and the UAE has matured. It has moved past being just about "buying and selling" (transactional) and is now a **multi-dimensional** partnership covering **security, technology, and long-term strategy**.
- ➔ Despite the ongoing conflicts and instability in West Asia, India has managed to stay neutral.
  - ♦ It has strengthened its bond with the UAE while sticking to its core principles of **peace, regional stability, and strategic autonomy** (making its own independent decisions).
- ➔ These developments highlight India's role as a reliable and influential player in the Gulf. By remaining **non-aligned**.

# ACHIEVING EFFICIENCIES IN MSME SECTOR

The NITI Aayog released a 2025 report recommending convergence of MSME schemes to reduce duplication, improve governance efficiency, and enhance economic outcomes.

Small enterprises are not small in importance; they are the backbone of any resilient economy.

Narendra Modi

## Background

- Micro, Small and Medium Enterprises, meaning businesses with limited investment and turnover, have long been seen as engines of employment, entrepreneurship, and inclusive growth in India.
- Since Independence, the government has launched multiple schemes to support MSMEs in finance, technology, skills, marketing, and social inclusion. Over time, this support expanded rapidly, especially after economic liberalisation and the 2020 revision of MSME classification to encourage scale and formalisation.
- However, scheme expansion happened in silos. By 2025, the Ministry of Micro, Small and Medium Enterprises administered around eighteen schemes with overlapping objectives, separate portals, and different eligibility rules.
- While these schemes worked in isolation, together they created administrative complexity, duplication of effort, and uneven outreach, particularly for small, rural, and women-led enterprises.
- The issue persists today because MSMEs face rising compliance burdens, fragmented access to finance, skills, and markets, and weak coordination between central and state programmes.
- According to NITI Aayog, despite MSMEs contributing about 30 percent to India's Gross Domestic Product and employing over 320 million people, many enterprises fail to fully benefit from government support due to poor integration.
- The convergence debate has gained urgency now due to digital governance maturity, fiscal constraints, and India's ambition to become a global manufacturing and innovation hub by the mid-2030s.

## Significance of MSMEs

- **MSMEs as the backbone of employment and inclusive growth:**
  - ♦ Micro, Small and Medium Enterprises are central to India's economic and social stability, employing over **320 million people** and accounting for nearly **30 percent of Gross Domestic Product**, according to the Ministry of Micro, Small and Medium Enterprises (2025).
  - ♦ However, fragmented schemes weaken their impact on job creation. Convergence ensures that credit,

skills, and market access reach the same enterprises together, converting MSMEs into engines of inclusive and sustainable employment.

### ➤ MSMEs drive manufacturing strength and export competitiveness:

- ♦ MSMEs contribute around **45 percent of manufacturing output** and nearly **40 percent of exports**, making them vital for India's global competitiveness (Ministry of Commerce, 2025). Yet, productivity remains low due to scattered technology and cluster schemes.
- ♦ Converging programmes like cluster development, innovation support, and export promotion improves scale, quality, and technology adoption, which is essential as India integrates deeper into global value chains.

### ➤ Convergence improves efficiency of public spending on MSMEs:

- ♦ India operates more than **18 central MSME schemes**, many with overlapping objectives, leading to duplication and administrative inefficiency. NITI Aayog (2025) estimates that scheme fragmentation reduces outcome efficiency by over **20 percent**.
- ♦ Convergence matters because fiscal resources are limited, and MSME support must deliver measurable productivity, employment, and credit outcomes rather than parallel outputs across ministries and states.

### ➤ Strengthens access for micro and informal enterprises:

- ♦ Nearly **95 percent of Indian MSMEs are micro enterprises**, often informal and resource-constrained, according to World Bank (2025). Multiple schemes with separate portals and compliances exclude these units.
- ♦ Scheme convergence simplifies access through common platforms and processes, enabling first-time entrepreneurs, women-led enterprises, and rural artisans to benefit meaningfully from state support rather than remaining outside formal assistance systems.

### ➤ Enables balanced regional and social development:

- ♦ MSMEs are unevenly distributed across states, with weaker presence in the North Eastern Region, aspirational districts, and tribal areas. Ministry of Micro, Small and Medium Enterprises data (2025) shows persistent credit and infrastructure gaps in these regions.
- ♦ Convergence allows targeted schemes such as the National Scheduled Caste and Scheduled Tribe Hub and regional programmes to function within a unified framework, improving coordination without diluting inclusivity.

## Challenges in the MSME Sector

- **Fragmentation of schemes causing weak outcomes:** The Ministry of Micro, Small and Medium Enterprises runs **18 central schemes**, many overlapping in credit, skills, and technology support, leading to duplication and diluted impact.
  - ♦ NITI Aayog (2025) notes that fragmented implementation increases administrative costs and reduces outcome efficiency, as enterprises often receive partial benefits instead of integrated support, limiting productivity gains despite significant public expenditure.
- **Limited access and awareness among micro enterprises:**
  - ♦ Over **95 percent of Indian MSMEs are micro enterprises**, many operating informally with low digital literacy, according to the World Bank (2025). Multiple portals, eligibility criteria, and compliance requirements discourage participation.
  - ♦ As a result, scheme benefits disproportionately reach larger and urban MSMEs, while rural, women-led, and first-generation enterprises remain excluded from government support mechanisms.
- **Poor coordination between central and state schemes:** MSME support involves central ministries, state governments, financial institutions, and sectoral agencies, but coordination remains weak. NITI Aayog (2026) highlights that lack of data-sharing and aligned timelines leads to duplication and delays.
  - ♦ States often run parallel schemes without integration, reducing scale benefits and weakening cluster-based development, especially in backward and aspirational districts.
- **Skill and capacity gaps within implementing institutions:**
  - ♦ Effective convergence requires skilled administrators, data analytics, and outcome monitoring, which are uneven across districts. The Ministry of Micro, Small and Medium Enterprises (2025) reports shortages of trained personnel in District Industries Centres, limiting implementation quality.
  - ♦ This results in slow approvals, weak handholding, and poor monitoring, even when schemes are well-designed at the national level.
- **Credit delivery and technology adoption constraints:** Despite multiple credit-linked schemes, MSMEs face a financing gap of over **₹25 lakh crore**, as estimated by the International Finance Corporation (2025). Fragmented schemes fail to link credit with skills, technology, and markets.
  - ♦ Consequently, many MSMEs remain trapped in low productivity cycles, unable to upgrade technology or scale operations, especially in manufacturing and export-oriented sectors.
- registration, eligibility, and benefits through the **Udyam Registration Portal**.
  - ♦ By 2025, over **74 million MSMEs** were registered on Udyam (Ministry of MSME), enabling automatic linkage with credit, subsidies, and skill schemes.
  - ♦ This has reduced paperwork and duplication, though awareness and utilisation remain weaker among micro enterprises in rural and informal segments.
- **Addressing credit access constraints through integrated financial schemes:** Limited and delayed credit, a core MSME challenge, is being addressed by converging **Credit Guarantee Fund Trust for Micro and Small Enterprises, Emergency Credit Line Guarantee Scheme**, and **Prime Minister's Employment Generation Programme** with banking and digital platforms.
  - ♦ As of 2025, **₹4.5 lakh crore** has been disbursed under Emergency Credit Line Guarantee Scheme (Ministry of Finance), stabilising MSMEs post-pandemic, though smaller firms still face higher collateral and information barriers.
- **Overcoming scale and productivity issues via cluster convergence:** To resolve the problem of small scale and low productivity, the government is integrating **Micro and Small Enterprises – Cluster Development Programme** with **Scheme of Fund for Regeneration of Traditional Industries**, as recommended by NITI Aayog (2025).
  - ♦ Over **1,300 MSME clusters** are operational nationwide (Ministry of MSME), providing shared infrastructure, technology centres, and market access, though cluster benefits remain uneven across regions and sectors.
- **Bridging skill gaps through rationalised skill and entrepreneurship programmes:**
  - ♦ Skill shortages and low technology adoption are being tackled by converging MSME training programmes with **Skill India Mission, Entrepreneurship Development Programmes**, and technology centres.
  - ♦ In 2025, more than **6 million MSME workers and entrepreneurs** received training (Ministry of Skill Development and Entrepreneurship), improving productivity and employability, though district-level training capacity and digital skills penetration remain limited.
- **Strengthening market access and innovation through unified platforms:**
  - ♦ Market access challenges are being addressed through convergence of **Government e-Marketplace, MSME Sampark**, and **MSME Innovative**, including integration of **ASPIRE (A Scheme for Promoting Innovation, Rural Industry and Entrepreneurship)**.
  - ♦ By 2026, MSMEs account for **over 40 percent of Government e-Marketplace procurement value** (Ministry of Commerce and Industry), supporting demand stability, though export participation is still concentrated among medium-sized enterprises.

## Government and Institutional Efforts

- **Tackling fragmentation and duplication through Udyam-based convergence:**
  - ♦ To address the challenge of fragmented schemes and multiple entry points, the government has converged



## Creating Champion MSMEs: The 3-Pillar Support Strategy

### PILLAR 1: EQUITY SUPPORT

**₹10,000 cr**  
**SME GROWTH FUND**  
A new dedicated fund to incentivize and create the next generation of champion enterprises.

**₹2,000 Cr**  
**FUND TOP-UP**  
For the Self-Reliant India Fund, ensuring continued access to risk capital for micro enterprises.

### PILLAR 2: LIQUIDITY SUPPORT

**₹7 LAKH CRORE+**  
**VIA TReDS**

Significant liquidity has already been made available to MSMEs through the TReDS platform.

### STRENGTHENING THE TReDS PLATFORM

Four new measures will enhance liquidity, including credit guarantees and mandated use by CPSEs.

### PILLAR 3: PROFESSIONAL SUPPORT

**INTRODUCING  
'CORPORATE MITRAS'**  
A new cadre of accredited para-professionals to help MSMEs with affordable compliance support.

**FOCUS ON TIER-II  
& TIER-III TOWNS**  
This initiative will bring professional assistance to businesses outside major metropolitan areas.

### Way Forward

- **Build a fully integrated national MSME digital backbone:** India should operationalise a single, interoperable MSME digital platform linking registration, credit, skills, markets, and compliance. NITI Aayog's proposed Artificial Intelligence-enabled portal can reduce transaction costs and duplication.
  - ♦ Evidence from the World Bank (2025) shows digitally integrated small-business ecosystems improve scheme uptake by over 25 percent, though success depends on state-level adoption and data quality.
- **Adopt outcome-based budgeting and monitoring for MSME schemes:** Rather than tracking expenditure, convergence must focus on outcomes such as job creation, productivity gains, and export growth. The Ministry of Finance's Outcome Budget framework can be extended to MSME programmes.
  - ♦ The Economic Survey 2025 notes that outcome-linked schemes show better efficiency, but require stronger data analytics and independent evaluation capacity.
- **Strengthen cluster-based and sector-specific convergence models:** Merging schemes like Scheme of Fund for Regeneration of Traditional Industries and Micro and Small Enterprises – Cluster Development Programme should prioritise region-specific needs.
  - ♦ International Labour Organization studies (2025) show cluster-based support raises MSME productivity by 15–20 percent, though benefits remain limited where local institutions are weak.
- **Deepen skill, credit, and market convergence for micro enterprises:** Skill programmes, credit schemes like Prime

Minister Employment Generation Programme, and marketing support must be delivered together, especially for women and informal enterprises.

- ♦ According to NITI Aayog (2026), fragmented delivery excludes micro units most. Integrated delivery can improve enterprise survival, but requires coordination across ministries and states.
- **Ensure institutional coordination with clear accountability mechanisms:** A permanent inter-ministerial convergence council with state participation should oversee implementation, resolve overlaps, and ensure continuity.
  - ♦ Organisation for Economic Co-operation and Development (2025) experience shows strong coordination improves small-enterprise policy coherence, though political ownership and administrative capacity remain critical constraints.

### Conclusion

- Convergence of schemes in the Micro, Small and Medium Enterprises sector is no longer an administrative choice but an economic necessity. NITI Aayog's framework rightly shifts focus from scheme proliferation to outcome efficiency by integrating data, processes, skills, finance, and markets.
- While recent efforts have improved access, credit flow, and productivity for millions of enterprises, uneven implementation and capacity gaps persist. Sustained digital integration, institutional coordination, and targeted support for micro and informal enterprises are essential to unlock the full potential of India's Micro, Small and Medium Enterprises as engines of inclusive growth, employment, and resilience.

# PRIVATISATION OF PUBLIC SECTOR ENTERPRISES

The Confederation of Indian Industry recommended a faster, demand-led privatisation strategy for Public Sector Enterprises in Union Budget 2026–27.

The public sector must grow rapidly if the Indian economy is to develop, but it must also function efficiently and without waste.

Jawaharlal Nehru

## Background

- Public Sector Enterprises are government-owned companies where the state holds a majority stake, created after Independence to drive industrialisation, self-reliance, and balanced regional development when private capital was weak.
- Sectors such as steel, power, transport, telecommunications, and heavy engineering were dominated by these enterprises, which were described as “temples of modern India” by Jawaharlal Nehru.
  - ♦ Over time, many enterprises expanded but also developed structural problems like overstaffing, political interference, weak accountability, and low productivity.
- By the 1980s, rising fiscal deficits and mounting losses made reforms unavoidable. The New Industrial Policy of 1991 formally introduced disinvestment to improve efficiency, mobilise resources, and introduce market discipline.
  - ♦ While partial disinvestment and stock market listings improved transparency in some enterprises, many remained inefficient and dependent on budgetary support.
- The issue persists today because large public capital remains locked in non-strategic enterprises, while India faces huge infrastructure and social spending needs.
  - ♦ According to government estimates, total capital locked in Public Sector Enterprises exceeds ₹30 lakh crore.
  - ♦ The renewed focus comes from fiscal pressures, global competition, and CII's estimate that calibrated stake reduction alone could unlock nearly ₹10 lakh crore without losing strategic control.

## Significance of Privatisation

- **Fiscal consolidation and better use of scarce public resources:**
  - ♦ Privatisation is significant because it mobilises non-tax revenue without raising taxes or increasing public debt, easing fiscal pressure.
  - ♦ With growing spending needs for infrastructure, defence, health, and welfare, retaining large capital in commercial enterprises limits fiscal flexibility.
  - ♦ According to the Ministry of Finance, disinvestment receipts increasingly finance capital expenditure, though long-term benefits depend on productive reinvestment rather than revenue spending.

## ➤ Improvement in operational efficiency and productivity:

- ♦ Private ownership introduces professional management, performance-linked incentives, and faster decision-making, which many Public Sector Enterprises lack due to bureaucratic controls.
- ♦ The Air India privatisation in 2021 demonstrated improvements in service quality, fleet expansion, and financial discipline under private management.
- ♦ However, efficiency gains vary across sectors, especially where natural monopolies and heavy regulation still require strong oversight.

## ➤ Development of capital markets and wider public ownership:

- ♦ Disinvestment through stock exchanges deepens capital markets by increasing liquidity, market capitalisation, and investor participation.
- ♦ Instruments such as the Central Public Sector Enterprises Exchange Traded Fund enabled small investors to gain diversified exposure to state-owned assets.
  - ♦ However, benefits remain concentrated among urban and financially literate groups unless supported by broader investor awareness initiatives.

## ➤ Strategic refocusing of government on core public functions:

- ♦ Privatisation allows the government to exit non-strategic sectors and focus on regulation, welfare delivery, and public goods provision. This is crucial in a developing economy where administrative and fiscal capacities are limited.
- ♦ The Strategic Disinvestment Policy of 2021 clarified core sectors for state presence, though execution remains uneven due to political resistance and procedural delays.

## ➤ Attraction of global capital, technology, and best practices:

- ♦ Privatisation signals policy credibility and economic openness, attracting foreign investment and modern technology in sectors like energy, logistics, and manufacturing.
- ♦ The Air India sale and investor interest in ports and airports highlight this potential.
  - ♦ However, sustained inflows depend on transparent valuation, regulatory certainty, and credible labour transition frameworks.

## Challenges and Concerns Related to Privatisation

### ➤ Valuation challenges and risk of asset undervaluation:

- ♦ Accurate valuation of Public Sector Enterprises remains difficult due to legacy debts, pension liabilities, land title disputes, and market volatility.

- ♦ The Comptroller and Auditor General of India (2025) flagged inconsistent valuation methods in several disinvestment cases, raising concerns of value erosion. Market uncertainty in 2024–25 further widened bid-ask gaps, delaying strategic sales (Economic Survey 2024–25).
- ➔ **Employment Insecurity and Labour Resistance:**
  - ♦ Privatisation triggers strong labour opposition due to fears of job losses and dilution of service conditions. According to the Ministry of Labour and Employment (2025), Public Sector Enterprises still employ over 1.45 million workers, many covered by legacy social security protections.
  - ♦ Resistance from unions delayed transactions in sectors like steel and petroleum despite voluntary retirement schemes and retraining provisions.
- ➔ **Political and Federal Resistance:**
  - ♦ Privatisation often faces opposition from state governments and political stakeholders where enterprises have regional economic significance. NITI Aayog (2025) notes that state-level approvals related to land, labour, and utilities remain a major bottleneck in strategic sales.
  - ♦ Divergent political priorities between the Union and states continue to slow execution despite central policy support.
- ➔ **Regulatory and Competition Risks:**
  - ♦ Transferring Public Sector Enterprises to private ownership risks replacing public monopolies with private dominance in weakly regulated sectors.
  - ♦ The Competition Commission of India (2025) highlighted rising market concentration in logistics, aviation, and energy distribution.
  - ♦ Inadequate regulatory capacity can expose consumers to price manipulation and service quality decline after privatisation.
- ➔ **Execution Delays and Procedural Complexity:**
  - ♦ Strategic disinvestment involves multiple approvals, legal clearances, and litigation risks, extending timelines significantly.
  - ♦ As per the Department of Investment and Public Asset Management (2025), several approved transactions missed target timelines by over eighteen months. Prolonged processes weaken investor confidence and reduce fiscal predictability from disinvestment receipts.
- ♦ The **Economic Survey 2024–25** notes this has improved price discovery, though legacy land and litigation issues still limit full value realisation in several enterprises.
- ➔ **Managing Employment Concerns through Safeguards and Reskilling:**
  - ♦ To address labour resistance, the government relies on **Voluntary Retirement Scheme norms**, **Skill India Mission**, and **National Skill Development Corporation programmes** for workforce transition. These measures aim to reduce social costs of restructuring.
  - ♦ However, the **Ministry of Labour and Employment (2025)** highlights uneven reskilling uptake, showing the need for stronger linkage between disinvestment timelines and labour rehabilitation.
- ➔ **Providing a Clear Strategic Framework for Political Consensus:**
  - ♦ The **Strategic Disinvestment Policy 2021** clearly classifies strategic and non-strategic sectors, reducing policy ambiguity. Combined with the **National Monetisation Pipeline**, it reassures investors of long-term intent.
  - ♦ This framework is important because it shifts the debate from ideology to asset efficiency, though inter-ministerial and Centre–State coordination challenges persist (NITI Aayog, 2025).
- ➔ **Strengthening Regulatory Oversight Post-Privatisation:**
  - ♦ Institutions like the **Competition Commission of India** and sector regulators are tasked with preventing monopolistic practices after privatisation. Recent market studies in ports and aviation (2025) highlight proactive monitoring.
  - ♦ This oversight is crucial to ensure consumer welfare, especially where private ownership replaces public monopolies, though regulatory capacity varies across sectors.
- ➔ **Improving Execution through Specialised Institutional Capacity:**
  - ♦ The creation of **dedicated disinvestment teams within the Department of Investment and Public Asset Management** has streamlined approvals, stakeholder consultations, and bidding processes.
  - ♦ According to the **Union Budget documents 2025–26**, execution timelines have shortened for select transactions, although complex litigation and approvals continue to delay strategic sales.

## Government and Institutional Efforts

- ➔ **Strengthening Valuation and Transparency Mechanisms:**
  - ♦ The **Department of Investment and Public Asset Management** has institutionalised multi-layer valuation using financial, asset-based, and market benchmarks to address undervaluation concerns. Independent transaction advisors, legal advisors, and asset valuers are now mandatory.

## Way Forward

- ➔ **Time-bound resolution of legacy and legal issues before sale:**
  - ♦ The government should complete land title clarification, environmental approvals, and litigation settlement before announcing privatisation. The **Economic Survey 2024–25** recommends pre-disinvestment “asset cleansing” to improve valuation certainty.



- ◆ Countries such as the United Kingdom followed this approach during railway privatisation, reducing execution delays.
- ◆ Faster legal resolution would improve investor confidence and help meet Budgeted disinvestment targets more credibly.
- ➔ **Institutionalised Centre–State Coordination Mechanism:**
  - ◆ A formal Centre–State coordination platform should be created for Public Sector Enterprises operating on state land or under state regulation.
  - ◆ **NITI Aayog (2025)** suggests joint steering committees for large asset monetisation projects.
  - ◆ This would reduce regulatory friction in sectors like power distribution and transport, where state cooperation determines outcomes, ensuring smoother execution and better price discovery.
- ➔ **Strong Social Security and Reskilling Framework for Workers**
  - ◆ Privatisation must be accompanied by mandatory reskilling, redeployment, and social protection packages.
  - ◆ The **International Labour Organization (2025)** highlights that countries with active labour transition policies face less resistance to privatisation.
  - ◆ Expanding reskilling coverage beyond the current 55 percent of affected workers would reduce political opposition and improve long-term labour productivity.
- ➔ **Deepening Domestic and Retail Investor Participation:**
  - ◆ The government should expand retail-focused instruments such as Exchange Traded Funds and small-ticket offerings.
- ◆ The **Securities and Exchange Board of India (2025)** recommends wider retail participation to stabilise disinvestment outcomes.
- ◆ Greater domestic ownership would reduce dependence on volatile foreign capital and improve public acceptance of privatisation reforms.
- ➔ **Robust post-privatisation monitoring and accountability framework:**
  - ◆ A mandatory post-disinvestment performance audit system should be introduced for service quality, employment commitments, and competition outcomes.
  - ◆ **NITI Aayog (2025)** stresses that privatisation success must be evaluated beyond upfront receipts. Continuous monitoring would ensure that efficiency gains translate into public welfare and prevent monopoly abuse.

## Conclusion

- ➔ Privatisation of Public Sector Enterprises is no longer only a fiscal tool but a structural reform essential for India's long-term economic efficiency and governance capacity.
- ➔ Evidence from recent disinvestment experiences shows that outcomes depend not on speed alone, but on preparation, transparency, labour safeguards, and post-sale accountability.
- ➔ A calibrated, demand-led, and institutionally strong privatisation framework can unlock capital, improve productivity, and refocus the state on public welfare, aligning economic reform with inclusive growth and fiscal sustainability.

## ADDITIONAL INFORMATION

### Department of Investment and Public Asset Management

- ➔ The DIPAM functions under the Ministry of Finance, Government of India. It was earlier known as the Department of Disinvestment and was renamed in 2016 to reflect its expanded role beyond disinvestment.
- ➔ **Primary Role:** DIPAM is responsible for managing the Government of India's equity holdings in CPSEs and ensuring the efficient utilization of public assets.

### Key Functions

- ➔ Formulation and implementation of the government's disinvestment policy.
- ➔ Undertaking strategic disinvestment and privatization of CPSEs.
- ➔ Advising ministries on capital restructuring, mergers, and asset monetization.
- ➔ Managing matters related to Initial Public Offerings (IPOs) and Offer for Sale (OFS) of CPSEs.
- ➔ Handling issues related to valuation of public sector assets

### National Monetisation Pipeline

- ➔ The National Monetisation Pipeline (NMP) is a Government of India initiative launched in 2021 to unlock the value of brownfield infrastructure assets by monetising them for a fixed period. It aims to generate resources for new infrastructure creation without permanently selling public assets.

### Objective

- ➔ To mobilise funds by leveraging underutilised public assets and reinvesting the proceeds in infrastructure development, thereby supporting economic growth.

### Key Features

- ➔ Covers assets worth approximately ₹6 lakh crore over a four-year period (2021–2025)
- ➔ Focuses exclusively on operational (brownfield) assets, not greenfield projects
- ➔ Ownership of assets remains with the government
- ➔ Monetisation is carried out through mechanisms such as leasing, concessions, and Toll-Operate-Transfer (TOT)

# FOURTH INDUSTRIAL REVOLUTION

The World Economic Forum announced five new Centres for the Fourth Industrial Revolution, including an Energy and Cyber Resilience centre in Andhra Pradesh.

We are not witnessing just another industrial revolution, but the advent of a fundamentally new technological era.

Klaus Schwab

## Background

- The Fourth Industrial Revolution refers to a phase of technological change where the physical, digital, and biological worlds are converging rapidly. Unlike earlier industrial revolutions driven by single technologies such as steam power, electricity, or computers, this phase is shaped by the **simultaneous advancement and fusion of multiple technologies**. These include artificial intelligence, robotics, advanced data analytics, quantum computing, biotechnology, and cyber-physical systems.
- The concept was formally popularised by the **World Economic Forum in 2016**, responding to the accelerating pace of innovation that began after the digital revolution. Earlier technology waves improved productivity but were largely sector-specific. In contrast, Fourth Industrial Revolution technologies cut across sectors, transforming governance, manufacturing, healthcare, energy systems, and security simultaneously.
- Governments initially struggled to regulate these technologies because traditional policy frameworks were slow, fragmented, and reactive. This created risks such as job displacement, cyber insecurity, ethical concerns around artificial intelligence, and unequal access to innovation benefits. To address these gaps, the World Economic Forum launched the **Fourth Industrial Revolution Network in 2017**, creating global centres to support responsible innovation, adaptive regulation, and multi-stakeholder cooperation.
- India's inclusion reflects its growing digital economy, expanding innovation ecosystem, and need to align frontier technologies with inclusive and sustainable development goals.

## Significance

- **Enhancing productivity in a slowing global economy:**
  - ♦ The Fourth Industrial Revolution is crucial for India as productivity growth must compensate for slowing global demand.
  - ♦ According to the World Economic Forum (2025), artificial intelligence and automation could add nearly **USD 500–550 billion** to India's Gross Domestic Product by 2030, though gains depend on firm-level adoption and workforce readiness.

### ➤ Managing employment transition for a large youth population:

- ♦ With over **65% of Indians below 35 years**, Fourth Industrial Revolution technologies shape employment transitions rather than pure job losses.
- ♦ The International Labour Organization's Employment Outlook 2026 notes India must reskill nearly **50 million workers** by 2030, as automation affects routine jobs while creating demand in digital, green, and care sectors.

### ➤ Strengthening manufacturing competitiveness under Make in India:

- ♦ Smart manufacturing using robotics, data analytics, and digital twins improves efficiency and export reliability.
- ♦ The World Bank (2025) reports Industry 4.0 adoption can reduce manufacturing costs by **10–15%**, supporting India's goal of raising manufacturing's share to **25% of Gross Domestic Product**, though small firms lag adoption.

### ➤ Deepening digital governance and service delivery:

- ♦ India leverages Fourth Industrial Revolution tools through digital public infrastructure like Aadhaar-linked platforms and real-time analytics.
- ♦ The International Monetary Fund (2025) highlights India as a global case where digital governance reduced leakages in welfare delivery and expanded financial inclusion to over **500 million beneficiaries**, though data privacy safeguards remain evolving.

### ➤ Supporting energy transition and climate commitments:

- ♦ Fourth Industrial Revolution technologies enable smart grids, predictive maintenance, and emissions tracking critical for India's energy transition.
- ♦ The United Nations Environment Programme (2026) notes digital energy systems can cut transmission losses by **up to 20%**, helping India balance rising electricity demand with its net-zero **2070** climate commitment.

## Challenges and Concerns

### ➤ Large-scale skills mismatch and workforce disruption:

- ♦ India faces a widening skills mismatch as automation advances faster than reskilling systems. The **World Economic Forum Future of Jobs Report 2025** estimates **44 percent of Indian workers will need new skills by 2030**, while the **Ministry of Skill Development and Entrepreneurship (2026)** notes limited coverage of advanced digital training in informal sectors.

### ➤ Uneven adoption across firms, regions, and sectors:

- ♦ Fourth Industrial Revolution technologies remain concentrated in large firms and urban clusters. According

to NITI Aayog and Ministry of Electronics and Information Technology (2025), over 70% of Micro, Small and Medium Enterprises lack capacity to adopt artificial intelligence, robotics, or data analytics, widening productivity gaps between organised and informal enterprises.

#### ➤ Rising data governance, privacy, and cybersecurity risks:

- ♦ Rapid digitalisation has increased cyber vulnerabilities. The **Indian Computer Emergency Response Team Annual Report 2025** recorded a **15 percent rise in cyber incidents**, while regulatory frameworks for artificial intelligence, cross-border data flows, and algorithmic accountability remain under development, increasing risks to trust, economic stability, and national security.

#### ➤ Employment quality and informalisation pressures:

- ♦ While digital platforms create jobs, many are insecure and lack social protection. The **International Labour Organization World Employment and Social Outlook 2026** warns that technology-driven employment growth in India risks expanding low-wage, informal gig work unless labour laws adapt to ensure social security, minimum wages, and collective bargaining coverage.

#### ➤ Energy intensity and digital infrastructure constraints:

- ♦ Fourth Industrial Revolution technologies significantly increase electricity demand from data centres, artificial intelligence computing, and connectivity infrastructure.
- ♦ The **International Energy Agency Electricity Report 2026** projects India's data centre power demand could **triple by 2030**, posing challenges for grid stability and climate commitments without accelerated renewable energy and efficiency investments.

### Government and Institutional Efforts

#### ➤ National Artificial Intelligence Mission and Centres for the Fourth Industrial Revolution:

- ♦ The **India Artificial Intelligence Mission (approved 2024)** and collaboration with the **World Economic Forum Centre for the Fourth Industrial Revolution in Andhra Pradesh (2025)** address innovation and governance gaps.
- ♦ The **Ministry of Electronics and Information Technology (2026)** reports expanded artificial intelligence research hubs, though adoption remains uneven among Micro, Small and Medium Enterprises and state governments.

#### ➤ Skill India Digital and Future Skills PRIME:

- ♦ To tackle workforce disruption, the government launched **Future Skills PRIME** and expanded **Skill India Digital Platform**, targeting artificial intelligence, robotics, and data analytics.
- ♦ According to the **Ministry of Skill Development and Entrepreneurship (2025)**, over **10 million learners enrolled**, but coverage of informal workers and advanced industry-specific skills remains limited.

#### ➤ Digital Public Infrastructure and data governance reforms:

- ♦ India's **Digital Public Infrastructure**, including **Aadhaar**, **Unified Payments Interface**, and **Account Aggregator**, supports scalable digital adoption. The **Digital Personal Data Protection Act, 2023**, operationalised through rules in **2025**, strengthens data governance.
- ♦ However, **NITI Aayog (2026)** notes gaps in artificial intelligence-specific regulation and cross-border data frameworks.

#### ➤ Support for technology adoption by enterprises and startups:

- ♦ Schemes such as **Production Linked Incentive**, **Startup India**, and **Digital MSME** promote adoption of automation and smart manufacturing.
- ♦ The **Ministry of Commerce and Industry (2025)** reports rising technology investments in electronics and renewable energy, though smaller firms face financing and capability constraints, limiting diffusion beyond large industrial clusters.

#### ➤ Energy transition and cyber resilience initiatives:

- ♦ To manage rising digital energy demand and cyber risks, India expanded **National Smart Grid Mission**, **Green Hydrogen Mission**, and **National Cyber Security Strategy implementation measures**.
- ♦ The **International Energy Agency (2026)** credits India's renewable expansion, yet warns data-centre growth may strain grids without faster storage and efficiency upgrades.

### Way Forward

➤ **Adaptive technology governance:** India must shift from fragmented regulations to a unified framework for artificial intelligence, quantum technologies, and biotechnology. The World Economic Forum (2025) recommends regulatory sandboxes, while NITI Aayog (2026) stresses artificial intelligence risk classification, algorithm accountability, and cross-border data standards to ensure innovation with trust.

➤ **Industry-aligned skilling:** The International Labour Organization (2026) estimates 40 percent of Indian workers need reskilling due to automation. Apprenticeships and industry-certified programmes must replace enrolment-driven skilling.

➤ **Technology diffusion to Micro, Small and Medium Enterprises:** With fewer than 25 percent using advanced digital tools (Ministry of Micro, Small and Medium Enterprises, 2025), shared infrastructure and concessional credit are essential.


➤ **Sustainable digital expansion:** As digital power demand may double by 2030 (International Energy Agency, 2026), integrating renewables, smart grids, and storage is critical.

➤ **Strategic global collaboration:** Leveraging World Economic Forum platforms and technology diplomacy (Ministry of External Affairs, 2025) can attract investment while safeguarding strategic autonomy.



# FARMER SUICIDES IN INDIA

According to National Crime Records Bureau data, India recorded over 3.9 lakh farmer and agricultural labourer suicides between 1995 and 2023.

  
*If agriculture goes wrong, nothing else will have a chance to go right in the country.*

M. S. Swaminathan 

## Background

- Farmer suicides in India are not a sudden phenomenon but the outcome of long-term structural stress in agriculture. Systematic data from the National Crime Records Bureau shows suicides rising sharply after the mid-1990s, coinciding with market liberalisation, rising input costs, and declining public investment in irrigation and extension services.
- Initially, distress was concentrated among cultivators, but over time agricultural labourers became equally vulnerable due to informal employment, seasonal migration, and wage insecurity.
- Between 2004 and 2014, suicides declined in several states as employment schemes, loan waivers, and crop insurance expanded. However, this improvement proved fragile. Climate variability, repeated droughts, volatile prices, and stagnating farm incomes reversed gains after 2015. The situation worsened after the COVID-19 shock, rising food inflation, and uneven recovery in rural wages.
- By 2023, suicides surged again, with agricultural labourers accounting for more deaths than cultivators for the first time, reflecting deeper rural precarity.
  - ♦ The issue has regained urgency because India's agrarian distress is no longer limited to farm ownership but now affects the entire rural workforce, threatening food security, social stability, and inclusive growth.

## Concerns of Farmer Suicides

- **Indicator of deep agrarian and rural distress:** Farmer suicides remain a critical indicator of structural rural distress rather than isolated personal failures. The National Crime Records Bureau provisional update and Ministry of Agriculture assessments indicate suicides stayed elevated in 2024–25 after the 10,786 deaths recorded in 2023.
  - ♦ Rising input costs, stagnant farm incomes, and climate shocks show existing safety nets are insufficient (NCRB; Ministry of Agriculture, 2025).
- **Threat to food security and agricultural sustainability:**
  - ♦ Persistent suicides weaken farm continuity and reduce long-term investment in agriculture. The Economic Survey 2024–25 notes declining farm profitability discourages younger farmers, threatening future food production.

- ♦ With smallholders forming 85 percent of farms, distress-driven exits risk productivity stagnation and import dependence, undermining India's food security objectives (Economic Survey 2025; Food and Agriculture Organization).

### ➤ Expansion of vulnerability from cultivators to labourers:

- ♦ In 2023–24, agricultural labourers accounted for more suicides than cultivators, reflecting widening rural vulnerability. The Periodic Labour Force Survey 2024–25 shows rural real wages stagnated while food inflation stayed above 7 percent.
- ♦ Without land ownership or insurance coverage, labourers face greater income insecurity, highlighting that agrarian distress has become a broader livelihood crisis (Ministry of Statistics; Reserve Bank of India).

### ➤ Regional concentration and inequality:

- ♦ Maharashtra, Karnataka, Telangana, Andhra Pradesh, and Madhya Pradesh continue contributing over 70 percent of suicides, according to NCRB trend analysis extended into 2024–25.
- ♦ These regions overlap with rainfed cotton and soybean belts facing repeated climate stress. This concentration reveals uneven irrigation access, crop risk exposure, and uneven policy effectiveness across states (Indian Council of Agricultural Research; NCRB).

### ➤ Social and mental health implications:

- ♦ Farmer suicides represent a growing rural mental health emergency. The National Suicide Prevention Strategy progress review (2025) links agrarian debt, social stigma, and delayed compensation to depression and anxiety among farmers.
- ♦ Despite expansion of Tele Mental Health Assistance and Networking Services, rural outreach remains uneven, indicating economic distress and mental health vulnerabilities are deeply interconnected (Ministry of Health and Family Welfare; World Health Organization).

## Root Causes of Farmer Suicides

- **Chronic indebtedness and failure of affordable institutional credit:** Indebtedness remains the most persistent trigger of farmer suicides. The National Crime Records Bureau data trend (2023–2025) shows debt cited in over half of farmer suicide cases.
  - ♦ Reserve Bank of India's Report on Trend and Progress of Banking in India (2024–25) notes that small and marginal farmers still depend heavily on informal lenders

charging 24–60 percent interest, as tenant farmers and sharecroppers remain excluded from formal credit despite Kisan Credit Card expansion.

#### ➔ Climate-induced crop failure and income instability:

- Climate variability has sharply increased farm risk. The India Meteorological Department (IMD) confirmed that 2023–2025 were among the most erratic monsoon years, with prolonged dry spells and extreme rainfall events.
- The Indian Council of Agricultural Research (ICAR, 2025) documented repeated yield losses in cotton, soybean, and pulses in Maharashtra, Telangana, and Madhya Pradesh, directly linking climate stress to unstable farm incomes and rising distress.

#### ➔ Rising input costs without commensurate price support:

- Farm input inflation has outpaced income growth. According to the Economic Survey 2024–25, fertiliser, diesel, seed, and labour costs rose sharply between 2022 and 2025, while Minimum Support Price increases failed to match real cost escalation.
- The Commission for Agricultural Costs and Prices (CACP, 2025) noted that many farmers recover less than production costs, intensifying indebtedness and distress sales.

#### ➔ Weak market access and price volatility:

- Limited procurement coverage exposes farmers to volatile markets. The Ministry of Agriculture and Farmers Welfare (2025) reports that less than 25 percent of farmers benefit from assured procurement at Minimum Support Prices.
- Smallholders cultivating perishable crops face frequent price crashes during gluts, as reflected in Agricultural Marketing Information Network data, increasing income uncertainty and post-harvest losses, especially in horticulture belts.

#### ➔ Institutional delays and inadequate mental health outreach:

- Delayed compensation deepens distress. The Comptroller and Auditor General of India's performance audit on Pradhan Mantri Fasal Bima Yojana (2024–25) flagged persistent delays in claim settlements across multiple states.
- Simultaneously, the National Institute of Mental Health and Neurosciences assessment (2025) shows rural mental health service gaps despite Tele Mental Health Assistance and Networking Services expansion, limiting early psychological intervention for distressed farmers.

consumption needs. This has reduced reliance on informal lenders in irrigated regions, though tenant farmers and landless agricultural labourers remain largely excluded from formal banking access.

#### ➔ Income stabilisation through direct income support:

- The Pradhan Mantri Kisan Samman Nidhi scheme provides ₹6,000 annually to small and marginal farmers, ensuring predictable income support.
- According to the Ministry of Agriculture and Farmers Welfare (2025), more than 11 crore farmers received transfers regularly, helping buffer input cost inflation. However, the amount remains insufficient to offset major crop losses, especially in rain-fed and drought-prone districts.

#### ➔ Risk mitigation through crop insurance coverage:

- Pradhan Mantri Fasal Bima Yojana aims to reduce suicide risk by protecting farmers against climate-induced crop failure. Government data (2025) shows coverage of nearly 5.5 crore farmers annually.
- In states with timely claim settlement, distress reduced noticeably, but the Comptroller and Auditor General (2024–25) highlighted delays, inaccurate yield assessment, and uneven implementation limiting psychological relief after losses.

#### ➔ Employment support during agrarian distress periods:

- The Mahatma Gandhi National Rural Employment Guarantee Act provides wage security during crop failure and off-season periods. The Ministry of Rural Development (2025) reports increased demand for rural employment during drought years, especially in Maharashtra and Telangana.
- This non-farm income support historically coincided with reduced suicide rates, though delays in wage payments and work availability constrain its stabilising potential.

#### ➔ Addressing mental health through institutional outreach:

- India's National Suicide Prevention Strategy (2022) and Tele Mental Health Assistance and Networking Services expansion directly address socio-psychological distress. The Ministry of Health and Family Welfare (2025) confirms over two crore calls handled nationwide.
- While outreach has improved awareness, the National Institute of Mental Health and Neurosciences (2025) notes rural service shortages and stigma still restrict early intervention for distressed farmers.

## Government and Institutional Efforts

#### ➔ Reducing debt stress through institutional credit expansion:

- The Kisan Credit Card scheme directly targets chronic indebtedness by providing short-term credit at subsidised interest rates.
- As per the Ministry of Finance (2025), over 7.5 crore active Kisan Credit Cards now cover crop, allied activities, and

## Way Forward

- Deepen access to institutional credit and regulate informal lending:** Expanding last-mile banking through cooperative banks, digital credit scoring, and tenant farmer inclusion can break debt cycles. The Reserve Bank of India (2025) notes institutional credit still reaches less than 55 percent of smallholders.

- ♦ Stronger regulation of informal moneylenders, as piloted in Kerala, shows reduced distress where enforcement and credit outreach operate together.
- **Provide legal and price certainty for farm produce:**
  - ♦ A transparent, legally backed price assurance mechanism aligned with Minimum Support Price recommendations can reduce income volatility.
  - ♦ The Ministry of Agriculture (2025) reports procurement covers mainly wheat and rice, excluding most crops grown in suicide-prone regions.
  - ♦ Diversifying procurement and linking it with market reforms can stabilise farmer expectations and reduce post-harvest distress.
- **Scale climate-resilient agriculture and risk diversification:**
  - ♦ Promoting crop diversification, micro-irrigation, and climate-resilient seeds reduces repeated crop failure risks.
  - ♦ The Indian Council of Agricultural Research (2025) shows diversified farms face lower income shocks during droughts.
- ♦ However, adoption remains limited due to awareness and upfront costs, requiring targeted extension services and financial incentives in vulnerable districts.
- **Strengthen rural employment and income diversification:**
  - ♦ Expanding Mahatma Gandhi National Rural Employment Guarantee Act workdays and linking them with durable asset creation can provide stable fallback income.
  - ♦ The Ministry of Rural Development (2025) confirms higher employment demand in distressed regions. Integrating skill training and agro-processing can further reduce overdependence on farming as the sole livelihood source.
- **Mainstream mental health into rural development policy:**
  - ♦ Embedding mental health services within primary healthcare and agricultural extension systems can enable early identification of distress.
  - ♦ The National Institute of Mental Health and Neurosciences (2025) highlights that early counselling reduces suicide risk significantly. Reducing stigma through community outreach and strengthening district-level mental health staffing remain critical for impact.

### National Crime Records Bureau (NCRB)

NCRB	Details
<i>NCRB was set up in 1986 to function as a repository of information on crime and criminals.</i>	
<b>Origin</b>	It assists investigators in linking crimes to perpetrators based on recommendations of the Tandon Committee, National Police Commission (1977-1981), and the Ministry of Home Affairs (MHA) Taskforce (1985).
<b>Ministry</b>	It operates under the Ministry of Home Affairs and is headquartered in New Delhi.
<b>Divisions</b>	NCRB has four divisions: Crime and Criminal Tracking Network and Systems (CCTNS), Crime Statistics, Fingerprints, and Training.
<b>Publications</b>	NCRB publishes reports such as Crimes in India, Accidental Deaths and Suicides, Prison Statistics, and Reports on Missing Women and Children in India.
<b>Functions of NCRB</b>	Compiling and keeping records of crime data. Acting as a "national warehouse" for fingerprint records, aiding in locating interstate criminals. Monitoring, coordinating, and implementing the CCTNS project, connecting about 15,000 police stations and 6,000 high offices. Maintaining the National Database of Sexual Offenders (NDSO) and sharing it with States/UTs. Overseeing the technical and operational process of the online Cyber Crime Information Portal. Maintaining the Counterfeit Currency Information and Management System (FICN) and Integrated Monitoring Application on Terrorism.
<b>Data Compilation Process</b>	Data is obtained from police departments of 36 states and Union Territories. Local police station data submitted by State/UT police is verified at district and state levels before being approved by NCRB.
<b>Issues Associated with NCRB Data</b>	Adherence to Principal Offence Rule can lead to undercounting of crimes, e.g., Murder with Rape counted as "Murder" instead of "rape." Data inefficiencies at the local level impact accuracy, as it is a compilation of local data. Lack of police personnel or vacancies at the local level makes data collection more challenging.



# ECONOMIC SURVEY 2025–26

The Economic Survey 2025–26, presented by Union Finance Minister Nirmala Sitharaman in the Lok Sabha on 29 January 2026, outlined India's economic assessment ahead of the Union Budget 2026–27.

## Background

- The Economic Survey 2025–26, prepared by the Department of Economic Affairs, Ministry of Finance, provides a comprehensive assessment of India's macroeconomic performance, structural reforms, and development challenges. It is released annually ahead of the Union Budget to inform fiscal policy and guide medium-term economic strategy.
- The current Survey is set against a complex global backdrop marked by geopolitical fragmentation, high global interest rates, climate shocks, supply-chain disruptions, and rapid technological change. Despite these headwinds, India has emerged as one of the fastest-growing major economies, supported by public capital expenditure, financial sector clean-up, digital public infrastructure, and structural reforms.
- The Survey adopts a forward-looking approach, shifting the policy discourse from short-term growth management to long-term productivity, employment quality, climate resilience, and technological preparedness. It evaluates sectoral performance across agriculture, industry, services, infrastructure, human capital, environment, and emerging technologies such as artificial intelligence, highlighting both achievements and unresolved structural constraints. Overall, it frames India's development trajectory around resilient growth, inclusive development, and reform continuity.

## CHAPTER 1: State of the Economy

- The Economic Survey 2025–26 assesses India's macroeconomic performance amid global uncertainties such as geopolitical tensions, high interest rates, and trade fragmentation. It revises **India's potential Gross Domestic Product (GDP)** (*maximum non-inflationary growth rate*) upward to **around 7 percent**, signalling a structural shift driven by reforms rather than a cyclical post-pandemic rebound.
  - ◆ **Effective public capital expenditure** (*government spending on productive infrastructure*) reached nearly **4 percent of GDP in FY26**, compared to about 2.2 percent pre-2019, strengthening logistics, connectivity, and private investment sentiment.
- Financial sector resilience has improved markedly. **Gross Non-Performing Assets (NPAs)** (*stressed bank loans*) declined to **about 2.2 percent by September 2025**, down from over 11 percent in 2018, enabling stronger credit flow, especially to **Micro, Small and Medium Enterprises (MSMEs)**. Digital mechanisms such as the **Trade Receivables Discounting System (TReDS)** (*invoice-based MSME financing*) and the **Unified Lending Interface (ULI)** (*digital credit delivery platform*) have expanded formal credit access.
- However, risks persist from global shocks and reform fatigue. The Survey highlights **Production-Linked Incentive (PLI) schemes**, infrastructure push, and tax reforms, while recommending deeper **Centre–State coordination**, focus on **Total Factor Productivity (TFP)** (*input efficiency*), and **export diversification** to sustain high-quality growth.

## CHAPTER 2: Fiscal Developments

- The Economic Survey 2025–26 emphasises India's strategy of **credible fiscal consolidation** (*systematic reduction of fiscal deficit and public debt without harming growth*) alongside sustained economic expansion.
  - ◆ **Central Government revenue receipts** increased from **8.5 percent of Gross Domestic Product (GDP)** (*total value of goods and services produced*) in FY21 to around **9.1 percent in FY26**, reflecting improved tax buoyancy (*faster tax growth than GDP*) and stronger compliance.
- A major driver has been the **Goods and Services Tax (GST)** (*a unified indirect tax replacing multiple State and Central taxes*), with FY26 witnessing repeated record collections. Monthly GST revenues averaged over **₹1.8 lakh crore**, indicating formalisation (*shift from informal to formal economy*) and consumption resilience. At the same time, **capital expenditure (CapEx)** (*government spending on infrastructure like roads, railways, and digital assets*) remained high, supporting long-term productivity while the **fiscal deficit** (*gap between government expenditure and revenue*) followed a calibrated downward path.
- However, risks remain. The Survey flags rising **revenue deficits** (*borrowings used for day-to-day consumption*) in several States and growing **unconditional cash transfers**, which may crowd out capital spending and raise future debt burdens. Uneven State-level fiscal discipline could increase sovereign borrowing costs.
- Institutional responses include **GST 2.0 reforms**, digital tax compliance systems, and the **Sixteenth Finance Commission** (*constitutional body deciding Centre–State fiscal transfers*). The Survey recommends **outcome-linked transfers**, strengthening local government finances, and reorienting subsidies toward productivity-enhancing expenditure to ensure durable fiscal stability.

## CHAPTER 3: Monetary Management and Financial Intermediation

- The Economic Survey 2025–26 highlights significant improvement in India's **monetary transmission** (*extent to which policy rate changes affect lending and deposit rates*) and overall **financial system resilience**. Following calibrated repo rate actions by the **Reserve Bank of India (RBI)** (*India's central bank*), lending rates adjusted efficiently, improving credit availability for households and firms. As of September 2025, **Gross Non-Performing Assets (GNPAs)** (*bad loans as a share of total advances*) declined to **multi-decadal lows of around 2.2 percent**, reflecting balance-sheet clean-up and prudent regulation.
- The Survey notes a structural shift in household savings. The share of **financial assets** (*equities, mutual funds, insurance*) has increased, while dependence on physical assets like gold has declined. Monthly **Systematic Investment Plan (SIP)** inflows crossed **₹20,000 crore in 2025**, signalling deeper financialisation (*greater use of formal financial instruments*) and risk diversification.
- However, challenges persist. India continues to face a relatively **high structural cost of capital** (*long-term borrowing cost*) due to persistent **current account deficits (CAD)** (*excess of imports over exports*), estimated near **1.5–2 percent of GDP**.
  - ◆ Additionally, rapid expansion of **Artificial Intelligence–driven finance** (*algorithm-based lending and trading*) raises regulatory and ethical concerns.
- Government responses include expansion of **Digital Public Infrastructure (DPI)** such as **Unified Payments Interface (UPI)** handling over **12 billion transactions per month in 2025**, development of **International Financial Services Centre (IFSC) at GIFT City**, and wider social security coverage. The Survey recommends deepening long-term bond markets, strengthening AI regulation in finance, and moving toward an export-surplus economy to ensure sustained monetary stability.

## CHAPTER 4: External Sector

- The Economic Survey 2025–26 analyses India's **external sector** (*economic interaction with the rest of the world through trade, capital flows, and foreign exchange*) in a challenging global environment. It notes that **total exports** recorded a **Compound Annual Growth Rate (CAGR)** (*average annual growth over time*) of **9.4 percent since 2020**, while **merchandise exports** (*physical goods*) grew at only **6.4 percent**. In contrast, **services exports** (*information technology, business, and financial services*) dominate India's trade surplus.
- This pattern is significant as services exports are less exposed to supply-chain disruptions. India's **share in global services exports increased from 2 percent in 2005 to 4.3 percent in 2024**, strengthening **foreign exchange earnings** (*foreign currency inflows*) and external stability. These inflows help contain the **current account deficit (CAD)** (*gap between foreign earnings and payments*), which has remained around **1.5–2 percent of Gross Domestic Product (GDP)** (*total economic output*).
- However, the Survey flags risks. Over-reliance on services limits large-scale employment generation and leaves manufacturing exports underdeveloped. A weak goods export base raises vulnerability to global shocks and increases the **cost of capital** (*borrowing costs*). To address this, the government has expanded **Production-Linked Incentive (PLI) schemes** (*output-based manufacturing incentives*), liberalised **Foreign Direct Investment (FDI)** (*overseas investment*), and promoted **Global Value Chain (GVC) integration** (*participation in international production networks*).
- The Survey recommends building competitive manufacturing export ecosystems, integrating **Micro, Small and Medium Enterprises (MSMEs)** into GVCs, and lowering logistics and energy costs to ensure durable external sector resilience.

## CHAPTER 5: Inflation

- The Economic Survey 2025–26 highlights that **inflation** (*sustained rise in general price levels*) in India has remained largely **anchored** (*kept within a predictable range*) despite global shocks. **Headline Consumer Price Index (CPI) inflation** averaged **around 5.4 percent in 2024–25**, staying within the **Reserve Bank of India's (RBI) tolerance band of 2–6 percent**. This reflects effective **monetary policy transmission** (*passing policy rate changes to market rates*) and timely supply-side interventions.
- A key finding is the moderation of **core inflation** (*inflation excluding food and fuel*) to below **4 percent by late 2025**, indicating easing demand-side pressures. The Survey also notes a **reversal in the manufacturing Gross Domestic Product (GDP) deflator** (*price measure of domestically produced goods*), signalling reduced **input cost pressures** (*raw material and energy costs*) for industries. This supports investment sentiment and profit stability.
- However, challenges persist. The Survey identifies **regional inflation divergence**, with food inflation remaining elevated in some states due to logistics bottlenecks and uneven market integration. **Climate-linked food price volatility** (*price swings due to weather shocks*) remains a latent risk, as extreme heatwaves and erratic monsoons affect crop output.
- To manage inflation, the RBI pursued **calibrated interest rate policy**, while the government strengthened **buffer stock operations**, **open market sales of food grains**, and import duty adjustments on essentials. Going forward, the Survey recommends strengthening agricultural supply chains, climate-resilient food systems, and state-level price monitoring to sustain price stability without sacrificing growth.

## CHAPTER 6: Agriculture and Food Management

- The Economic Survey 2025–26 highlights that **agriculture and allied activities** (*farming plus livestock, fisheries, forestry*) recorded a **compound annual growth rate of 4.4 percent during FY2016–FY2025**, outperforming the long-term trend. Notably, **livestock grew at 7.1 percent** and **fisheries at 8.8 percent**, indicating a **structural diversification** (*shift away from crop-only dependence*) of Indian agriculture.
- This diversification is significant because agriculture continues to support **around 42 percent of India's workforce**. Faster growth in allied sectors improves **income stability** (*reducing dependence on monsoons*) and enhances **climate resilience** (*ability to absorb climate shocks*). The Survey links this shift to rising rural demand and better nutrition outcomes.
- However, key challenges persist. **Crop yields remain stagnant**, irrigation coverage is uneven, and **climate volatility** (*erratic rainfall, heat stress*) has increased production risks. Regional disparities are evident, with agricultural growth concentrated in states with stronger governance and market access, while rainfed regions lag behind.
- To address these issues, the government expanded **Pradhan Mantri Kisan Samman Nidhi** (*income support of ₹6,000 per year*), strengthened **electronic National Agriculture Market** (*digital trading platform*), and promoted **Farmer Producer Organisations** (*collective farmer enterprises*) to improve price discovery and bargaining power.
- The Survey recommends scaling **climate-resilient seeds**, improving **irrigation efficiency** (*micro-irrigation*), and accelerating **agri-processing and storage infrastructure** to convert output growth into **durable farm incomes** and long-term food security.

## CHAPTER 7: Services Sector

- The **services sector** (*information technology, finance, tourism, transport, health, education*) remains India's primary growth engine. The Economic Survey 2025–26 reports that services contribute **over 50 percent of Gross Value Added (GVA)** and nearly **55 percent of total output**, growing at **7–8 percent annually** during 2022–25.
  - ◆ This stability cushioned India against global slowdown and trade volatility.
- India's external resilience is increasingly services-led. **Services exports form about 48 percent of total exports**, generating a sustained trade surplus. India's **global services export share rose from 2 percent in 2005 to 4.3 percent in 2024**, driven by information technology and digitally delivered services, which now account for **over 65 percent of services exports**.
  - ◆ These sectors support high-skill employment and foreign exchange earnings.
- Challenges persist. The Survey highlights **around 70 percent informality** in services employment, especially in tourism and retail. **Skill mismatches**, uneven digital access, and tightening **cross-border data regulations** threaten competitiveness.
- Government measures include expansion of **Digital Public Infrastructure** (*Aadhaar covering 1.3 billion people; Unified Payments Interface handling over 12 billion monthly transactions in 2025*), sector-focused skilling, and tourism promotion.
  - ◆ The Survey recommends scaling **artificial intelligence-ready skills**, regulatory harmonisation, and faster formalisation to sustain services-led growth.

## CHAPTER 8: Industry and Manufacturing

- The **industry and manufacturing sector** (*production of goods using labour, capital, and technology*) is central to India's growth and employment strategy. The Economic Survey 2025–26 notes that **industry contributes about 27 percent of Gross Value Added (GVA)**, while **manufacturing accounts for nearly 17 percent of GVA**. Raising this share is essential for labour absorption and export competitiveness.
- A major highlight is **electronics manufacturing**, where output expanded **nearly 30 times since FY2015**. **Mobile phone exports crossed ₹1.2 lakh crore in 2024–25**, significantly reducing import dependence.
  - ◆ This growth is driven by **Production-Linked Incentive (PLI) schemes** (*incentives linked to incremental output*) covering **14 manufacturing sectors**.
- However, challenges persist. Manufacturing remains **capital-intensive**, limiting job creation, while **medium-technology sectors** (*machinery, transport equipment*) lag behind.
  - ◆ Integration of **Micro, Small and Medium Enterprises (MSMEs)** (*small firms with limited capital*) into value chains remains weak.
- Government initiatives include **PLI schemes**, **industrial corridors**, and logistics reforms under **PM Gati Shakti** (*integrated infrastructure planning platform*).
  - ◆ The Survey recommends deepening domestic value chains, strengthening MSME participation, and supporting sunrise industries for employment-intensive industrial growth.



## CHAPTER 9: Investment and Infrastructure

- The Economic Survey 2025–26 identifies **investment and infrastructure** (*creation of long-term assets such as roads, railways, ports, power, and digital networks*) as the backbone of India's sustained high growth. **Public capital expenditure (capex)** (*government spending on asset creation*) increased from **about 2.3% of GDP in FY2015 to nearly 4% of GDP in FY2025**, marking a rise of over **70% in a decade**. This sustained capex push has significantly **crowded in private investment**, reversing post-pandemic investment sluggishness.
- A major highlight is the revival of **Public–Private Partnerships (PPPs)** (*projects jointly financed and operated by government and private sector*). The Survey notes a **sharp increase in PPP approvals in FY2026**, indicating renewed investor confidence in infrastructure sectors.
  - ♦ The **National Infrastructure Pipeline (NIP)** (*a long-term framework for coordinated infrastructure investment*) envisages **projects worth over ₹100 lakh crore**, with nearly **40% allocated to transport, 24% to energy**, and a growing share to digital infrastructure.
- However, challenges persist. **Land acquisition delays, financing constraints, and uneven state-level institutional capacity** continue to delay project execution. Cost overruns and dispute resolution bottlenecks further affect efficiency.
- Government responses include strengthening the **PPP Appraisal Committee**, expanding the NIP, and classifying **energy storage systems** (*technologies storing electricity for later use*) as infrastructure to unlock long-term finance.
  - ♦ The Survey stresses that **governance quality, timely clearances, and institutional efficiency** are as critical as expenditure levels for infrastructure-led growth.

## CHAPTER 10: Environment and Climate Change

- The Economic Survey 2025–26 frames **environmental sustainability** (*growth that does not irreversibly damage ecosystems*) as a core economic enabler. India is among few major economies showing **emissions–growth decoupling** (*economic growth without proportional rise in emissions*). By **2025, non-fossil sources contributed over 43% of installed power capacity**, with **renewable capacity exceeding 180 gigawatts**, up from ~75 gigawatts in 2014, reflecting a structural energy transition.
- Climate stress is increasingly quantifiable. The Survey records that **climate-related extreme events** (*heatwaves, floods, cyclones*) now impose **annual economic losses of 2–3% of Gross Domestic Product**, while disaster-related public spending pressures have risen steadily since 2020. Agriculture, supporting **~42% of India's workforce**, remains highly climate-sensitive, amplifying income and food-security risks during rainfall shocks.
- On policy response, India is operationalising the **National Action Plan on Climate Change (NAPCC)** (*eight-sector climate mission framework*) and scaling clean technologies. The **National Green Hydrogen Mission** targets **5 million tonnes annual green hydrogen production by 2030**, with potential to abate **~50 million tonnes of carbon dioxide annually** and reduce fossil fuel imports. Renewable energy corridors and grid modernisation further enhance resilience.
- The Survey recommends shifting from **mitigation-only strategies** (*emission reduction*) to stronger **adaptation planning** (*reducing damage from climate impacts*). It emphasises scaling climate finance, embedding **disaster risk reduction** in infrastructure investment, and strengthening **state-level climate governance** to sustain growth under rising climate volatility.

## CHAPTER 11: Education and Health

- The Economic Survey 2025–26 identifies **education and health** as the core pillars of **human capital** (*skills, knowledge, and health that raise productivity*) driving India's long-term growth. On education, access indicators are strong: the **Gross Enrolment Ratio (GER)** (*enrolled students as a share of eligible population*) at the **secondary level exceeded 77% in 2025**, while elementary enrolment is near-universal at **over 98%**. Public expenditure on education remains around **3.5% of Gross Domestic Product**, signalling steady but insufficient investment relative to emerging economy peers.
- Health outcomes show parallel gains. **Institutional deliveries** (*births in medical facilities*) crossed **95% nationally**, reducing maternal and infant mortality risks. Under **Ayushman Bharat–Pradhan Mantri Jan Arogya Yojana (AB–PMJAY)** (*public health insurance for secondary and tertiary care*), coverage now extends to **over 500 million people**, making it one of the world's largest health protection schemes. Preventive healthcare indicators also improved, with immunisation coverage exceeding **93%** in 2025.
- Despite progress, quality concerns persist. Learning outcomes remain uneven, with national assessments showing **over 30% of students** lacking grade-appropriate foundational skills. In healthcare, **doctor-to-population ratios** and specialist availability remain below World Health Organization norms in several states, reflecting regional disparities.
- Government efforts include implementation of the **National Education Policy 2020** (*outcome- and competency-based education reform*) and expansion of the **Ayushman Bharat Digital Mission** (*digital health IDs and records*) to over **600 million beneficiaries**. The Survey recommends shifting decisively from access-focused expansion to **outcome-based governance**, strengthening teacher training, public health workforce capacity, and technology-enabled monitoring to convert coverage into durable human capital gains.

## CHAPTER 12: Employment and Skill Development

- The Economic Survey 2025–26 underscores **employment quality and skill alignment** as core to inclusive growth. India's **Labour Force Participation Rate (LFPR)** (*share of working-age population engaged or seeking work*) rose to **55.8% by December 2025**, while the **unemployment rate declined to about 4.2%**, indicating labour market stabilisation (Economic Survey 2025–26; Periodic Labour Force Survey). **Female LFPR exceeded 37%**, reflecting gradual gender inclusion. Formal employment strengthened, with **average monthly net additions of over 1.6 million subscribers to the Employees' Provident Fund Organisation (EPFO)** during 2025.
- The consolidation of **29 central labour laws into four Labour Codes** (*covering wages, industrial relations, social security, and occupational safety*) aims to improve compliance and extend social security. Yet, challenges remain acute. The Survey highlights that **over 80% of India's workforce remains informal**, especially in non-farm employment. Skill mismatches persist: **nearly 40% of employers report difficulty finding job-ready workers**, despite large-scale training enrolments. Rapid automation and artificial intelligence adoption further raise reskilling needs.
- Government responses include the **Skill India Mission**, **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** (*outcome-linked short-term skilling*), expanded **apprenticeships**, and social security coverage for **gig and platform workers** under Labour Codes. The Survey recommends shifting from enrolment-based skilling to **job-linked outcomes**, stronger industry participation, and regional skill ecosystems aligned with emerging technologies to convert India's demographic potential into durable employment gains.

## CHAPTER 13: Rural Development and Social Progress

- The Economic Survey 2025–26 records **substantial progress in poverty reduction and social inclusion** in rural India. Using revised World Bank poverty thresholds, **extreme poverty declined to 5.3%**, while **lower-middle-income poverty fell to 23.9%** by 2024–25, reflecting the impact of targeted welfare delivery (Economic Survey 2025–26). The **Direct Benefit Transfer (DBT)** system (*direct transfer of welfare benefits into bank accounts*) has cumulatively transferred **over ₹38 lakh crore**, sharply reducing leakages and improving efficiency.
- Rural development is increasingly shifting from welfare dependence to **productive participation**. Under the **National Rural Livelihoods Mission (NRLM)** (*self-employment and institution-building programme*), **more than 9 crore women are organised into Self-Help Groups**, strengthening financial inclusion and micro-enterprise creation. The **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)** (*legal guarantee of wage employment*) generated **around 250 crore person-days annually**, acting as a counter-cyclical income stabiliser during economic and climate shocks.
- Despite these gains, challenges persist. **Regional disparities** in poverty reduction remain significant, and **non-farm rural employment growth is uneven**, limiting income diversification and upward mobility. Continued reliance on public works indicates weak rural enterprise ecosystems.
- Government efforts centre on DBT, NRLM, MGNREGA, and scheme convergence. The Survey recommends deepening **rural enterprise development**, promoting value addition in agriculture, and integrating welfare with livelihoods and infrastructure to create resilient, self-sustaining rural economies.

## CHAPTER 14: Evolution of the Artificial Intelligence Ecosystem in India

- The Economic Survey 2025–26 recognises **Artificial Intelligence (AI)** (*systems that simulate human intelligence such as learning, prediction, and decision-making*) as a **General-Purpose Technology (GPT)** (*technology with economy-wide productivity spillovers*). India contributes **about 16 percent of the global AI workforce**, ranking **third globally**, yet holds **less than 5 percent of global AI patents**, indicating a significant gap between talent availability and innovation output (Economic Survey 2025–26).
- AI adoption is expanding rapidly across sectors. The Survey reports AI use in **digital governance, agriculture advisories, healthcare diagnostics, financial technology credit scoring, and manufacturing automation**, enhancing productivity and service efficiency. India's **Digital Public Infrastructure (DPI)** (*foundational digital systems enabling large-scale service delivery*)—including **Aadhaar**, covering **over 1.3 billion people**, and **Unified Payments Interface (UPI)** processing **more than 12 billion transactions per month in 2025**—provides a strong base for AI-driven public services.
- However, constraints persist. India's **high-performance computing capacity** (*advanced computing required to train large AI models*) remains a fraction of that in the United States and China, limiting development of **foundational models** (*large, general-purpose AI systems*). Heavy reliance on foreign models raises **data sovereignty and strategic autonomy risks**.
- To bridge these gaps, the government launched the **India Artificial Intelligence Mission** and the **National Data Governance Framework Policy** (*secure, anonymised data sharing for innovation*). The Survey recommends investing in sovereign compute infrastructure, ethical AI frameworks, and AI-linked skilling, warning that without coordinated action, India risks remaining an AI adopter rather than a global AI rule-setter.

## CHAPTER 15: Urbanisation

- The Economic Survey 2025–26 recognises **urbanisation (the concentration of population and economic activity in urban areas)** as a core driver of productivity and growth. While **only 31% of India's population was classified as urban in Census 2011**, cities already generate **over 60% of national GDP**, indicating a significant urban–economic mismatch (Survey 2025–26).
  - ♦ Using **Degree of Urbanisation (DEGURBA – a spatial method based on population density)** and **Global Human Settlements Layer (satellite-based mapping of built-up areas)**, the Survey estimates **India's effective urbanisation at ~63% by 2015**, far higher than census figures.
- Satellite-based **Night-Time Lights (NTL – measurement of artificial illumination from space)** show dense economic activity in peri-urban regions, confirming rapid **suburbanisation (urban expansion beyond municipal limits)**.
  - ♦ However, cities face acute stress: **housing shortages exceeding 10 million units**, rising congestion, and limited public transport usage, with **private vehicles accounting for over 70% of urban trips** (Survey estimates). **Urban Local Bodies generate less than 1% of GDP as own revenue**, reflecting weak fiscal capacity.
- Government interventions such as **AMRUT, PMAY–Urban, Smart Cities Mission, and Swachh Bharat Mission–Urban** expanded water, housing, sanitation, and digital services.
  - ♦ The Survey recommends shifting from infrastructure creation to **governance reform, metropolitan-scale planning, land-use rationalisation, and sustainable mobility**, arguing that efficient urbanisation can significantly raise India's long-term growth and quality of life.

## CHAPTER 16: From Import Substitution to Strategic Resilience and Strategic Indispensability

- The Economic Survey 2025–26 explains India's shift from **import substitution (replacing imports through domestic production)** to **strategic resilience (ability to withstand global supply shocks)** and **strategic indispensability (becoming essential to global supply chains)**.
  - ♦ In FY 2025–26, **China accounted for about 15% of India's merchandise imports**, while **over 70% import dependence** persisted in **electronics components, solar photovoltaic modules, lithium-ion batteries, and Active Pharmaceutical Ingredients (API)**, highlighting vulnerability to geopolitical disruptions.
- To reduce this exposure, India expanded **Production-Linked Incentive (PLI) schemes (output-based manufacturing incentives)** across **14 strategic sectors**, with a cumulative outlay exceeding **₹2 lakh crore by 2026**.
  - ♦ As a result, **electronics production crossed USD 150 billion**, and **electronics exports exceeded USD 120 billion in FY 2025–26**, indicating declining import intensity.
  - ♦ In pharmaceuticals, India supplied **nearly 60% of global vaccine demand**, reinforcing its role as a **global health security provider**.
- The Survey cautions that resilience cannot rely on protectionism. Instead, it advocates **export-led manufacturing, trade diversification, critical mineral security, and standards-setting leadership**.
  - ♦ Strategic strength, it concludes, lies in **global integration backed by domestic capability**, enabling India to remain resilient and globally indispensable.

## CONCLUSION

- The Economic Survey 2025–26 presents a coherent narrative of India's transition from post-pandemic recovery to **structural, resilience-driven growth**.
- Across chapters, it highlights strong macroeconomic fundamentals, fiscal credibility, financial stability, and sectoral transformation in agriculture, manufacturing, services, infrastructure, human capital, and emerging technologies.
- The Survey underscores that **public capital expenditure, digital public infrastructure, and institutional reforms** are central growth enablers, while climate resilience, employment quality, and artificial intelligence readiness define future competitiveness.
- However, persistent challenges—regional disparities, skill mismatches, climate risks, and technology gaps—require **reform continuity, governance capacity, and private sector participation**.
- Overall, the Survey argues that sustaining high growth demands productivity-led expansion, inclusive development, and strategic policy coordination rather than short-term stimulus.



# UN HIGH SEAS TREATY

A United Nations backed Biodiversity Beyond National Jurisdiction treaty entered into force, establishing the first binding global framework for conserving high seas biodiversity.

The oceans are the world's greatest shared resource, and their future depends on collective responsibility.

Ban Ki-moon

## Background

- The **high seas**, covering **nearly two-thirds of the global ocean**, lie beyond national jurisdiction and were traditionally governed by broad principles under the **United Nations Convention on the Law of the Sea (UNCLOS), 1982**. While UNCLOS guaranteed freedoms of **navigation, fishing, and scientific research**, it **did not create specific biodiversity protection mechanisms** for **Areas Beyond National Jurisdiction (ABNJ)**.
  - ♦ This regulatory gap allowed **overfishing, unregulated bioprospecting, and pollution** to expand with minimal ecological safeguards.
- Over time, **scientific evidence revealed accelerating biodiversity loss** in the high seas, including **declining migratory fish stocks, damage to deep-sea ecosystems, and unequal access to marine genetic resources**. Governance remained **fragmented**, as sector-specific bodies such as **regional fisheries organisations** addressed issues in isolation, failing to manage cumulative environmental impacts.
- To address these systemic gaps, the **United Nations initiated formal negotiations in 2018** through an **Intergovernmental Conference** to establish a comprehensive legal framework. After prolonged negotiations balancing **conservation goals, economic interests, and equity concerns between developed and developing countries**, the **Biodiversity Beyond National Jurisdiction (BBNJ) Agreement** was adopted in **2023**.
- As the **third implementing agreement under UNCLOS**, the BBNJ Treaty shifts global ocean governance from **freedom-based exploitation to ecosystem-based, cooperative conservation**, reflecting rising urgency driven by **climate change, marine degradation, and global commons protection**.

## Significance of the BBNJ Treaty

- **First binding governance framework for the global commons:**
  - ♦ The BBNJ Treaty creates the first legally binding biodiversity regime for Areas Beyond National Jurisdiction, covering nearly 64 percent of the global ocean (United Nations, 2025).
  - ♦ For India, whose fisheries depend on migratory species like tuna, weak high-seas governance earlier undermined coastal livelihoods. The Food and Agriculture Organization (2025) reports 37 percent overexploitation of

high-seas stocks, directly affecting Indian Ocean fishing sustainability.

### ➤ Critical to achieving global and India's ocean conservation commitments:

- ♦ The treaty enables Marine Protected Areas in the high seas, operationalising the 30x30 target adopted under the Kunming–Montreal Global Biodiversity Framework. India's Blue Economy policy and National Biodiversity Action Plan (2025 update) recognise that coastal conservation alone is insufficient.
- ♦ The United Nations Environment Programme (2026) highlights that high-seas ecosystems regulate monsoons and carbon cycles crucial for India's climate stability.

### ➤ Shifts ocean governance from reactive to preventive regulation:

- ♦ Mandatory Environmental Impact Assessments for high-seas activities mark a shift from damage control to precaution. For India, this safeguards Indian Ocean ecosystems from unregulated seabed infrastructure and bioprospecting.
- ♦ The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2025) warns that deep-sea activities are expanding faster than governance, increasing risks for biodiversity-rich developing regions like the Indian Ocean.

### ➤ Advances equity through marine genetic resource benefit-sharing:

- ♦ Marine genetic resources underpin pharmaceuticals and biotechnology, yet benefits are concentrated in developed economies. The United Nations Conference on Trade and Development (2025) notes over 70 percent of marine genetic patents originate in high-income countries.
- ♦ For India, with rising marine biotechnology ambitions under the Deep Ocean Mission and Bioeconomy Strategy, fair benefit-sharing and technology transfer are strategically significant.

### ➤ Strengthens multilateralism and India's strategic ocean diplomacy:

- ♦ The BBNJ Treaty reinforces rules-based multilateral ocean governance at a time of fragmented global cooperation. For India, which advocates equity for developing countries in global commons, the treaty strengthens leadership in South–South cooperation.
- ♦ The Ministry of External Affairs (2025) notes India's increasing role in ocean diplomacy through the Indian Ocean Rim Association, where collective high-seas governance supports regional stability, sustainable fisheries, and long-term maritime security.

## Concerns and Limitations

### ➤ Exclusion of deep-sea mining from the treaty framework:

- ♦ The BBNJ Treaty does not regulate deep-sea mining, which remains under the International Seabed Authority. The United Nations Environment Programme (2025) warns that exploratory mining licences now cover over 1.5 million square kilometres of seabed.
- ♦ For India, which holds exploration contracts in the Central Indian Ocean Basin, biodiversity risks persist despite conservation commitments.

### ➤ Weak enforcement capacity in vast high-seas areas:

- ♦ Monitoring compliance across the high seas is technically complex and expensive. The World Meteorological Organization (2026) reports that less than 30 percent of the high seas are effectively monitored in real time.
- ♦ Developing countries like India face constraints in satellite surveillance, patrol capacity, and scientific manpower, limiting effective enforcement despite legal provisions.

### ➤ Implementation burden on developing countries:

- ♦ Mandatory Environmental Impact Assessments require advanced scientific expertise and financial resources. According to the United Nations Development Programme (2025), many developing states lack baseline marine biodiversity data.
- ♦ India's Ministry of Earth Sciences acknowledges gaps in deep-ocean ecological mapping, which may restrict meaningful participation in BBNJ decision-making and compliance processes.

### ➤ Non-universal ratification weakens global compliance:

- ♦ Major maritime powers, including the United States, have not ratified the treaty as of 2026. The United Nations Secretary-General's Ocean Report (2025) cautions that incomplete participation undermines enforcement credibility.
- ♦ For India, uneven global compliance risks creating competitive disadvantages for rule-following states while non-parties continue unregulated high-seas exploitation.

### ➤ Limited coercive mechanisms against violations:

- ♦ The treaty relies primarily on cooperation, transparency, and reporting rather than penalties. The Food and Agriculture Organization (2026) estimates that Illegal, Unreported, and Unregulated fishing still causes annual losses exceeding 20 billion United States dollars globally. Indian Ocean fisheries remain vulnerable despite new norms, as deterrence mechanisms remain institutionally weak.

## Institutional Mechanisms and How the BBNJ Treaty Addresses These Challenges

### ➤ Conference of the Parties (COP) for coordinated global governance:

- ♦ The BBNJ Treaty establishes a Conference of the Parties as its apex decision-making body to address fragmented

ocean governance. According to the United Nations (2025), the COP can adopt binding decisions on Marine Protected Areas, Environmental Impact Assessment thresholds, and compliance reporting.

- ♦ For India, COP participation enables collective rule-setting, reducing unilateral exploitation by powerful states.

### ➤ Clearing-House Mechanism to bridge data and capacity gaps:

- ♦ The treaty creates a Clearing-House Mechanism to share marine scientific data, best practices, and research outcomes. The United Nations Environment Programme (2026) notes that open-access ocean data platforms significantly improve participation of developing countries.
- ♦ This directly supports India's Ministry of Earth Sciences and programmes like the Deep Ocean Mission by supplementing domestic data gaps.

### ➤ Dedicated financial mechanism for developing countries:

- ♦ A global funding mechanism under the treaty supports capacity-building, technology transfer, and participation costs. The United Nations Development Programme (2025) highlights that predictable multilateral funding improves Environmental Impact Assessment quality in low-capacity states.
- ♦ For India, this complements national initiatives such as the National Coastal Mission and Blue Economy policy by easing fiscal and technical constraints.

### ➤ Mandatory Environmental Impact Assessment framework:

- ♦ Standardised Environmental Impact Assessment procedures under BBNJ reduce regulatory arbitrage in the high seas. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2025) confirms that precautionary assessments lower long-term ecosystem damage.
- ♦ India benefits by protecting Indian Ocean ecosystems from unregulated deep-sea activities near its exploration zones.

### ➤ Capacity-building and technology transfer programmes:

- ♦ The treaty institutionalises training, scientific cooperation, and technology access for developing states. The Food and Agriculture Organization (2026) links such cooperation to reduced Illegal, Unreported, and Unregulated fishing.
- ♦ For India, this aligns with schemes like Sagarmala, the National Fisheries Policy, and satellite-based ocean monitoring initiatives, strengthening enforcement without coercive escalation.

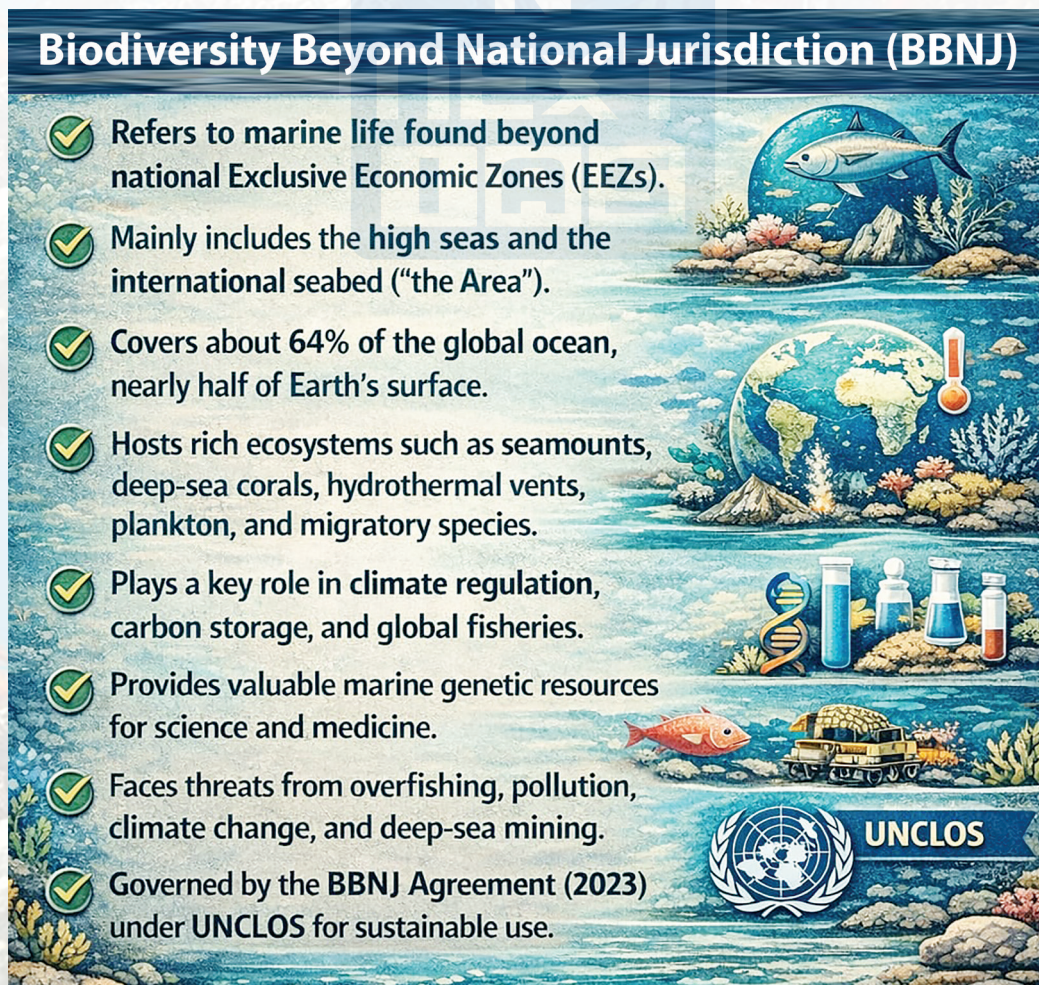
## Way Forward

### ➤ Accelerate universal ratification and rule-based compliance:

- ♦ Priority should be given to expanding ratification among major maritime powers to prevent regulatory arbitrage on the high seas. The United Nations Ocean Conference (2025) notes that treaties with near-universal participation show significantly higher compliance outcomes.



- ♦ For India, early ratification would strengthen its leadership in Global South ocean governance and reinforce rules-based multilateralism in global commons management.
  - **Strengthen monitoring, surveillance, and enforcement capacity:** Effective implementation requires advanced satellite tracking, vessel monitoring systems, and artificial intelligence-based surveillance. The World Meteorological Organization (2026) reports that integrating satellite and automatic identification system data can reduce illegal fishing by over 30 percent.
    - ♦ India can leverage Indian Space Research Organisation satellites, the Information Management and Analysis Centre, and the Indo-Pacific Oceans Initiative to improve high-seas compliance.
  - **Build scientific and institutional capacity of developing countries:** Targeted funding and technology transfer are essential to enable meaningful participation by developing states. The United Nations Development Programme (2025) highlights that fewer than 40 developing countries possess deep-ocean ecological baseline data.
    - ♦ For India, scaling up National Centre for Polar and Ocean Research and Deep Ocean Mission scientific outputs
- would strengthen Environmental Impact Assessment capabilities under the treaty.
- **Integrate BBNJ objectives with climate and biodiversity frameworks:** High-seas conservation should be aligned with climate mitigation and adaptation strategies. The United Nations Environment Programme (2026) estimates that healthy open-ocean ecosystems absorb nearly 25 percent of anthropogenic carbon dioxide. India can integrate BBNJ implementation with its National Biodiversity Action Plan, Long-Term Low Emissions Development Strategy, and Blue Economy policy to maximise climate and ecological co-benefits.
  - **Operationalise fair benefit-sharing of marine genetic resources:**
    - ♦ Clear valuation, disclosure, and benefit-sharing mechanisms must be developed to avoid inequitable appropriation. The United Nations Conference on Trade and Development (2025) recommends mandatory patent disclosure for marine genetic resources.
    - ♦ For India, aligning BBNJ benefit-sharing with the Biological Diversity Act and supporting marine biotechnology startups under the Bioeconomy and Deep Ocean Mission would enhance equity and innovation.





# MODERN WARFARE AND INDIA'S EMERGING SECURITY CHALLENGES

The Chief of the Army Staff during his address to the the UAE National Defence College (NDC) highlighted the changing character of modern warfare, marked by the convergence of conventional and non-conventional threats.

Modern warfare is not just about firepower; it is about information dominance, cyber resilience, and jointness across domains.

General Manoj Pande

## Key Technologies Shaping the Battlefield

- Technology has moved from being a support tool to becoming a "force multiplier."
- **Artificial Intelligence (AI) and Data Dominance:** AI enables real-time intelligence processing and predictive analysis. Decisions that once took hours now happen in seconds.
  - ♦ Militaries that achieve '**Data Dominance**', i.e., the ability to collect, process, and use big data faster than the enemy, gain a massive situational advantage.

## Modern Warfare

- **Asymmetric Warfare:** Smaller forces or non-state actors using technology (like cheap drones) to challenge powerful conventional militaries.
- **Multi-Domain Operations:** Actions in space and cyberspace are now as critical as those on the ground.
- **Hybrid and Grey-Zone Tactics:** These are aggressive actions, such as cyber-attacks or disinformation, conducted below the threshold of an open, declared war tactics.
- **Unmanned and Autonomous Systems:** Drones (UAVs), loitering munitions (suicide drones), and unmanned naval platforms have revolutionized surveillance and strike capabilities.
  - ♦ These systems reduce the risk to human life while providing constant presence over a battlefield.
- **Cyber and Information Warfare:** Cyber-attacks target a nation's '**nervous system**' i.e. its **power grids, financial systems, and military command networks**.
  - ♦ Information warfare uses **disinformation** and **psychological operations** to manipulate public opinion and weaken a nation from within.
- **Space and Hypersonic Weapons:** Space is now an operational domain essential for GPS navigation, missile guidance, and secure communication. Simultaneously, hypersonic weapons (flying at over five times the speed of sound) challenge traditional air defense systems due to their extreme speed and maneuverability.

## Emerging Security Challenges for India

- **Hybrid and Grey-Zone Threats:** India's standoffs in **Doklam (2017)** and **Ladakh (2020)** are primary examples of grey-zone

coercion. These conflicts involve territorial pressure without escalating into a full-scale world war.

- **Cyber Vulnerabilities:** According to CERT-In assessments, India is among the top five most targeted countries for cyber-attacks.
- **Maritime and Space Risks:** With over 90% of India's trade by volume moving through sea routes, maritime domain awareness is a matter of economic survival. Furthermore, any disruption to our satellite networks would paralyze both civilian life (banking, GPS) and military operations.

## India's Institutional and Strategic Response

- **Military Modernization and Indigenization:** The 2025–26 defense budget earmarked approximately ₹1.8 lakh crore for capital outlay, with over 75% dedicated to domestic procurement. Indigenous platforms like the Tejas fighter, Akash missile system, and Pinaka rockets are central to this "Atmanirbhar" (self-reliant) push.
- **Structural Reforms:** Chief of Defence Staff (CDS) was created to ensure joint planning between the Army, Navy, and Air Force and **Integrated Theatre Commands** was designed.
- **Dedicated Agencies:** The establishment of the Defence Cyber Agency (DCA) and Defence Space Agency (DSA) treats these areas as primary warfighting domains.
- **Space Defense:** In 2024, the government approved Phase-3 of the Space-Based Surveillance Programme to launch 52 surveillance satellites, involving a mix of ISRO and private sector participation.

## Gaps and Ethical Risks

- **Legal Gaps:** The **1967 Outer Space Treaty** prohibits weapons of mass destruction in space but does not explicitly ban ASAT tests, lasers, or cyber tools. India currently lacks a comprehensive National Space Law to regulate private and military space activities.
- **AI Ethics:** AI-driven warfare raises concerns about "algorithmic bias" and the risk of accidental escalation if machines make life-and-death decisions without human oversight.

## Way Ahead

- **National Space Law:** Formulate clear legal guidelines for commercial and defence space operations.
- **Accelerate AI Adoption:** Transition to AI-driven, network-centric military capability planning.
- **Strengthen PPPs:** Increase private sector involvement in space and cyber defence sectors.
- **Cyber Resilience:** Improve security of satellite and ground control systems against cyberattacks.

# REMOTE-SENSING TECHNOLOGY

A 2025 national geospatial assessment highlights rapid expansion of remote-sensing technologies across governance, disaster management, agriculture, urban planning, environmental monitoring, and security.

Remote sensing allows us to see the Earth as a single, interlinked system rather than as fragmented territories.

Vikram Sarabhai

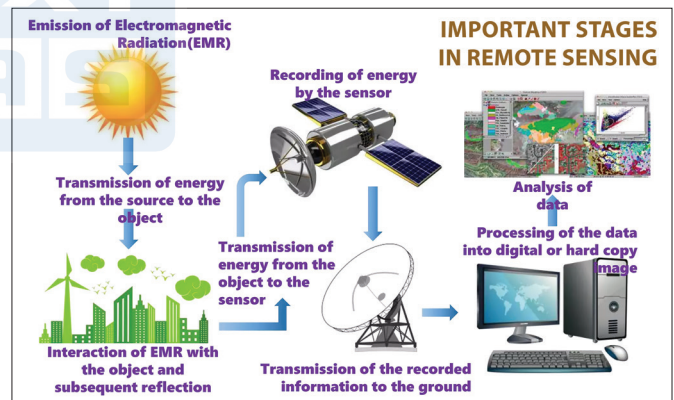
## Background

- Remote sensing refers to collecting information about Earth's surface without physical contact using satellites, aircraft, or drones.
- It emerged during the Cold War to overcome limitations of ground-based observation for weather forecasting, military surveillance, and inaccessible terrain mapping. India adopted remote sensing in the 1970s through the Indian Remote Sensing programme to address food insecurity, water resource management, and basic mapping gaps.
- Over decades, improvements in sensor resolution, digital image processing, and frequent satellite launches expanded applications in agriculture, forestry, disaster management, and urban planning. These advances strengthened national-level monitoring and planning, but local utilisation remained uneven due to skill shortages, limited access to high-resolution data, and weak integration with ground surveys.
- Rapid urbanisation, climate change impacts, and increasing disaster frequency exposed these gaps more clearly. According to the Indian Space Research Organisation, demand for Earth-observation data more than doubled between 2018 and 2025.
  - ♦ For example, satellite-based flood mapping in Assam improved early identification of affected villages, but relief outcomes still depended on district capacity, trained manpower, and administrative coordination.

## Significance

- **Evidence-based governance and planning:** Remote sensing strengthens evidence based governance by providing timely large area data for land water infrastructure planning across India benefiting national and state governments more than local bodies due to skill gaps with two hundred projects using satellite data in 2025
- **Disaster preparedness and response improvement:** Remote sensing improves disaster preparedness through warning damage assessment and response coordination reducing losses especially in cyclone flood prone states though evacuation still depends on local capacity as satellite mapping accuracy improved during 2024-25 disasters according to national data.

- **Agricultural productivity and food security:** Remote sensing supports agricultural productivity by enabling crop yield estimation soil moisture monitoring and advisories benefiting large farmers more than smallholders due to access gaps with satellite advisories covering fifteen states by 2025 improving food security planning nationwide policy formulation efforts
- **Environmental monitoring and climate action:** Remote sensing strengthens environmental monitoring by tracking forests wetlands coastlines and pollution supporting climate adaptation though enforcement remains weaker locally with forest cover assessments relying on satellite data since 2023 while cloud cover terrain affect accuracy Forest Survey India notes.
- **National security and surveillance enhancement:** Remote sensing enhances national security by improving border coastal surveillance and strategic awareness without deployment risks benefiting defence agencies more than civilians as high resolution imagery expanded across sensitive regions by 2025 while civilian innovation faces access restrictions policy concerns



## Challenges and Concerns

- **Data accessibility and resolution gap:** Although satellite coverage has expanded, **high-resolution remote-sensing data** remains restricted or expensive, limiting use by municipalities, researchers, and startups. In 2025, most districts relied on medium-resolution imagery, reducing accuracy in urban mapping, groundwater identification, and micro-level planning effectiveness
- **Skilled manpower shortage at local levels:** Advanced **geospatial analytics** requires trained professionals, but district administrations lack capacity. Despite national training initiatives, project delays persisted during 2024-25 because satellite data interpretation skills remain concentrated in

central agencies, universities, and private firms, creating uneven governance outcomes across states.

- **Weak satellite-ground data integration:** Remote sensing cannot replace field verification for social, land-tenure, and informal settlement data. Poor integration with ground surveys reduces planning accuracy, especially in slums and fragmented farmlands. In 2025, several state projects showed mismatches between satellite maps and on-ground realities.
- **Strategic dependence on foreign satellites:** India still depends on foreign providers for **ultra-high-resolution imagery**, increasing costs and strategic vulnerability. Although domestic satellite capacity improved by 2025, defence, infrastructure, and urban planning agencies continued importing specialised datasets, exposing gaps in indigenous technological self-reliance.
- **Balancing openness with national security:** Open geospatial data supports innovation, but unrestricted access risks security misuse. As a result, strict controls limit civilian applications. In 2025, startups faced slower innovation cycles due to clearance delays, even as government agencies expanded internal satellite usage and surveillance capabilities

## Government Efforts Tackling the Challenges

- **National satellite programmes strengthening self-reliance:** The Indian Remote Sensing Satellite Programme and Cartosat missions are crucial for reducing dependence on foreign imagery. Their importance lies in ensuring reliable data for agriculture, disaster response, and security by 2025, though ultra-high-resolution civilian access remains restricted due to cost and prioritisation.
- **Skill India Mission building geospatial human capacity:** The Skill India Mission and Digital India Programme are important for training analysts in satellite data interpretation. They support governance and planning needs, yet by 2025 district administrations still face shortages because sanctioned technical posts, continuous training, and career pathways remain insufficient and uneven across states.
- **National Remote Sensing Centre platforms improving data integration:** The National Remote Sensing Centre and Bhuvan geo-platform are important for linking satellite imagery with ground surveys. They improved disaster mapping and urban planning accuracy by 2025, but scaling remains slow due to coordination challenges among state departments, municipal bodies, and local survey institutions.
- **Indian Space Policy enabling private sector participation:** The Indian Space Policy of 2023 and Indian National Space Promotion and Authorisation Centre are important for encouraging private innovation in satellite services. By 2025, applications expanded in agriculture and cities, yet high investment costs and regulatory clearances continue limiting smaller startups participation.

## ➤ National Geospatial Policy balancing openness and security:

The National Geospatial Policy is important for providing controlled access to satellite data while safeguarding national security. Government research access improved by 2025, but private innovation remains constrained in sensitive regions, slowing application development despite rising demand for civilian and commercial geospatial services.

## Way Forward

- **Strengthen district-level geospatial capacity:** The government should expand structured training for district officials under Digital India and civil services capacity-building programmes, ensuring satellite data interpretation skills. This will convert national remote-sensing investments into effective local governance tools for planning, disaster response, and service delivery.
- **Institutionalise satellite and ground data convergence:** Mandatory integration frameworks should link National Remote Sensing Centre data with field surveys under urban and agricultural schemes. This will improve accuracy in land records, crop assessment, and infrastructure planning by combining spatial precision with social and economic ground realities.
- **Deepen rural-focused skill development initiatives:** Geospatial modules must be expanded under Skill India Mission and state universities with special focus on rural postings. This will reduce urban concentration of expertise and enable equitable use of remote-sensing data across districts, blocks, and panchayat-level institutions.
- **Simplify private sector access and compliance mechanisms:** Clearer timelines and single-window approvals under the Indian Space Policy can reduce delays for startups. Balanced security protocols should allow innovation while protecting national interests, enabling affordable civilian applications in agriculture, environment monitoring, and urban services
- **Ensure sustained funding for local geospatial infrastructure:** Budgetary support should prioritise cloud platforms, maintenance, and municipal data centres alongside satellite launches.
  - ◆ Long-term funding under Digital India and smart governance programmes will ensure continuous, reliable use of remote-sensing technology beyond pilot project stages.

## Conclusion

- Remote-sensing technology has become essential for governance, disaster management, agriculture, and security. While satellite capacity has expanded, gaps in skills, access, and integration persist.
- Addressing these through sustained investment, institutional reforms, and inclusive capacity building will determine its long-term developmental and strategic value.



# BIOTECHNOLOGY IN INDIA

Recent policy focus through the BioE3 framework, Deep Ocean Mission expansion, and ISRO's life-science experiments highlights biotechnology as a strategic frontier for India.

Biotechnology has the potential to solve some of the most pressing challenges of humanity—from health and food security to climate resilience.

A. P. J. Abdul Kalam

## Background

- Biotechnology in India involves the application of biological systems, organisms, and processes to develop products in healthcare, agriculture, industry, environment, and emerging areas such as marine and space biotechnology. India formally institutionalised biotechnology in 1986 with the creation of the Department of Biotechnology to reduce dependence on imported vaccines, seeds, and biopharmaceuticals, and to use science for inclusive development.
- Over time, India built strong capabilities in vaccines, diagnostics, generic biopharmaceuticals, and agricultural biotechnology. However, progress in advanced areas like marine bioprospecting, industrial enzymes, synthetic biology, and space-based biological research remained limited due to high costs, long gestation periods, fragmented research, and weak private participation. Global advances in deep-sea exploration and long-duration space missions exposed these gaps.
- The issue is highly relevant today because climate change, resource constraints, supply-chain disruptions, and India's human spaceflight ambitions demand new biological solutions.
  - ♦ According to the Department of Biotechnology (2025), India's bioeconomy crossed 150 billion United States dollars, yet high-value biomanufacturing remains underdeveloped.
  - ♦ For example, despite an 11,000-kilometre coastline, India still imports most marine bio-inputs, underscoring the need for strategic expansion.

## Significance of Biotechnology

- **Strengthening healthcare security and affordable access:**
  - ♦ Biotechnology is central to India's healthcare security by enabling domestic production of vaccines, diagnostics, and biopharmaceuticals. As of 2025, India supplies nearly **60 percent of global vaccine volumes**, supporting affordable immunisation in developing countries.
  - ♦ According to the **Department of Biotechnology Annual Report 2025–26**, India's biopharmaceutical market exceeded **USD 27 billion**, though dependence on imported advanced biologics highlights innovation gaps.

### Supporting food security and climate-resilient agriculture:

- ♦ Agricultural biotechnology enhances crop resilience, soil health, and productivity amid climate stress. The **Ministry of Agriculture and Farmers Welfare (2025)** reports double-digit growth in biofertiliser and biopesticide use, reducing chemical dependency.
- ♦ These technologies improve sustainability, yet adoption remains uneven among smallholders due to awareness and cost barriers, limiting nationwide productivity gains despite rising climate risks.

### Enabling sustainable industrial and environmental transitions:

- ♦ Industrial biotechnology supports low-emission manufacturing through enzymes, biofuels, and biodegradable materials. **NITI Aayog (2025)** estimates bio-based processes can reduce industrial emissions by **30–50 percent** in sectors such as textiles and chemicals.
- ♦ While India's enzyme and bioenergy markets are expanding, limited large-scale biomanufacturing infrastructure slows transition compared to advanced economies.

### Unlocking marine bio-resources and the blue economy:

- ♦ India's **11,000-kilometre coastline** and **2 million square kilometre Exclusive Economic Zone** offer immense marine biodiversity. However, domestic seaweed cultivation remains near **70,000 tonnes annually**, causing reliance on imports for agar and alginates.
- ♦ The **Ministry of Earth Sciences (2025)** identifies marine biotechnology as vital for food, biomaterials, and climate resilience, though value-chain integration remains weak.

### Advancing strategic autonomy in space and frontier research:

- ♦ Space biotechnology underpins India's long-duration human spaceflight ambitions by enabling food production, health monitoring, and life-support regeneration.
- ♦ The **Indian Space Research Organisation (2025)** confirms ongoing microgravity experiments on microbes and algae for future missions. While these strengthen indigenous capabilities, scaling laboratory research into mission-ready systems requires sustained funding and institutional coordination.

## Challenges and Concerns

### Fragmented research ecosystem and weak commercialisation:

- ♦ India produces high-quality biotechnology research, yet translation into products remains limited. The **Department of Biotechnology Annual Report 2025–26** shows that **less than 18 percent** of publicly funded biotechnology projects reach pilot or commercial stages.

- ♦ Weak industry–academia linkages, limited technology transfer offices, and lack of shared biomanufacturing facilities slow conversion of laboratory innovation into scalable products, especially in marine and space biotechnology.
- ➔ **Insufficient long-term private investment:**
  - ♦ Biotechnology demands patient capital, but India's investment profile remains skewed toward short-cycle digital sectors. According to the **Economic Survey 2025–26**, biotechnology attracted **below 4 percent of total venture capital inflows**, compared to over **35 percent for information technology and platform-based services**.
  - ♦ This funding gap restricts scale-up of high-risk segments like marine bioprocessing and space life-science research, where returns emerge slowly.
- ➔ **Continued import dependence for critical bio-inputs:**
  - ♦ Despite policy focus on self-reliance, India remains dependent on imports for advanced enzymes, marine hydrocolloids, biologics, and specialised reagents.
  - ♦ The **Ministry of Commerce and Industry trade data 2025** shows sustained imports of agar, alginates, and pharmaceutical bio-ingredients. This exposes domestic industries to global supply disruptions and weakens strategic autonomy in health, food, and industrial biotechnology.
- ➔ **Complex and time-consuming regulatory processes:**
  - ♦ Biotechnology approvals involve multiple authorities across health, environment, agriculture, and science ministries. **NITI Aayog's Regulatory Reform Review 2025** identifies regulatory delays as a key barrier for genetically engineered products, clinical trials, and bio-manufacturing plants.
  - ♦ While safety oversight is essential, prolonged approval timelines reduce India's competitiveness compared to faster-moving innovation ecosystems in East Asia and Europe.
- ➔ **Skill shortages and uneven regional capacity:**
  - ♦ Advanced biotechnology requires expertise in bioinformatics, bioprocess engineering, regulatory science, and data analytics. The **India Skills Report 2026** highlights persistent shortages in these areas, particularly outside major research hubs.
  - ♦ While premier institutes perform well, many states lack trained manpower and specialised infrastructure, limiting balanced regional growth of India's biotechnology sector.
- ♦ Programmes such as the **Biotechnology Ignition Grant**, **BioNEST incubation centres**, and the **National Biopharma Mission** supported over **3,000 startups and innovators by 2025**.
- ♦ According to **Department of Biotechnology Annual Report 2025–26**, product commercialisation has improved in vaccines and diagnostics, though marine and space biotechnology remain early-stage.
- ➔ **Expanding funding and risk capital for deep biotechnology:**
  - ♦ High capital intensity is being addressed through the **BioE3 Policy (Biotechnology for Economy, Environment and Employment)** launched in 2024, which prioritises biomanufacturing, synthetic biology, and marine biotechnology.
  - ♦ The **Union Budget 2025–26** operationalised a **₹10,000 crore Deep Tech Fund of Funds**, with biotechnology as a core focus. However, **NITI Aayog (2025)** notes private investment remains cautious in space and marine biotechnology due to long gestation periods.
- ➔ **Promoting marine biotechnology under the Blue Economy framework:**
  - ♦ To utilise India's coastal and ocean resources, the government is advancing marine biotechnology through the **Blue Economy Policy**, **Deep Ocean Mission**, and support from the **Ministry of Earth Sciences**.
  - ♦ By 2025, pilot projects on seaweed cultivation, marine enzymes, and bioactive compounds expanded, yet **India still imports over 70 percent of marine hydrocolloids**, according to the **Ministry of Chemicals and Fertilisers**, highlighting gradual capacity creation.
- ➔ **Advancing space biotechnology through ISRO-led programmes:**
  - ♦ India's space biotechnology efforts are anchored in the **Indian Space Research Organisation's human spaceflight and microgravity biology programmes**. Experiments on microbes, algae, and biological systems aboard space missions aim to support food production, life-support regeneration, and astronaut health.
  - ♦ As per **ISRO and Department of Space updates (2025)**, progress is steady, though application readiness for long-duration missions remains under development.
- ➔ **Regulatory reform, skills development, and ecosystem coordination:**
  - ♦ To reduce regulatory delays and skill gaps, the government introduced **single-window clearance mechanisms for biotechnology research**, expanded the **Biotechnology Skill Enhancement Programme**, and integrated life sciences training under **Skill India Mission**.
  - ♦ The **India Skills Report 2026** shows rising availability of bioprocess and bioinformatics professionals, though advanced infrastructure remains concentrated in a few metropolitan clusters, limiting regional diffusion.

## Government and Institutional Efforts

- ➔ **Strengthening research, innovation, and commercialisation:**
  - ♦ To address fragmented research and weak lab-to-market translation, the Government operates the **Biotechnology Industry Research Assistance Council (BIRAC)** under the **Department of Biotechnology**.





## Way Forward

- **Create a unified national roadmap for futuristic biotechnology:**
  - ♦ India needs a **time-bound National Roadmap for Marine and Space Biotechnology** aligning the **Department of Biotechnology, Indian Space Research Organisation, Ministry of Earth Sciences, and NITI Aayog**. The absence of a single coordinating framework currently causes fragmented investments.
  - ♦ A roadmap with clear milestones, similar to India's Semiconductor Mission, would improve accountability and attract long-term private capital (NITI Aayog, 2025).
- **Scale funding beyond pilots to full biomanufacturing:**
  - ♦ While grants and incubation have improved early-stage innovation, India must move toward **large-scale biomanufacturing clusters** focused on marine enzymes, algae-based biomaterials, and space life-support biology.
  - ♦ The **BioE3 Policy** should be backed by sustained production-linked incentives, as recommended by **Economic Survey 2025–26**, to reduce import dependence and improve global competitiveness.

## ➤ Strengthen industry participation through risk-sharing mechanisms:

- ♦ Limited private participation remains a key gap. Expanding **public-private partnership models**, sovereign-backed venture guarantees, and long-term procurement commitments can reduce investment risk.
- ♦ Global experience from the European Union's marine biotechnology programmes shows stable public demand encourages private innovation (Organisation for Economic Co-operation and Development, 2025).

## ➤ Build specialised human capital and research infrastructure:

- ♦ India must invest in **interdisciplinary training** combining biology, engineering, oceanography, and space sciences. Establishing **national centres of excellence** for marine and space biotechnology in coastal and space-research regions would decentralise innovation.
- ♦ According to the **India Skills Report 2026**, advanced bioprocessing skills remain unevenly distributed, limiting regional growth.

## ➤ Integrate biotechnology with strategic national missions:

- ♦ Marine and space biotechnology should be embedded within **India's climate resilience, Blue Economy, and human spaceflight goals**.
- ♦ Linking biotechnology outputs directly to missions like **Deep Ocean Mission and Gaganyaan** will ensure demand-driven research, faster deployment, and strategic autonomy rather than isolated scientific progress.

## Conclusion

- Biotechnology has emerged as a strategic pillar of India's development, linking health security, food resilience, climate sustainability, and frontier domains such as marine and space sciences.
- ♦ While India has built global strengths in vaccines and biopharmaceuticals, gaps persist in advanced biomanufacturing, private investment, skills availability, and regulatory efficiency.
- Government initiatives such as BioE3, the Biotechnology Industry Research Assistance Council, the Deep Ocean Mission, and space life-science programmes provide a strong foundation, yet outcomes remain uneven.
- Going forward, a unified national roadmap, scale-focused funding, industry risk-sharing, specialised human capital development, and alignment with national missions are essential to transform India into a globally competitive and self-reliant biotechnology powerhouse.



# NATIONAL GIRL CHILD DAY

National Girl Child Day is observed annually on 24 January to promote girls' rights, empowerment, and gender equality across India.



To awaken the people, it is the women who must be awakened.

Swami Vivekananda



## Background

- National Girl Child Day has been observed annually on **24 January since 2008**, initiated by the **Ministry of Women and Child Development** to address deep-rooted gender inequality in Indian society.
  - ♦ The observance emerged from persistent concerns over **declining Child Sex Ratio**, gender-based discrimination, and low participation of girls in education, health, and workforce outcomes.
  - ♦ Historically, patriarchal norms, dowry practices, and son preference resulted in female infanticide, sex-selective abortions, and neglect of girls' nutrition and schooling.
- Over time, India strengthened its legal and policy framework through laws such as the **Pre-Conception and Pre-Natal Diagnostic Techniques Act**, **Right to Education Act**, and targeted schemes like **Beti Bachao Beti Padhao** to improve survival, protection, and empowerment of girls.
  - ♦ These efforts produced partial success, visible in rising school enrolment and improved Sex Ratio at Birth, but social attitudes and regional disparities persisted.
- The issue remains highly relevant today as gender gaps continue in labour participation, safety, and early marriage. According to **NITI Aayog and Ministry of Women and Child Development data (2025)**, progress is uneven across states, making National Girl Child Day a crucial platform to renew commitment toward **inclusive, rights-based, and outcome-oriented gender governance**.

## Causes of Gender Discrimination

- **Persistent patriarchal norms and son preference:**
  - ♦ Gender discrimination continues to stem from deep-rooted patriarchal norms that prioritise sons for inheritance, lineage, and old-age security.
  - ♦ The **National Family Health Survey Phase-6 preliminary analysis (Ministry of Health and Family Welfare, 2025)** shows continued son preference in northern and western states, influencing nutrition allocation, healthcare access, and educational investment against girl children despite legal safeguards.
- **Economic dependency and low female workforce participation:**
  - ♦ Women's economic dependence reinforces gender discrimination within households and society.

- ♦ The **Periodic Labour Force Survey 2024–25 (Ministry of Statistics and Programme Implementation)** reports female labour force participation at about **37 percent**, with most women concentrated in informal, low-paid work.
- ♦ Limited asset ownership and income reduce women's decision-making power, sustaining unequal treatment in education, marriage, and fertility choices.

### ➤ Education discontinuity due to care burden and safety concerns:

- ♦ Despite improved enrolment, girls face higher dropouts after secondary education due to unpaid care work, safety concerns, and early marriage. **Unified District Information System for Education Plus 2025–26 (Ministry of Education)** shows declining female participation post-secondary level.
- ♦ These barriers limit skill acquisition and long-term employment opportunities, perpetuating intergenerational gender inequality, especially in rural and tribal regions.

### ➤ Gender-based violence and weak deterrence:

- ♦ High prevalence of violence against women restricts mobility, education, and workforce participation. The **National Crime Records Bureau 2025** records over **4.4 lakh crimes against women annually**, including domestic violence and sexual offences.
- ♦ Low conviction rates and prolonged judicial processes weaken deterrence, reinforcing fear-driven compliance with discriminatory norms and discouraging women from asserting social and economic rights.

### ➤ Dowry practices and early marriage:

- ♦ Dowry-related expectations continue to portray daughters as financial liabilities, encouraging early marriage and school discontinuation.
- ♦ According to **National Family Health Survey trend projections cited by the Ministry of Women and Child Development (2025–26)**, child marriage persists in several states despite decline.
- ♦ Early marriage adversely affects girls' health, education, and labour participation, entrenching long-term gender inequality.

## Government Initiatives

### ➤ Beti Bachao Beti Padhao for correcting adverse sex ratio and social bias:

- ♦ The **Beti Bachao Beti Padhao scheme**, led by the Ministry of Women and Child Development, addresses declining sex ratios and son preference through awareness, education, and enforcement.

- ♦ According to government data, the **Sex Ratio at Birth improved from 918 (2014–15) to 930 in 2023–24**, showing gradual normative change, though regional disparities persist (Ministry of Women and Child Development, 2025).
- ➔ **Mission Shakti for women's safety and empowerment:**
  - ♦ **Mission Shakti**, a centrally sponsored umbrella scheme, integrates women's safety, empowerment, and livelihood support. Components like **One Stop Centres, Women Helplines, and Nari Adalats** have expanded nationwide.
  - ♦ As of **2025**, over **800 One Stop Centres** operate across districts, improving access to legal and psychosocial support, though utilisation remains higher in urban areas (Ministry of Women and Child Development, 2025).
- ➔ **Education-focused interventions to reduce gender gaps:**
  - ♦ Schemes such as **Samagra Shiksha, Kasturba Gandhi Balika Vidyalayas**, and **PM-POSHAN** aim to improve girls' retention and learning outcomes.
  - ♦ The **Unified District Information System for Education Plus 2025–26** reports girls' **Gross Enrolment Ratio at secondary level reaching 80.2 percent**, reflecting progress, though dropout rates increase after Class 10 due to social and safety constraints (Ministry of Education).
- ➔ **Economic empowerment through financial inclusion schemes:**
  - ♦ Schemes like **Sukanya Samriddhi Yojana, Pradhan Mantri Jan Dhan Yojana**, and **Deendayal Antyodaya Yojana–National Rural Livelihoods Mission** strengthen women's financial security.
  - ♦ By **2024**, over **4.2 crore Sukanya Samriddhi accounts** were opened, encouraging long-term savings for girls, though benefits depend on household income stability (Ministry of Finance, 2025).
- ➔ **Legal and institutional frameworks for rights protection:**
  - ♦ The **Protection of Women from Domestic Violence Act, Prevention of Child Marriage Act**, and **Mental Healthcare Act** provide legal safeguards against abuse and discrimination.
  - ♦ As of **January 2026**, over **60,000 Child Marriage Prohibition Officers** were appointed nationwide, helping prevent more than **2,100 child marriages**, though enforcement varies across states (Ministry of Women and Child Development, 2026).
- ➔ **Strengthen girls' secondary education and safe mobility:**
  - ♦ Reducing dropout after Class 10 requires targeted investments in hostels, transport, and safety infrastructure. **UDISE Plus 2025–26** shows dropout rates rise sharply after secondary level, especially in rural districts.
  - ♦ Expanding **Kasturba Gandhi Balika Vidyalayas** and safe transport can convert enrolment gains into completion and skill outcomes.
- ➔ **Expand women's economic participation beyond welfare transfers:**
  - ♦ Income support schemes must be complemented with skill-linked employment and market access. According to the **Periodic Labour Force Survey 2025**, female labour force participation rose to around **37 percent**, but remains concentrated in low-paid informal work.
  - ♦ Linking **National Rural Livelihoods Mission** groups to value chains can improve income quality, not just access.
- ➔ **Improve enforcement and accountability of legal protections:**
  - ♦ Laws against child marriage, domestic violence, and gender-based violence require stronger local enforcement and faster grievance redressal.
  - ♦ Despite appointing over **60,000 Child Marriage Prohibition Officers**, enforcement outcomes vary widely across states (Ministry of Women and Child Development, 2026). Performance-based monitoring and digital case tracking can close implementation gaps.
- ➔ **Invest in gender-disaggregated data and outcome monitoring:**
  - ♦ Policy effectiveness depends on real-time, disaggregated data across health, education, safety, and employment. The **Economic Survey 2025–26** highlights persistent data gaps at district level.
  - ♦ Integrating administrative data across ministries will help identify lagging regions, refine targeting, and shift from input-focused schemes to outcome-based gender governance.

## Conclusion

- ➔ National Girl Child Day highlights India's gradual yet uneven progress towards gender equality. Legal safeguards, education reforms, and targeted schemes have improved the survival, enrolment, and protection of girls; however, deep-rooted patriarchal norms, economic dependence, and safety concerns continue to constrain outcomes.
- ➔ Persistent gaps in secondary education completion, workforce participation, and freedom from violence demonstrate that policy intent alone is insufficient. The way forward lies in moving from awareness to sustained behaviour change, strengthening local-level enforcement, and expanding skill-linked economic opportunities. An outcome-oriented, data-driven, and community-led approach is essential to translate rights into real, lifelong empowerment for every girl child.

## Way Forward

- ➔ **Shift from awareness to behaviour change at the community level:**
  - ♦ Future policy must move beyond messaging to sustained behaviour-change interventions using local institutions like Panchayats, schools, and Self-Help Groups.
  - ♦ Evidence from **NITI Aayog (2025)** shows districts combining community engagement with monitoring achieved faster improvements in sex ratio. Long-term norm change requires repeated local interaction, not only national campaigns.

# SUBHASH CHANDRA BOSE

Recently, Parakram Diwas 2026 was observed on 23rd January to commemorate the 128<sup>th</sup> birth anniversary of Neta Ji Subhas Chandra Bose.

One individual may die for an idea, but that idea will, after his death, incarnate itself in a thousand lives.

Subhash Chandra Bose

## Early Life and Education

- Subhash Chandra Bose was born on **January 23, 1897, in Cuttack, Odisha**. He was born into a wealthy family; his father, Janakinath Bose, was a prominent lawyer.
- **Academic Brilliance:** Bose was a standout student, attending **Ravenshaw Collegiate School** and later **Presidency College in Kolkata**. However, his nationalist spirit was evident early on; in 1916, he was expelled from Presidency College for protesting against a British teacher's racist remarks.
- **Indian Civil Services (ICS):** To fulfill his father's wish, Bose went to England and passed the highly competitive **ICS exam in 1920**, ranking fourth.
- **The Turning Point:** Deeply moved by the Jallianwala Bagh Massacre, Bose resigned from the prestigious Civil Service in 1921, stating that no Indian could serve under a government that treated its citizens so brutally.

## Role in the Indian National Congress (INC)

Upon returning to India, Bose joined the Indian National Congress and worked closely with his mentor, Chittaranjan Das.

- **Leadership:** By 1923, he was the **President of the All India Youth Congress**. He advocated for **Poorna Swaraj (Complete Independence)** at a time when many were still asking for Dominion Status.
- **Presidency and Conflict:** Bose was elected President of the INC twice:
  - ♦ **Haripura Session (1938):** He focused on economic planning and set up the National Planning Committee.
  - ♦ **Tripuri Session (1939):** He was re-elected after defeating Pattabhi Sitaramayya (who was supported by Mahatma Gandhi). However, ideological differences with the Congress leadership led to his resignation shortly after.
- **The Forward Bloc:** In May 1939, Bose formed the Forward Bloc as a faction within the Congress to bring together radical elements and push for immediate, forceful action against the British.

## The Indian National Army (Azad Hind Fauj)

- Bose's most famous contribution was the reorganization of the Indian National Army (INA).

- During World War II, he saw an opportunity to use the British Empire's international enemies to free India.
- **Escape:** Under house arrest in 1941, Bose escaped in disguise, traveling through **Afghanistan** and the **Soviet Union** to reach **Germany**.
- In 1943, he arrived in Singapore. He took over the INA, which had been originally started by **Mohan Singh**.
- **Structure of the INA:** Bose modernized the army, which eventually grew to about 45,000 soldiers.
  - ♦ It was notably diverse, including units named the **Gandhi Brigade, Nehru Brigade, and Azad Brigade**.
- **The Rani Jhansi Regiment:** Showing his commitment to gender equality, Bose formed one of the world's first all-women combat units, led by Captain **Lakshmi Swaminathan**.

### Relationship with Mahatma Gandhi

Aspect	Mahatma Gandhi	Subhash Chandra Bose
Philosophy	Believed in Non-violence (Ahimsa) and Satyagraha.	Believed in Armed Struggle and militant resistance.
International Aid	Emphasized self-reliance; avoided seeking help from foreign powers.	Actively allied with Axis powers (Germany, Japan) to fight the British.
Economics	Favored rural, decentralized cottage industries.	Favored large-scale industrialization and state planning.
Mutual Respect	Called Bose the 'Prince among Patriots'.	Bose was the first to call Gandhi the 'Father of Our Nation'.

## Legacy and Impact

Subhash Chandra Bose's mysterious disappearance following a plane crash in August 1945 remains a subject of debate, but his legacy as a hero is undisputed.

- **Parakram Divas:** His birthday, January 23, is celebrated annually as "**Parakram Divas**" (**Day of Valor**) to honor his courage.
- **International Influence:** His leadership of the INA and the establishment of the **Provisional Government of Free India in the Andaman and Nicobar Islands** (renamed Shaheed and Swaraj Islands) challenged the British at a global level.
- **Inspiration:** The subsequent trials of INA soldiers at the Red Fort (1945-46) ignited a wave of nationalism that made the British realize they could no longer rely on Indian soldiers to maintain their rule.



## PM CHAIRS 50TH MEETING OF PRAGATI

The Prime Minister chaired the 50th meeting of PRAGATI.

## About

- ➔ **PRAGATI** (Pro-Active Governance And Timely Implementation) is a **technology-driven governance and monitoring platform** launched by the Prime Minister's Office (PMO) in **2015**.
- ➔ **Aim:** To improve **public administration and accelerate the implementation** of government programmes and projects.
- ➔ **PRAGATI functions as a tripartite platform integrating three hierarchical levels:** the Prime Minister's Office at the apex, Union Government Secretaries as the middle tier, and State Chief Secretaries as the operational base.
- ➔ **Salient Features of PRAGATI:**
  - ◆ Monitors and reviews key programmes and projects by the Government of India.
  - ◆ Addresses issues flagged by State Governments, ensuring their concerns are heard.
  - ◆ Enhances transparency and improves accountability in project implementation.
  - ◆ Built-in feature to maintain decisions for follow-up and continuous review.
  - ◆ Facilitates real-time collaboration and exchange among various stakeholders.
  - ◆ Enables the PMO's office to resolve implementation issues and expedite project completion.
  - ◆ Tackles bottlenecks in projects caused by interdependencies across government bodies.
  - ◆ Operates with a three-tier IT-based system involving the PMO, GoI Secretaries, and State Chief Secretaries.
- ➔ **The primary purposes of PRAGATI are:**
  - ◆ **Project Monitoring:** Track progress of high-value and critical infrastructure projects and resolve delays or bottlenecks.
  - ◆ **Programme Implementation:** Ensure timely and efficient execution of government schemes and missions.
  - ◆ **Grievance Redressal:** Address persistent public grievances by integrating with systems like the Centralised Public Grievance Redressal and Monitoring System (CPGRAMS) for citizen complaints.

## Key Achievements

- ➔ 377 projects have been reviewed under PRAGATI, and across these projects, 2,958 out of 3,162 identified issues - i.e. around **94% have been resolved**.

## REPEALING AND AMENDING ACT, 2025

The Repealing and Amending Act, 2025, was passed in the recently concluded winter session of the Parliament.

## Meaning

- ➔ **Repeal** means an abrogation or removal of any law by a competent authority. **An amendment** is an action or result of amending an existing statute by alteration or by adding, deleting or substituting something.

## The Repealing &amp; Amending Act, 2025

- ✓ Obsolete Laws are repealed
- ✓ Redundant Amendment Acts are removed
- ✓ **Core Laws have been modified:**
  - ◆ The General Clauses Act, 1897
  - ◆ The Code of Civil Procedures, 1908
  - ◆ The Indian Succession Act, 1925
  - ◆ The Disaster Management Act, 2005
- ✓ Judicial and Administrative Procedure are clarified
- ✓ Discriminatory / Colonial Legacy Elements are removed
- ✓ Savings Clause is modified
- ✓ Uniformity and clarity across legal processes is ensured

## About the Act

- ➔ It streamlines India's legal framework by removing 71 obsolete or redundant laws (from 1886–2023) and making targeted amendments to modernise and correct inconsistencies in key statutes.
- ➔ The Act uses a **two-pronged approach**: It **eliminates** outdated enactments, amendment Acts already incorporated into principal laws, and other laws no longer needed.
  - ◆ It updates foundational laws like the General Clauses Act (1897), Code of Civil Procedure (1908), Indian Succession Act (1925), and Disaster Management Act (2005) to correct drafting errors and modernise language.
- ➔ A savings clause ensures continuity, preserving existing rights, legal processes, and practices despite the repeals.

## Key Legislative Objectives

STATUTORY CLEAN-UP	LEGAL CLARITY & UNIFORMITY	MODERNISING LEGAL FRAMEWORKS
Repealing obsolete laws that have already served their purpose, to simplify India's statute book.	Removing redundant provisions, harmonising terminology, and updating procedural references to ensure consistency across laws and ease of interpretation.	Correcting technical and drafting errors while aligning statutes with current administrative practices, judicial processes, and governance needs

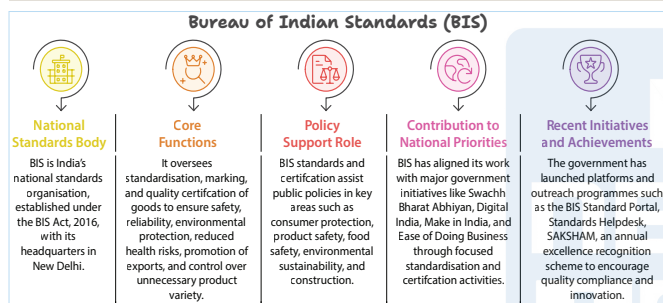
## SAMPANN

**SAMPANN (System for Accounting and Management of Pension)** is an integrated, online pension management system for Department of Telecommunications (DoT) pensioners.



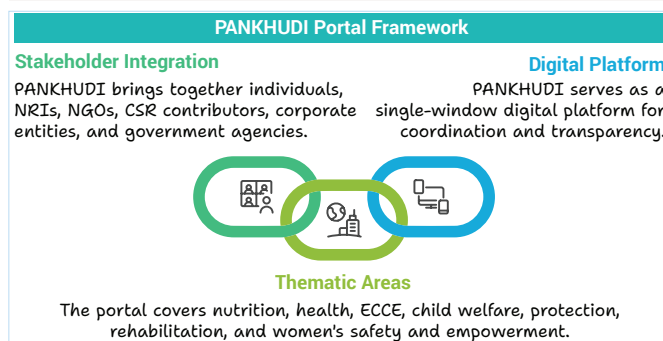
## BUREAU OF INDIAN STANDARDS

On its 79th Foundation Day, the Bureau of Indian Standards (BIS) was praised by the government for strengthening India's quality standards and supporting growth across key sectors.



## PANKHUDI PORTAL

The Ministry of Women and Child Development launched **PANKHUDI Portal**.



## SWADESH DARSHAN SCHEME

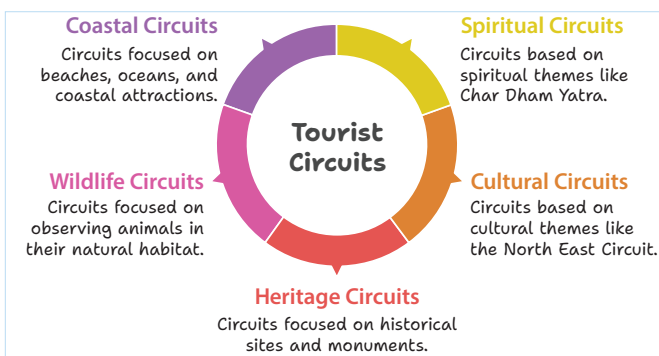
The Ministry of Tourism Completes 75 Projects under the Swadesh Darshan Scheme.

### About

- ➔ The Ministry of Tourism launched the **Swadesh Darshan Scheme** in 2015 for the development of **theme-based tourist circuits**.

- ➔ It is **100% centrally funded scheme**.

- Under the Swadesh Darshan Scheme, Operation and Maintenance (O&M) of projects sanctioned by the government is the responsibility of the respective State Government or Union Territory (UT) Administration.



- ➔ The scheme adopts an **integrated approach to tourism development**, focusing on infrastructure development, destination management, and enhancing visitor experiences.

- A total of **76 projects** have been sanctioned for a total amount of **Rs. 5290.33 Crore** under the scheme.
- The scheme has now been revamped as **Swadesh Darshan 2.0** to develop **sustainable and responsible destinations**.

## "ROMEO-JULIET" CLAUSE IN POCSO ACT

The Supreme Court of India has flagged the misuse of the **POCSO Act** in cases of consensual adolescent relationships and urged the Union Government to examine the feasibility of introducing a **"Romeo-Juliet clause"**.

### About

- ➔ A legal exception, developed in the US and parts of Europe, is named after Shakespeare's teenage lovers.
- ➔ It does not lower the age of consent, but shields adolescents close in age from criminal liability for consensual intimacy.
- ➔ It seeks to retain a robust child protection framework while recognising the realities of adolescence.

### Core Issue Highlighted by the Court

- ➔ **Criminalisation of Consensual Adolescence**: Under current law, even if two individuals are in a consensual romantic relationship, the moment one is below 18 years (even by a day), stringent POCSO provisions apply.
- ➔ **Harmful Impact of Criminal Process**: Adolescents are drawn into police investigation, arrest, trial and incarceration, causing long-term psychological and social damage.
- ➔ **Misuse and Weaponisation of POCSO**: The Court noted that POCSO has been "weaponised" against young couples.
  - Common practices include misrepresentation of age to attract POCSO provisions and use of the law by families to punish or disrupt relationships they disapprove of (inter-caste, inter-faith, or non-conforming relationships).

## Limitations of the Romeo–Juliet Approach

- ➔ Any age-based exemption merely redraws the line, rather than resolving the core issue.
- ➔ This clause raises difficult questions, such as whether 16–18-year-olds are exempt, or what principled basis would render the same conduct criminal again for those just below 16.

### POCSO Act, 2012

Purpose	Gender-Neutral Law	Categorisation of Offences	Special Courts
Protects children from sexual assault, harassment, and pornography.	Defines a child as any person below 18 years, irrespective of gender.	Covers penetrative and non-penetrative sexual assault, sexual harassment, and aggravated offences.	Establishes Special Courts for speedy, in-camera trials.







## NPS VATSALYA SCHEME, 2025

The Pension Fund Regulatory and Development Authority (PFRDA) has issued guidelines for the NPS Vatsalya Scheme, 2025, expanding the National Pension System (NPS) framework to enable early-life pension inclusion for minors.

### About

- ➔ NPS Vatsalya is a pension savings scheme for minors under the National Pension System.
- ➔ It allows a parent or legal guardian to open and operate an NPS account on behalf of a child.

#### NPS ACCOUNT FEATURES

 <b>Eligibility</b> Indian citizens below 18 years of age are eligible.	 <b>Account Type</b> Individual pension account in the name of the minor.
 <b>Operation</b> Managed by parent/guardian until the child attains majority.	 <b>Conversion</b> On turning 18, the account is converted into a regular NPS account.
 <b>Minimum Contribution</b> Minimum initial and annual contribution of ₹250 and no maximum limit.	 <b>Investment</b> Funds invested through Pension Fund Managers (PFMs) as per NPS guidelines.

## 28<sup>TH</sup> CSPOC

Prime Minister Narendra Modi inaugurated the 28th Conference of Speakers and Presiding Officers of the Commonwealth (CSPOC) at Samvidhan Sadan, highlighting how India has transformed its diversity into a democratic strength.

### About

- ➔ CSPOC is a high-level parliamentary forum of the **Commonwealth of Nations**, bringing together Speakers and Presiding Officers from national and semi-autonomous legislatures.
- ➔ It meets **every two years**, with a Standing Committee meeting in between to plan future conferences.
- ➔ **Origin:** CSPOC was established in 1969 by **Lucien Lamoureux**, then Speaker of the **House of Commons of Canada**, to create a neutral forum focused on parliamentary procedure and leadership.

- ➔ **India** has hosted CSPOC four times — 1970-71, 1986, 2010, and 2026. The next (29th) Conference will be held in **London** in 2028.

### Key Rules:

- ♦ Only Speakers and Presiding Officers of Commonwealth parliaments are members.
- ♦ Outgoing Presiding Officers continue until successors are elected.
- ♦ Deputy Speakers may substitute, but cannot join the Standing Committee.
- ♦ Rules govern agenda, voting, quorum, and offices.
- ♦ Standing Rules are reviewed between Conferences.

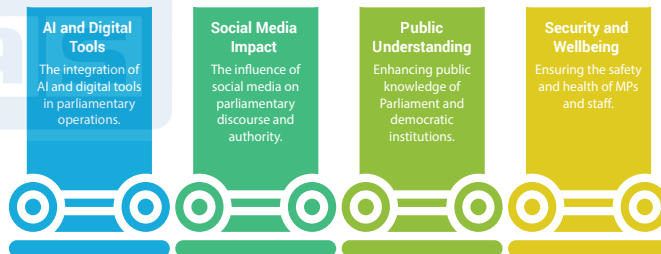
### Aims and Role:

- ♦ Promote **impartiality and fairness** in legislatures.
- ♦ Share best practices in parliamentary functioning.
- ♦ Discuss ethics, procedure, technology, and institutional independence.
- ♦ Decisions are **non-binding**, but influential.

### Structure and Governance:

- ♦ Run mainly by a **Standing Committee** between Conferences.
- ♦ The committee selects venues, agendas, and reviews rules.
- ♦ Has **15 members**; quorum is **five**.
- ♦ Secretariat support has been provided by Canada since the beginning.

#### 28th Conference Themes



## SUPREME COURT DIRECTIONS ON STUDENT SUICIDES

The Supreme Court of India has issued directions to Central and State governments under Article 142 on Student Suicides and Higher Education Institutions (HEI) Functioning.

### Article 142 of the Indian Constitution

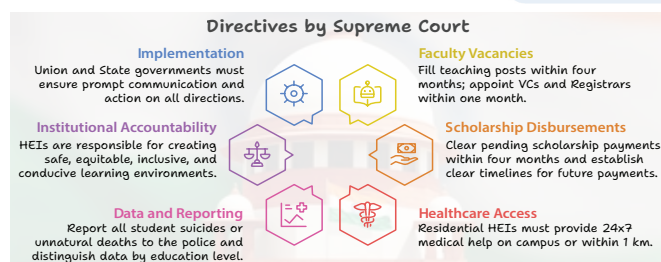
- ➔ It grants the Supreme Court a unique and extraordinary power to ensure **“complete justice”** in cases where existing laws or statutes may not provide an adequate remedy.
- ➔ As **per Article 142(1)**, the Court can pass any decree or make any order necessary for doing complete justice in matters pending before it, and such orders are enforceable throughout India, either as prescribed by law made by Parliament or, until such law exists, as directed by the President.



- The core idea is to enable the **Supreme Court to address instances of illegality or injustice** and deliver fair and equitable outcomes tailored to the facts of each case.

### Major Issues Highlighted by Supreme Court

- **Rapid massification and privatization of higher education:** India now ranks second globally in student enrolment, has led to student distress, deaths, chronic faculty vacancies, and exploitation.
- **Student mental health:**
  - ♦ The Supreme Court noted an epidemic of student suicides, with stressors including rigid attendance policies, overburdened curricula, exam pressures, faculty shortages, reliance on guest faculty, and non-transparent placement processes.
  - ♦ Medical and engineering students face extreme workload and exploitative academic culture.
- **Inadequate Strength: Public HEIs**, including the University of Madras, face severe staffing shortages, with **faculty strength at only 50% of sanctioned positions**.
- **Financial stress:** Delays in the disbursement of scholarships emerge as a significant source of financial strain.
- **Political Overhaul:**
  - ♦ Research and teaching quality have declined, and Vice-Chancellor appointments are stalled due to ambiguity over the Governor's powers.
  - ♦ Filling vacancies requires UGC procedures, qualified faculty, and budgetary support, while corruption and political appointments have impacted quality.



## RESPONSIBLE NATIONS INDEX (RNI)

India has recently introduced the Responsible Nations Index (RNI)

Responsible Nations Index			
Focus Shift	Core Dimensions	Development Partners	Ranking
Shifts focus from economic power to ethical governance, sustainability, and global responsibility.	Evaluates countries across four core dimensions: ethical governance, social well-being, environmental stewardship, and global responsibility.	Developed by World Intellectual Foundation (WIF) in collaboration with Jawaharlal Nehru University (JNU) and Indian Institute of Management Mumbai.	Singapore(1st) , Switzerland (2nd) & Denmark (3rd) in the list & India ranks 16th globally.

## ARTICLE 15(5)

The opposition has urged the Union government to ensure the implementation of Article 15(5) of the Constitution while framing a single higher education regulator under the proposed Viksit Bharat Shiksha Adhishthan Bill, 2025.

### About

- Article 15(5) empowers the State to make special provisions for the advancement of Scheduled Castes (SCs), Scheduled Tribes (STs), and Other Backward Classes (OBCs).
- It enables the **State to provide reservations in admissions, including in private educational institutions**, whether aided or unaided.
- Minority educational institutions under **Article 30(1)** are exempted from its ambit.
- The provision was introduced through the **93rd Constitutional Amendment Act, 2005**.

### Significance of Article 15(5)

- It led to the introduction of **27% OBC reservation** in Centrally-funded Higher Educational Institutions (CFHEIs) such as IITs, IIMs, NITs, and Central Universities.
- It contributed to **intergenerational mobility, skill acquisition, and representation in professional education**.
- It reflects the constitutional vision of **substantive equality**, moving beyond formal equality.

### Judicial Validation

- The constitutional validity of **Article 15(5)** was upheld by the Supreme Court in **Pramati Educational and Cultural Trust vs Union of India (2014)**.
- The Court affirmed that the State can mandate reservations in **non-minority private educational institutions**.

## Viksit Bharat Shiksha Adhishthan Bill, 2025

- It seeks to create a unified statutory body to regulate, accredit, and set standards for higher education institutions across the country.
- **Key Provisions:**
  - ♦ **Single National Regulator:** Establishes a new central authority to oversee higher education across India.
  - ♦ **Merger of Existing Bodies:** Replaces the **University Grants Commission, All India Council for Technical Education, and National Council for Teacher Education** under one unified framework.
  - ♦ **Three-Tier Structure:** Creates separate wings for regulation, accreditation, and setting academic standards.
  - ♦ **Autonomy with Oversight:** Gives higher education institutions greater freedom while ensuring quality control.
  - ♦ **Excludes Certain Fields:** Medical and legal education remain outside its jurisdiction.

- ♦ **Focus on Multidisciplinary Education:** Encourages universities to develop as broad-based teaching and research institutions.
- ♦ **Quality Improvement Measures:** Promotes better teaching methods, research output, and global competitiveness.
- ♦ **Central Policy Role:** Empowers the new authority to guide long-term reforms in higher education.

## WALKOUTS BY GOVERNORS TEST CONSTITUTIONAL LIMITS

Recent walkouts by Governors in Karnataka, Tamil Nadu, and Kerala during state assembly sessions have sparked constitutional debates over gubernatorial discretion versus elected governments' authority.

### Reasons behind these Incidents

- ➔ **Disputes over Address to the House:** Governors objected to portions of the government-drafted address, especially references critical of the Union or Central laws.
- ➔ **Assertion of Constitutional Role:** Some Governors cited their duty to uphold the Constitution and refused to read or endorse statements they disagreed with.
- ➔ **Political and Federal Tensions:** Ongoing friction between State governments and the Centre intensified confrontations inside legislatures.
- ➔ **Protocol and Procedural Differences:** Disagreements over legislative procedure, conduct of members, or manner of proceedings led to exits.
- ➔ **Opposition to Policy Positions:** Governors walked out when State policies or resolutions conflicted with their interpretation of constitutional norms.

### Constitutional Position of the Governor

- ➔ **Article 176(1)** states that the Governor "shall" address the Legislative Assembly (or both Houses where a Legislative Council exists) at the commencement of the first session each year.
- ♦ The address serves to **inform the Legislature of the causes of its summons**, reflecting the policy priorities of the elected government.

- ♦ The address is not the personal opinion of the Governor, it represents the **aid and advice of the Council of Ministers**, making it a formal executive function, not a discretionary one.

### Concerns

- ➔ **Erosion of Constitutional Mandate:** The Governor's selective reading or walkout from the address under **Article 176(1)** violates the mandatory nature of the provision and undermines the constitutional scheme envisaging a formal communication between the elected government and the Legislature.
- ➔ **Threat to Parliamentary Sovereignty:** Expanding discretion in routine executive functions creates the danger of the Governor acting as a parallel authority, which the Supreme Court has repeatedly warned would hollow out parliamentary democracy.

### Supreme Court's Jurisprudence on Governor's Role

- ➔ In **Shamsher Singh vs State of Punjab (1974)**, the Court established that the Governors are formal heads who must act on the aid and advice of the Council of Ministers, not independent authorities.
- ➔ The Court observed that for such a functionary to publicly criticize settled Cabinet policy is an "unconstitutional faux pas" violating the parliamentary system.
- ➔ In the **Nabam Rebia & Bamang Felix v. Deputy Speaker (2016)** case, the Court ruled that the Governor is a formal head and, under **Article 163**, must act on the aid and advice of the Council of Ministers, with discretion limited only to specific constitutional provisions.
- ➔ In the **State of Tamil Nadu v. The Governor of Tamil Nadu (2025)**, the court held that gubernatorial discretion cannot negate or obstruct a responsible elected government.

## ATAL PENSION YOJANA (APY)

The Union Cabinet chaired by the Prime Minister approved the continuation of Atal Pension Yojana up to FY 2030-31 along with extension of funding support for promotional and developmental activities and gap funding.

Atal Pension Yojana (APY)			
Launch	Target Group	Scheme Features	Administering Body
APY was launched in 2015 to provide old-age income security to unorganised sector workers.	Initially available to citizens aged 18-40. Individuals paying income tax are not eligible from October 2022.	APY offers a guaranteed minimum pension of Rs.1,000 to Rs.5,000 per month starting at age 60.	Administered by Pension Fund Regulatory and Development Authority (PFRDA) under the National Pension System (NPS) architecture.

## WEIMAR TRIANGLE

India participated for the first time in the Weimar Triangle format, a significant diplomatic development.

### About

- It is a trilateral political and diplomatic **grouping of France, Germany & Poland established in 1991** named after Weimar, where the three foreign ministers of these nations first met.
- It aims to build a united, secure, and resilient Europe & strengthen political, security, and economic cooperation among Western and Central European powers.

### Significance of India's Participation

- Reflects India–Europe strategic convergence, beyond bilateral ties.
- Indicates European support for India's:
  - ♦ Energy security needs
  - ♦ Independent foreign policy decisions
- Expands India's engagement with key European security platforms, even outside formal EU structures.

## JOINT WATER MEASUREMENTS BY INDIA & BANGLADESH

India and Bangladesh have initiated a joint water measurement initiative on the Ganga and Padma rivers as the Ganges Water Sharing Treaty enters its final year before expiry in December 2026.

### About the Ganges Water Sharing Treaty, 1996

- The **Ganges Water Sharing Treaty**, signed on **12 December 1996** between India and Bangladesh, governs the sharing of Ganges waters at the **Farakka Barrage**, located in West Bengal, about 18 km upstream of the Bangladesh border.
- The treaty marked a major diplomatic breakthrough, ending decades of tension over Ganges water sharing that had strained bilateral relations since Bangladesh's independence in 1971.

### Origins of the Ganges Water Dispute

- **Construction of Farakka Barrage (1975):**
  - ♦ India completed the Farakka Barrage in 1975 to divert water into the Hooghly River.
  - ♦ Purpose was to flush out silt & improve navigability of the Kolkata Port.

### Bangladesh's Concerns

- As a lower riparian state, Bangladesh argued that reduced downstream flows:
  - ♦ Harmed agriculture and fisheries
  - ♦ Disrupted river navigation
  - ♦ Increased salinity intrusion in coastal areas
  - ♦ Threatened the Sundarbans ecosystem
- This disagreement became one of South Asia's most persistent transboundary water disputes.

### Ganga River

- **Origin:** Gangotri Glacier in Uttarakhand; **Length:** Approximately 2,525 km.
- **Basin Area:** Covers about 8,61,452 sq. km in India, nearly **27% of India's landmass** over 11 Indian states.
  - ♦ It supports **over 45% of India's population**.
  - ♦ The **Ganga River Basin** is the **second most water-stressed basin in India**, despite receiving 35.5% of the total water input in terms of precipitation, following the Sabarmati Basin.
- **States Covered:** Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal, and parts of several others.
- **Key Tributaries:** Yamuna, Ghaghara, Gandak, Kosi, and Son among others.
  - ♦ The **Ganga enters as the Padma River** into Bangladesh **below the Farakka Barrage**, eventually **merging with the Brahmaputra and Meghna rivers** before **emptying into the Bay of Bengal**.
- **Delta:** Forms the **world's largest delta**, the **Sundarbans**, shared by India and Bangladesh.

## US STRIKES ON VENEZUELA

The US strikes on Venezuela have brought to the forefront concerns over violations of international law, breach of national sovereignty & reinforcing perceptions of U.S. imperialism.

### Probable Reasons for US Attack on Venezuela

- **Oil Reserves:** Venezuela holds about 18% of the world's oil reserves, more than Saudi Arabia (around 16%), Russia (about 5-6%), or the United States (around 4%).
  - ♦ Venezuela alone has more crude oil reserves than the US and Russia combined.
  - ♦ Venezuela accounts for about 3.5% of OPEC's total oil exports, and about 1% of global oil supplies.



- **Countering China's Expansion in Latin America:** China, the world's largest crude oil importer, has emerged as the biggest buyer of Venezuelan oil. Venezuela is a strategic node in China's energy security and global influence, making it geopolitically sensitive for the U.S.
- **U.S. Deals:** The United States has signed trade deals with partners such as the European Union, Japan, South Korea and the United Kingdom, getting commitments from them to buy U.S. petroleum products and LNG, without having sufficient crude oil or refining capacity.
- **Resurrection of the Monroe Doctrine:** The US has described the operation as consistent with the **US foreign policy known as the Monroe Doctrine.**
- **Other Stated and Unstated Motives:** Allegations of state-sponsored drug trafficking
  - ♦ Containment of socialist political ideology
  - ♦ Addressing mass migration flows towards the U.S.

### Monroe Doctrine

- **Background:** It was announced by US President **James Monroe in 1823** during his annual address to Congress. It came at a time when many Latin American countries had gained independence from European colonial powers.
- **Core Principles:**
  - ♦ **Non-Colonisation:** The American continents were no longer open to future European colonisation.
  - ♦ **Non-Intervention:** European powers should not interfere in the political affairs of the Americas.
  - ♦ **Separate Spheres of Influence:** Western Hemisphere and Europe were to remain distinct political spheres.
  - ♦ **US Assurance:** The US would not interfere in European internal affairs and would respect existing European colonies in the Americas.
- **Roosevelt Corollary:** In 1904, President Theodore Roosevelt introduced the "Roosevelt Corollary," which asserted that the United States had the right to intervene in the Americas under certain circumstances.
  - ♦ This addition claimed a US right to intervene in Latin American countries to prevent European involvement.
  - ♦ The doctrine was used to justify US interventions in Cuba, Nicaragua, Haiti, and the Dominican Republic.

## US WITHDRAWING FROM 66 INTERNATIONAL ORGANISATIONS

The US has withdrawn from 66 international organizations, including 31 UN entities and 35 non-UN bodies.

### About

- The entities include climate/energy/science forums such as the UN Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC), the International Renewable Energy Agency (IRENA), and the International Solar Alliance (ISA).
- It also names development/governance and rights-related entities such as UN Women, UNFPA (UN Population Fund), UNCTAD, and UN-Habitat, along with multiple UN offices linked to peacebuilding and protection of children in conflict.

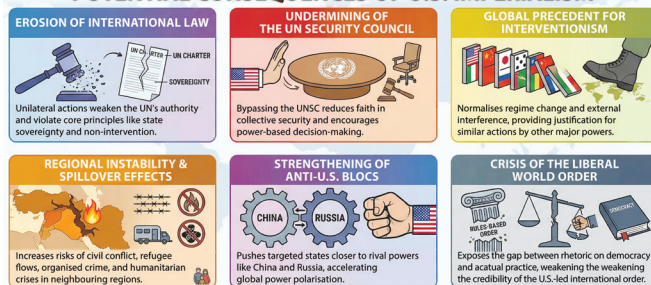
### Reasons behind US Withdrawal

- **Sovereignty Concerns:** Resistance to binding international rules perceived to constrain domestic policy autonomy.
- **Perceived Institutional Bias:** Allegations of politicisation, inefficiency, and bias against US or allied interests.
- **Domestic Political Pressures:** Multilateral commitments viewed as costly with limited direct electoral benefits.
- **Burden-Sharing Argument:** Claim that the US contributes disproportionately to global institutions.
- **Strategic Reorientation:** Preference for bilateral or minilateral arrangements over universal institutions.
- **Strategic Competition:** Desire to limit platforms where rival powers gain influence.

### Potential Impacts

- **Climate Change Setback:** Weakens global efforts to curb greenhouse gas emissions and provides other countries an excuse to delay climate commitments and finance pledges.
- **Fragmentation of Multilateralism:** Further erodes international governance, intensifies power rivalries, and accelerates a shift towards protectionism and smaller ad-hoc regional blocs.
- **Development & Humanitarian Slowdown:** US funding cuts worsen already declining international development and humanitarian aid, affecting health, education, food security, and SDG progress.
- **Global Peace & Security Risks:** Reduced US support to bodies like the UN Peacebuilding Commission hampers peacebuilding and post-conflict recovery, especially in conflict-prone regions such as Africa and the Caribbean.
- **Weakening of Global Norms:** Encourages selective compliance with international law and treaty obligations by other states.
- **Leadership Vacuum:** Creates space for other major powers to shape global rules and institutions.

### POTENTIAL CONSEQUENCES OF U.S. IMPERIALISM



## PAX SILICA

The US Ambassador announced that India would be invited next month to join Pax Silica.

### Pax Silica Initiative



#### Initiative Description

The inaugural Pax Silica Summit was held in December 2025 and the signatories include Australia, Israel, Japan, South Korea, Singapore, the UK, the Netherlands, and the UAE.

Pax Silica is a US-led strategic initiative to build a secure, prosperous, and innovation-driven silicon supply chain from critical minerals.

#### Summit Signatories



#### Company Hub

Together, these countries are home to the most important companies and investors powering the global AI supply chain.

Qatar became the latest signatory to Pax Silica.

#### Latest Signatory



#### Initiative Objective

Its objective is to reduce coercive dependencies, protect the materials and capabilities foundational to artificial intelligence, and ensure aligned nations can develop and deploy transformative technologies at scale.

Countries will partner on securing strategic stacks of the global technology supply chain, including, but not limited to, software applications and platforms.

#### Country Partnership



### Significance for India

- ➔ Joining Pax Silica might help India diversify away from China to more secure suppliers like Australia for critical minerals.
- ➔ It is likely to facilitate investments and technology transfer via partnerships with Japan and the Netherlands.
- ➔ It might boost India's capabilities for advanced extraction and processing of rare earth minerals from its vast monazite and thorium resources.

## ADVISORY BOARD ON DISARMAMENT MATTERS

Senior Indian diplomat DB Venkatesh Varma has been nominated by the UN Secretary General to chair the Advisory Board on Disarmament Matters for the 2026-27 term, marking the first time an Indian will hold the position.

### Advisory Board on Disarmament Matters



#### Established

Founded in 1978 by a UN General Assembly resolution.

15 members appointed by the UN Secretary-General based on expertise. The Director of the United Nations Institute for Disarmament Research is an ex officio member.

#### Composition



#### Functions

Advises the Secretary-General, reviews research, acts as Board of Trustees, and advises on disarmament programs.

## GRAHAM-BLUMENTHAL SANCTIONS BILL

U.S. President Donald Trump has given his nod to the Graham-Blumenthal sanctions bill that will authorise the US President to levy up to 500% tariffs on nations that knowingly purchase Russian oil or uranium.

### About

- ➔ This Bill would give the US tremendous leverage against countries like **China, India, and Brazil** to incentivise them to stop buying the cheap Russian oil.
- ➔ In 2018, under similar pressure from the previous Trump administration, India had **"zeroed out" its oil imports from Iran and Venezuela as well.**
- ➔ **Tariffs on India:** The United States has imposed high tariffs on Indian goods, up to **50%**. Part of this tariff is connected to **India's continued purchase of Russian oil.**
- ➔ **India's Stand:** India says the decision to buy oil from Russia is based on national interest. It wants to ensure energy security and keep fuel prices affordable for its people.

## CHABAHAH PORT AMIDST US-IRAN TENSIONS

India has reaffirmed that it remains engaged with both the U.S. and Iran to continue operations at the strategic Chabahar port, countering reports that it plans to exit due to renewed U.S. sanctions.

### About

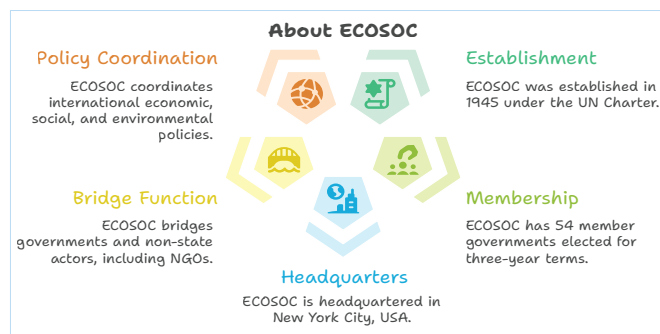
- ➔ **Meaning:** Chabahar is made of Persian words **Chahar** meaning four; and **bahar** meaning spring. Chabahar city is also home to Iran's only deep-seaport with direct access to the ocean.
- ➔ **Location:** Off the Gulf of Oman in Iran's southeastern province of Sistan-Baluchistan & is the only Iranian port with direct access to the ocean. Only about 170 kilometers west of the Pakistani port of Gwadar.
- ➔ **Consist of two ports:** Chabahar Port consists of two separate ports called **Shahid Kalantari** and **Shahid Beheshti**.

### Significance of Chabahar Port for India

- ➔ **Gateway to Central Asia and beyond:** The port gives access to the energy-rich **Persian Gulf nations' southern coast** & Central Asia and India can bypass Pakistan.
  - ♦ This is partly solved by INSTC.
  - ♦ This port will reduce dependency on the **Suez Canal** and reduce **transportation time**.
- ➔ **Trading with Afghanistan:** The **INSTC** allowed India to trade with the outside world via Iran, but India could not do so with **Afghanistan (not a member of INSTC)** in spite of being a very close neighbor.
  - ♦ In May 2016, a trilateral agreement was signed between India, Iran and Afghanistan for **using Chabahar Port**.
  - ♦ It will facilitate India's role in Afghanistan's development.
- ➔ **Strategic Importance:** **Chabahar Port** is also quite near the **Gwadar Port of Pakistan** being **developed by China**. It helps counter CPEC & strengthen maritime power.

## 80 YEARS OF ECONOMIC AND SOCIAL COUNCIL (ECOSOC)

The United Nations Economic and Social Council (ECOSOC) completed 80 years of its functioning.



## EU's ANTI-COERCION INSTRUMENT

The French President mentioned activating the EU's anti-coercion instrument, after US President's tariffs threats regarding Greenland.



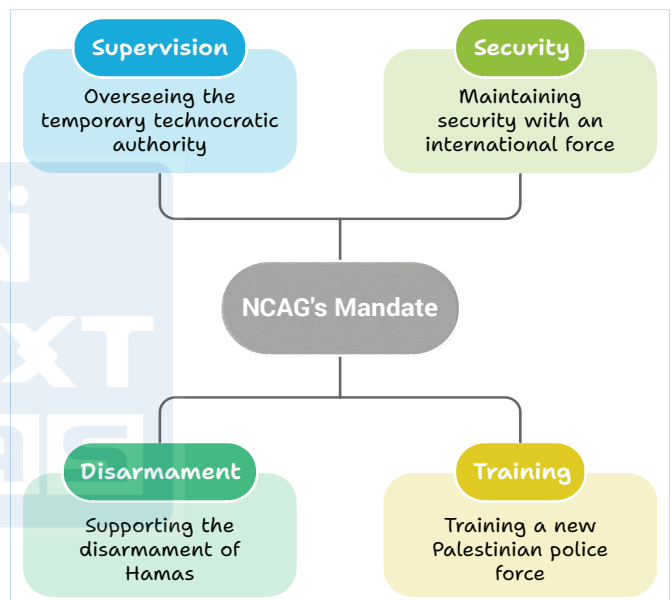
## BOARD OF PEACE FOR GAZA

The government is considering its response to US President Donald Trump's invitation to join the proposed Gaza Peace Board.

### About

- ➔ The Board of Peace is a proposed international body chaired by **Donald Trump**, created to oversee the October 2025 ceasefire in the **Israel-Hamas** war and manage Gaza's post-war transition.
- ♦ It was proposed in October 2025 and endorsed the next month by the **United Nations Security Council**.

- ➔ **National Committee for Administration of Gaza (NCAG)**: This body functions as the local governing committee of Gaza's civil administration and public services.
  - ♦ Board of Peace oversees NCAG's work.
- ➔ **Members**:
  - ♦ About **35 global leaders** have joined (out of around 50 invited). It includes Middle Eastern partners such as **Saudi Arabia, United Arab Emirates, Bahrain, Jordan, Qatar**, and **Egypt**. NATO members include **Turkey** and **Hungary**.
  - ♦ Other participants include **Pakistan, Indonesia, Vietnam, Morocco, Armenia**, and **Azerbaijan**.
  - ♦ Membership lasts **three years**, renewable.
  - ♦ Countries extending participation may need to contribute **\$1 billion**; short-term members pay nothing.



## BULGARIA JOINS EUROZONE

Recently, Bulgaria became the 21st country to switch to the euro, nearly 20 years after the Balkan nation joined the European Union (EU).

### Bulgaria

- ➔ It is a country occupying the eastern portion of the Balkan Peninsula in southeastern Europe.
- ➔ It is bounded by Romania to the north, with most of the border marked by the lower Danube River.
- ➔ The Black Sea lies to the east, Turkey and Greece to the south, North Macedonia to the southwest, and Serbia to the west. The capital city, Sofia, lies in a mountainous basin in the west.

### Background of EU

- ➔ The Maastricht Treaty of 1992 established the European Union.



- It paved the way for the formation of a common economic and monetary union, which is the European Economic and Monetary Union
- It allowed the adoption of a common currency, which would be accepted as the sole legal tender, the euro.
  - ◆ The euro was first rolled out in 12 countries on January 1, 2002. Croatia was the latest to join, in 2023.
- It also has a unified central banking system, which established the European Central Bank (ECB).
  - ◆ And a common economic region.

### About Eurozone

- The eurozone, or officially the euro area, refers to the geographic and economic region comprising those members of the EU that have fully adopted the euro as their official currency.
- **Composition:** Bulgaria's admission to the eurozone makes it the 21st nation out of 27 EU members to do so.
- The remaining six use their own currencies instead.
  - ◆ Four microstates, Andorra, Monaco, the Vatican City and San Marino, also use the euro through agreements with the EU, while Kosovo and Montenegro use the euro as their sole currency without an agreement. However, none of these countries are not regarded as members of the eurozone.
  - ◆ Croatia was the last country to join the eurozone in 2023.
- **Eligibility:** To be eligible for eurozone membership, an EU country (except Denmark, which has an opt-out) must meet "convergence criteria" ensuring alignment with other members economically, socially, and politically.

- ◆ This includes adopting the euro, integrating into the common market, and adjusting national laws and monetary policies to comply with EU treaties, ensuring a smooth transition without disrupting the eurozone.

### Benefits of Joining the Eurozone

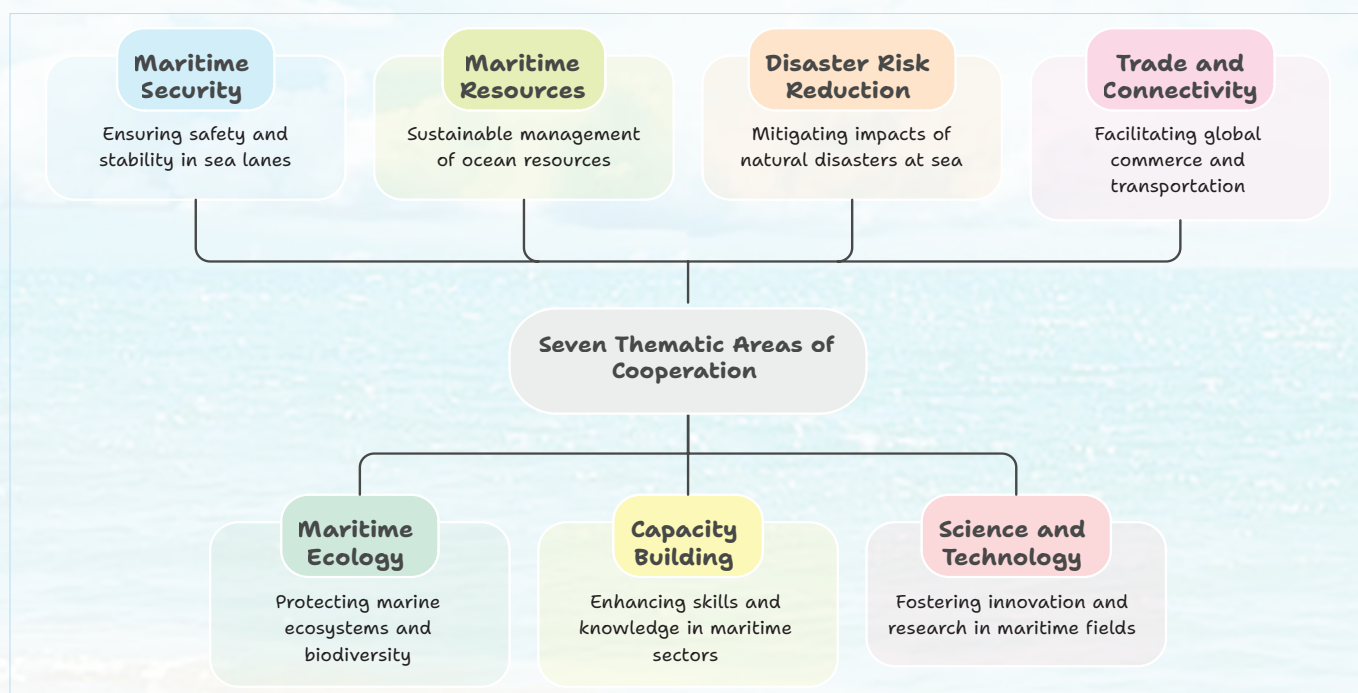
- The eurozone provides its members with several benefits, including price stability, lower interest rates, and easier market access through a common currency.
- The euro allows consumers to compare prices across member nations, reduces currency exchange costs, and facilitates trade, labor, and capital mobility.
- Members, like Bulgaria, gain a seat on the ECB's Governing Council, shielding them from external shocks due to the eurozone's economic size.
- Additionally, the euro, as the world's second-largest reserve currency, strengthens European integration, boosts tourism, and promotes economic competitiveness.

## SPAIN IN INDO-PACIFIC OCEANS INITIATIVE

India has welcomed Spain joining the Indo-Pacific Oceans Initiative (IPOI).

### Indo-Pacific Oceans Initiative (IPOI)

- It was launched by India in November 2019 at the ASEAN-led East Asia Summit (EAS) in Bangkok.
- **Objectives:** Its objective was to promote cooperation for a free and open Indo-Pacific and the rules-based regional order, which will contribute towards strengthening safety, stability and development in the maritime domain.



## RBI FINANCIAL STABILITY REPORT (FSR)

The Reserve Bank of India (RBI) released the December 2025 FSR to assess systemic risks and banking system resilience.

### What is the FSR?

- The Financial Stability Report is a biannual assessment by the RBI that evaluates the health of India's financial system, including banks, Non-Banking Financial Companies (NBFCs), financial markets, and other institutions, to ensure stability and prevent crises.

### Key Findings of the Report

#### ➤ Strong Economic Growth:

- ♦ India's economy remained robust in FY 2025–26.
- ♦ Gross Domestic Product (GDP) (total value of goods and services produced) grew 7.8% in Q1 and 8.2% in Q2, supported by private consumption (household spending) and public investment (govt. infrastructure spending).

#### ➤ Improved Asset Quality of Banks:

- ♦ Banks' loan quality strengthened further.
- ♦ Gross Non-Performing Assets (GNPA) (loans unpaid for more than 90 days) declined to 2.1% in September 2025, indicating better credit discipline, improved recovery, and lower stress in the banking system.
- ♦ Lower NPAs mean banks have more confidence and capacity to lend to productive sectors.

#### ➤ Strong Capital Adequacy:

- ♦ Banks maintained comfortable capital buffers.
- ♦ Capital to Risk-Weighted Assets Ratio (CRAR) (a measure of a bank's ability to absorb losses) stood at 16% for public sector banks and 18.1% for private banks, well above regulatory minimums.
- ♦ A higher CRAR ensures banks can withstand economic shocks without failing.

#### ➤ Emerging Risks:

- ♦ Unsecured loans (loans without collateral) formed 53.1% of retail defaults.
- ♦ Fintech lenders rely heavily on such loans, increasing borrower stress.
- ♦ Stablecoins (asset-linked digital currencies) may weaken monetary sovereignty (central bank control over money).

### Conclusion

- India's financial system is strong and stable, but rising unsecured lending and new digital risks require close monitoring and timely regulation to maintain long-term stability.

## LAB-GROWN DIAMONDS

India's lab-grown diamond market is entering a high-growth phase due to rising global demand and increased investment and funding.

### About:

- Lab-grown diamonds (also called synthetic or cultured diamonds) are real diamonds produced in laboratories using advanced technology that replicates natural diamond formation inside the Earth.
- They are made of pure carbon and have the same cubic crystal structure (atomic arrangement of carbon atoms), along with identical physical, chemical, and optical properties as mined diamonds.

### Production Technologies

- **High Pressure High Temperature (HPHT) (artificial simulation of Earth's mantle):** Carbon is exposed to very high pressure and temperature to crystallise into diamonds.
- **Chemical Vapour Deposition (CVD) (layer-by-layer growth method):** Carbon-rich gas like methane breaks down in a vacuum chamber, depositing carbon atoms on a diamond seed.

### Difference from Natural Diamonds

- Natural diamonds contain trace nitrogen impurities, while lab-grown diamonds are generally nitrogen-free. They are eco-friendly and conflict-free, as they avoid mining-related land degradation, high water use, and greenhouse gas emissions.

### Market Scenario

- India processes nearly 90% of the world's diamonds, contributing about 75% of global value turnover. Lab-grown diamonds are projected to grow from 12% in 2024 to 16% by 2029 globally.

### Conclusion

- Lab-grown diamonds strengthen India's diamond industry while promoting sustainability, ethical production, and advanced manufacturing.

## LAND STACK

Under the Digital India Land Records Modernisation Programme (DILRMP) (central scheme for digitising land records), the government launched Land Stack pilot projects in Chandigarh and Tamil Nadu.

### About

- DILRMP aims to digitise land records (convert paper records into digital form), integrate ownership details, registration

data, and cadastral maps (official land boundary maps), and reduce land disputes (legal conflicts over land ownership).

- The goal is to ensure accurate, transparent, and easily accessible land data, improving citizen services and governance efficiency.

### What is Land Stack?

- The Land Stack is an integrated GIS-based digital platform (Geographic Information System that uses maps and location data) that combines textual land records (ownership rights and titles) with spatial data (exact land location and boundaries) on a single portal.
- It follows global best practices (successful international models) from countries like Singapore, the United Kingdom, and Finland.

### Benefits of Land Stack

- Enables informed decision-making (decisions based on verified information)
- Enhances transparency (clarity and openness) and public trust
- Reduces risk of purchasing unauthorised or non-compliant properties
- Improves inter-departmental coordination (data sharing across government offices)
- Supports data-driven governance (policymaking based on evidence)

### Conclusion

- By combining DILRMP with the Land Stack, India is moving towards a modern, transparent, and citizen-centric land administration system, reducing disputes and strengthening digital governance.

## ELECTRONICS COMPONENT MANUFACTURING SCHEME (ECMS)

The Ministry of Electronics and Information Technology (MeitY) (India's nodal ministry for electronics and IT) approved 22 projects under the Rs. 22,919 crore Electronics Component Manufacturing Scheme (ECMS) (a government incentive scheme to boost electronics component manufacturing).

### Structural Weakness in India's Electronics Sector

- India's electronics industry is mainly assembly-led (final products put together domestically) but component-dependent (critical parts imported).
- This creates import dependence (heavy reliance on foreign suppliers), trade deficits (imports exceeding exports), and supply chain vulnerability (exposure to global disruptions such as geopolitical tensions).

### What is ECMS?

- ECMS is a targeted industrial policy (focused government support) aimed at building domestic manufacturing capacity for electronic components (core parts inside electronic devices).
- It seeks to attract global and domestic investment, upgrade technology, and integrate India into Global Value Chains (GVCs) (international networks where production is spread across countries).

### Coverage and Incentive Design

- The scheme covers the entire electronics value chain—sub-assemblies (combined parts), bare components (basic electronic parts), strategic components (high-value and critical items), capital equipment (manufacturing machinery), and telecom sub-assemblies (communication hardware).
- It provides turnover-linked incentives (rewards based on production and sales), capital expenditure incentives (support for factory and machinery investment), and hybrid incentives (a mix of both), ensuring long-term policy certainty.

### Conclusion

- By strengthening component manufacturing, ECMS reduces import dependence, improves supply-chain resilience, creates skilled jobs, and supports India's goal of becoming a globally competitive electronics manufacturing hub.

## PAYMENTS REGULATORY BOARD (PRB)

The first meeting of the Payments Regulatory Board (PRB) was held under RBI Governor Sanjay Malhotra, marking the operationalisation (actual start of functioning) of India's payments governance framework (system regulating payment mechanisms).

### Why the Payments Regulatory Board Is Needed

- India has witnessed rapid growth in digital and non-cash payments (UPI, cards, mobile wallets), improving convenience and financial inclusion (access to formal banking services).
- However, this expansion increases risks related to cybersecurity (protection from online fraud and hacking), systemic stability (safety of the entire payment system), and consumer protection (safeguarding users' rights), necessitating a specialised regulator.

### What is the Payments Regulatory Board (PRB)?

- The PRB is a statutory body (established by law) through which the Reserve Bank of India (RBI) (India's central bank) exercises regulatory and supervisory control (rule-making, monitoring, and enforcement) over payment and settlement systems (systems enabling transfer and final settlement of money).



## Legal Framework and Institutional Change

- The PRB was created under Section 3 of the Payment and Settlement Systems (PSS) Act, 2007 (law governing payment systems).
- It replaced the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) (earlier RBI body overseeing payment systems), thereby strengthening institutional clarity and accountability.

## Objectives of the PRB

- Ensure safety (secure systems), efficiency (fast and low-cost transactions), stability (uninterrupted operations), and consumer protection (protection from fraud and misuse).

## Conclusion

- The operationalisation of the PRB reinforces trust in India's digital payments ecosystem and supports a secure, stable, and consumer-centric less-cash economy.

## CAG FLAGS STATES' FISCAL STRESS

**The Comptroller and Auditor General of India (CAG) has highlighted that Indian states, despite strong revenues in FY24, ended the year under growing fiscal stress (pressure on government finances).**

## Revenue Profile of States

- Total revenue receipts (income excluding borrowings) stood at ₹37.93 lakh crore.
- Own tax revenue (taxes raised by states): ~50%
- Tax devolution (states' share in Union taxes): ~30%
- Grants-in-aid (central assistance): ~12%
- Non-tax revenue (fees, interest, dividends): ~8%
- This reflects gradual strengthening of states' revenue autonomy, though uneven across regions.

## Uneven Fiscal Capacity

- Economically stronger states like Maharashtra, Tamil Nadu, Gujarat, Karnataka, Telangana, and Haryana generated over 60% of revenue from own taxes, while northeastern and hill states remained heavily dependent on central transfers, exposing inter-state fiscal disparities (unequal revenue-raising ability).

## Expenditure Rigidity

- A large portion of revenue was absorbed by committed expenditure (salaries, pensions, and interest payments), limiting fiscal flexibility (ability to reprioritise spending) and squeezing funds for development.

## GST and Debt Concerns

- State GST (state-level indirect tax) contributed around 43% of own tax revenue, making state finances sensitive to consumption slowdowns.

- States' public debt reached ₹67.87 lakh crore (23.42% of GSDP—states' total economic output), with wide variation across states.

## Liquidity Stress

- Sixteen states relied on Ways and Means Advances (WMA) (short-term RBI loans) to manage cash flow, indicating uneven liquidity conditions.

## CAG's Recommendation

- The CAG advised harmonising object heads (standardising budget expenditure categories) across Union and states from FY28 to improve transparency, comparability, and quality of public finance data.

## About CAG

- The CAG, a constitutional authority under Article 148, audits Union and State accounts and reports to legislatures, ensuring financial accountability and transparency.

## Conclusion

- The report shows that higher revenues alone are insufficient; controlling fixed spending, managing debt, and improving fiscal discipline are crucial for sustainable state finances.

## GLOBAL MINIMUM TAX

**The Organisation for Economic Co-operation and Development (OECD) (global body promoting economic cooperation and policy coordination) has finalised an agreement exempting US-based multinational enterprises from the 15% Global Minimum Tax.**

## About OECD

- The OECD (intergovernmental organisation of mostly developed countries) was established in 1961, is headquartered in Paris, and has 38 member countries.
- India is not a member, but participates in OECD-led discussions on international taxation.

## What is the Global Minimum Tax?

- The Global Minimum Tax is an international tax reform that sets a minimum effective corporate tax rate of 15% for large multinational enterprises (MNEs) (companies operating in multiple countries).
- It aims to prevent profit shifting (moving profits to low-tax countries) and use of tax havens (jurisdictions with very low or zero taxes).

## Key Rules

- Applies to firms with global turnover above €750 million
- Fixes a 15% minimum effective tax rate (actual tax paid on profits)
- Allows a top-up tax (additional tax) if profits are undertaxed elsewhere

## Exemption for US Firms

- The agreement restricts other countries from imposing top-up taxes on foreign subsidiaries of US-based MNEs, even when profits are taxed below 15%.

## Significance

- While the policy strengthens global tax coordination, such exemptions raise concerns over fairness, revenue loss for developing countries, and unequal rule application.

## Conclusion

- The Global Minimum Tax seeks to curb corporate tax avoidance, but exemptions for powerful economies show limits to achieving a fully equitable global tax system.

## OPINION TRADING

A recent case of profits earned by predicting a political event revived concerns over opinion trading platforms.

## What is Opinion Trading?

- Opinion trading refers to online platforms where users predict outcomes of binary events (events with two possible results such as yes/no) and stake money on those predictions. Users gain or lose money depending on the outcome, making it closer to gambling (risking money on chance) rather than investment (putting money into productive assets).
- These platforms often use financial terms like trading (buying and selling positions), returns (profits earned), and stop-loss (preset limit to reduce losses), which can mislead users into believing it is formal investing.

## How it Works

- Users place money on outcomes related to politics, sports, weather, or cryptocurrencies. Since outcomes depend on uncertain real-world events, opinion trading lacks underlying assets or value creation.

## Global Regulation

- United States: Regulated by the CFTC (Commodity Futures Trading Commission – regulator of futures and derivatives).
- UK and Australia: Regulated under financial or gaming laws (laws governing betting and consumer protection).

## Status in India

- In 2025, SEBI (Securities and Exchange Board of India – capital market regulator) warned these platforms were unregulated. Later, the Promotion and Regulation of Online Gaming Act, 2025 imposed a blanket ban (complete prohibition).

## Conclusion

- Opinion trading is betting disguised as trading, and India has banned it to protect users from financial loss and addiction.

## COPPER

Global copper demand is projected to rise nearly 50% by 2040, driven by AI, clean energy transition, and rising defence spending.

## About

- Copper (Cu) is a reddish-orange metal with atomic number 29. It is highly malleable (easily shaped) and has excellent electrical and thermal conductivity (ability to transmit electricity and heat efficiently).

## Key Properties and Uses

- **Because of these properties, copper is essential for:**
  - ♦ Electrical wiring (electric current transmission). Power grids and transformers (electricity distribution systems)
  - ♦ Plumbing (water pipes resistant to corrosion)
  - ♦ Electronics (circuits, motors, semiconductors)
- This makes copper a strategic industrial metal (critical for infrastructure and technology).

## Copper Alloys

- **Brass (copper + zinc):** Fittings, Instruments
- **Bronze (copper + tin):** Tools, Coins, Statues
- Alloys provide higher strength and corrosion resistance (ability to resist rust and damage).

## Role in Emerging Technologies

- Copper is vital for renewable energy (solar panels, wind turbines), electric vehicles (motors, wiring), AI data centres (high-power computing), and defence electronics.

## Copper Resources in India

- Major deposits are found in the Khetri Belt (Rajasthan), Malanjkhand (Madhya Pradesh), and Singhbhum Belt (Jharkhand).

## Conclusion

- Copper is the backbone of electricity and clean technology, making it crucial for future economic and strategic growth.

## WORLD ECONOMIC SITUATION AND PROSPECTS (WESP) 2026

The United Nations projects India's growth to slow in 2026 due to global trade tensions and US tariffs.

## Key Highlights of WESP 2026

- **Global Growth Outlook:** World output is projected at 2.7% in 2026, improving slightly to 2.9% in 2027, showing weak and uneven recovery.
- **India's Growth:** India's GDP (total value of goods and services) growth is projected at 6.6% in 2026, down from 7.4% in 2025, mainly due to US tariffs (taxes on imports) affecting exports.

- **Trade Trends:** Rising trade protectionism (use of tariffs and barriers) is disrupting global supply chains and slowing trade growth.
- **Inflation & Living Costs:** Headline inflation (overall price rise) is easing, but high prices continue to reduce real incomes (actual purchasing power).
- **Financial Risks:** High public debt (government borrowings) and costly credit limit growth in many developing countries.

### About WESP

- The World Economic Situation and Prospects (WESP) is the annual flagship report of the United Nations Department of Economic and Social Affairs (UN DESA) (UN body analysing global economic trends). It assesses global and national economic performance and highlights risks, policy challenges, and development priorities.

### Key Recommendations

- WESP calls for better coordination of monetary policy (interest rates), fiscal policy (government spending), stronger multilateral cooperation (countries working together), and a rules-based trading system.

### Conclusion

- WESP 2026 highlights slowing global growth and stresses cooperation and sound policies to ensure economic stability.

## QUICK COMMERCE

Indian quick commerce platforms Swiggy and Zepto dropped "10-minute delivery" branding following government directions to improve gig worker safety.

### What is Quick Commerce (Q-Commerce)

- Quick commerce (Q-commerce) refers to ultra-fast delivery services (delivery within 10–20 minutes) for groceries and daily essentials.
- It operates through dark stores (small local warehouses meant only for storage and dispatch) and relies on delivery riders. While Q-commerce improves consumer convenience, it places high time pressure on workers.

### Why the "10-Minute" Model Was Stopped

- The "10-minute" branding encouraged unsafe driving, longer working hours, and higher accident risks for gig workers (platform-based, non-permanent workers). Government intervention aims to improve road safety, reduce work stress, and ensure humane working conditions, signalling a shift from speed-driven growth to worker-centric regulation.
- Gig workers are individuals engaged in non-standard employment (not regular salaried jobs), working as independent contractors or freelancers on short-term, task-based assignments through digital platforms.

### India's Gig Economy

- India's gig workforce is projected to grow from 1 crore (2024–25) to 2.35 crore (2029–30). The Code on Social Security, 2020 (law providing welfare coverage) legally recognises gig workers.
- The e-Shram portal (national database of unorganised workers) has registered over 30.98 crore workers, including platform workers.

### Conclusion

- Removing "10-minute delivery" branding protects gig workers while allowing quick commerce to grow in a safer, fairer, and more sustainable manner.

## GLOBAL RISKS REPORT 2026

The World Economic Forum (WEF) (international organisation for public-private cooperation) released the **Global Risks Report 2026, identifying geoeconomic confrontation (economic conflicts between countries) as the most severe global risk.**

### About the Report

- The Global Risks Report is an annual assessment based on surveys of experts, policymakers, and industry leaders.
- It evaluates global risks (threats with cross-border impact) over the short term (2 years) and long term (10 years) across economic, geopolitical, environmental, technological, and societal areas.

### Major Global Risks for 2026

- **Geoeconomic Confrontation (Top Risk):**
  - Refers to the weaponisation of trade, finance, and technology (use of tariffs, sanctions, and export controls). Examples include US tariffs (taxes on imports) and China's restrictions on critical minerals (essential raw materials).
  - These disrupt global supply chains (networks involved in producing goods), raise inflation (general rise in prices), and slow growth.
- **State-Based Armed Conflict:** Conflicts between countries increase defence spending and disrupt energy and food security (stable access to fuel and food).
- **Extreme Weather Events:** Floods, droughts, and heatwaves damage infrastructure (physical systems like roads and power) and agriculture, remaining the top long-term risk.
- **Societal Risks:** Polarisation (deep social divisions), misinformation (false or misleading information), and AI-generated deepfakes (realistic fake digital content) threaten social stability.
- **Risks for India:** Key concerns include cybersecurity (protection of digital systems), wealth inequality (uneven income distribution), external economic shocks, and water security (reliable water availability).



## Conclusion

- The report highlights rising economic conflicts and climate risks, underscoring the need for stronger global cooperation and resilience.

## NARAYAN RAMACHANDRAN COMMITTEE

The Pension Fund Regulatory and Development Authority formed the Strategic Asset Allocation and Risk Governance Committee, chaired by Shri Narayan Ramachandran (former Tata Group chairman), to review National Pension System investment rules.

## About PFRDA

- The PFRDA (statutory pension regulator) was established under the PFRDA Act, 2013 (law governing pensions in India).
- It regulates the National Pension System (NPS) (contributory retirement savings scheme) and the Atal Pension Yojana (APY) (minimum guaranteed pension scheme for unorganised workers), ensuring subscriber protection (safety of pension savings) and long-term retirement security (income after retirement).

## About the Committee

- The Strategic Asset Allocation and Risk Governance (SAARG) Committee (expert group on pension investments) reviews NPS guidelines for government subscribers (central and state employees) and non-government subscribers (private sector and self-employed individuals).

## Key Focus Areas

- Strategic asset allocation (long-term equity–debt mix)
- Diversification (spreading investments to reduce risk), including REITs/InvITs (real estate and infrastructure investment trusts)
- Risk governance (systems to manage investment risks)
- Asset–Liability Management (ALM) (matching investments with future pension payments)
- Risk-adjusted performance (returns measured against risk taken)

## Conclusion

- The committee seeks to modernise NPS investments, improve returns responsibly, and strengthen India's pension system for long-term stability.

## SEBI FLAGS INSIDER TRADING LAPSES IN YES BANK CASE

The Securities and Exchange Board of India (SEBI) (India's capital market regulator) flagged insider trading violations in a 2022 Yes Bank share sale (large equity transaction) involving executives from PwC (PricewaterhouseCoopers) (global professional services firm) and EY (Ernst & Young) (multinational audit and consultancy firm).

## About SEBI

- SEBI is a statutory body (body created by law) established under the SEBI Act, 1992 (law governing securities markets).
- It protects investors (people who invest money), regulates capital markets (markets for shares and bonds), and prevents unfair practices such as insider trading (illegal trading using confidential information).

## What is the Yes Bank Case

- The case relates to alleged trading during a major share sale while possessing Unpublished Price Sensitive Information (UPSI) (non-public information that can influence share prices).
- SEBI claims this gave insiders an unfair advantage, breaching fiduciary duty (legal duty to act honestly and in trust).

## What is Insider Trading

- Insider trading is the buying or selling of securities using material non-public information (information important for investment decisions).
- It is prohibited under the SEBI (Prohibition of Insider Trading) Regulations, 2015 (rules ensuring fair and transparent markets).

## Why it is Harmful

- It distorts price discovery (fair price formation process), creates information asymmetry (unequal access to information), and undermines investor confidence.

## Conclusion

- The Yes Bank case underlines SEBI's crucial role in safeguarding market integrity, transparency, and investor trust.

## ONE DISTRICT ONE PRODUCT

The One District One Product (ODOP) initiative has completed eight years, strengthening traditional industries and local entrepreneurship nationwide.

## About ODOP

- ODOP is led by the Department for Promotion of Industry and Internal Trade (DPIIT) (nodal department for industrial policy under the Ministry of Commerce and Industry).
- Its aim is to harness each district's unique economic strength, promote balanced regional development (uniform growth across regions), and help artisans and producers access national and global markets.
- It began in 2018 with Moradabad brassware (metal handicrafts from Uttar Pradesh) and now covers the entire country.

## Product Selection

- States and Union Territories choose products based on the local ecosystem (availability of skills, raw materials, and clusters). Final approval rests with DPIIT, ensuring decentralised planning (local-level decision-making).

- Currently, 1,243 products from 775 districts are identified across agriculture, textiles, food processing, and handicrafts.

### Government Support

- GeM-ODOP Bazaar (Government e-Marketplace online platform) improves market access.
- PM Ekta Malls (Unity Malls) (dedicated retail and exhibition centres) promote ODOP and **GI-tagged products (Geographical Indication-certified goods with regional identity)**.

### Global Outreach

- ODOP products are promoted by 80+ Indian Missions, featured in G20 diplomatic gifting, and sold through overseas stores.
- The District as Export Hub (DEH) (district-level export promotion framework) supports exports.

### Conclusion

- ODOP converts local skills into sustainable economic growth while preserving heritage and improving artisan livelihoods.

## ₹5,000 CRORE EQUITY INFUSION INTO SIDBI

The Union Cabinet approved a ₹5,000 crore equity infusion (capital investment by the government) into SIDBI to strengthen MSME credit.

### About the Equity Infusion

- The infusion will be provided by the Department of Financial Services (DFS) (finance ministry department overseeing banks and financial institutions) in three tranches during FY 2025–26 to 2027–28.
- This will strengthen SIDBI's balance sheet (overall financial health) and expand affordable, long-term lending. The number of MSMEs supported is expected to rise from 76.26 lakh to around 102 lakh by FY 2027–28.

### Why Capital Infusion is Needed

- As lending expands, Risk-Weighted Assets (RWAs) (loans adjusted for credit risk) increase.
- The infusion helps SIDBI maintain a strong Capital to Risk-Weighted Assets Ratio (CRAR) (key measure of a bank's ability to absorb losses), ensuring financial stability and regulatory compliance.

### About SIDBI

- The Small Industries Development Bank of India (SIDBI) (principal MSME financing institution) was established in 1990 under an Act of Parliament to promote, finance, and develop the MSME sector.

### About MSMEs

- Micro, Small and Medium Enterprises (MSMEs) (businesses classified by investment and turnover under the MSME

Development Act, 2006) contribute ~30% of GDP, 40% of exports, and provide employment to 11 crore+ people, but face credit constraints.

### Conclusion

- The equity infusion enhances MSME credit access, strengthens SIDBI's resilience, and supports inclusive economic growth.

## NITI AAYOG REPORTS ON GREEN TRANSITION IN CEMENT, ALUMINIUM AND MSME SECTORS

NITI Aayog (India's apex public policy think tank) released three reports outlining decarbonisation roadmaps (long-term emission reduction plans) for cement, aluminium and MSMEs (Micro, Small and Medium Enterprises).

### Cement Sector

- India is the world's second-largest cement producer, contributing about 13% of global output, but the sector emits nearly 7% of India's greenhouse gases (GHGs: heat-trapping gases like CO<sub>2</sub>).
- **Target:** Reduce carbon intensity (emissions per tonne of cement) from 0.63 tCO<sub>2</sub>e (tonnes of carbon dioxide equivalent) to 0.09–0.13 tCO<sub>2</sub>e by 2070.
- **Key strategies:** Refuse-Derived Fuel (RDF: fuel from non-recyclable waste), clinker substitution (reducing clinker, the most carbon-intensive cement component), Carbon Capture, Utilisation and Storage (CCUS: capturing and storing/reusing CO<sub>2</sub>), and Carbon Credit Trading Scheme (CCTS: market for trading emission-reduction credits).

### Aluminium Sector

- Aluminium production may rise from 4 million tonnes (2023) to 37 million tonnes by 2070. Being electricity-intensive (high power use), decarbonisation follows phases: Renewable Energy–Round the Clock (RE-RTC: renewables with storage), nuclear power (low-carbon baseload electricity), and CCUS.

### MSME Sector

- MSMEs contribute ~30% of GDP and 46% of exports. Key levers include energy-efficient equipment, alternative fuels (cleaner fuel substitutes), and green electricity (renewable power), supported by schemes like PAT (Perform, Achieve and Trade: energy-efficiency trading) and ZED (Zero Defect Zero Effect).

### Conclusion

- The reports outline a practical path to cut emissions while sustaining industrial growth and competitiveness.

## INDIA'S FIRST OPEN-SEA MARINE FISH FARMING PROJECT

India has launched its first open-sea marine fish farming project at North Bay, Andaman and Nicobar Islands, marking a shift towards offshore aquaculture (fish farming in open ocean waters).

### What is Open-Sea Marine Fish Farming?

- Open-sea marine fish farming means cultivating fish in the open ocean using large floating cages (strong net enclosures fixed in water) anchored to the seabed. Unlike coastal aquaculture (near-shore fish farming), it operates in deep, high-energy waters (areas with strong waves and currents). Continuous natural water exchange (free flow of seawater) dilutes waste, reduces disease outbreaks, and limits harm to coastal ecosystems (mangroves, coral reefs).

### Objectives of the Project

- To create a commercially viable model (economically sustainable system), reduce pressure on overfished coastal waters, provide sustainable livelihoods (long-term income) to fishers, and strengthen India's Blue Economy (sustainable use of ocean resources).

### Target Species

- Cobia (fast-growing, export-oriented fish), Seabass (high domestic and global demand), and deep-water seaweed (used in food, pharmaceuticals, and bio-products).

### Implementing Agencies

- Ministry of Earth Sciences (MoES) (policy and funding), National Institute of Ocean Technology (NIOT) (technology and cage design), and Andaman & Nicobar Administration (local implementation).

### About North Bay & Andaman and Nicobar Islands

- North Bay is located near Port Blair and is known for clear waters and coral reefs, making it ideal for pilot offshore projects.
- The Andaman and Nicobar Islands lie in the Andaman Sea (part of the northeastern Indian Ocean), a region rich in marine biodiversity and strategic maritime importance.

### Significance

- Promotes sustainable aquaculture, enhances fishers' income, boosts marine food security, and supports ocean conservation.

## SOCIAL COMMERCE

In India, social commerce contributes only 1-2% of total e-commerce revenue, compared to 30-40% in China and 20-25% in Indonesia, despite high digital adoption.

### What is Social Commerce?

- Social commerce is the buying and selling of goods directly through social media platforms (digital platforms enabling social interaction) such as Instagram, Facebook, WhatsApp, and regional networks.
- Unlike traditional e-commerce (online shopping via dedicated websites/apps), consumers discover products while browsing social content and complete purchases within the same platform.
- It blends social interaction (peer influence and recommendations) with online shopping, making purchases more trust-driven (based on credibility) and experience-based.

### Key Models of Social Commerce

- **Influencer-led selling:** Products promoted by influencers (content creators with trusted follower bases).
- **Live-stream shopping:** Real-time product demonstrations via live video (interactive online broadcasting).
- **Community-based selling:** Sales through WhatsApp groups or online communities, leveraging social relationships.

### Difference from E-Commerce

- E-commerce is search-driven (users actively look for products) and supports planned purchases.
- Social commerce is discovery-driven (products appear during browsing) and encourages impulse buying.

### Key Challenges in India

- Weak influencer authenticity checks, high cash-on-delivery dependence, poor logistics infrastructure, and low average order values reduce profitability.

### Conclusion

- Social commerce has strong potential in India, but improved trust, logistics, and digital payments are essential for large-scale growth.

## RBI STRENGTHENS PRIORITY SECTOR LENDING (PSL) OVERSIGHT

The Reserve Bank of India (RBI) (India's central banking authority regulating money and banks) has revised the PSL Directions, 2025 to improve transparency, supervision, and effective credit flow.

### What is Priority Sector Lending (PSL)?

- Priority Sector Lending is a mandatory RBI policy requiring banks to lend a fixed portion of their credit to priority sectors (economically vital but underserved areas).
- Scheduled Commercial Banks must lend 40% of Adjusted Net Bank Credit (ANBC) (bank credit calculated after regulatory adjustments).



- Priority sectors include agriculture, MSMEs (Micro, Small and Medium Enterprises defined by investment and turnover), education, affordable housing, renewable energy, social infrastructure, and weaker sections (small farmers and low-income households).

### Why PSL Matters

- PSL corrects market failure (when markets neglect high-impact sectors), promotes financial inclusion (access to formal banking), supports rural livelihoods, and reduces over-lending to large corporates.

### Key Reforms in PSL Directions, 2025

- **Stronger compliance:** Mandatory external audit verification to prevent misclassification and double counting (same loan reported multiple times).
- **NCDC inclusion:** Loans to the National Cooperative Development Corporation (NCDC) (statutory body supporting cooperatives) qualify as PSL.
- **SFB rationalisation:** Small Finance Banks (SFBs) (inclusion-focused banks) PSL target reduced to 60% of ANBC for stability.
- **Co-lending flexibility:** Joint lending improves risk sharing and last-mile credit delivery.
- **Export credit inclusion:** Export loans to agriculture and MSMEs now count as PSL.

### Conclusion

- The 2025 reforms strengthen PSL as a balanced development tool—expanding inclusive credit while safeguarding banking system stability.

## CHIPS TO START-UP (C2S) PROGRAMME

Over one lakh individuals have enrolled in chip design training under the Chips to Start-up (C2S) Programme, with about 67,000 already trained, showing India's focus on semiconductor skills.

### About

- The Chips to Start-up (C2S) Programme is a national capacity-building initiative (programme to create skilled manpower) launched in 2022 by the Ministry of Electronics and Information Technology (MeitY) (central ministry for electronics and IT policy).
- It has a financial outlay (total government spending) of 250 crore over five years and aims to strengthen semiconductor (tiny electronic chips that control modern devices) design capability and support start-ups.

### Human Resource Targets

The programme targets 85,000 industry-ready professionals (people fit for immediate industrial work):

- 200 PhD scholars (doctoral researchers)
- 7,000 M.Tech graduates in VLSI (Very Large-Scale Integration—millions of transistors on one chip) or Embedded Systems (computers built into machines)
- 8,800 M.Tech graduates with focused VLSI exposure
- 69,000 B.Tech students (undergraduate engineers)

### Need and Significance

- With rising demand for advanced electronics and Artificial Intelligence (AI) (machines simulating human intelligence), the global semiconductor industry may reach USD 1 trillion by 2030, alongside a major talent shortage.
- C2S democratises access to chip design tools, boosts indigenous innovation (home-grown technology), and supports technological self-reliance.

### Conclusion

- The C2S Programme is a strategic step toward a skilled, self-reliant semiconductor ecosystem, improving India's global competitiveness.

## RESERVE BANK – INTEGRATED OMBUDSMAN SCHEME (RB-IOS), 2026

The Reserve Bank of India (RBI) (India's central bank regulating banks and financial institutions) has notified changes under RB-IOS, 2026 to strengthen customer grievance redressal (complaint resolution).

### About RB-IOS, 2026

- The Reserve Bank – Integrated Ombudsman Scheme (RB-IOS) is a unified grievance redressal framework (single system for handling complaints) for customers of RBI-regulated entities (institutions supervised by RBI) such as banks, Non-Banking Financial Companies (NBFCs) (financial institutions that lend but are not banks), and payment system operators (entities managing digital payments like UPI, cards, and wallets).
- The scheme provides simple, speedy, and cost-free (no fee) complaint resolution to enhance trust in the financial system.

### Who is an Ombudsman?

- An Ombudsman is an independent authority (neutral official) appointed to examine and resolve complaints against financial institutions. Under RB-IOS, the RBI Ombudsman functions as a quasi-judicial authority (has limited court-like powers). The general tenure is three years (fixed term).

### Key Features

- **Integrated structure:** Combines earlier multiple ombudsman schemes into one.
- **Wide coverage:** Uniform consumer protection across banking, NBFCs, and digital payments.
- **No monetary limit:** Complaints of any value are admissible.

- **Appeal mechanism:** Appeals (request for review) can be filed within 30 days before the Appellate Authority (higher authority designated by RBI).
- **Principal Nodal Officer:** Each entity must appoint a senior official responsible for complaint coordination.

### Conclusion

- RB-IOs, 2026 strengthens consumer rights, transparency, and accountability in India's expanding digital financial ecosystem.

## SYNTHETIC CATTLE BREEDS

India has registered two new synthetic cattle breeds—Karan Fries and Vrindavani—developed by the National Dairy Research Institute (NDRI) (India's premier dairy research institute).

### What are Synthetic Cattle Breeds?

- Synthetic cattle breeds are developed through planned cross-breeding (scientific mating under controlled conditions) of indigenous cattle (*Bos indicus*) (Indian breeds adapted to heat and diseases) and exotic cattle (*Bos taurus*) (foreign high milk-yielding breeds).
- After repeated selective breeding (choosing animals with desired traits), the breed becomes genetically stable (traits remain consistent) and breeds true (passes traits reliably to offspring), allowing formal recognition.

### Karan Fries

- Karan Fries is developed by crossing Holstein Friesian (globally recognised high milk-yielding breed) with Tharparkar (indigenous zebu breed known for heat tolerance and disease resistance).
- It combines high productivity with resilience.
- **Peak daily milk yield:** Up to 46.5 kg, compared to 1,000–2,000 kg per lactation (one milk-producing cycle) in most indigenous breeds.



### Vrindavani

- Vrindavani is a high-yielding synthetic breed developed using multiple indigenous and exotic breeds to improve milk yield, adaptability, and reproductive efficiency (ability to reproduce effectively).

### Significance

- Higher productivity, better climate resilience, improved farmer incomes, lower mortality, and sustainable dairy development.

### Conclusion

- Synthetic breeds like Karan Fries and Vrindavani strengthen India's dairy sector by combining indigenous resilience with global genetics for sustainable growth.

## EXPORT PREPAREDNESS INDEX (EPI) 2024

NITI Aayog (India's apex public policy think tank) released the Export Preparedness Index (EPI) 2024, assessing export readiness (capacity to promote and sustain exports) of States and Union Territories (UTs) (centrally governed administrative units).

### About

- The Export Preparedness Index (EPI) is a data-based assessment framework (evaluation using measurable indicators) that examines how well sub-national governments support exports (sale of goods and services abroad).
  - ◆ First launched in 2020, EPI 2024 is the fourth edition.
- It evaluates state-level export ecosystems (policies, infrastructure, institutions, and businesses enabling exports) on three pillars:
  - ◆ Strength (ability to generate exports),
  - ◆ Resilience (capacity to withstand global shocks like trade disruptions), and
  - ◆ Inclusiveness (broad participation across regions, sectors, and MSMEs).

### Objectives

- EPI promotes competitive federalism (healthy competition among states), identifies policy gaps and best practices, encourages decentralised export growth, and links exports with employment generation (job creation) and regional development.

### Top Performers – EPI 2024

- **Large States:** Maharashtra, Tamil Nadu, Gujarat, Uttar Pradesh, Andhra Pradesh, supported by strong industrial bases (manufacturing capacity), export infrastructure (ports, logistics), and enabling policies.
- **Small States/UTs & North-East:** Uttarakhand, Jammu & Kashmir, Nagaland, Dadra & Nagar Haveli and Daman & Diu, and Goa, reflecting gains in niche exports and institutional support.

### Conclusion

- EPI 2024 is a key policy tool guiding state-level export strategies and strengthening India's export competitiveness and balanced regional growth.

## ARTICLE 6 OF THE PARIS AGREEMENT AND INDIA

At COP29 (29th UN Climate Conference), carbon markets (systems for trading emission reductions) under Article 6 of the Paris Agreement became fully operational. Earlier, India entered this framework through the India-Japan Joint Crediting Mechanism (JCM) (bilateral carbon cooperation mechanism).

### Paris Agreement

- The Paris Agreement (2015) is a legally binding global climate treaty (under UNFCCC – United Nations Framework Convention on Climate Change) aimed at limiting global warming to well below 2°C, with efforts towards 1.5°C above pre-industrial levels.
- Countries submit Nationally Determined Contributions (NDCs) (national climate targets).

### What is Article 6?

- Article 6 enables voluntary international cooperation (countries working together by choice) to meet NDCs:
- Article 6.2 allows bilateral or plurilateral trading (between two or more countries) of Internationally Transferred Mitigation Outcomes (ITMOs) (verified emission reductions traded internationally).
- Article 6.4 establishes the Paris Agreement Crediting Mechanism (PACM) (UN-supervised carbon credit system), evolved from the Clean Development Mechanism (CDM) (Kyoto-era carbon market).
- Robust accounting rules prevent double counting (same reduction claimed twice) and ensure environmental integrity (real climate benefits).

### India-Japan JCM

- Under the JCM, Japan finances low-carbon technologies (clean and energy-efficient technologies) in India. Emission reductions are shared, enabling technology transfer, climate finance, and industrial decarbonisation. India has identified 13 eligible sectors, including renewable energy with storage, green hydrogen (renewable-based hydrogen), sustainable aviation fuel, and CCUS (carbon capture, utilisation and storage).

### Conclusion

- Article 6 and the India-Japan JCM allow India to align climate action with growth and strengthen its role in global carbon markets.

## 2025: WARMEST LA NIÑA YEAR ON RECORD

A recent climate report shows that 2025 was the third warmest year ever and the warmest La Niña year, highlighting the dominance of global warming (long-term rise in Earth's average temperature).

### What is La Niña?

- La Niña is the cool phase (cooler-than-normal sea surface temperatures) of the El Niño Southern Oscillation (ENSO) (major ocean-atmosphere climate system).
- It is marked by:
  - ♦ Stronger trade winds (east-to-west winds over the Pacific)
  - ♦ Westward shift of warm water (towards Indonesia and Australia)
  - ♦ Cooling of the central and eastern Pacific Ocean
- This causes heavy rainfall (above-normal precipitation) in Southeast Asia and Australia, and dry conditions (below-normal rainfall) in parts of the Americas.

### What is ENSO?

- ENSO is a natural climate cycle (recurring ocean-atmosphere interaction) with three phases:
  - ♦ **Neutral:** Normal conditions
  - ♦ **El Niño:** Warming of the eastern Pacific
  - ♦ **La Niña:** Cooling of the eastern Pacific
- ♦ ENSO cycles occur every 2–7 years and influence global weather.

### Impacts on India

- **El Niño:** Weaker monsoon and higher temperatures
- **La Niña:** Stronger monsoon and relatively cooler weather
- However, human-induced climate change (warming driven by greenhouse gas emissions) is offsetting La Niña's cooling effect.

### Conclusion

- The unusual warmth of 2025 despite La Niña shows that climate change is overriding natural climate cycles, stressing the urgency of mitigation and adaptation efforts.

## ELEVATED WILDLIFE CORRIDOR IN KAZIRANGA

The Prime Minister will inaugurate a 34.5-km elevated wildlife corridor (raised road/viaduct) in Kaziranga, Assam, to safeguard wildlife during floods and improve connectivity.



### What is an Elevated Wildlife Corridor?

- An elevated wildlife corridor (road built above ground level) enables safe animal movement (unobstructed wildlife passage) beneath it.
- **In floodplain ecosystems (low-lying riverine areas prone to flooding) like Kaziranga, such corridors:**
  - ♦ Reduce wildlife mortality (animal deaths due to vehicle collisions)
  - ♦ Maintain ecological connectivity (natural links between habitats)
  - ♦ Support climate-resilient infrastructure (infrastructure adapted to floods and extreme weather)

### About Kaziranga National Park

- Located in the Brahmaputra Valley floodplains (river-formed grassland ecosystem), Kaziranga is India's largest undivided floodplain grassland, showing clear biotic succession (gradual ecological changes in flora and fauna).
- **Key Features:**
  - ♦ Hosts over 70% of the world's One-Horned Rhinoceros (*Rhinoceros unicornis* – vulnerable species)
  - ♦ Notified in 1905, among India's oldest protected areas
  - ♦ Declared a National Park (1974) under the Wildlife (Protection) Act, 1972 (India's principal wildlife law)
  - ♦ UNESCO World Heritage Site (1985) (site of outstanding universal value)
  - ♦ Recognised as an Important Bird Area (IBA) (critical habitat for avian diversity)

### Conclusion

- The Kaziranga elevated corridor is a model of eco-sensitive infrastructure, balancing development with long-term wildlife conservation in a fragile floodplain landscape.

## GREENHOUSE GAS EMISSION INTENSITY TARGETS

**The Government of India has notified Greenhouse Gas Emission Intensity (GEI) targets (emissions released per unit of output) for additional carbon-intensive sectors under the Carbon Credit Trading Scheme (CCTS) (market-based mechanism for emission reduction).**

### Carbon Credit Trading Scheme (CCTS)

- The CCTS forms the backbone of the Indian Carbon Market (ICM) (national framework for trading carbon credits), notified in 2023 under the Energy Conservation (Amendment) Act, 2022 (law strengthening energy efficiency and emission control).
- It supports India's transition to a low-carbon economy (growth with reduced emissions) and aligns with Net-Zero 2070 (balancing emissions with removals) and Nationally Determined Contributions (NDCs) (India's climate commitments under the Paris Agreement).

### Operational Mechanism

- **Compliance mechanism:** Obligated industries must meet GEI targets; surplus reductions earn Carbon Credit Certificates (CCCs) (tradable emission-reduction units).
- **Offset mechanism:** CCCs can be traded with non-compliant entities, ensuring flexibility (choice in compliance) and economic efficiency (lower compliance costs).

### Institutional Framework

- **Bureau of Energy Efficiency (BEE):** (nodal implementing agency) develops rules and MRV systems (measurement, reporting and verification).
- **Central Electricity Regulatory Commission (CERC):** (market regulator).
- **National Steering Committee (NSC):** (policy oversight body).
- **IEX & PXIL:** (power exchanges for electronic trading).

### Sectoral Coverage

- Expanded in 2026 from aluminium, cement, chlor-alkali, and pulp & paper to petroleum refineries, petrochemicals, textiles, and secondary aluminium.

### Conclusion

- GEI targets under CCTS mark a shift towards market-driven decarbonisation, combining climate action with industrial competitiveness and growth.

## SECONDARY PARTICULATE MATTER: PRIMARY DRIVER OF DELHI'S WINTER POLLUTION

**A CAQM-commissioned report (study by the Commission for Air Quality Management) has found that secondary particulate matter is the largest contributor (27%) to Delhi's winter air pollution, followed by transport, biomass burning, dust, and industry.**

### What is Particulate Matter (PM)?

- Particulate Matter (PM) consists of microscopic solid particles and liquid droplets suspended in air.
- PM<sub>10</sub> ( $\leq 10$  micrometres) affects the upper respiratory tract.
- PM<sub>2.5</sub> ( $\leq 2.5$  micrometres,  $\sim 30$  times thinner than human hair) penetrates deep into lungs and bloodstream, causing cardio-respiratory diseases.

### Primary vs Secondary Particulate Matter

- **Primary PM:** Emitted directly from sources such as vehicles, construction dust, industries, and open burning.
- **Secondary PM:** Formed in the atmosphere when precursor gases (nitrogen oxides, sulphur dioxide, volatile organic compounds) react with ammonia ( $\text{NH}_3$ ) (released from fertilisers and livestock) under sunlight and humidity, producing sulphates and nitrates.

## Key Findings of the Report

- Secondary particulates constitute 25–60% of PM<sub>2.5</sub>, making them the dominant winter pollutant. Methodological inconsistencies across past studies were also highlighted.

## About CAQM

- The Commission for Air Quality Management (CAQM) is a statutory body (CAQM Act, 2021) responsible for air-quality control in the NCR, including implementation of GRAP (Graded Response Action Plan).

## Policy Response

- CAQM will conduct new emissions inventory (source-wise pollution mapping) and source apportionment studies (scientific identification of pollution sources) in 2026.

## Conclusion

- Controlling Delhi's air pollution requires tackling secondary pollutant formation, especially ammonia and precursor gases, alongside reducing direct emissions.

## HIRAKUD WETLAND EMERGES AS A MAJOR MIGRATORY BIRD HAVEN

The Hirakud Wetland (freshwater wetland ecosystem) in Sambalpur district, Odisha has recorded 4.21 lakh migratory birds (birds that travel seasonally across regions) during the current season.

### About Hirakud Wetland

- The wetland is part of the Hirakud Reservoir (large man-made reservoir) built across the Mahanadi River (major east-flowing river of peninsular India), stretching nearly 26 km.
- **Hydropower generation:** ~350 MW (electricity production capacity)
- **Irrigation support:** ~4.36 lakh hectares (cultivated agricultural land)

### Ecological Significance

- Hirakud Wetland is a biodiversity hotspot (region with high species richness) and a key stopover on the Central Asian Flyway (international migratory bird route).
- Hosts 128 bird species
- **Common species:** Northern Pintail, Shoveler, Teal, Pochard, Bar-headed Goose
- **Rare species:** Ruffs (Eurasian long-distance migratory shorebirds)

### Ramsar Status

- Declared a Ramsar Site (wetland of international importance under the Ramsar Convention) in 2021.

### Habitat Diversity

- Provides a mosaic of habitats (interconnected ecosystems) such as open water, marshes, mudflats, and shallow wetlands.

## Conclusion

- Hirakud Wetland has emerged as a crucial migratory bird refuge. Its conservation is vital for sustaining global avian biodiversity.

## TAJ TRAPEZIUM ZONE (TTZ)

The National Green Tribunal (NGT) (specialised environmental court) has issued a notice to the Centre and the Uttar Pradesh Government over alleged violations of environmental norms (legally prescribed rules for environmental protection) in the Taj Trapezium Zone (TTZ).

### About

- The Taj Trapezium Zone (TTZ) is a designated eco-sensitive area (region with strict environmental regulation) spread over nearly 10,400 square kilometres, created to protect the Taj Mahal from air pollution (harmful gases and particulate matter) and ecological degradation (damage to natural systems).
- It covers the Agra region and includes important heritage monuments (historically significant structures) such as the Taj Mahal, Agra Fort, and Fatehpur Sikri.

### Legal Basis and Regulations

The TTZ framework originates from the Supreme Court judgment in *M.C. Mehta v. Union of India* (1996) (landmark environmental protection case), which mandated:

- Regulation of polluting industries (factories emitting harmful pollutants)
- Adoption of cleaner fuels and technologies
- Control of industrial and vehicular emissions (release of pollutants into air)
- In *M.C. Mehta* (2015), the Court restricted tree felling (cutting of trees) within a 5 km aerial distance (straight-line radius) from the Taj Mahal without prior approval.

### About NGT

- The NGT is a statutory body under the NGT Act, 2010, ensuring speedy disposal of cases under the Environment Protection Act, 1986, Air Act, 1981, and Water Act, 1974.

## Conclusion

- Effective enforcement of TTZ norms is essential to preserve the Taj Mahal's heritage value and protect its surrounding environment.

## SATELLITE TAGGING OF SEA TURTLES AIDS CONSERVATION

For the first time, Olive Ridley sea turtles nesting along Chennai's coast have been satellite-tagged (tracking animals using satellite-linked devices) under a two-year telemetry study (2025–27) (remote monitoring of animal movement) to strengthen conservation efforts.

## About Olive Ridley Sea Turtles

- Olive Ridley turtles (*Lepidochelys olivacea*) are the smallest and most abundant sea turtle species globally. They are named after their olive-green, heart-shaped carapace (hard upper shell) and inhabit tropical waters (warm ocean regions) of the Indian, Pacific, and Atlantic Oceans.
- **Diet:** Carnivorous (meat-eating)—feeds on jellyfish, shrimp, crabs, and other invertebrates (animals without backbones)
- **Unique behaviour:** Arribada (mass nesting where thousands of females lay eggs together on one beach)
- **Major nesting sites in India:** Rushikulya coast, Gahirmatha Beach (within Bhitarkanika National Park), and the Devi River mouth in Odisha, which hosts the largest mass nesting globally.

## Conservation Status

- **IUCN Red List:** Vulnerable (high risk of extinction in the wild)
- **CITES Appendix I:** (strictest international trade protection)

## Significance of Satellite Tagging

- It helps track migration routes (long-distance movement paths), identify critical habitats (essential feeding and nesting areas), and assess fisheries interaction (risk from fishing activities), enabling evidence-based conservation planning.

## Conclusion

- Satellite telemetry strengthens targeted protection of Olive Ridley turtles across coastal and open-ocean ecosystems.

## BIO-BITUMEN

India has become the first country to commercially produce bio-bitumen (plant-based alternative to petroleum bitumen) for road construction, supporting sustainable infrastructure development.

### What is Bitumen?

- Bitumen is a black, viscous hydrocarbon mixture (thick petroleum product) obtained from crude oil fractionation (separation of crude oil into usable components). It acts as a binder (material that binds aggregates) in road construction.

### What is Bio-Bitumen?

- Bio-bitumen is a renewable binder (eco-friendly replacement) in which part of fossil-based bitumen is replaced by biomass-derived material (plant-based organic waste), reducing carbon emissions (release of heat-trapping gases).

### Production Process

The process includes:

- Rice straw collection (post-harvest crop residue)
- Pelletisation (compressing biomass into solid pellets)
- Pyrolysis (heating biomass without oxygen) to produce bio-oil (renewable liquid fuel)
- Blending bio-oil with conventional bitumen (partial substitution)

## Why Bio-Bitumen is Important for India

- Reduces bitumen imports (India imports ~50% of its requirement)
- Cuts foreign exchange outflow (spending on imports)
- Prevents crop residue burning (major cause of air pollution)
- Promotes circular economy (reuse of waste resources)
- Supports low-carbon infrastructure (climate-friendly development)

## Conclusion

- Bio-bitumen integrates waste management, pollution control, and energy security, making India's road construction sector more sustainable and self-reliant.

## BATTERY PACK AADHAAR NUMBER (BPAN)

The Union Government has proposed the Battery Pack Aadhaar Number (BPAN) (unique digital identity for batteries) to ensure end-to-end lifecycle traceability (tracking from manufacture to disposal) of batteries, especially electric vehicle (EV) batteries (batteries powering electric vehicles).

### What is BPAN?

- BPAN is a 21-character unique identification number (distinct digital code) assigned to every battery pack placed in the Indian market.
- It acts as a digital Aadhaar (identity system) for batteries, enabling monitoring from manufacturing (production stage) to recycling or disposal (end-of-life management).
- The system mainly targets lithium-ion batteries (rechargeable batteries using lithium compounds), which dominate EV usage.

### Key Features

- **Mandatory Unique ID:** Required for every manufacturer or importer (battery producer or seller)
- **Lifecycle Tracking:** Covers raw material sourcing, usage, performance, second-life use (reuse in energy storage), recycling, and final disposal
- **Dynamic Updating:** Structural or ownership changes (transfer or modification) require a new BPAN
- **Durable Marking:** BPAN must be permanently visible (tamper-resistant identification)

### Significance

- BPAN enables efficient recycling, strengthens the circular economy (reuse of resources), reduces environmental risks (pollution and toxic waste), and supports clean mobility (low-emission transport).

### Conclusion

- BPAN is a critical step toward sustainable battery governance, aligning India's EV transition with environmental safety and resource efficiency.



## DOOMSDAY GLACIER (THWAITES GLACIER)

A recent study in the *Journal of Geophysical Research: Earth Surface* highlights accelerating structural weakening of Antarctica's Thwaites Glacier.

### What is the Doomsday Glacier?

- The Thwaites Glacier is a large outflow glacier (a glacier that drains ice from an ice sheet into the ocean) located in West Antarctica, flowing into the Amundsen Sea (part of the Southern Ocean).
- It is a key part of the West Antarctic Ice Sheet (WAIS) (a vast ice mass, much of it resting below sea level), identified as a climate tipping element (a system that can undergo rapid, irreversible change once a threshold is crossed).

### Key Scientific Findings

- The study detected 362 ice-related earthquakes (seismic vibrations caused by ice movement and fracturing), with 245 near the marine terminus (ocean-facing end of the glacier).
- These indicate ice fracturing (cracking of ice) and rising structural instability (loss of mechanical strength). Basal melting (melting at the glacier's base due to warm ocean water) is accelerating ice loss.

### Why is it a Global Concern?

- Thwaites acts as a buttress (supporting barrier) for nearby glaciers. Its collapse could raise global sea levels (average ocean height worldwide) by nearly 3 metres, threatening coastal regions and island nations.

### Conclusion

- The Doomsday Glacier is a critical climate alarm, as its destabilisation could trigger irreversible global sea-level rise.

## SHAKSGAM VALLEY

India reaffirmed sovereignty over Shaksgam Valley, rejected the 1963 China-Pakistan Boundary Agreement, and opposed CPEC through illegally occupied Indian territory.

### About

- Shaksgam Valley, also called the Trans-Karakoram Tract (territory located beyond the Karakoram mountain range), lies north of the Siachen Glacier (world's highest-altitude militarised zone) in Ladakh (Union Territory of India).

- Historically, it was an integral part of the former princely state of Jammu and Kashmir (semi-autonomous state before 1947).
- Currently, it is under Chinese control (de facto administration without legal sovereignty) following an illegal territorial transfer by Pakistan.

### 1963 China-Pakistan Boundary Agreement

- The 1963 China-Pakistan Boundary Agreement (bilateral border agreement) resulted in Pakistan ceding about 5,180 sq km of Shaksgam Valley to China.
- India rejects this agreement as illegal, void, and non-binding, asserting Pakistan lacked sovereignty (legal authority over territory) to transfer any part of Jammu and Kashmir.

### Strategic and Geopolitical Significance

- The region is strategically vital due to its proximity to Aksai Chin (disputed high-altitude plateau), the Siachen Glacier, and the China-Pakistan Economic Corridor (CPEC) (China-led infrastructure corridor under the Belt and Road Initiative), directly affecting India's territorial integrity (unity and sovereignty of national territory).

### Conclusion

- India maintains that Shaksgam Valley is illegally occupied, and any agreement altering its status has no legal validity.

## WESTERN DISTURBANCE (WD)

Recent low precipitation in the Himalayan region is mainly due to weakened Western Disturbance activity.

### What is a Western Disturbance?

- A Western Disturbance (WD) is an extra-tropical storm (weather system formed outside tropical latitudes) that originates over the Mediterranean region (area surrounding the Mediterranean Sea).
- It moves from west to east across West Asia (Iran, Afghanistan, Pakistan) and enters the Indian subcontinent.
- A disturbance refers to a low-pressure system (region of reduced atmospheric pressure), which draws in air and moisture to restore pressure equilibrium (balance in atmospheric pressure).

### Impacts of Western Disturbances

- Cause rainfall, snowfall, and fog (moisture-induced low visibility) over north and northwest India.

- Essential for Rabi crops (winter-sown crops like wheat and barley) by providing winter precipitation.
- Build snowpack (accumulated mountain snow) in the Himalayas, sustaining river flows during summer.

### Associated Risks

- WDs can sometimes trigger extreme weather events (severe atmospheric conditions) such as floods, flash floods, landslides, hailstorms, dust storms, and cold waves (periods of abnormally low temperatures).

### Conclusion

- Western Disturbances are crucial for northern India's climate, agriculture, and water security; their weakening directly affects precipitation patterns and food security.

## VALLEY OF FLOWERS

**A major forest fire (uncontrolled burning of natural vegetation) near the Valley of Flowers prompted authorities to seek Indian Air Force support (aerial firefighting assistance using helicopters).**

### What is a Forest Fire?

- A forest fire is an uncontrolled fire (rapidly spreading fire without human control) occurring in forests or grasslands.
- It may result from natural causes (lightning, prolonged drought) or human activities (negligence, deliberate burning).
- Forest fires cause biodiversity loss (decline in plant and animal species), air pollution (release of smoke and fine particulate matter), and soil degradation (loss of nutrients and fertility).

### About the Valley of Flowers

- The Valley of Flowers is located in Chamoli district, Uttarakhand, within the Valley of Flowers National Park (legally protected ecological area) and forms part of the Nanda Devi Biosphere Reserve (large conservation region recognised by UNESCO).
- It is famous for its alpine ecosystem (high-altitude ecological system) and vibrant monsoon flowering (seasonal mass blooming of flowers between June and September).

### Protection Status

- National Park (1982) (statutory conservation status)
- UNESCO World Heritage Site (2005) (site of outstanding universal value)
- Discovered in 1931 by Frank Smythe (British mountaineer)

### Conclusion

- Forest fires threaten the fragile alpine biodiversity of the Valley of Flowers, highlighting the need for swift disaster response and sustained conservation efforts.

## POLAR VORTEX

**A powerful winter storm in the United States has been intensified by the polar vortex, leading to extreme cold and heavy snowfall.**

### What is the Polar Vortex?

- The polar vortex is a large area of low atmospheric pressure (zone where air pressure is lower than surrounding regions) containing very cold air, that circulates around Earth's polar regions (areas around the North and South Poles) in a counter-clockwise direction in the Northern Hemisphere.

### Types of Polar Vortex

- **Tropospheric Polar Vortex:** Occurs in the troposphere (lowest atmospheric layer where weather occurs), extending from the surface up to 10–15 km. It directly influences weather patterns (day-to-day atmospheric conditions).
- **Stratospheric Polar Vortex:** Forms in the stratosphere (atmospheric layer above the troposphere) between 15–50 km altitude. It is strongest in winter and weakens or breaks down during summer.

### Impacts of the Polar Vortex

- When the vortex weakens or shifts, Arctic air (extremely cold air from polar regions) can move southward, causing:
  - Cold waves (extended periods of unusually low temperatures)
  - Heavy snowfall (intense snow accumulation)
  - Chilly winds (strong, cold airflows)
- These effects are commonly felt in the United States, Europe, and Asia.

### Conclusion

- The polar vortex plays a crucial role in winter climate, and its disruption can trigger severe cold events across mid-latitude regions worldwide.

## DONBAS

**Peace talks in Abu Dhabi (capital of the United Arab Emirates and a neutral diplomatic venue) highlighted continuing disputes over Donetsk (an eastern Ukrainian region).**

### What is Donetsk?

- Donetsk is one of four Ukrainian regions that Russia claimed to annex (formally absorb into its territory) in 2022 following disputed referendums (votes held under military occupation and not internationally recognised).
- Ukraine and most of the international community (the majority of United Nations member states) recognise Donetsk as part of Ukraine's sovereign territory (area under a state's lawful authority).
- Russia describes Donetsk as part of its "historical lands" (territories claimed using historical narratives).

### What is the Donbas Region?

- The Donbas (Donets Basin) comprises Donetsk and Luhansk, two coal-rich regions (areas with large coal reserves) that once formed Ukraine's industrial heartland (core mining and manufacturing zone).
- The region also has fertile agricultural land (highly productive soil) and access to the Sea of Azov (an inland sea connected to the Black Sea).

### Current Control

- Russian forces (military troops) control nearly all of Luhansk and around 70% of Donetsk.

### Legal Position

- Under Ukraine's Constitution (supreme national law), territorial changes require a nationwide referendum (a countrywide public vote), making Russia's annexation legally invalid.

### Conclusion

- The Donbas remains a major geopolitical flashpoint, central to the Russia–Ukraine conflict and ongoing peace efforts.

## ISRAEL LEGALISES WEST BANK OUTPOST AS NEW SETTLEMENT

Israel has legalised a West Bank outpost (previously unauthorised Israeli settlement site) as a new settlement named Yatziv, renewing debate on settlement expansion.

### About the Yatziv Settlement

- Yatziv is a Jewish settlement (Israeli civilian community established in occupied territory) located near Beit Sahour (Palestinian town near Bethlehem) in the West Bank (territory occupied by Israel since 1967).
- Its recognition followed prolonged advocacy by settlers (Israeli civilians residing in occupied areas) amid the Israeli–Palestinian conflict (long-standing territorial and political dispute).

### About the West Bank

- The West Bank lies west of the Jordan River (major river in West Asia) and is bordered by Israel and Jordan.
- Major cities include Ramallah (administrative capital of the Palestinian Authority), Hebron, Nablus, Jenin, and Bethlehem.

### Historical and Political Background

- **1948–49 Arab–Israeli War (conflict following Israel's creation):** West Bank occupied and annexed by Jordan
- **1967 Six-Day War (short Middle East war):** Israel captured the West Bank
- **Oslo Accords (1993–95)** (peace agreements between Israel and Palestinians): Created the Palestinian Authority (PA) (self-governing Palestinian body) and divided the West Bank into:
  - Area A (full Palestinian control)
  - Area B (Palestinian civil and joint security control)
  - Area C (full Israeli control, ~60% area)

### Conclusion

- The legalisation of Yatziv underscores unresolved sovereignty issues, as Palestinians seek the West Bank for a future sovereign state (independent nation).

## KAMCHATKA PENINSULA

A severe winter storm has brought life to a standstill across the Kamchatka Peninsula in Russia's Far East, with heavy snowfall burying streets and homes.

### About

- Kamchatka forms part of Russia's Far Eastern Federal District and constitutes Kamchatka Krai, with a sparse population of about 322,000.
- It is 1,250-km-long peninsula located between the Sea of Okhotsk (west), Pacific Ocean, and Bering Sea (east), featuring the Sredinny (Central) and Vostochny (Eastern) Ranges with 29 active volcanoes in the UNESCO-listed Volcanoes of Kamchatka.
- The Kamchatka River flows through a central valley.





## DRDO SUCCESSFULLY EXECUTES SALVO LAUNCH OF PRALAY MISSILES

The Defence Research and Development Organisation (DRDO) demonstrated advanced rapid-fire capability by successfully conducting a salvo launch (simultaneous or in rapid succession) of two 'Pralay' missiles from Abdul Kalam Island off the Odisha coast, hitting targets in quick succession.

### About

#### PRALAY: Surface-to-Surface Missile

**ENGINE:** Two stage rocket motor with third stage MaRV

**SPEED:** Mach 1 to 1.6

**RANGE:** 150-500 km

**TRAJECTORY:** Low

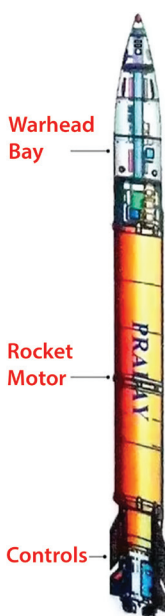
**GUIDANCE SYSTEM:** Inertial navigation system

**LAUNCH PLATFORM:** 8x8 BEML-atra transporter erector launcher

**MASS:** 5 tonnes (4.9 long tons; 5.5 short tons)

**OPERATIONAL RANGE:** 150-500 km (93-311 mi)

Pralay is a canisterised tactical, surface-to-surface, and short-range ballistic missile for battlefield use developed by the Defence Research and Development Organisation of India



It is capable of being launched from a mobile launcher and has latest navigation system and integrated avionics

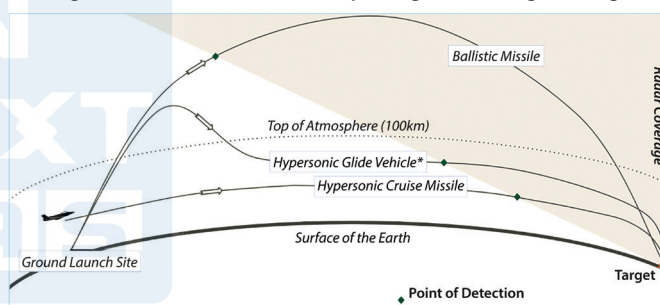
Can change its path after covering certain range mid-air and is difficult to be tracked

It has the capability to defeat interceptor missiles

- **Executing Agency:** The test was conducted by the Defence Research and Development Laboratory (DRDL), Hyderabad, a leading missile systems laboratory under DRDO.

### Hypersonic Missiles

- **Speed Capability:** Hypersonic cruise missiles can travel at speeds greater than Mach 5, or over 6,100 km/h.
- **Engine Technology:** They use air-breathing scramjet engines that rely on supersonic combustion for propulsion.
- **Operational Advantage:** High speed and manoeuvrability help these missiles evade modern air defence systems.
- **Weapon Categories:** Hypersonic weapons are of two types—Hypersonic Glide Vehicles (HGVs) and Hypersonic Cruise Missiles (HCMs).
- **Key Difference:** HGVs are rocket-launched and glide to the target, while HCMs use scramjet engines throughout flight.



### Missile Systems in India

- **Ballistic Missiles:** These missiles follow a ballistic trajectory and act as strategic deterrents.
  - ♦ **Short-range:** Prithvi-I, II, III
  - ♦ **Agni Series:** Agni-I to Agni-V (varying from medium to intercontinental range)

INTEGRATED GUIDED MISSILE DEVELOPMENT PROGRAMME (IGMDP)				
PRITHVI	AKASH	NAG	TRISHUL	AGNI
Surface-to-Surface Short-Range Ballistic Missile	Medium-Range Surface-to-Air Missile	Third Generation 'Fire and Forget' Anti-tank Missile	Short Range Low Level Surface-to- Air Missile	Intermediate Range Surface-to- Surface Missile

- **Cruise Missiles:** These missiles fly within the atmosphere using aerodynamic lift and offer high precision.

- ♦ **Nirbhay:** Long-range subsonic cruise missile
- ♦ **BrahMos:** Supersonic cruise missile

## HYPERSONIC MISSILE DEVELOPMENT

The Defence Research and Development Organisation (DRDO) has achieved a major technological breakthrough in hypersonic missile development.

### About

- DRDO successfully conducted a long-duration ground test of an actively cooled, full-scale scramjet combustor.
- **Test Facility:** The test was carried out at the advanced Scramjet Connect Pipe Test (SCPT) facility.
- **Test Outcome:** The combustor operated continuously for more than 12 minutes, marking a significant step toward sustained hypersonic flight.

## NATIONAL IED DATA MANAGEMENT SYSTEM

The Union Home Minister launched the National IED Data Management System (NIDMS) to strengthen India's counter-IED and internal security framework.

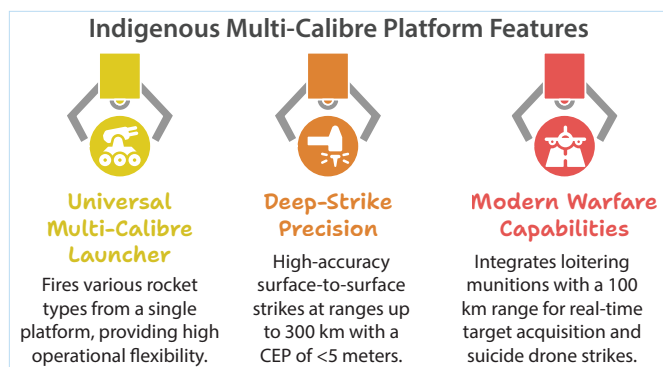
### About NIDMS

- **Developing Agency:** NIDMS has been developed by the National Security Guard (NSG).
- **Purpose:** It is a **secure national digital platform** designed for systematic analysis of **Improvised Explosive Devices (IED)** and bomb blast incidents across the country.
- **Core Function:** The system enables the **collection, collation, and analysis** of data related to Improvised Explosive Devices.
- **Data Management:** It ensures **accurate, structured, and centralised** storage of explosion-related information.
- **User Access:** The platform can be accessed by **Anti-Terrorism Squads (ATS), state police forces, and Central Armed Police Forces (CAPFs)**.
- **Operational Benefit:** Easy access to national-level data supports **better investigation, threat assessment, and preventive action**.
- **Two-Way Platform:** NIDMS functions as a **two-way system**, allowing agencies to both **upload information and retrieve actionable data**.
- **Security Impact:** The system strengthens **coordination among security agencies** and enhances India's capability to counter IED-related threats.

## SURYASTRA ROCKET LAUNCHER SYSTEM

The Indian Army has signed a Rs 293 crore contract with NIBE Limited under Emergency Procurement to acquire the Suryastra system, developed in collaboration with Israel's Elbit Systems.

### About



## EXERCISE SANJHA SHAKTI

The Indian Army conducted Exercise Sanjha Shakti, a Military-Civil Fusion exercise, at the Dighi Hills Range under the aegis of the Southern Command, specifically the Maharashtra, Gujarat and Goa Area.

### About

- The exercise aimed to strengthen **civil-military coordination**, enhance rapid response capabilities, and ensure public safety in rear areas, especially during disasters, internal security challenges, and other emergencies in the hinterland.
- Exercise Sanjha Shakti underlined that rear area security is a key responsibility of the armed forces and requires close cooperation with civilian institutions during both peacetime emergencies and security contingencies.

## BHAIRAV BATTALIONS

The Army's newly raised Bhairav Battalions participated in the Army Day Parade in Jaipur for the first time.

### About

- **Role and Purpose:** The Bhairav Battalions are high-speed offensive units of the Indian Army meant to bridge the gap between Para Special Forces and regular infantry. They provide rapid-response capability for sudden border crises or short-notice offensive operations.
- **Operational Niche:** They sit between **Ghatak Platoons**, which handle battalion-level assaults, and Para SF, which conduct deep strategic missions behind enemy lines. Bhairav Battalions focus on **swift, limited-duration strikes** in sensitive sectors.
- **Modernisation Initiative:** They were launched in **2025** as part of the Army's restructuring drive to meet the challenges of hybrid and technology-driven warfare.
- **Composition:** Each battalion has about **200–250 personnel** drawn from infantry, artillery, air defence and signals. Recruitment follows the **"Sons of the Soil"** concept to ensure soldiers are familiar with local terrain and climate.
- **Deployment:** So far, **15 battalions** have been raised, with plans to expand to **23–25**. They are placed under corps and divisional commands in sensitive areas such as **Rajasthan, Jammu, Ladakh and the Northeast**.
- **Unmanned and Hybrid Warfare Focus:** These units are central to the Army's push for drone-based operations and deep-targeting missions. The force is also building a pool of over **one lakh drone operators** to support this capability.

## JUSTICE MISSION-2025

Recently, China's People's Liberation Army (PLA) conducted a large-scale military exercise around Taiwan named 'Justice Mission-2025'.

### About

- It was a **military exercise conducted by China's PLA**.
- It was the **second major drill of the year**, launched to demonstrate China's **resolve to defend its sovereignty and national unity** while sending a **warning to Taiwanese separatist forces and foreign interference**, particularly the USA.



### Objectives:

- ♦ Safeguard China's sovereignty and national unity;
- ♦ Deter Taiwan's independence moves;
- ♦ Counter foreign interference (especially from the U.S. and Japan)

- It is linked to the **Trump administration's \$11 billion arms deal with Taiwan**, involving **self-propelled howitzers, advanced rocket launchers, and missile systems**, pending **US Congress approval**.

## IMPACT ON INDIA'S STRATEGIC INTERESTS

**Strategic Impact on India's Security:** India views the PLA drills near Taiwan as part of China's broader military expansion.

### About

- This perception is reinforced by aggressive Chinese actions along the LAC in Ladakh and Arunachal Pradesh, as well as assertive behaviour in the South and East China Seas.
- **Implications for India's Indo-Pacific Strategy:** The exercises strengthen India's belief in collective deterrence through the QUAD grouping of India, Japan, the US and Australia.
  - ♦ They also highlight the need for closer coordination in maritime domain awareness, which may lead to more frequent naval drills such as Malabar to protect sea lanes.

- **Diplomatic Balancing with China and Taiwan:** India officially follows the One-China policy, but informal engagement with Taiwan has expanded in areas such as semiconductors, trade, education and skills. India is likely to maintain strategic ambiguity by reaffirming its official stance while quietly deepening practical cooperation.

## LONG RANGE ANTI-SHIP HYPERSONIC MISSILE (LR-ASHM)

The DRDO showcased the Long Range Anti-Ship Hypersonic Missile along with its launcher during the 77th Republic Day Parade at Kartavya Path.

### About LR-AshM

- Developed by **DRDO**, the **LR-ASHM** is a **Hypersonic Glide Missile** designed to meet the coastal defence and strike requirements of the **Indian Navy**. The missile is capable of engaging both **static and moving maritime targets** and can carry **multiple payload configurations**.
- It is a **first-of-its-kind indigenous system**, equipped with indigenous avionics and high-accuracy sensor packages.
- Achieves speeds up to Mach 10, with an average hypersonic speed of Mach 5. It follows a quasi-ballistic trajectory.





## NATIONAL TECHNOLOGY READINESS ASSESSMENT FRAMEWORK (NTRAF)

The Principal Scientific Adviser (PSA) (chief science advisor to the Government of India) launched the NTRAF to improve evaluation of emerging technologies.

### About NTRAF

- The NTRAF is a standardised framework (uniform evaluation system) to assess technology maturity (stage of development) from basic research (laboratory-level work) to commercial deployment (market-ready application).
- It uses Technology Readiness Levels (TRLs) (nine-stage scale measuring technological progress) to ensure objective assessment.
- NTRAF serves as the operational backbone (core assessment tool) for Research and Development (R&D) (systematic innovation activities) funding under India's National Missions (government-led technology programmes).

### Key Features

- Adapted from NASA's TRL system (global technology benchmark)
- Uses evidence-based checklists (verifiable criteria) instead of subjective judgement (personal opinion)
- Includes sector-specific annexures (custom guidelines) for healthcare, pharmaceuticals, and software
- Enables self-assessment (internal evaluation) by project investigators (research leaders) to identify technical gaps (development shortcomings)

### Significance

- NTRAF improves funding transparency (clarity in decisions), reduces investment risk (chance of failure), and strengthens commercialisation (lab-to-market transition).

### Conclusion

- NTRAF strengthens India's innovation ecosystem by ensuring objective, efficient, and accountable technology evaluation.

## THORIUM

Clean Core Thorium Energy (CCTE) (US-based nuclear fuel technology company) has partnered with NTPC Ltd (India's largest power generation company) to deploy thorium-based nuclear fuel (alternative atomic fuel) in Indian reactors, strengthening India-US civil nuclear cooperation (peaceful nuclear collaboration).

### What is Thorium?

- Thorium is a radioactive metallic element (naturally occurring element that emits radiation) found in the Earth's crust. It is fertile but not fissile (cannot sustain a nuclear chain reaction on its own).

### Thorium Fuel Technology

- CCTE has developed ANEEL (Advanced Nuclear Energy for Enriched Life) (proprietary thorium fuel) by blending thorium with HALEU – High-Assay Low-Enriched Uranium (uranium enriched between 5–20%, below weapons-grade).
- This fuel can be used in Pressurised Heavy Water Reactors (PHWRs) (reactors using heavy water as moderator and coolant) without major structural changes.

### Nuclear Behaviour

- When thorium absorbs neutrons (subatomic particles released during nuclear reactions), it converts into Uranium-233 (fissile isotope capable of sustaining fission).
- Nuclear fission (splitting of atomic nuclei to release energy) produces heat for electricity generation.

### Significance

- Improves energy security (reliable domestic power), enhances reactor safety (lower accident risk), and increases proliferation resistance (reduced nuclear weapons misuse).

### Conclusion

- Thorium strengthens India's long-term clean and secure nuclear energy strategy.

## BSNL LAUNCHES VOICE OVER WIFI (VoWiFi)

Bharat Sanchar Nigam Limited (BSNL) (state-owned public sector telecom operator) has launched Voice over WiFi (voice communication using internet) across all telecom circles (licensed service regions) in India.

### What is Voice over WiFi (VoWiFi)?

- VoWiFi is a telecom technology that allows users to make voice calls (real-time audio communication) and send SMS (short text messages) using a Wi-Fi network (wireless internet connection) instead of cellular networks (mobile towers).

### Key features include:

- Uses the same mobile number (no SIM replacement)
- Operates through the default phone dialer (pre-installed calling app)

- Requires no third-party apps (external internet calling applications)
- VoWiFi is particularly effective in low mobile signal areas (poor tower coverage) such as buildings, basements, and remote regions.

### Technology behind VoWiFi

- VoWiFi is based on IP Multimedia Subsystem (IMS) (internet-protocol based telecom framework), which ensures carrier-grade quality (high reliability and clarity) and secure communication (encrypted voice transmission).

### Significance

- Improves indoor connectivity (better call quality inside buildings)
- Promotes digital inclusion (wider access to telecom services)
- Reduces network congestion (load on mobile towers)
- Supports BSNL's next-generation telecom transition

### Conclusion

- BSNL's VoWiFi rollout enhances reliable voice communication using internet infrastructure and strengthens India's digital connectivity ecosystem.

## HUMAN RABIES TO BE DECLARED A NOTIFIABLE DISEASE IN DELHI

The Delhi government plans to declare human rabies a notifiable disease (legally mandatory reporting disease) in the National Capital Territory (NCT) of Delhi (administrative region) under the Epidemic Diseases Act (law empowering disease control measures).

### What is a Notifiable Disease?

- A notifiable disease requires mandatory reporting (legal obligation to inform authorities) to public health authorities (government health agencies).
- This enables real-time surveillance (continuous case monitoring), early outbreak detection, and evidence-based public health action (data-driven policy response).

### What is Rabies?

- Rabies is a viral zoonotic disease (virus transmitted from animals to humans) affecting the central nervous system (brain and spinal cord).
- Transmission occurs through infected saliva via bites, scratches, or mucous membrane exposure (eyes, mouth, nose), mainly from dogs.

### Symptoms and Fatality

- Early symptoms include fever and headache, progressing to neurological signs such as hydrophobia (fear of water due to throat spasms) and hallucinations. Rabies is almost 100% fatal once clinical symptoms appear.

### Prevention

- Post-Exposure Prophylaxis (PEP) (immediate vaccination and rabies immunoglobulin after exposure) is fully effective if administered promptly.

### Significance

- Notifiable status improves case reporting, strengthens surveillance systems, supports animal vaccination and stray dog control, and aligns India with the WHO target of zero human rabies deaths by 2030.

### Conclusion

- Declaring rabies notifiable is a critical step to prevent avoidable deaths from a fully preventable disease.

## GLP-1 WEIGHT-LOSS DRUGS

In 2025, GLP-1 weight-loss drugs such as Mounjaro (tirzepatide – dual GLP-1/GIP receptor agonist) and Wegovy (semaglutide – GLP-1 receptor agonist) entered the Indian market, emerging as high-value pharmaceuticals (expensive, premium medicines) despite limited patient uptake (number of users).

### What is GLP-1?

- GLP-1 (Glucagon-Like Peptide-1) is an incretin hormone (gut-derived chemical messenger) released by enteroendocrine cells (hormone-secreting intestinal cells) in the small intestine after food intake (nutrient bolus).
- It regulates blood glucose (blood sugar levels), appetite (hunger sensation), and digestion (food breakdown). GLP-1 is secreted at basal levels (background secretion) and rises rapidly post-meal.

### Mechanism of Action

- GLP-1 drugs mimic endogenous GLP-1, leading to:
  - Reduced appetite (suppressed hunger signals)
  - Delayed gastric emptying
  - Enhanced insulin secretion (glucose-lowering hormone release)
- This lowers calorie intake (energy consumption) and promotes weight loss in obese individuals (excess body fat).

### Impacts

- **Benefits:** Effective weight management (medical obesity control) and type-2 diabetes (chronic metabolic disorder) treatment.
- **Risks:** Gastrointestinal effects, pancreatitis (pancreas inflammation), rare thyroid cancer, muscle loss, and facial fat depletion (premature ageing).

### Conclusion

- GLP-1 drugs represent a major advance in metabolic disease management but require strict medical supervision for long-term safety.

## NANOBOTS IN CANCER THERAPY

Scientists at the Indian Institute of Science (IISc), Bengaluru have developed magnetic nanobots (externally controlled microscopic robots) to deliver drugs deep inside tumours, enabling targeted and minimally invasive cancer treatment.

### What are Nanobots?

- Nanobots are microscopic machines (devices measured in nanometres—one billionth of a metre) designed to perform precise tasks inside the human body.
- In medicine, they are mainly used for targeted drug delivery (direct transport of medicines to diseased cells), improving treatment efficiency while minimising damage to healthy tissues (normal body cells).

### Working Mechanism in Cancer Therapy

- The IISc-developed nanobots mimic bacterial locomotion (natural swimming movement of bacteria) and consist of:
  - ♦ A helix-shaped tail (spiral structure enabling propulsion)
  - ♦ A magnetic component (allows navigation using external magnetic fields)
- This enables controlled movement through tissues and accurate drug release at tumour sites.

### Medical Applications

- **Nanobots can:**
  - ♦ Deliver anti-cancer drugs (medicines that destroy cancer cells)
  - ♦ Produce localized hyperthermia (controlled heat to kill tumour cells)
  - ♦ Act as therapeutic agents (treatment themselves)
  - ♦ Serve as MRI beacons (markers visible in Magnetic Resonance Imaging scans)
- They have shown effectiveness against ovarian cancer, breast cancer, and certain bacterial infections.

### Significance

- Nanobots support precision medicine (highly targeted treatment approach), reduce side effects, enable faster recovery, and showcase India's progress in nanotechnology-based healthcare.

### Conclusion

- Nanobots mark a major breakthrough in cancer therapy by integrating nanotechnology, robotics, and medicine for safer, targeted, and future-ready healthcare solutions.

## HUNTINGTON'S DISEASE (HD)

Huntington's Disease (HD) remains underdiagnosed in India due to poor awareness, social stigma (negative societal attitudes), and delayed genetic testing (DNA-based diagnosis).

### What is Huntington's Disease?

- Huntington's Disease is a rare (low-prevalence), progressive (worsens over time), hereditary (genetically inherited) neurodegenerative disorder (gradual degeneration of brain cells). It affects the brain and causes:
  - ♦ Motor dysfunction (involuntary movements, loss of coordination)
  - ♦ Cognitive decline (memory loss, impaired thinking)
  - ♦ Psychiatric disturbances (depression, psychosis, irritability, OCD)
- Together, these lead to lifelong disability (permanent loss of independent functioning).

### Genetic basis and Inheritance

- HD is caused by a mutation in the HTT (huntingtin) gene (gene essential for normal nerve function).
- It follows an autosomal dominant inheritance pattern (one defective gene from either parent is sufficient), giving a 50% transmission risk to offspring. Consanguineous marriages (marriages between close relatives) further increase risk.

### Onset and Treatment

- Symptoms usually begin at 40–50 years and progress over 15–20 years.
- There is no cure (no disease-reversing treatment), but symptomatic treatment (treatment relieving symptoms) improves quality of life.

### Policy Gap

- HD is excluded from NPRD-2021 (National Policy for Rare Diseases), limiting access to PM-JAY (public health insurance scheme) support.

### Conclusion

- Early diagnosis, genetic counselling, and policy inclusion are essential to reduce the burden of Huntington's Disease in India.

## WOLF SUPERMOON

The Wolf Supermoon (January full moon occurring near Earth) was observed in January 2026, attracting attention as a notable lunar event.

### What is a Wolf Supermoon?

- A Wolf Supermoon is a full moon (phase when the Moon is fully illuminated by the Sun) that combines a Wolf Moon (traditional name for January's full moon) and a Supermoon (full moon occurring near Earth).

### Wolf Moon

- The Wolf Moon originates from traditional lunar naming systems (folk-based month identifiers used before modern



calendars) and was popularised through almanacs (seasonal guides for farming and weather).

- It is linked to winter folklore (cultural beliefs) suggesting increased wolf howling during harsh winters. It has no astronomical significance (no scientific relevance).

### Supermoon

- A Supermoon occurs when a full moon coincides with perigee (closest point of the Moon's elliptical orbit around Earth).
- This makes the Moon appear larger and brighter (increased apparent size and luminosity) than average.

### Associated Phenomenon

- Moon Illusion (optical illusion caused by human perception) makes the Moon seem bigger near the horizon.

### Scientific Significance

- The event mainly enhances public engagement with astronomy (interest in space science) and understanding of lunar orbital mechanics (Moon's movement around Earth).

### Conclusion

- The Wolf Supermoon reflects the intersection of cultural tradition and observational astronomy.

## STELLAR TWINS

A recent study on W Ursae Majoris-type contact binaries (closely orbiting twin-star systems) offers new insights into binary star evolution (formation, interaction, and end stages of paired stars).

### What are W Ursae Majoris (W UMa) Stars?

- W Ursae Majoris (W UMa) stars are contact binary systems (two stars orbiting extremely close and physically touching) with:
  - ◆ A common outer atmosphere (shared gaseous envelope)
  - ◆ Dumbbell-shaped structure (distorted shape due to gravity)
  - ◆ Very short orbital periods (time to complete one orbit, often < 1 day)
- This proximity enables continuous mass and energy transfer (exchange of matter and heat) between the stars.

### Why are W UMa Stars Important?

- They act as natural laboratories (ideal systems for scientific study), allowing accurate measurement of stellar parameters (mass, radius, temperature), crucial for testing stellar evolution theories (models of star life cycles).

### What are Stellar Twins?

- Stellar twins are stars nearly identical in mass, radius, temperature, chemical composition (elemental makeup), and age (time since formation), making them valuable for comparative astrophysics (controlled comparison of stars).

### Types of Stellar Twins

- Binary stellar twins (gravitationally bound identical stars)
- Solar twins (stars closely resembling the Sun)
- Spectroscopic twins (stars with nearly identical spectra—light patterns)

### Conclusion

- Studying stellar twins, especially W UMa systems, refines our understanding of stellar interaction and evolution.

## SPINA BIFIDA

Many countries have launched national awareness campaigns (public information drives) and public health programmes (government-led health initiatives) to prevent spina bifida through folic acid supplementation (Vitamin B9 tablets or food fortification) before and during pregnancy.

### What is Spina Bifida?

- Spina bifida is a congenital defect (condition present at birth) involving incomplete development of the spinal cord (nerve structure connecting brain and body) due to failure of neural tube closure (early embryonic structure forming brain and spinal cord) during early pregnancy (first 4 weeks after conception).

### Health Effects

- The condition can cause paralysis (loss of muscle movement) of the lower limbs, hydrocephalus (excess fluid in the brain), urinary and bowel incontinence (loss of bladder and bowel control), and orthopaedic deformities (bone and joint abnormalities) such as clubfoot (twisted foot), often requiring lifelong medical care (continuous treatment and support).

### Role of Folic Acid

- Folic acid (Vitamin B9) (essential nutrient for DNA synthesis and cell growth) is critical for neural tube development (formation of brain and spinal cord). Periconceptional intake (before conception and early pregnancy) can prevent over 70% of spina bifida cases.

### Conclusion

- Spina bifida is largely preventable. Ensuring adequate folic acid intake is the most effective and cost-efficient maternal health intervention.

## HPV VACCINATION

A large population-based study (study covering a broad population) shows that high HPV vaccination coverage (proportion of immunised people) reduces cervical lesions (precancerous abnormal cells) even among unvaccinated women, due to herd protection (indirect community immunity).

## Human Papillomavirus (HPV)

- HPV is a common sexually transmitted infection (STI) (infection spread through sexual contact) caused by a DNA virus (virus with DNA genetic material) from the Papillomaviridae family (viruses infecting skin and mucosa).
- Most infections are asymptomatic (without symptoms) and self-limiting (resolve naturally).

## Diseases Caused by HPV

*High-risk HPV strains (cancer-causing types) lead to:*

- Cervical cancer (cancer of the cervix)
- Anal, penile, vulvar, vaginal and oropharyngeal cancers (reproductive and throat cancers)
- Low-risk strains (non-cancerous types) cause genital warts (benign skin growths).

## HPV Vaccination

- HPV vaccines prevent infection by oncogenic strains (cancer-causing viruses) and are most effective before sexual debut (before first sexual exposure). Recommended for 9–14 years (early adolescence). High coverage reduces virus transmission (spread of infection) and precancerous disease burden (early cancer risk).

## Conclusion

- HPV vaccination provides individual protection (direct immunity) and population-level cancer prevention, making it essential for cervical cancer elimination (long-term disease eradication goal).

## PARAM SHAKTI

**The Ministry of Electronics and Information Technology (MeitY) (India's nodal ministry for electronics and IT) has inaugurated PARAM SHAKTI, an indigenous supercomputing facility (high-speed advanced computing system) at IIT Madras (premier technical institution).**

## About

- PARAM SHAKTI is a High-Performance Computing (HPC) facility (computers capable of massive parallel calculations) hosting the PARAM RUDRA supercomputer (Made-in-India computing system).
- It has been developed by C-DAC (Centre for Development of Advanced Computing—India's apex supercomputing R&D body) under the National Supercomputing Mission (NSM) (government programme to build national computing capability).
- The system operates as a supercomputing cluster (network of interconnected servers acting as one unit) using indigenous RUDRA servers (locally designed hardware) and open-source software (non-proprietary code).

## Computing Power

- PARAM SHAKTI delivers 3.1 petaflops ( $3.1 \times 10^1$  floating-point operations per second—measure of computing speed), enabling large-scale scientific simulations (computer-based modelling).

## Significance

- Supports climate modelling, artificial intelligence (AI) (machines performing human-like tasks), aerospace, materials science, and genomics (study of genes).
- Enhances Atmanirbhar Bharat (technological self-reliance) and reduces dependence on foreign computing platforms.

## Conclusion

- PARAM SHAKTI marks a major leap in India's strategic computing capacity (independent advanced technology capability) and research ecosystem.

## AMMONIUM NITRATE

**Security agencies seized 10,000 kg of ammonium nitrate (sensitive industrial chemical) ahead of Republic Day celebrations (high-security national event), highlighting misuse risks.**

## What is Ammonium Nitrate?

- Ammonium nitrate ( $\text{NH}_4\text{NO}_3$ ) is a white crystalline compound (solid chemical with regular structure) widely used as a nitrogenous fertiliser (contains ~34% nitrogen) to improve crop yield (agricultural productivity).

## Chemical Properties

- Highly water-soluble (dissolves easily)
- Acts as a strong oxidiser (releases oxygen to support combustion)
- Non-explosive alone, but hazardous when contaminated or heated
- Mixed with fuel oil, forms ANFO (Ammonium Nitrate Fuel Oil) (industrial explosive) used in mining and construction (controlled rock blasting)

## Dual-Use Risks

Ammonium nitrate is a dual-use chemical (civilian and harmful applications).

- **Legitimate use:** fertilisers, infrastructure projects
- **Security threat:** diversion for IEDs (Improvised Explosive Devices) (homemade bombs) and accidental explosions

## Regulatory Framework in India

- Regulated under the Explosives Act, 1884 (law governing explosives) and Ammonium Nitrate Rules, 2012 (licensing and tracking rules), mandating strict licensing, storage, and transport controls (government oversight).

## Conclusion

- Ammonium nitrate is economically essential but strategically sensitive, requiring strict regulation to balance development needs and internal security.

## INDIA'S FIRST 'STATE BACTERIUM'

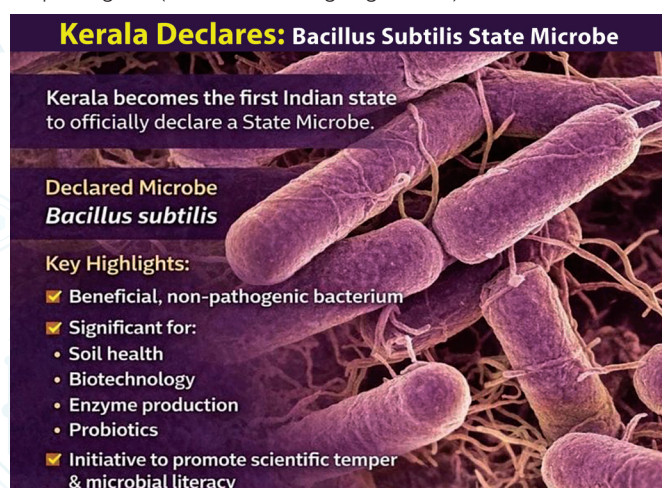
**Kerala is set to become India's first state to declare a state bacterium (officially designated microbial symbol) to promote awareness of beneficial microbes (microorganisms that provide ecological and health benefits).**

### What is a Bacterium?

- A bacterium is a microscopic, single-celled organism (organism visible only under a microscope) belonging to prokaryotes (organisms without a true nucleus or membrane-bound organelles).
- Bacteria are ubiquitous (present everywhere)—in soil, water, air, plants, animals, and humans—and play a crucial role in ecosystem functioning (natural processes that sustain life systems).

### Kerala's State Bacterium Initiative

- The initiative symbolically represents the importance of microbes in:
  - ♦ Agriculture (nitrogen fixation, soil fertility, crop yield)
  - ♦ Human health (digestion, immunity, probiotics—beneficial live bacteria)
  - ♦ Environmental sustainability (waste decomposition, pollution control, nutrient cycling)
- It aims to change the perception of microbes beyond pathogens (disease-causing organisms).



### Institutional Framework

- The bacterium was selected by an expert committee (panel of scientists) under the Kerala State Council for Science, Technology and Environment (KSCSTE) (state scientific advisory body).

- The focus is symbolic representation, not species-specific conservation.

### Significance

- Enhances scientific awareness (public understanding of science)
- Promotes microbial literacy (knowledge of microbial roles)
- Encourages microbiome research (study of microbial communities)

### Conclusion

- Kerala's move is a pioneering step that recognises microbes as essential partners in health, agriculture, and sustainable development.

## STEEL SLAG TECHNOLOGY

**The Union Minister of State for Science and Technology promoted steel slag-based road construction (use of processed steel waste in roads), especially for hilly and Himalayan regions (areas prone to landslides, heavy rainfall, and frequent road damage).**

### What is Steel Slag Technology?

- Steel slag (industrial byproduct formed during iron ore melting in steel plants) was earlier treated as waste.
- After processing, it can replace natural aggregates (crushed stone and gravel) used in road construction.

### Institutional Support

- The Technology Development Board (TDB) (statutory body supporting commercialisation of indigenous technologies) partnered with Ramuka Global Eco Work Pvt. Ltd. to deploy ECOFIX (ready-to-use pothole repair mix) developed by CSIR–Central Road Research Institute (CRRI) (India's premier road research institute).

### Key Advantages

- Steel slag has high angularity (sharp-edged particles) and compressive strength (load-bearing capacity), ensuring better interlocking (particle bonding), enhanced durability (longer road life), and greater water resistance (reduced moisture damage).

### Environmental Significance

- Reduces stone quarrying (mining of natural aggregates), supports a circular economy (reuse of waste materials), lowers carbon footprint (greenhouse gas emissions), and promotes sustainable infrastructure (eco-friendly development).

### Conclusion

- Steel slag technology converts industrial waste into a durable, eco-friendly road-building material, improving infrastructure resilience while supporting environmental sustainability.



## PREJUDICE AND HEALTHCARE ACCESS FOR TRANS MEN IN INDIA

Despite legal recognition, trans men (persons assigned female at birth who identify as male) and gender-diverse AFAB persons (Assigned Female At Birth; includes non-binary identities) continue to face discrimination and limited access to inclusive healthcare in India.

### Key Issues

- ➔ **Structural barriers** (institutional obstacles) such as misgendering (incorrect identification of gender), judgemental attitudes, and denial of care in public hospitals.
- ➔ **Healthcare access** linked to gender certificates under the Transgender Persons (Protection of Rights) Act, 2019, creating administrative gatekeeping (bureaucratic exclusion).
- ➔ **Binary understanding of gender** (male–female framework) among medical professionals excludes transmasculine and non-binary persons.
- ➔ **Knowledge gaps:** Medical education remains trans-woman centric (focused mainly on trans women); absence of Indian Council of Medical Research (ICMR)-backed protocols (national ethical medical guidelines).
- ➔ **Hormone Replacement Therapy (HRT)** (medical use of hormones for gender affirmation) lacks standardised testosterone dosage guidelines, leading to self-medication.
- ➔ **Unethical practices** (violations of medical ethics) such as denial of hysterectomy (surgical removal of the uterus) and invasive examinations violating bodily autonomy (right over one's body).

### Transgender Persons

- ➔ **Transgender persons** are individuals whose **gender identity differs from the sex assigned at birth**. This term includes trans men, trans women, persons with intersex variations, genderqueer individuals, and traditional socio-cultural communities such as **Hijras, Kinnars, and Aravanis** in India.
- ➔ **Constitutional and Legal Recognition:** In the landmark **NALSA vs Union of India (2014)** judgment, the Supreme Court recognised transgender persons as a **“third gender”** and affirmed their fundamental rights under **Articles 14 (Equality), 15 (Non-discrimination), 16 (Equal opportunity), 19 (Freedom), and 21 (Right to life and dignity)**.
- ➔ **Legislative Framework:** The Transgender Persons (Protection of Rights) Act, 2019, along with the 2020 Rules, safeguards transgender individuals from discrimination and enables them to obtain a legal identity certificate from the District Magistrate.

### Implications

- ➔ **Constitutional:** Violation of Article 21 (Right to Life and Dignity).
- ➔ **Health:** Mental distress and unsafe hormone use.
- ➔ **Economic:** Reduced workforce participation.

### Measures and Way Forward

- ➔ National Portal for Transgender Persons (2020); Mitr Clinic (Hyderabad).
- ➔ National Legal Services Authority v. Union of India: Legal recognition of self-identified gender.
- ➔ ICMR-led, WPATH (World Professional Association for Transgender Health)-aligned, India-specific gender-affirming healthcare

## WOMANIYA INITIATIVE

Government e-Marketplace (GeM) marked seven years of the Womaniya initiative.

### Womaniya Initiative

- ➔ It was launched in 2019, aims to enhance access for women entrepreneurs and Self-Help Groups (SHGs) to government markets by providing a direct, transparent, and fully digital interface with buyers, removing intermediaries and entry barriers.
- ➔ It is aimed at strengthening the participation of women-led Micro and Small Enterprises (MSEs) in public procurement.
- ➔ Over time, it has evolved into a national ecosystem supporting women-led MSEs and strengthening their participation in public procurement.

### Progress

- ➔ Womaniya has grown into a structured and scalable ecosystem and has emerged as a flagship initiative enabling women-led enterprises to scale their businesses through resilience and credibility.
- ➔ Over two lakh women-led MSEs are registered on the GeM portal, collectively securing public procurement orders worth over ₹80,000 crore, which is 4.7% of GeM's total order value, exceeding the mandated 3% target for women-owned and women-led enterprises.

### Importance

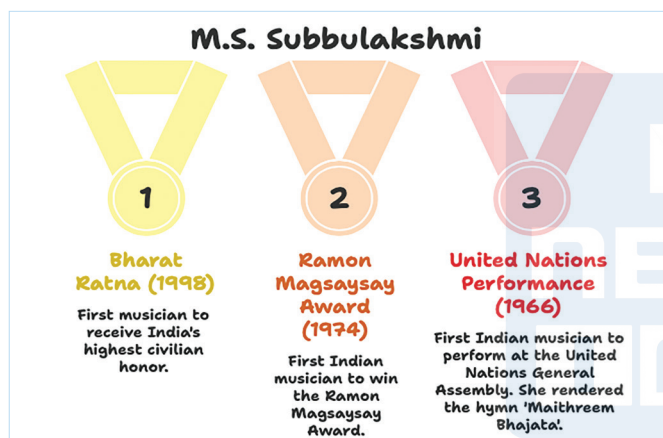
- ➔ The Womaniya initiative reflects the Government's commitment to gender-inclusive economic growth and demonstrates how policy, platforms and partnerships can work together to transform participation into prosperity.

## SANGITA KALANIDHI AWARD

Eminent violinist **R.K. Shriramkumar** was recently honoured with the **Sangita Kalanidhi Award 2025**.

### About the Award:

- The award was formally instituted in 1942 by the **Madras Music Academy**.
- **Significance and Rewards:**
  - ♦ It is also called the 'Nobel Prize of Carnatic Music'.
  - ♦ The honour consists of a **Gold Medal and a Birudu Patra(citation)**.



- **Integrated Honours:** Since 2005, the Sangita Kalanidhi designate has also received the **MS Subbulakshmi Award**, which was sponsored by **The Hindu**.

### About Madras Music Academy

- **Origins:** The Academy was established in **1928** as an offshoot of the 1927 All India Congress Session in Madras.
- **Objective:** Aimed at setting a standard for Carnatic music and dance and promoting the same.
  - ♦ The Academy acts as a regulatory institution and hosts The Annual Music and Dance festival.
- **Other Awards:** Beyond the Sangita Kalanidhi, the Academy confers other prestigious titles, including **Nritya Kalanidhi (for dance)**, **Sangita Kala Acharya**, and the **TTK (T.T. Krishnamachari)**.

## 195<sup>th</sup> BIRTH ANNIVERSARY OF SAVITRIBAI PHULE

PM Modi paid homage to social reformer **Savitribai Phule** on her birth anniversary, remembering her contributions to society in the field of education.

### About

- **Savitribai Phule**, a **poet and social reformer**, is widely recognised as the **first female teacher of modern India**.
- Born in 1831, she was married to social activist **Jyotirao Phule** at the age of 10.

### Savitribai Phule's Contributions

Pioneer of Women's Education	Social Reformer	Advocate for Vulnerable Groups	Literary Work
Established India's first school for girls and founded the Mahila Seva Mandal.	Fought against caste-based discrimination and untouchability.	Established a shelter for pregnant rape victims and widows.	Authored Kavya Phule and Bavan.

## RANI VELU NACHIYAR

PM Modi paid tribute to **Rani Velu Nachiyar** on her birth anniversary.

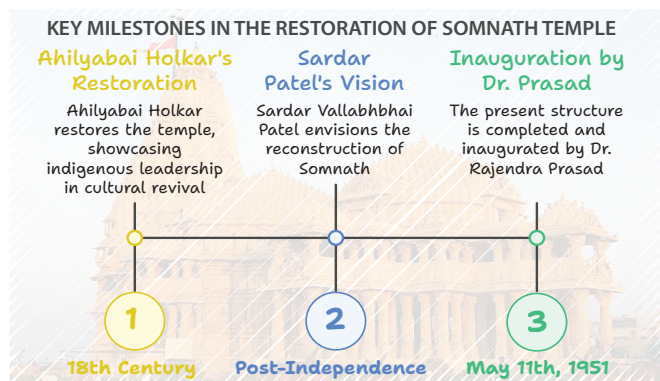
Queen Velu Nachiyar				
<b>Early Indian Queen</b>	<b>Daughter of King</b>	<b>Organised Rebellion</b>	<b>Rule of Sivagangai</b>	<b>Significance</b>
One of the earliest Indian queens to wage an armed struggle against British colonial rule.	Daughter of King Sellamuthu Sethupathy, ruler of the Ramanathapuram (Ramanad) kingdom.	Organised one of India's first organised armed rebellions against the British.	Ruled Sivagangai for about 10 years, later handed over administration to her daughter.	One of the first women freedom fighters of India and a symbol of anti-colonial resistance.

## SOMNATH SWABHIMAN PARV

PM Modi commemorated **1,000 years** since the first attack on the **Somnath Temple** in **1026 AD**, describing the iconic shrine as a timeless symbol of India's civilisational resilience and unbreakable spirit.

### About

- The Somnath temple, located in Prabhas Patan near Veraval in **Saurashtra on the western coast of Gujarat**, is believed to be the first among the twelve jyotirlinga shrines of Shiva.



- ♦ Somnath is revered as the first among the 12 Aadi Jyotirlingas of Lord Shiva.
  - ♦ The present temple complex comprises the Garbhagriha (sanctum sanctorum), Sabhamandap (assembly hall) and Nrityamandap (dance hall), rising majestically alongside the Arabian Sea.
- ➔ **Features:** The temple is crowned by a 150-foot Shikhar, with a 10-tonne Kalash at its summit. The Dhvajdand (flagpole), standing 27 feet tall, marks the temple's unwavering identity.
- ➔ The shrine was first attacked in **January 1026** by **Mahmud of Ghazni**, marking the beginning of a series of invasions aimed at destroying symbols of Indian civilisation.
- ➔ **Despite repeated devastation**, the temple was rebuilt multiple times.



## ARCHAEOLOGISTS DISCOVERED RARE KUSHANA-ERA COINS

Pakistani archaeologists found rare decorative stones and coins while excavating a UNESCO-listed site near the historic city of Takshashila.

### About

- ➔ The discoveries were made at the **ancient Bhir Mound**, where experts unearthed **decorative stones dating to the 6th century BC** and **coins from the 2nd century AD**.
- ♦ Metamorphic decorative stone identified as **lapis lazuli**, alongside the rare bronze coins attributed to the **Kushan dynasty**.
- ➔ **Coins** bear the image of Emperor **Vasudeva**.
- ♦ Vasudeva is recognised by historians as the **last of the 'great Kushan rulers'** who presided over the region.

### About Kushans

- ➔ **Origin:** Central Asian nomadic tribe, originally part of the **Yuezhi confederation**.
- ♦ Migrated from **north-west China** to Bactria (present-day Afghanistan–Central Asia).
  - ♦ **Kujula Kadphises** was the founder of the Kushan rule in India, established in north-western India around **1st century CE**.
- ➔ **Empire:** Stretched from Central Asia and Afghanistan to Punjab, Kashmir, the Gangetic plains, and parts of Central India
- ♦ **Kanishka I** was the greatest Kushan ruler, whose empire extended from Central Asia, Afghanistan, Kashmir, Punjab, and the Gangetic plains up to Varanasi.
- ➔ **Key cities:** Purushapura (Peshawar – capital under Kanishka), Mathura, Taxila.
- ➔ **Religion:** Widespread Kushan patronage of Buddhism during this era led to the construction of stupas, monasteries, and vast religious complexes.
- ➔ **Coins:** The Kushans issued gold, silver and copper coins.
- ♦ The period also marked the rise of **Gandharan art**, a distinctive synthesis of Greek, Roman, Persian, and Indian traditions, with **Takshashila** serving as its core hub.
- ➔ **Decline:** Decline after the 3rd century CE due to **Sassanian pressure and the rise of Gupta power**.

## TURKMAN GATE

The Turkman Gate area in Old Delhi saw violent clashes following a demolition drive by the Municipal Corporation of Delhi (MCD).

### About

- ➔ It is one of the gates of **Shahjahanabad**, the city established by Mughal emperor Shah Jahan in 1639 when he moved his capital from Agra to Delhi.
- ➔ The gate is named after **Shah Turkman**, a Mughal-era saint whose tomb is nearby, and a fair is held annually in the area to mark his death anniversary.
- ➔ **Architecture:** It is rectangular, two bays deep, with a flat roof on the first bay and a domed roof on the second.
- ♦ It has three arched openings, double arches at the outer ends, and semi-octagonal double-storey bastions on either side of the southernmost opening.

## STUPAS FOUND IN ZEHPORA

Archaeologists have unearthed ancient Buddhist stupas and settlements at Zehnpora based on a century-old photograph discovered in a French museum.

### About

- ➔ The mounds are located along an **ancient Silk Route** leading to Kandahar and beyond.



- **Zehanpora has yielded Buddhist stupas**, an urban settlement complex (could be chaityas and viharas), Kushan-era pottery shards, copper artefacts and walls, with more finds expected in subsequent excavation phases.



- **The Kushans** were a powerful ancient Indo-Greek dynasty that ruled large parts of north India and Central Asia between the 1st and 3rd centuries CE.
  - ♦ They played a major role in promoting trade, urban centres and the spread of Buddhism in India and beyond.
- **Significance:**
  - ♦ The Zehanpora discovery places Kashmir within the 2,000-year-old Gandhara Buddhist network.
  - ♦ It bolsters claims that Kashmir was a central hub of Buddhist learning and monastic activities.
- **The northern part of Kashmir has many known sites with Buddhist affiliations**, like Kanispora, Ushkur, Zehanpora, and Parihaspora, while Harwan represents a **major Buddhist complex in Srinagar** in central Kashmir.
  - ♦ **South Kashmir** is dotted with archaeological sites like Semthan, Hutmur, Hoinar and Kutbal with strong Buddhist affiliations.
  - ♦ These sites collectively represent **Kashmir's Buddhist heritage** in the form of structural and artistic evidence.

## BHADRAKALI INSCRIPTION

Recently, it has been highlighted that Prabhas Patan has a rich historical and spiritual heritage, with inscriptions like Bhadrakali, copper plates, and memorial stones showcasing its prosperity, valour, and devotion.

### About

- It was carved in 1169 CE (Valabhi Samvat 850 and Vikram Samvat 1255) and is currently protected by the State Department of Archaeology.

- It is located near the museum in Prabhas Patan, beside the old Ram Temple in Bhadrakali lane.
- Prabhas Patan, home to the historic Somnath Temple, and it is housed in the ancient Sun Temple.
- It is a **eulogistic inscription** of Param Pashupata Acharya Shriman Bhavabrihaspati, the spiritual preceptor of Maharajadhiraj Kumarapala of Anhilwad Patan.

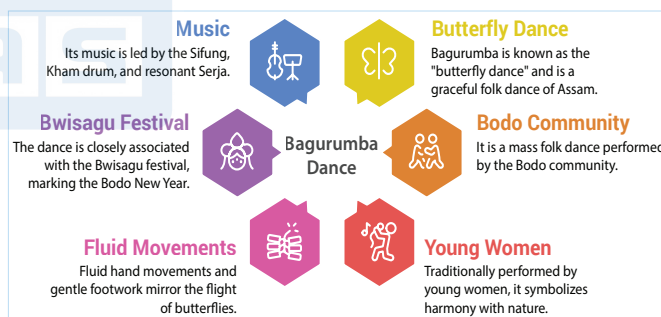
### Features

- It records the ancient and medieval history of the Somnath Temple.
- It mentions the construction of Somnath Mahadev in all four yugas.
- Accordingly, in the Satya Yuga, **Chandra (Soma) built it of gold**; in the **Treta Yuga, Ravana built it of silver**; in the **Dvapara Yuga, Shri Krishna built it of wood**; and in the **Kali Yuga, King Bhimdev Solanki** constructed a beautifully artistic stone temple.
- History confirms that Bhimdev Solanki built the fourth temple on the earlier remains, followed by the fifth temple constructed by Kumarapala in 1169 CE at the same site

## BAGURUMBA DANCE

The Prime Minister visited Assam and attended the Bagurumba Dwhou 2026.

### About



## JALLIKATTU

Tamil Nadu Chief Minister M.K. Stalin attended the Jallikattu in Alanganallur.

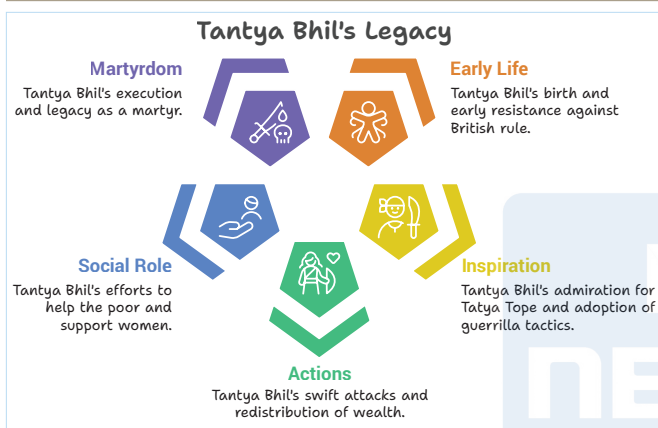
### About

- Jallikattu, also known as **Eruthazhuvuthal**, is a bull-taming sport traditionally played in Tamil Nadu as part of the Pongal harvest festival.
- The history of this bullfight dates back to **around 400-100 BCE, when the Ayars, an ethnic group in India, performed it.**
- The name is coined from two words, Jalli (silver and gold coins) and Kattu (tied). In this festival, a bull is let loose among a crowd of people, and whoever tames it will get the coins tied to its horn.

- ♦ The people who participate in the sport try to hold on to the animal's hump to stop it. Sometimes, they run along with the bull.
- **Pulikulam or Kangayam** is the breed of bulls used for the sport. This festival has been part of cultural tourism in the state.
- ♦ Vadi *manjuvirattu*, *Veli virattu*, and *Vatam manjuvirattu* are the variants of this sport.

## TANTYA MAMA BHIL

The installation of tribal freedom fighter Tantya Mama Bhil's statue in Khargone on Tribal Pride Day drew attention when an FRP statue was erected instead of the originally planned marble or metal version.



### Additional Information

- Tribals constitute about 21% of Madhya Pradesh's population, the highest among Indian states.
- Tantya Bhil belonged to the **Bhil community**, which accounts for nearly 40% of the state's 1.53 crore tribal population.

## GRANTH KUTIR

The President of India inaugurated Granth Kutir.

### About

- **Granth Kutir** is a library at the **Rashtrapati Bhawan** which has a collection of **around 2,300 books** and **about 50 manuscripts** in **11 Indian classical languages**: Tamil, Sanskrit, Kannada, Telugu, Malayalam, Odia, Marathi, Pali, Prakrit, Assamese, and Bengali.
- The collection reflects India's **cultural, philosophical, literary, and intellectual heritage**.
- Subjects include **epics, philosophy, linguistics, history, governance, science, devotional literature**, and the **Constitution of India** in classical languages.
- Several manuscripts are **handwritten** on traditional materials such as **palm leaf, paper, bark, and cloth**.

- ♦ Granth Kutir supports the vision of the **Gyan Bharatam Mission**, which aims to **preserve, digitise, and disseminate India's manuscript heritage**, blending tradition with modern technology.

### Institutional Support

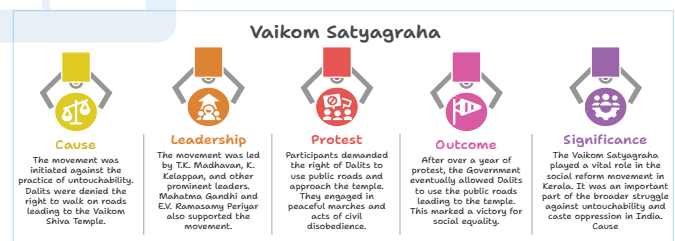
- It is developed through collaboration with **central and state governments, universities, research institutions, cultural organisations**, and individual contributors.
- Supported by the **Ministry of Education** and **Ministry of Culture**.
- The **Indira Gandhi National Centre for the Arts (IGNCA)** provides expertise in manuscript conservation, documentation, management, and display.

## PERIYAR E. V. RAMASAMY

Periyar and other reformist leaders like him played a pivotal role in the struggle against untouchability.

### About

- **Periyar E. V. Ramasamy (1879–1973)** was a social reformer, rationalist thinker, and political activist from Tamil Nadu, best known for leading the Self-Respect Movement and laying the ideological foundations of Dravidian politics.
- He rebelled against Brahminical dominance and gender and caste inequality in Tamil Nadu.
- E.V. Ramasamy promoted the principles of rationalism, self-respect, women's rights and eradication of caste.



### Post-Independence Abolition of Untouchability

- **Article 17 of the Constitution** (enforced on 26 January 1950) legally abolished untouchability.
- To operationalise this constitutional guarantee, the **Untouchability (Offences) Act, 1955, was passed**.
- In 1976, the Act was comprehensively amended and renamed as the **Protection of Civil Rights (PCR) Act**, to reflect its **focus on the enforcement of civil rights**.

## NETAJI SUBHAS CHANDRA BOSE

The President of India paid tribute to Netaji Subhas Chandra Bose on his birth anniversary, observed as Parakram Diwas (23rd January).

## About

- He was a prominent Indian **nationalist and leader** who played a crucial role in the Indian independence movement.
- He was the **first person** to call Mahatma Gandhi "**Father of the Nation**", in his address from Singapore.
- **Indian National Congress:** He was elected as the President of the Indian National Congress twice, in **1938 and 1939**.
  - ♦ Ideological differences with Mahatma Gandhi led to his resignation and the formation of the **Forward Bloc**, a political faction committed to radical change.
- **Azad Hind Radio 1942:** He established **Azad Hind Radio in Germany** to reach out to Indians and spread his vision of independence. He **coined several patriotic slogans**, including "Jai Hind," "Dilli Chalo" (On to Delhi), and "Give me blood, and I will give you freedom".
- **Formation of the Indian National Army (INA):** In 1942, he formed the INA with the help of Japanese forces.
  - ♦ The INA was an armed force aimed at securing India's independence through military action against British rule.
- **Azad Hind Government:** In 1943, Subhash Chandra Bose renamed the Andaman and Nicobar Islands as "Shaheed" (Martyr) and "Swaraj" (Self-Rule) during his leadership of the Azad Hind Government.
  - ♦ This was a symbolic gesture of asserting India's sovereignty against British rule.
  - ♦ On October 21, 1943, Netaji declared the **establishment of the Provisional Government of Free India (Azad Hind Sarkar)**.
  - ♦ Subhash Chandra Bose reportedly passed away in a plane crash in Taiwan in 1945.
- **Legacy:** Ross Island (an island of the Andaman Islands) was renamed **Netaji Subhas Chandra Bose Dweep** in 2018 in his honour. The **Kranti Mandir Museum** at the Red Fort preserves key historical material related to Netaji Bose and the Indian National Army.
  - ♦ In 2022, a **grand statue of Netaji Subhas Chandra Bose** was unveiled by the Prime Minister near **India Gate, New Delhi**.

## VANDE MATARAM

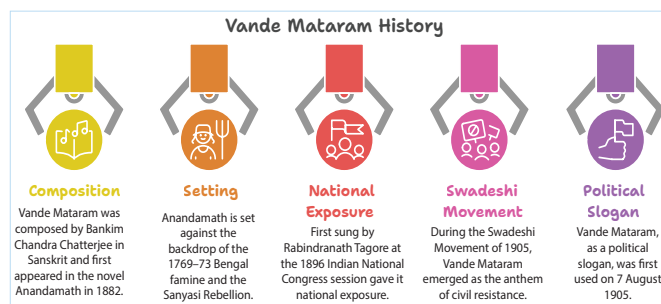
The Union Ministry of Home Affairs is examining whether Vande Mataram should be governed by formal protocols and attract penalties for disrespect, on lines similar to the national anthem Jana Gana Mana.

## About

- The **Constituent Assembly** accorded Vande Mataram the status of the **national song**, with equal honour to the national anthem, but **not identical legal treatment**.
- **Prevention of Insults to National Honour Act, 1971:** Provides statutory protection to the **National Flag and the National Anthem**.
  - ♦ **No penal provision** exists for disrespect to Vande Mataram under the Act.

## Constitutional Provisions

- **Article 51A(a) Fundamental Duties:** Mandates every citizen to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem.
- **Absence of Explicit Constitutional Protection:** Unlike the national anthem, Vande Mataram is not explicitly protected by any constitutional provision.
  - ♦ Its status flows from **Constituent Assembly resolutions**, not from enforceable constitutional text.



## SACRED PIPRAHWA RELICS

Prime Minister Modi inaugurated the Grand International Exposition of Sacred Piprahwa Relics in New Delhi. The event is titled "**The Light & the Lotus: Relics of the Awakened One**". It marks the return of these sacred Buddhist relics to India after more than 100 years.

## What are the Piprahwa Relics?

- The Piprahwa relics were found in 1898 by British civil engineer **William Claxton Peppé**. The discovery took place at **Piprahwa in Uttar Pradesh**.
- They were excavated from the **Piprahwa Stupa**, widely believed to be the ancient city of **Kapilavastu**, the **birthplace of Lord Buddha**.

## What the Relics Include

- The relics consist of **bone fragments, soapstone and crystal caskets, and a sandstone coffer**. They also include offerings such as gold ornaments and gemstones.
- Linked to the mortal remains of Lord Buddha.

## Significance

- One of the caskets carries an **inscription in the Brahmi script**.
- The inscription states that these are **relics of the Buddha deposited by the Sakya clan**.
- This adds strong historical and religious value to the relics.

## Current Status and Protection

- Most of the relics were moved to the **Indian Museum in Kolkata in 1899**. They are legally **classified as 'AA' antiquities**, which means they cannot be sold or removed. Some bone relics were gifted to the **King of Siam (now Thailand)**.
- A small portion of the relics remained with Peppé's descendants and has now been brought back to India for the exhibition.



## PADMA AWARDS

On the eve of Republic Day, President Droupadi Murmu approved the conferment of 131 Padma Awards.

### About

- The awards were **instituted in 1954** initially as a single class; they were restructured in 1955 into the current three levels.
- Padma Awards are among **India's highest civilian honours**, recognising exceptional contributions across diverse fields like art, social work, science and public affairs.
- They are presented in **three categories**, **Padma Vibhushan** (topmost for extraordinary service), **Padma Bhushan** (high-order service), and **Padma Shri** (distinguished service)—with Bharat Ratna as the nation's supreme civilian award above them.
  - ♦ The number of awards is capped at 120 per year (excluding posthumous and foreigners).



### Eligibility and Process

- Open to all persons, including citizens, foreigners / NRI / PIO/ OCI & posthumous awards allowed in highly deserving cases.
- Government servants, including PSU employees, are not eligible except for doctors and Scientists.
- Nominations go to a **Padma Awards Committee (chaired by the Cabinet Secretary)**, whose recommendations reach the Prime Minister and President for approval.
- Cannot be used as titles (**per Article 18(1) and 1996 Supreme Court ruling**), and higher awards require a 5-year gap from prior ones.

Padma Vibhushan Winners 2026		
SN	Name	Field
1	Shri Dharmendra Singh Deol (Posthumous)	Art
2	Shri K T Thomas	Public Affairs
3	Ms. N. Rajam	Art
4	Shri P. Narayanan	Literature & Education
5	Shri V. S. Achuthanandan (Posthumous)	Public Affairs

### Padma Bhushan Winners 2026

SN	Name	Field
1	Ms. Alka Yagnik	Art
2	Shri Bhagat Singh Koshyari	Public Affairs
3	Shri K. R. Palaniswamy	Medicine
4	Shri Mammooty	Art
5	Dr. Nori Dattatreudu	Medicine
6	Shri Piyush Pandey (Posthumous)	Art
7	Shri S. K. M. Maeilanandhan	Social Work
8	Shri Shatavadhani R. Ganesh	Art
9	Shri Shibu Soren (Posthumous)	Public Affairs
10	Shri Uday Kotak	Trade & Industry
11	Shri V. K. Malhotra (Posthumous)	Public Affairs
12	Shri Vellappally Natesan	Public Affairs
13	Shri Vijay Amritraj	Sports

## NATIONAL YOUTH DAY 2026

Recently, National Youth Day was observed to mark the birth anniversary of Swami Vivekananda.

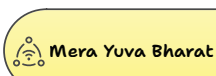
### National Youth Day or Rashtriya Yuva Divas

- It is celebrated on **12th January every year** in commemoration of the great spiritual leader, philosopher and thinker **Swami Vivekananda**, whose unwavering belief in the potential of youth continues to resonate deeply with young citizens of the country.
- His inspiring life and empowering message urge the youth to nurture their dreams, unleash their energies, and shape a future worthy of his envisioned ideals.
- The youth, defined as those within the age group of **15-29 years**, make up nearly 40% of India's total population.

### Importance

- National Youth Day highlights the aspirations and responsibilities of India's youth, who make up over 65% of the population under 35 and are key to achieving Viksit Bharat 2047.
- The government has created a comprehensive youth empowerment framework covering civic engagement, skill development, entrepreneurship, health, fitness, and national service, led by the Ministry of Youth Affairs and Sports in collaboration with other ministries, aiming to involve youth as active partners in nation-building.

## YOUTH EMPOWERMENT SCHEMES

**Mera Yuva Bharat**

Connects youth with volunteering, skill development, leadership, and experiential learning.

Instigates social consciousness and personality development through community service.

**National Service Scheme****Agnipath Scheme**

Recruits male and female aspirants into the 'below the officer's rank' cadre for four years.

Modernises Industrial Training Institutes and aligns vocational training with global standards.

**PM-SETU****Skill India Mission**

Provides training to skill, re-skill, and up-skill individuals through a wide network.

Provides short-term skill training and upskilling or re-skilling to youth.

**Pradhan Mantri Kaushal Vikas Yojana (PMKVY)****Startup India**

Fosters a robust ecosystem for innovation and entrepreneurship.

Funds the Unfunded micro enterprises and small businesses.

**Pradhan Mantri MUDRA Yojana (PMMY)****Rashtriya Kishor Swasthya Karyakram (RKSK)**

Addresses the holistic health needs of adolescents aged 10–19 years.

## Swami Vivekananda

- He was born Narendra Nath Datta in Kolkata on January 12, 1863, and was a key figure in introducing Hindu philosophies of Yoga and Vedanta to the West.
- He was a disciple of Ramakrishna Paramhansa, and he devoted himself to spiritual and social reform in India, travelling across the country to educate people on economic improvement and spiritual knowledge.
- He gained **global recognition** with his **1893** address at the Parliament of the World's Religions in Chicago, advocating universal tolerance, acceptance of all religions, and pride in Indian traditions.
- After returning to India, he founded the **Ramakrishna Mission in 1897** and **Belur Math in 1899**, promoting the integration of spirituality with material progress.
- Through his teachings, lectures, and writings—including **Raja Yoga, Jnana Yoga, and Karma Yoga**—he spread the practice of yoga and the principles of 'neo-Vedanta', leaving a lasting legacy as a messenger of Indian wisdom and a visionary for social and spiritual upliftment.
- **Netaji Subhas Chandra Bose** had called him the "maker of modern India."

## SUKHATME NATIONAL AWARD IN STATISTICS

The Government has called for nominations/applications for the Sukhatme National Award in Statistics – 2026.

## P. V. Sukhatme Award

**Establishment**

Instituted by the Ministry of Statistics and Programme Implementation (MoSPI) in the year 2000.

Named after P. C. Mahalanobis' contemporary and eminent statistician Prof. P. V. Sukhatme.

**Naming****Eligibility**

It is given to Indian citizens of age 45 and above only. It is awarded in alternate years.

The award aims to recognize exceptional and outstanding lifetime contributions in the field of Statistics.

**Award Aim****Conferred Date**

The award will be conferred on 29 June 2026, coinciding with Statistics Day.

## INDIRA GANDHI PEACE PRIZE

Mozambican rights activist and humanitarian Graca Machel has been selected for the Indira Gandhi Prize for Peace, Disarmament and Development for 2025, announced by the Indira Gandhi Memorial Trust.

**Award Ceremony**

The award ceremony usually takes place on November 19th, Indira Gandhi's birthday.

**Award Categories**

The award is presented in three categories: Peace, Disarmament, and Development.

**Prize Details**

The award includes ₹1 crore, a citation, and a trophy.



INDIRA GANDHI PEACE PRIZE

**Annual Award**

The award is given out each year by the Indira Gandhi Memorial Trust.

**Named in Honour**

The prize is named after Indira Gandhi, the late Prime Minister of India.

**Significant Contributions**

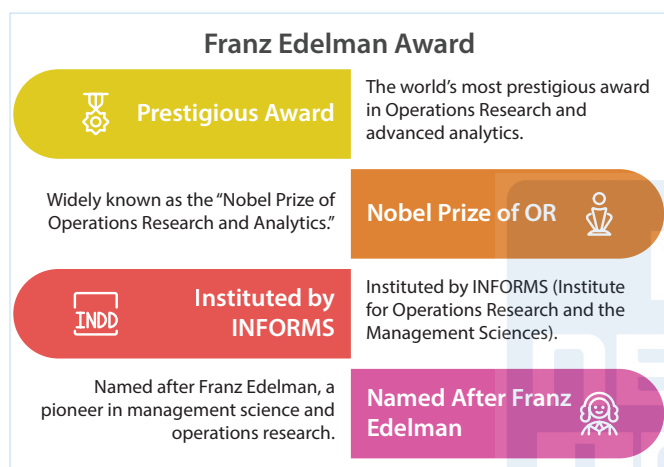
The award is given to those who promote peace, economic order, and democracy.

## FRANZ EDELMAN AWARD

The Department of Food and Public Distribution (DFPD) is among the six finalists for the prestigious 2026 Franz Edelman Award for its Anna Chakra initiative.

## Anna Chakra initiative

- **Anna Chakra** is an **operations research (O.R.)** based decision support solution that **strengthens India's Public Distribution System** by optimising state-specific logistics.
- It is developed in partnership with the **United Nations World Food Programme (WFP) in India and the IIT, Delhi.**
- It was launched in **2025** to strengthen the **movement of food grains across India.** Its national deployment has generated:
  - ♦ Estimated annual savings of INR 250 crore.
  - ♦ A 35% reduction in emissions, supporting India's climate commitments.
  - ♦ Efficiency gains that benefit more than 81 Crore PDS beneficiaries, including the most vulnerable populations.



## JATHIYA DEVI

Recently, **Jathiya Devi** has been selected for a major urban development initiative to be implemented by the Himachal Pradesh Housing and Urban Development Authority (**HIMUDA**).

### About

- Situated approx 14 km from Shimla city, **Jathiya Devi** takes its name from an ancient **Jathiya Devi** shrine located in the area.
- The proposed project aims to establish a planned satellite mountain township designed to alleviate pressure on Shimla, foster new economic centers, and promote sustainable urban development with enhanced disaster resilience.

### Concerns

- **The Social Impact Assessment (SIA)** recognizes potential challenges including displacement of communities and loss of local assets such as temples, schools, shops, canals, and residential properties.
- However, it emphasizes significant benefits like job creation, better infrastructure and services, enhanced economic connectivity, skill development opportunities, and long-term environmental sustainability.

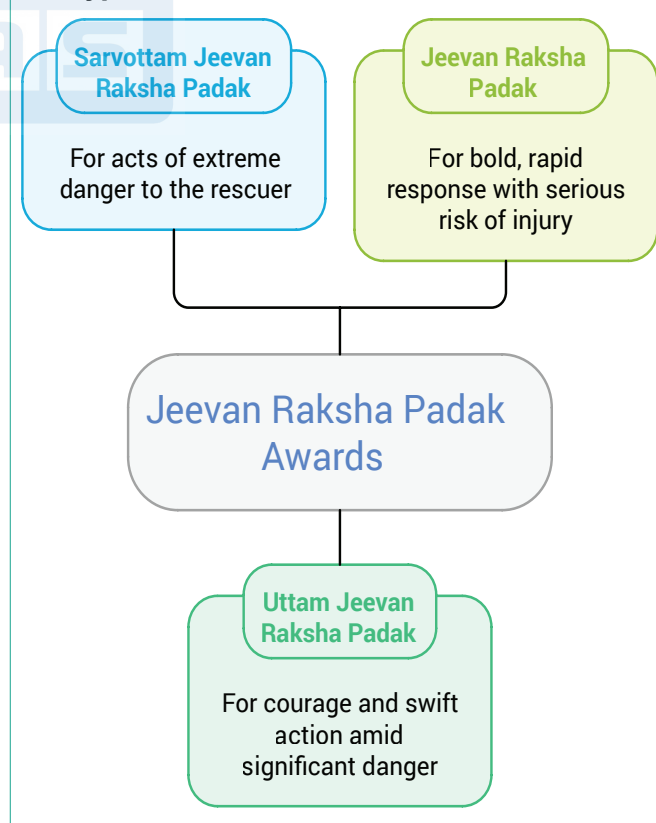
## JEEVAN RAKSHA PADAK AWARDS

The President of India has approved the **Jeevan Raksha Padak Series of Awards-2025** for 30 individuals who demonstrated extraordinary bravery in rescuing human lives.

### About

- The **Jeevan Raksha Padak** series comprises **civilian gallantry awards** for life-saving acts, recognizing individuals who endanger their own lives to save others during crises such as drowning, fires, accidents, electrocution, mine disasters, or natural calamities.
- Instituted in 1961 as a civilian counterpart to the **Ashoka Chakra** series, these awards celebrate selfless courage displayed by ordinary citizens.
- The awards promote civic bravery, selflessness, and humanitarian spirit by honoring those who voluntarily risk personal safety to protect others.
- They are open to all individuals regardless of gender or profession and may be awarded posthumously.
- Each award includes a medal, certificate, and one-time cash payment (approximately: **Sarvottam** – ₹2 lakh, **Uttam** – ₹1.5 lakh, **Jeevan Raksha** – ₹1 lakh).

### Types of Jeevan Raksha Padak Awards





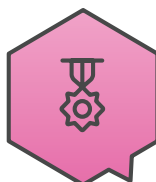
## MADHAV GADGIL

Noted ecologist Madhav Gadgil, known for his work on the conservation of Western Ghats, has passed away.

### ABOUT GADGIL

#### Recognition

He was awarded Padma Shri, Padma Bhushan, the Tyler Prize, and the UN Champions of the Earth Award.



#### WGEEP Landmark

Gadgil proposed classifying 64% of the Ghats as Ecologically Sensitive Zones across three tiers.

#### Grassroots Innovation

Gadgil started the People's Biodiversity Registers, a decentralized tool designed to document indigenous ecological knowledge.



#### Institutional Legacy

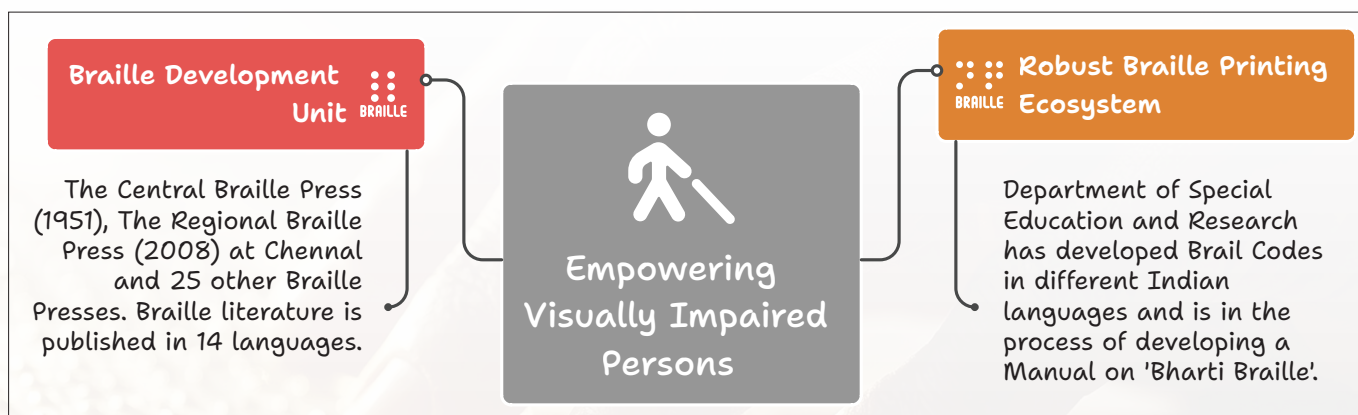
He was instrumental in establishing the Nilgiri Biosphere Reserve and played a pivotal role in drafting key environmental acts.

## WORLD BRAILLE DAY

World Braille Day is observed every year on 4 January to commemorate the birth anniversary of Louis Braille, the inventor of the Braille script.

### About

- ➔ **Global Recognition:** The United Nations officially recognised World Braille Day in 2018, with the first observance held in 2019.
- ➔ **Purpose:** The day aims to highlight the significant role of Braille as a medium of communication. It ensures the full enjoyment of human rights by blinds or partially sighted people.
- ➔ **Rights Framework:** Braille is integral to freedom of expression, access to information, and social inclusion, as recognised under Article 2 of the UN Convention on the Rights of Persons with Disabilities (CRPD).
- ➔ **Indian Scenario:** As per the Census of India 2011, India has approximately 5.03 million persons with visual impairment.



**Central Vigilance Commission (CVC) Framework:**

- The CVC was formed in 1964 based on the K. Santhanam Committee recommendations.
- Members of the commission serve a term of four years or until they reach the age of 65.
- The commission consists of one Central Vigilance Commissioner and up to two Vigilance Commissioners.

**PRAGATI Governance Platform**

- PRAGATI has held 50 meetings since its launch by the Prime Minister's Office in 2015.
- A total of 377 high-value projects have been reviewed under this technology-driven platform.
- The platform has successfully resolved 2,958 out of 3,162 identified issues, achieving a 94% resolution rate.

**Repealing and Amending Act, 2023**

- The act removes 71 obsolete or redundant laws that were enacted between 1886 and 2023.
- It updates foundational statutes including the General Clauses Act of 1897 and the Disaster Management Act of 2005.
- The legislation uses a two-pronged approach to eliminate outdated enactments while modernizing active laws.

**Judicial Pendency in India**

- There are currently 88,492 cases pending in the Supreme Court of India.
- The pending cases consist of 69,605 civil matters and 18,887 criminal cases.
- Undertrials account for 76% of the total prisoners in India, highlighting delays in justice delivery.

**SCO Summit and Regional Influence:**

- The SCO members collectively represent 23% of global GDP and 42% of the world population.
- China pledged ¥2 billion and ¥10 billion in loans for SCO development projects.
- The total membership of the SCO has reached 27 countries, including 10 full members.

**MSME Contribution to India**

- MSMEs employ over 320 million people in India and account for 30% of the GDP.
- These enterprises contribute approximately 45% of India's total manufacturing output.
- Nearly 40% of all Indian exports are generated by the MSME sector.

- Over 74 million MSMEs were registered on the Udyam portal by 2025.
- Micro-enterprises constitute nearly 95% of the total MSMEs in India.
- The government has approved a ₹5,000 crore equity infusion into SIDBI to boost MSME credit. Liquidity of over 7 lakh crore has been made available to MSMEs via the TReDS platform.

**Public Sector Enterprises Capital:**

- Total capital locked in India's Public Sector Enterprises exceeds 30 lakh crore.
- A calibrated stake reduction could potentially unlock nearly 10 lakh crore for the government.
- The public sector currently employs over 1.45 million workers under legacy protections.

**One District One Product (ODOP) Scope**

- The ODOP initiative has identified 1,243 products across 775 districts in India.
- More than 80 Indian missions abroad are actively promoting these local products.
- MSMEs now account for over 40 percent of the procurement value on the Government e-Marketplace.

**Global Minimum Tax Standards**

- The OECD has finalized an agreement for a 15% Global Minimum Tax on large multinationals.
- The tax applies to companies with a global turnover exceeding €750 million.
- This reform aims to prevent profit shifting to tax havens with low or zero taxes.

**India's Economic Growth Forecast**

- India's GDP grew by 7.8% in Q1 and 8.2% in Q2 of the 2025-26 fiscal year.
- The UN projects India's growth to slow to 6.6% in 2026 due to global trade tensions.
- Public debt and high interest rates continue to limit growth in many developing nations.

**Banking Sector Health (RBI FSR)**

- The Gross Non-Performing Assets (GNPA) of banks declined to 2.1% in September 2025.
- Public sector banks maintained a Capital to Risk-Weighted Assets Ratio (CRAR) of 16%.
- Unsecured loans accounted for 53.1% of retail defaults, indicating an area of emerging risk.



# TEST YOURSELF

## Objective Questions

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## SUBJECTIVE QUESTIONS

### GS PAPER-I

1. Indian nationalism was shaped as much by cultural mobilisation as by political resistance. Analyse how print culture, vernacular languages, and nationalist symbols such as Vande Mataram helped transform dispersed cultural identities into a shared political imagination.
2. Bhakti and Sufi traditions articulated ideas of spiritual equality and social harmony. Critically examine why these movements, despite their ethical universalism, could not dismantle structural caste hierarchies and gendered social relations.
3. India's urbanisation has increasingly been described as informal, exclusionary, and employment-poor. Analyse the structural reasons behind this pattern and its implications for urban social inequality.
4. The Revolt of 1857 was a complex and regionally diverse uprising rather than a homogeneous nationalist movement. Examine its economic grievances, cultural anxieties, leadership patterns, and regional variations to assess its historical significance.
5. Land reforms were envisaged as instruments of agrarian justice and rural democratisation. Critically analyse how political will, administrative capacity, and social power structures shaped the uneven outcomes of land reforms across Indian states.
6. Indian secularism is neither irreligious nor strictly separationist. Analyse the idea of "principled equidistance", and examine the tensions it creates between state intervention, minority rights, and social harmony.
7. Climate change has emerged as a risk multiplier, amplifying existing social and regional inequalities. Examine its impact on migration, livelihood vulnerability, and inter-regional disparities in India.

### GS PAPER-II

8. The Indian Constitution adopts a functional rather than rigid separation of powers. Analyse how judicial review, executive discretion, and legislative oversight together maintain institutional balance.
9. Pressure groups contribute to participatory democracy but may also distort public policy outcomes. Analyse this democratic paradox in the Indian context.
10. India's federalism has evolved from constitutional design to operational practice. Examine how fiscal devolution, cooperative federalism, and inter-governmental mechanisms have shaped this transition.

11. Judicial activism has played a significant role in expanding rights and governance accountability. At the same time, it raises concerns regarding judicial overreach and democratic legitimacy. Critically examine this tension with suitable examples.
12. Despite constitutional status under the 73rd and 74th Amendments, local self-governments remain weak. Analyse the political, fiscal, and administrative constraints limiting decentralised governance in India.
13. The Supreme Court's distinction between "freebies" and welfare highlights deeper tensions between Directive Principles of State Policy, electoral populism, and fiscal sustainability. Examine this debate from a constitutional governance perspective.
14. India's diaspora has transitioned from an emotional constituency to a strategic asset. Analyse its role in remittances, soft power, and foreign policy influence, while highlighting challenges such as labour exploitation and identity dilemmas.

### GS PAPER-III

15. Explain the energy–water–agriculture nexus and analyse how policy distortions such as subsidised electricity and cropping choices aggravate resource stress in India.
16. Digitalisation has enhanced service delivery but has not ensured inclusive growth. Analyse why technological solutions alone cannot address structural economic inequalities.
17. India's groundwater crisis reflects governance failures rather than absolute scarcity. Critically analyse this statement with reference to over-extraction, regulatory gaps, aquifer mapping, and community participation.
18. India's defence indigenisation under Atmanirbhar Bharat aims to enhance strategic autonomy and technological capability. Analyse the opportunities and constraints in achieving self-reliance in defence manufacturing.
19. Modern warfare increasingly involves multi-domain operations across cyber, space, and information spheres. Examine India's preparedness in addressing these emerging security challenges.
20. Trade agreements have evolved into instruments of geopolitical alignment, supply-chain resilience, and strategic partnerships. Examine this shift with reference to the India–EU Free Trade Agreement.