

# WBCS GAZETTE



**APTI PLUS**

Academy for Civil Services Pvt. Ltd.  
CREATING CIVIL SERVANTS FOR THE NATION

**FEBRUARY 2026**

**PARAKRAM DIWAS 2026**



TRIBUTE TO NETAJI SUBHAS CHANDRA BOSE

## A Monthly Digest for GK & State News



### TOPICS COVERED

- Bengal Related News
- West Bengal Related Static GK
- Appointments
- Awards
- Books & Authors
- Sports
- Important Days
- Static GK
- Current Affairs GK
- Learning Through Infographics



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# APTI PLUS

## Maintaining Legacy Of Success in WBCS 2023

Gr. A & B

### 35+

### Selections in WBCS 2023 Group A & B

**SREEJA  
NAMASHARMA**



# Rank 1



TATHAGATA  
DAS  
Rank 9



PARTHA PRATIM  
MAITI  
Rank 10



AKASH  
KUMAR GHOSH  
Rank 11



ARKAJIT  
GANGULY  
Rank 16



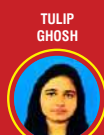
PRADIPTA  
BAG  
Rank 17



CHANDREYEE  
HAIT  
Rank 22



SOUJANYA  
PURKAIT  
Rank 27



TULIP  
GHOSH  
Rank 28



PRATIK  
GHOSH  
Rank 33



CHANDAN  
BANERJEE  
Rank 36



PRABIR  
HALDER  
Rank 40



TISTA  
DHARA  
Rank 45



TATHAGATA  
BATABYAL  
Rank 48



SHYAMSUNDAR  
HAZRA  
Rank 50



AYAN  
SAHA  
Rank 57



TUHIN  
MAJUMDAR  
Rank 61



SAYANTAN  
GHOSH  
Rank 65



ANNAPURBA  
DATTA  
Rank 76



SK MD SADIQUE  
ANWAR  
Rank 90



OBAIDUR  
RAHAMAN  
Rank 109



ARIJIT  
DAS  
Rank 129



SHISHIR  
MONDAL  
Rank 197



SUBHAJIT  
MAJI  
Rank 211



SOUMEN  
PURKAIT  
Rank 219



YUDHISTIR  
NAMAN DAS  
Rank 232



SUDIPTA  
GUHA  
Rank 242



RIKTA  
HALDER  
Rank 247



MAHESWAR  
MURMU  
Rank 302

& many more...



Adrija  
Dey  
Rank 3

Sayanti  
Ghosh  
Rank 14

Manami  
Sarkar  
Rank 32

Pranito  
Baidya  
Rank 43

*Congratulation*  
to all  
successful  
candidates

**SYLLABUS: CURRENT EVENTS OF NATIONAL AND INTERNATIONAL IMPORTANCE: TO BE READ FROM THE IAS GAZETTE: COVERS - POLITY, GOVERNMENT SCHEMES, SCIENCE AND TECHNOLOGY, ECONOMY, SECURITY, INTERNATIONAL RELATIONS, SECURITY, GEOGRAPHY, SOCIETY, ENVIRONMENT AND ECOLOGY**

## BENGAL RELATED NEWS

### State Chief Electoral Officer (CEO)

#### Context

- To prevent law and order issues during SIR-related hearings in West Bengal, the State Chief Electoral Officer (CEO) has directed DMs/DEOs to immediately file complaints or FIRs in cases of public property damage or threats/attacks on officials at hearing venues.

#### What is the Chief Electoral Officer (CEO)?

- The **Chief Electoral Officer** is a **statutory authority** appointed by the **Election Commission of India (ECI)** to conduct and supervise elections in **States and Union Territories**.

#### Constitutional & Legal Basis

- Article 324 of the Constitution ensures **independence of election administration**.
- Statutory backing under **Section 13A, Representation of the People Act, 1950**, read with **Section 20, RPA, 1951**.
- Functions performed under the **supervision, direction and control of ECI**.

#### Appointment & Status

- CEO is **deputed by the Election Commission of India** in every State/UT.
- Acts as the **representative of ECI** at the state level.

#### Roles and Responsibilities

##### Pre-Election Functions

- Updating and supervising **electoral rolls**.
- Coordination with **political parties**.
- Voter **awareness and media outreach**.
- Ensuring availability of **EVMs, indelible ink, ballot papers**.
- Implementation of **Model Code of Conduct (MCC)**.
- Complaint monitoring and **poll preparedness**.

##### Law and Order Management

- Reviewing **law and order situation**.

- Identifying **critical and vulnerable polling stations**.
- Vulnerability mapping with police inputs.
- Assessing and requisitioning **security forces**.
- Inter-state coordination and **border sealing**, if required.

##### During Elections

- Reporting **commencement of polling** to ECI.
- Sending **statutory polling reports** (1 PM, 7 PM, next day 7 AM).
- Supervision of **polling, sealing of EVMs** and election materials.
- Recommending and organizing **re-polls**, if necessary.

##### Post-Election Functions

- Notifying **counting schedule** to districts and candidates.
- Ensuring availability of **trained counting staff**.
- Monitoring **counting process and result dissemination**.
- Supervision of **candidate expenditure accounts**.

##### Eligibility Criteria

- Must be a **Citizen of India**.
- Belongs to **Indian Administrative Service (IAS)**.
- Should not hold **office of profit**.
- Must be **politically neutral** during tenure.
- Not engaged in **banking, finance, or legal practice**.

##### Chief Electoral Officer (CEO) of West Bengal

- As of January 2026, the Chief Electoral Officer (CEO) of West Bengal is **Shri Manoj Kumar Agarwal**, IAS. He is responsible for conducting elections, overseeing the Special Intensive Revision (SIR) of electoral rolls and managing electoral procedures in the state. He assumed charge on April 3, 2025.



## Parakram Diwas observed in West Bengal

### Context

- The 129th birth anniversary of Netaji Subhas Chandra Bose was observed as Parakram Diwas, commemorating his courage, leadership and contribution to India's freedom struggle.

### Important facts for WBCS

- Subhas Chandra Bose (23 January 1897 – 18 August 1945) was an Indian anti-colonial nationalist whose uncompromising defiance of British authority made him a hero to many Indians.
- The honorific "Netaji" (Hindustani: *Respected Leader*) was first used for Bose in Germany in early 1942, by Indian soldiers of the Indische Legion and officials of the Special Bureau for India in Berlin.

### Early Life and Family Background (1897–1913)

- Born on 23 January 1897 in Cuttack, then part of the Bengal Presidency.
- Parents:
  - Janakinath Bose – successful lawyer, loyal to British administration, disciplined Anglophile.
  - Prabhabati Bose (née Dutt) – deeply religious, emotional anchor of the household.

### Education and Intellectual Formation

- Educated initially at Baptist Mission School, Cuttack, he was trained in an English-only, Western curriculum, later moving to Ravenshaw Collegiate School, where Indian philosophy, culture and spiritual influences reshaped his outlook.
- At Presidency College and later Scottish Church College, his philosophical studies deepened amid controversy (Oaten incident), culminating in a First Class Honours in Philosophy with a strong spiritual-intellectual synthesis.

### Indian Civil Service and Moral Break (1919–1921)

- Travelled to England in October 1919.
- Studied at Cambridge University (Mental and Moral Sciences Tripos).
- ICS Exam 1920:
  - Ranked 4th among six vacancies.

- Chose not to appear for final examination (1921):
  - Moral conflict between service and nationalism.
  - Wrote to Edwin Montagu to withdraw.
  - Supported emotionally by his mother.
- Returned to India in July 1921.

### Indian National Congress Phase (1921–1937)

#### Initial Engagement

- Met Mahatma Gandhi in Bombay (1921).
- Fundamental disagreements:
  - Means: Gandhi—non-violence; Bose—any means acceptable.
  - Ends: Gandhi—democratic moral polity; Bose—open to totalitarian models.
- Redirected to C.R. Das, Bose's true political mentor.

#### Rise in Congress

- Founded Swaraj newspaper (1922).
- President, Indian Youth Congress (1923).
- Secretary, Bengal Provincial Congress.
- CEO, Calcutta Municipal Corporation.
- Arrested multiple times; jailed in Mandalay, contracted tuberculosis.

#### Mayor and Organiser

- Mayor of Calcutta (1930).
- Organised Congress Volunteer Corps (1928).
- Admired for discipline; criticised by Gandhi as "circus-like militarism".

### European Sojourn and Emilie Schenkl (1933–1937)

- Travelled across Europe due to illness.
- Observed fascism and communism firsthand.
- Met Mussolini.
- Authored *The Indian Struggle* (1920–1934)—banned in India.
- Relationship with Emilie Schenkl, Austrian national.
- Daughter born in November 1942.

### Congress Presidency and Split (1938–1940)

- Congress President 1938 & 1939.
- Advocated:
  - Socialist regime
  - Centralised authority
  - Preparedness for use of force

- Re-elected over Gandhi's candidate **Pattabhi Sitaramayya**.
- Entire Congress Working Committee resigned.
- Forced to resign; later expelled.
- Formed **All India Forward Bloc** (1939).

#### Escape from India (1941)

- Escaped British surveillance on **17 January 1941**.
- Disguised as a **Pathan**, travelled via:
  - India → Afghanistan → USSR → Germany.
- Assisted unknowingly by **Bhagat Ram Talwar**, a Soviet agent.
- NKVD passed him to German authorities.

#### Nazi Germany Phase (1941–1943)

- Established **Free India Centre**, Berlin.
- Led **Azad Hind Radio** broadcasts.
- Formed **Free India Legion** (~3,000–4,500 Indian POWs).
- Legion later attached to **Wehrmacht / Waffen-SS**.
- Soldiers swore allegiance to **Hitler and Bose**.
- Met **Adolf Hitler** (May 1942).
- German support remained symbolic.
- Bose grew disillusioned after Nazi invasion of USSR.

#### Japanese Phase & INA Revival (1943–1945)

- Submarine transfer:
  - German **U-180** → Japanese **I-29** near Madagascar.
- Reorganised **Indian National Army (INA)**.
- Declared **Provisional Government of Free India (Azad Hind)**.
- Recognised by **9 Axis-aligned states**.
- Introduced:
  - Currency
  - Stamps
  - Civil code
- Created **Rani of Jhansi Regiment** (women soldiers).
- Famous slogan: **"Give me blood and I shall give you freedom."**
- INA fought in:
  - Imphal–Kohima
  - Burma (Meiktila, Mandalay, Pegu)
- Military defeat devastating:

- Half INA & Japanese forces killed.
- Remaining troops surrendered.

#### Death (18 August 1945)

- Plane crash at **Taihoku (Taipei)**, Taiwan.
- Sustained **third-degree burns**.
- Treated at Nanmon Military Hospital.
- Died aged **48**, same night.
- Cremated; ashes kept at **Renkōji Temple**, Tokyo.
- **Conspiracy theories** persist.

#### Ideology and Political Thought

- Influences:
  - **Bhagavad Gita**
  - **Swami Vivekananda**
- Believed in:
  - **Synthesis of socialism and fascism**
  - **Authoritarian state** for post-colonial reconstruction
- Admired:
  - Soviet planning
  - German and Italian discipline
- Viewed democracy as inadequate for:
  - Poverty
  - Social inequality
- Ethical criticism:
  - Silence on **Nazi anti-Semitism**
  - Willingness to collaborate with fascist regimes

#### Legacy

- **Heroic nationalist** for many Indians.
- **Ethically troubling figure** for historians.
- INA trials shook British legitimacy.
- Congress praised his patriotism but rejected:
  - His methods
  - His authoritarian vision
- Represents a **counter-narrative** to Gandhian non-violence.

*Netaji Subhas Chandra Bose was the first person to refer to Mahatma Gandhi as the "Father of the Nation". He used this title during a radio address broadcast from Singapore on July 6, 1944, calling him, "Father of our Nation, in this holy war for India's liberation, we ask for your blessings and good wishes".*

## Amartya Sen

### Context

- Nobel laureate **Amartya Sen** criticized the **Special Intensive Revision of electoral rolls in West Bengal**, saying it was conducted in haste and did not give voters enough time to submit documents.

### Amartya Kumar Sen

- Amartya Kumar Sen** (born 3 November 1933, Santiniketan, India) is an **Indian economist and philosopher**.
- Since 1972, he has taught in **England and the United States**. He received the **1998 Nobel Prize in Economic Sciences** for his contributions to **welfare economics** and has significantly influenced **social choice theory, development economics, famines, decision theory, public health and measures of well-being**.
- In 1999, he received the **Bharat Ratna** and in 2020, the **Peace Prize of the German Book Trade** for his work on **global justice and social inequality**.

### Key Contributions

#### Social Choice Theory & Liberal Paradox

- Sen extended **Arrow's impossibility theorem**, showing conflicts in aggregating individual preferences into societal choices and introduced the **liberal paradox**, highlighting tensions between **individual rights and social efficiency**.

## West Bengal's Fiscal Performance (April–November 2025)

### Revenue Expenditure:

- West Bengal kept its **revenue expenditure growth under control**, rising just **3.8% year-on-year**, a sharp moderation from **16.1%** in the same period last year.
- The state accounted for **6.2% of the aggregate revenue expenditure** of 22 states, reflecting a **restrained spending profile**.
- Unlike **Andhra Pradesh, Telangana, Kerala and Himachal Pradesh**, West Bengal was not flagged for a **worrisome fiscal trajectory**.

### Poverty, Famines and Development Economics

- Poverty and Famines (1981)**: Famines arise from **distribution inequalities**, not just food shortage.
- Human Development Report**: Influenced UN's metrics on **poverty and well-being**.
- Equality of What? (1979)**: Introduced **capability approach**, emphasizing citizens' actual freedoms.
- Development as Freedom (1999)**: Advocated **freedom as both means and ends** of development, highlighting **political, economic, social, transparency and protective freedoms**.

### Gender & Social Issues

- More Than 100 Million Women Are Missing (1990)**: Examined **gender inequality in mortality**.

### Justice Theory

- The Idea of Justice (2009)**: Proposed a **realization-oriented, comparative approach** to justice

### Memberships and Honors

- President of **Econometric Society, American Economic Association, International Economic Association** and others.
- Honorary Chairman/Advisor: **Oxfam UK**.
- Member: **Berggruen Institute, Information and Democracy Commission**.
- Dubbed "**Conscience of the profession**" for work on famine, poverty, gender and welfare.

### Capital Expenditure:

- The state's **capital spending contracted by 35.1% year-on-year**, a sharper decline than the **13% drop** recorded last year.
- Its share in **aggregate capital expenditure** stood at **2.1%**, making it one of the **lower contributors to overall state capex**.

### Comparison with Other States:

- West Bengal, along with **Uttar Pradesh, Tamil Nadu, Odisha and Jharkhand**, saw **negative capital expenditure growth** in both FY'25 and FY'26 so far, highlighting **weakness on the capex front** despite controlled revenue spending.

## West Bengal Reports Two Suspected Nipah Cases

### Context

- The Centre has deployed a National Joint Outbreak Response Team to assist the State for effective containment after two suspected cases of Nipah virus were identified in West Bengal.

### Nipah Virus (NiV) Overview

#### Nature:

- Nipah virus is a **zoonotic RNA virus** belonging to the **Paramyxoviridae** family, genus **Henipavirus**, closely related to the **Hendra virus**.

#### Hosts and Transmission:

- Initially detected in **domestic pigs, dogs, cats, goats, horses and sheep**.
- Fruit bats** (genus **Pteropus**) are the natural reservoir.
- Transmission occurs through **bat urine, faeces, saliva, birthing fluids, contaminated food, or direct human-to-human contact**.

#### Fatality:

- The **case fatality rate** ranges from **40% to 75%**.

#### Symptoms:

In humans, NiV infection causes **encephalitic syndrome**, with symptoms including:

- Fever and headache.
- Drowsiness, disorientation, mental confusion.
- Progression to **coma and death** in severe cases.

#### Diagnosis:

- RT-PCR** testing of bodily fluids.
- Antibody detection** via **ELISA**.

#### Prevention:

- Currently, **no vaccines** are available for humans or animals.

### WHO Response:

- The **World Health Organization** has listed Nipah virus as a **priority disease** due to its high fatality and epidemic potential.

## Enforcement Directorate (ED)

### Context

- Chief Minister of West Bengal Mamata Banerjee has lodged police complaints against the Enforcement Directorate (ED).

### Enforcement Directorate (ED) Overview

- Headquarters:** New Delhi
- Established:** 1956
- Administrative Control:** Department of Revenue, Ministry of Finance
- Leadership:** Headed by a Director (rank not below Additional Secretary, GoI)

## What is Nipah virus?

NIPAH VIRUS (NIV) INFECTION IS A NEWLY EMERGING ZOOZOSIS THAT CAUSES SEVERE DISEASE IN BOTH ANIMALS AND HUMANS



NiV first identified in 1998 during an outbreak in Malaysia



Fruit bats are natural hosts of NiV

### PREVIOUS OUTBREAKS IN INDIA

Jan-Feb, 2001 **Siliguri (WB)**

Cases: 66  
Deaths: 45 (68%)

April, 2007 **Nadia (WB)**

Cases: 5  
Deaths: 5 (100%)

### HOW IT IS TRANSMITTED



- Mandate:** Multi-disciplinary agency investigating **money laundering, foreign exchange violations** and related economic offences.

### Statutory Functions:

- Prevention of Money Laundering Act (PMLA), 2002:** Investigate and confiscate property linked to money laundering.
- Foreign Exchange Management Act (FEMA), 1999:** Probe foreign exchange violations and adjudicate penalties.



- **Fugitive Economic Offenders Act (FEOA), 2018:** Attach and confiscate properties of economic offenders fleeing India.
- **COFEPOSA, 1974:** Sponsor preventive detention in FEMA contraventions.

### Operational and Structural Challenges

#### Operational Challenges:

- **Overreaching Jurisdiction & Federal Friction:** Criticized for potentially exceeding jurisdiction.
- **Political Targeting & Loss of Independence:** Allegations of partisan influence affect credibility.
- **Resource & Manpower Constraints:** Strength unchanged since 2011 despite added responsibilities.

#### Structural & Legal Challenges:

- **Broad Discretionary Powers:** PMLA powers (arrest, provisional attachment, reversed burden of proof) raise civil liberties concerns.
- **Judicial Backlogs & Constitutional Hurdles:** Pending PMLA challenges delay trials.
- **Inter-Agency Litigation & Resource Drain:** Complex litigations by accused slow case resolution.

#### Technological Challenges:

- **Cyber and Crypto Fraud:** Rising cases like Pig Butchering, Phantom Hacking.

- **Implementation Gaps:** Weak AML/CFT compliance among VASPs, smaller financial entities and cash-based businesses flagged by FATF.

### Key Judgements

- **Abhishek Banerjee vs. ED (2022):** Upheld ED's nationwide jurisdiction.
- **Pankaj Bansal vs. Union of India (2023):** Arresting officers must provide written grounds of arrest.
- **Manish Sisodia vs. ED (2024):** Accused have the right to inspect all documents, including unrelayed-upon evidence.

### Way Forward

- **Due Process:** Implement Standard Operating Procedures to prevent bias.
- **Evidence-Based Investigations:** Focus on intelligence-driven, evidence-backed prosecutions.
- **Human Resources & Expertise:** Increase manpower per FATF recommendations.
- **Advanced Technology:** Leverage AI/ML tools via FIU for detecting suspicious transactions.
- **Inter-Agency Harmonization:** Coordinate with bodies like Insolvency and Bankruptcy Board to resolve legal overlaps.

## Chief Secretary of the State

### Context

- The West Bengal government appointed senior IAS officer **Nandini Chakraborty** (IAS:1994:WB) as the Chief Secretary of the state, making her the first woman officer to assume the top bureaucratic position.

### Chief Secretary: Overview

- **Highest-ranking executive officer** and civil servant in a state government.
- **Ex-officio roles:**
  - Head of the **State Civil Services Board**
  - Head of the **State Secretariat**
  - Head of the state cadre IAS and all civil services under state rules of business
  - **Secretary to the State Cabinet**

- **Principal advisor** to the Chief Minister on all administrative matters.
- **Rank & Status:**
  - Senior-most IAS cadre post in a state
  - Ranks **23rd on the Indian Order of Precedence**
  - Equivalent to **Secretary to the Government of India**

### Historical Background

- Originated during the **British colonial era** as "Secretary to the Government of the Province."
- Acted as the **link between the British government and provincial administration**, advising the Governor and implementing policies.

- Typically held by **senior ICS officers**, mostly British, until independence in 1947.
- Salary and rank during British Raj were equivalent to **Joint Secretary to Government of India**, with Chief Secretary slightly below.

#### Role in State Administration

- Functions as the **central point for interdepartmental coordination**.
- Acts as **Chairman of the State Civil Service Board**, recommending postings and transfers of IAS and state civil service officers.
- Assisted by **Additional Chief Secretaries, Special Chief Secretaries and Principal Secretaries** of various departments.

## Kurseong

### Context

- A black panther was reportedly spotted gliding silently through the misty forests of Kurseong in North Bengal, a rare glimpse of wilderness magic.

### Overview of Kurseong

- Kurseong, a **hill station in Darjeeling district, West Bengal**, sits at around **1,500 meters** in the Himalayan foothills, about **30 km south of Darjeeling**.
- Historically part of the **Kingdom of Sikkim**, it was leased to the **British East India Company in 1835** for use as a sanatorium and transit point.
- Kurseong is known for its **tea estates**, contributing significantly to **Darjeeling tea**, valued for its muscatel flavor.
- The town's economy revolves around **tea cultivation, horticulture and tourism**, supported by connectivity via the **Hill Cart Road** and the **Darjeeling Himalayan Railway (UNESCO World Heritage site)**.

### History

- **Pre-colonial:** Inhabited by **Lepchas**, with subsistence farming, hunting and small-scale trade. Kirati groups like **Rai and Limbu** contributed to mixed settlements. The area was under **Sikkimese suzerainty** and briefly affected by **Gorkha incursions**.
- **Colonial:** Acquired by the **British in 1835**, developed as a sanatorium and trade hub. **Tea**

- Usually, the **most senior IAS officer** is appointed, though exceptions exist.
- Chosen by the **state Chief Minister**.
- Considered the **linchpin of state administration**.

### Equivalence and Protocol

- Equivalent in rank to **Secretary to Government of India**.
- Holds **apex-grade status** within IAS.
- Equivalent to **three-star officers in the armed forces** (Lieutenant General/Vice Chiefs) in the **Order of Precedence**.

cultivation began in the 1850s, with estates like **Makaibari** and **Alubari**. Infrastructure like **roads and the Darjeeling Himalayan Railway** facilitated trade and tourism.

- **Post-independence:** Integrated into **West Bengal in 1947**, with minimal migration disruptions. Tibetan refugees arrived post-1959, settling in nearby areas.
- **Gorkhaland movement:** Demand for a separate state arose in the 1980s, leading to the **Darjeeling Gorkha Hill Council (DGHC) in 1988** and later the **Gorkhaland Territorial Administration (GTA) in 2012**. Agitations in 2017 and ongoing disputes highlight persistent **ethnic identity and autonomy issues**.

### Geography and Environment

- Located between **Siliguri plains** and **Darjeeling**.
- **Topography:** Steep slopes, river valleys, part of the **Mahabharat Range**.
- **Climate:** Subtropical highland (Cwb), **cool summers, cold winters, heavy monsoon rainfall (2,000–3,000 mm)**, frequent **fog and mist** and **landslide-prone slopes**.
- **Biodiversity:** Rich in **orchids, rhododendrons, medicinal plants**, 130+ bird species and mammals like **Himalayan black bears**. Tea plantations coexist with native vegetation.
- **Environmental challenges:** Rapid urbanization, deforestation, landslides and water scarcity threaten ecology and infrastructure.

### Economy

- **Tea industry:** Dominates employment (~60% of workforce), with estates like **Makaibari, Castleton, Ambootia** producing premium Darjeeling tea. Annual output has declined to **7-8 million kg**, affected by climate and pest pressures. Organic farming is expanding in some estates.
- **Tourism:** Driven by **tea tours, Himalayan Railway, viewpoints**, generating **~₹450 crore annually** in the hills. Political unrest disrupts inflows.
- **Other activities:** Horticulture, small-scale trade, remittances and handicrafts supplement incomes. Challenges include **youth unemployment (15-20%)** and limited industrial diversification.

### Demographics

- **Population (2011):** 42,446 in municipal limits; broader subdivision ~94,347.
- **Density:** 23,081/km<sup>2</sup> in urban core. Projected population ~59,000 by 2025.
- **Ethnic composition:** Dominated by **Gorkhas (Nepali-speaking)**; minorities include **Lepchas, Bhutias, Bengalis and Tibetan refugees**.

### Languages and Dialects

- **Nepali** is the dominant mother tongue in Kurseong, spoken by **~89%** of residents, reflecting the predominance of ethnic Gorkha communities. Secondary languages include **Hindi (1.4%), Sadri (5.4%)** and minor use of **Bengali and Tibetan**, influenced by migrant populations.
- **Dialectal variations** exist: hill areas retain archaic Nepali forms influenced by **Tibeto-Burman languages** (Lepcha, Limbu), while valleys show more **Indo-Aryan influences**.
- **English** functions as a **lingua franca** in education and official use since Nepali was recognized as an official language in 1992. Literacy rates exceed **80%**, supported by this bilingual framework.

### Culture and Festivals

- **Dashain:** major Gorkha festival, 15 days, Vijaya Dashami is the highlight
- **Losar:** Tibetan New Year, 15 days, with rituals and masked dances

- Folk arts: **Maruni dance, Khukuri dance**, accompanied by **dotara and madal**

### Notable Sites

- **Tea Estates:** Makaibari, Castleton, Ambootia, Margaret's Hope – tourism via guided tours and pluck-to-cup experiences.

### Black Panther

- A **black panther** is a **melanistic colour variant** of the **leopard (*Panthera pardus*)** and the **jaguar (*Panthera onca*)**. The black appearance is due to excess **melanin**, though the characteristic **rosettes remain visible** under certain light conditions.

### Leopard (*Panthera pardus*)

- Melanistic leopards occur mainly in **Africa and Asia**, especially in **tropical and subtropical moist forests**. Historical records date back to **1788** from Bengal. In India, black leopards are notably reported from the **Western Ghats, southern India, Assam and Kanara**, with frequent sightings in **Kerala and Karnataka**.
- Recent records include sightings in **Bhadra Wildlife Sanctuary, Kas Plateau, Satara and Kanchenjunga Conservation Area (Nepal)**. High frequencies are observed in **Peninsular Malaysia and Java**.
- Melanism in leopards is caused by a **recessive allele**. It may offer a **selective advantage in dense forests** with low light and is possibly linked to **immune system benefits**. Overall frequency is about **11%** across the species' range.

### Jaguar (*Panthera onca*)

- Black jaguars are found in **Central and South America**, particularly in **Mexico, Costa Rica, Panama, Paraguay and Brazil**. Numerous camera-trap records confirm their presence in **primary forests and Amazonian floodplains**.
- Melanism in jaguars is caused by a **dominant allele**, linked to mutations in the **melanocortin-1 receptor (MC1R) gene**.

### Key Distinction

- Melanism is **recessive in leopards** but **dominant in jaguars**, explaining differing population frequencies.

## Mahasweta Devi

### Context

- The Kolkata Literary Meet 2026 opened by commemorating the centenary of writer-activist **Mahasweta Devi**, celebrating her free spirit, lifelong work for the marginalised and the power of her pen.

### Mahasweta Devi (1926–2016)

- Mahasweta Devi** was an eminent **Indian Bengali writer, journalist and social activist**. She wrote primarily in **Bengali** and is known for her powerful portrayal of **tribal, Dalit and marginalised communities**.

### Major Literary Works

- Hajar Churashir Maa.
- Rudali.
- Aranyer Adhikar.
- Chotti Mundi Ebong Tar Tir.
- Jhansir Rani (1956), her first novel.

### Ideology and Focus

- She followed a **leftist ideology**.
- Worked for the **rights and empowerment of Adivasis**.
- Focused on **Lodha and Shabar tribes**.
- Major regions of work included **West Bengal, Bihar, Madhya Pradesh and Chhattisgarh**.
- Core themes included **land alienation, caste oppression, colonial exploitation and women's struggles**.

### Early Life and Education

- Father:** **Manish Ghatak**, a poet of the **Kallol movement**, who wrote under the pen name *Jubanashwa*.
- Uncle:** **Ritwik Ghatak**, a renowned filmmaker.
- Mother:** **Dharitri Devi**, a writer and social worker.

### Literary Career

- Authored **over 100 novels and more than 20 short-story collections**.
- Most works were written in **Bengali** and later translated into other languages.
- Her writing was based on **extensive fieldwork and lived experiences**.
- She lived for years among **tribal communities**.
- She believed her stories were **not fictional creations but voices of the people**.

- Folk traditions, myths and oral histories strongly influenced her writing.

### Teaching and Journalism

- Began teaching in **1964** at **Vijaygarh Jyotish Ray College**.
- The institution primarily catered to **working-class women**.
- Worked simultaneously as a **journalist and creative writer**.
- Conducted in-depth studies of **Lodhas, Shabars, women and Dalits**.
- Her fiction exposed oppression by **landlords, moneylenders and corrupt officials**.

### Translations and Global Recognition

- Her works were translated into English by **Gayatri Chakravorty Spivak**.
- Major translated collections included **Imaginary Maps, Old Woman and The Breast Stories**.

### Social and Political Activism

- Actively protested against **discrimination of tribal communities**.
- Aranyer Adhikar (1977)** portrayed the life of **Birsa Munda**.
- Her activism led to the **removal of manacles from Birsa Munda's statue in Jharkhand in 2016**.
- Opposed **land acquisition policies in Singur and Nandigram**.

### Other Contributions

- Helped bring writer **Manoranjan Byapari** into prominence.
- Delivered a powerful speech at the **Frankfurt Book Fair, 2006**.
- Campaigned against the **death penalty in India**.
- Played a role in the **commutation of death sentences in 1997**.
- Signed the **2012 petition opposing capital punishment** after the **Ajmal Kasab verdict**.

### Awards and Honours

- Sahitya Akademi Award (Bengali)**.
- Jnanpith Award**.
- Ramon Magsaysay Award**.
- Padma Shri**.
- Padma Vibhushan**.



## Muriganga River

### Context

- A Bangladeshi vessel sank in the Muriganga river in West Bengal.

### About

- **Muri Ganga River**, also known as the **Baratala River** or **Channel Creek**, is a distributary of the **Hooghly River** in the **South 24 Parganas district** of **West Bengal**.
- Before entering the **Bay of Bengal**, the **Hooghly River** bifurcates, with one channel flowing **east of Sagar Island**. This eastern channel is called the **Baratala River** or **Channel Creek** and is **locally known** as **Muri Ganga**.

## ASHA Workers Protest

### Context

- Thousands of **Accredited Social Health Activists (ASHAs)** marched in **Kolkata** on **January 21, 2026**, demanding a revision of their monthly honorarium to **₹15,000** and a meeting with senior **Health Department** officials.
- Similarly, **ASHA workers in Kerala** staged protests demanding **higher wages** and **retirement benefits**.

### Who are ASHA Workers?

- ASHAs are **community health volunteers** introduced under the **National Rural Health Mission (NRHM), 2005** to provide essential healthcare services in rural areas.
- In **2013**, **NRHM** merged with the **National Urban Health Mission (NUHM)** to form the **National Health Mission (NHM)**.
- ASHAs work alongside **Anganwadi Workers (AWWs)** under the **Integrated Child Development Scheme (ICDS)** to improve healthcare accessibility.
- An ASHA is a **local woman aged 25–45 years**, preferably married, widowed, or divorced, with at least **Class 10 education**.
- They are officially considered **volunteers** and hence are paid **task-based incentives**, not a fixed salary.
- Deployment norm is **one ASHA per 1,000 population**.
- As per **2022–23 data**, there are **9.2 lakh ASHAs** in rural areas and about **79,900** in urban areas.

### Key Responsibilities of ASHAs

- ASHAs ensure **antenatal check-ups**, **postnatal care** and educate mothers on **breastfeeding** and **infant nutrition**.
- They support **immunisation programmes**, **TB treatment**, **malaria screening** and **disease prevention activities**.
- They provide **basic healthcare**, distribute **essential medicines**, offer **first aid** and report **births and deaths**.

### Concerns of ASHA Workers

- ASHAs receive **low and irregular payments**, ranging roughly between **₹5,000–₹15,000**, varying by state.
- Payments are often **delayed** due to funding bottlenecks and **Centre–State disputes**.
- Despite their frontline role during **COVID-19**, for which they received the **WHO World Health Leaders Award (2022)**, their working conditions remain poor.
- They are **not classified** as **government employees**, which denies them benefits like **pension**, **gratuity**, **provident fund**, **fixed wages** and **medical insurance**.
- Some states, such as **Andhra Pradesh**, provide limited benefits like **gratuity**.
- The **Parliamentary Standing Committee on Labour (2020)** recommended formalising their roles, but **no concrete action** followed.
- Most ASHAs are women from **marginalised backgrounds** and face **gender-based discrimination**.

### How Can ASHA Workers Be Empowered?

- Formalisation of ASHAs as **government or contractual workers** under the **Code on Social**

**Security, 2020** to ensure labour rights and social protection.

- **Skill development and training** to enable career progression into roles like **Auxiliary Nurse Midwives (ANMs)**.
- Ensuring **financial security** through a **fixed salary along with incentives**.
- Use of **Direct Benefit Transfer (DBT)** to prevent payment delays and ensure income stability.

## Fort William

### Context

- The Army's Eastern Command has sought Governor C.V. Ananda Bose's intervention over Chief Minister Mamata Banerjee's allegation that a senior officer used Fort William for an SIR exercise at the BJP's behest.

### Fort William (Vijay Durg)

#### Location and Significance

- Fort William, officially renamed **Vijay Durg (2025)**, is located in **Hastings, Kolkata**, on the **eastern bank of the River Hooghly**.
- It is one of the most enduring **British-era military fortifications** in India.
- It covers an area of about **70 hectares**.
- The fort is named after **King William III**.
- The **Maidan**, India's largest urban park, lies in front of the fort.
- An internal guard room of the old fort became infamous as the **Black Hole of Calcutta**.
- Today, it serves as the **Headquarters of the Eastern Command of the Indian Army**.

#### Historical Background

- The **original Fort William** was built in **1696** by the **British East India Company**, with permission from **Mughal Emperor Aurangzeb**.
- Construction was initiated by **Sir John Goldsborough** and later carried forward by **Sir Charles Eyre**. It was completed in **1706** and named in **1700**.
- In **1756**, **Siraj-ud-Daulah**, the Nawab of Bengal, captured the fort and renamed Calcutta as **Alinagar**.

### National Health Mission (NHM)

- NHM aims to provide **universal access to affordable, equitable and quality healthcare**, aligned with **Sustainable Development Goal-3 (Good Health and Well-being)**.
- It is implemented by the **Ministry of Health and Family Welfare** and extended till **2026**.
- NHM supports States and UTs by strengthening **health infrastructure, human resources and service delivery**, especially in rural areas.

- After the **Battle of Plassey (1757)**, **Robert Clive** began construction of the **new fort** in **1758** at the Maidan.
- The present fort was completed in **1781**, at a cost of around **£2 million**.
- The surrounding area was cleared, leading to the development of the **Maidan**, known as the **"Lungs of Kolkata."**

#### Post-Independence Status

- Fort William is currently under the **Indian Army**.
- It can accommodate nearly **10,000 army personnel**.
- Civilian entry is **highly restricted**.
- **St. Peter's Church**, earlier a chaplaincy, now functions as a **library** for army personnel.
- A **war memorial** and a **museum** commemorate the **1971 Indo-Pak War** and the **Bangladesh Liberation War**.

#### Structural Feature

- Built of **brick and mortar** in the shape of an **irregular octagon**.
- Designed as a **star fort**, suitable for defence against cannon fire.
- Surrounded by a **dry moat**, 9 m deep and 15 m wide.
- The fort has **six gates**: Chowringhee Gate, Plassey Gate, Calcutta Gate, Water Gate, St. George's Gate and Treasury Gate.

#### Other Important Facts

- The **first Indian Masonic Lodge** was established here in **1730**.
- Fort William was the administrative centre of the **Bengal Presidency**.

## Worsening AQI in Kolkata

### Context

- The Calcutta High Court took **suo motu cognisance** of worsening air pollution in Kolkata and adjoining areas, issuing notice to the State government.

### Details

- The matter will be heard alongside a **PIL** raising concerns over the continued deterioration of the city's AQI.
- Toxic gases like **nitrogen dioxide (NO<sub>2</sub>)** and **ground-level ozone (O<sub>3</sub>)**, along with dust and fine particles, impacted **Kolkata's AQI for nearly three months last year**, a climate-tech analysis revealed.

### What is AQI?

- The **Air Quality Index (AQI)** is a numerical scale used to indicate **how polluted the air is** or how polluted it is likely to become.
- A higher AQI value signifies **greater air pollution and higher health risks**.

### Purpose of AQI

- AQI helps governments and citizens **understand air quality levels** and take preventive public health measures.

### Pollutants Monitored

AQI is calculated based on key air pollutants, including:

- Ground-level ozone (O<sub>3</sub>)
- Particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>)
- Sulfur dioxide (SO<sub>2</sub>)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO<sub>2</sub>)

### How AQI is Calculated

- AQI is computed using **pollutant concentration over a fixed time period**, measured through air monitoring stations or models.

- Epidemiological studies link pollutant dose with health impacts.

### AQI Categories

- AQI values are grouped into **ranges**, each assigned:
  - A colour code
  - A health descriptor
  - A standard public health advisory

### Health Impact

- Children, elderly people and individuals with respiratory or cardiovascular diseases** are most vulnerable.
- High AQI levels can cause **breathing difficulty, irritation and long-term health damage**.

### Causes of High AQI

- Vehicular emissions**, especially during rush hours.
- Industrial emissions** and coal-based power plants.
- Forest fires and dust storms**
- Temperature inversion and stagnant air conditions**, which trap pollutants near the surface.

### Government Response During High AQI

- Advisories to **limit outdoor physical activity**.
- Declaration of **Air Quality Action Days**.
- Recommendations for **masks and indoor air purifiers**.
- Emergency measures to **restrict emissions from major polluters** during severe episodes.

### Global Context

- Different countries follow different AQI systems, such as:
  - Canada's Air Quality Health Index.
  - Singapore's Pollutant Standards Index.
  - Malaysia's Air Pollution Index.

## WEST BENGAL RELATED STATIC GK

Mahasweta Devi was conferred the Ramon Magsaysay Award in 1997.

Pagal Panth was founded by Karam Shah.

Surendranath Banerjee formed the Indian Association, which

merged with the Indian National Congress in 1886.

The Young Bengal movement was started by Vivian Derozio.

Amitra Sudan Bhattacharya won the Sahitya Akademi Award in Bengali in 2017.

Raiganj Wildlife Sanctuary is located in Uttar Dinajpur district.

*Jugantar* was started by Sri Aurobindo Ghose.

The First Bengal Peasants Party and Workers Party was organised in 1926.

Bina Das was the woman revolutionary who shot the Governor of Bengal during her convocation at the University of Calcutta.

Job Charnock founded Calcutta at the sites of Sutanuti, Kalikata, and Govindapur.

The *Rabindra Puraskar* award has been conferred to writers since 1950.

Satinath Bhaduri was conferred the *Rabindra Puraskar* for the novel *Hate Bazare*.

Jibanananda Das received the Sahitya Akademi Award in 1955 for the poetry book *Sagar Theke Phera*.

Chandannagar was integrated into West Bengal in 1954.

The total sanctioned judge strength in the Calcutta High Court is 72.

Saila Kumar Mukherjee was the first speaker of the West Bengal Legislative Assembly.

Durgapur is the second planned city of India after Chandigarh.

The Durgapur Steel Plant was established with the help of Russia.

The Durgapur Steel Plant was established in 1957.

Singalila National Park is the smallest national park by area in West Bengal.

Jaldapara National Park has the largest population of the Indian one-horned rhinoceros in West Bengal.

Buxa Wildlife Sanctuary was declared a Tiger Reserve in 1983.

Jore Pokhri Wildlife Sanctuary is the smallest wildlife sanctuary in West Bengal.

*Nil Darpan*, a play on the plight of indigo farmers in West Bengal, was written by Dinabandhu Mitra.

North 24 Parganas is the largest district by population in West Bengal.

*Sagar Sangamey* was the first Bengali film to win the National Film Award for Best Feature Film.

*Jamai Shashthi* was the first Bengali **talkie** (sound) film, released on April 11, 1931.

Shamsuddin Ilyas Shah was the first Sultan of Bengal.

Sir Frederick Burrows served as the last British Governor of Bengal during the British Raj.

*Durgeshnandini* was the first Bengali novel.

*Meghnad Badh Kavya* was written by Michael Madhusudan Dutt.

*Anandamath* by Bankim Chandra Chattopadhyay was published in 1882.

*Durgeshnandini* was authored by Bankim Chandra Chattopadhyay.

Harinath De was the first Indian librarian of the National Library of India.

The National Library of India in Kolkata was set up by Governor General Lord Curzon.

The Indian Science Congress Association was started in 1914.

The first One Day International cricket match at Eden Gardens was held in 1987.

Shailen Manna was the captain of the Indian football team that



won the gold medal in the 1951 Asian Games.

Jyoti Basu became the Chief Minister of West Bengal for the first time in 1977.

Sir James William Colville was the first Chancellor of Calcutta University.

Bula Choudhury was the first Indian woman to swim the English Channel twice.

India's first pharmaceutical company, Bengal Chemicals and Pharmaceuticals, was established by Prafulla Chandra Roy.

Prasanta Chandra Mahalanobis is known as the founder of the Indian Statistical Institute.

Rabindranath Tagore was awarded the Nobel Prize in Literature in 1913.

Satyajit Ray's first film *Pather Panchali* was released in 1955.

The construction of Vidyasagar Setu was completed in 1992.

## APPOINTMENTS

Position	Details of Appointment
DG of ITBP	Shatrujeet Singh Kapoor, a 1990-batch IPS officer, has been appointed as the Director General of the Indo-Tibetan Border Police.
BSF Director General	The incumbent ITBP chief Praveen Kumar, a 1993-batch IPS officer of the West Bengal cadre, has been appointed as the Director General of the Border Security Force.
Director General of the National Investigation Agency (NIA)	The Centre has appointed senior IPS officer Rakesh Aggarwal as Director General of the National Investigation Agency (NIA), with tenure approved till his retirement in August 2028.
DIG in CRPF	The Ministry of Home Affairs (MHA) has approved the appointment of Ravi Shankar Chhabhi as DIG in the Central Reserve Police Force on central deputation.
High Commissioner to New Zealand	The Ministry of External Affairs has announced the appointment of Muanpuii Saiawi as India's next High Commissioner to New Zealand
Ambassador to Georgia	The Ministry of External Affairs has announced the appointment of Amit Kumar Mishra as the next Ambassador to Georgia.
Vigilance Commissioner in the Central Vigilance Commission	The President of India has appointed Shri Praveen Vashista as Vigilance Commissioner in the Central Vigilance Commission under the provisions of the Central Vigilance Commission Act, 2003.
Chairman of the Atomic Energy Regulatory Board	The Appointment Committee of the Cabinet (ACC) headed by Prime Minister Narendra Modi appointed scientist A.K. Balasubrahmanian as the Chairman of the Atomic Energy Regulatory Board (AERB) India's apex nuclear safety regulator.
General Insurance Council CEO	The General Insurance Council has appointed S Prakash as Chief Executive Officer (CEO), Health Insurance Ecosystem and Strategic Partnerships.

<b>Chair of the Badminton World Federation</b>	The two-time Olympic medallist and former world champion – PV Sindhu has been elected Chair of the Badminton World Federation (BWF) Athletes Commission for the 2026–2029 term.
<b>Odisha's First Woman Chief Secretary</b>	IAS officer Anu Garg has been appointed as Odisha's first woman Chief Secretary.
<b>CMD of Coal India Limited</b>	Ministry of Coal has appointed B. Sairam as the Chairman-cum-Managing Director (CMD) of Coal India Limited (CIL).
<b>Chief Information Commissioner (CIC) of Central Information Commission (CIC)</b>	Former Secretary in the Ministry of Law and Justice Raj Kumar Goyal took oath as the Chief Information Commissioner (CIC) of Central Information Commission (CIC).

## AWARDS IN NEWS

### Padma Awards 2026

- The **Padma Awards 2026** have been announced. Instituted in **1954** alongside the Bharat Ratna, the awards originally had three categories—Pahela Varg, Dusra Varg and Tisra Varg—but were renamed in **1955** by **Presidential notification** as **Padma Vibhushan**, **Padma Bhushan** and **Padma Shri**.
- These awards are **civilian honours** recognizing exceptional contributions in various fields. The **Padma Vibhushan** is the **second-highest civilian award**, conferred for **exceptional and distinguished service**. The **Padma Bhushan** is the **third-highest**, awarded for **distinguished service of a high order**, while the **Padma Shri**, the **fourth-highest**, recognises **distinguished service in any field**.
- All individuals are eligible irrespective of race, gender, occupation, or position, though government servants are generally excluded, except for doctors and scientists employed by the government. Posthumous awards are rare and allowed only in highly deserving cases.
- A minimum gap of five years is usually required for consideration for a higher award, although the **Awards Committee** may relax this in exceptional circumstances. Nominations can be submitted by the public and self-nominations are also permitted.
- The **Padma Awards Committee**, constituted annually by the Prime Minister and headed by

the Cabinet Secretary, evaluates nominations, with final approval by the **President of India**.

- The awards comprise of a **sanad (certificate) and medallion**. An annual cap of **120 awards** exists, excluding posthumous recognitions, NRIs, foreign nationals and OCIs. The honours are **recognition, not titles** and cannot be used as prefixes or suffixes.
- The awards cover diverse fields, including **arts, social work, public affairs, science and engineering, trade and industry, medicine, literature and education, sports, civil service and other public services**.

### Indira Gandhi Prize for Peace, Disarmament and Development 2025

- In international recognition, **Mozambique's Graca Machel** has been awarded the **Indira Gandhi Prize for Peace, Disarmament and Development 2025**.
- Announced by the **Indira Gandhi Memorial Trust**, Machel has been honoured for her lifelong dedication to **education, healthcare, nutrition, women's empowerment and humanitarian support**, especially in conflict-affected and challenging regions.

### Padmapani Award

- Music composer **Ilaiyaraaja** is set to receive the **Padmapani Award** at the **11th Ajanta-Ellora International Film Festival** in early

2026, acknowledging his timeless contribution to Indian film music.

- The prestigious Padmapani Award recognises extraordinary contributions to cinema and the arts and includes a memento, citation and cash prize of ₹2 lakh, symbolising both artistic excellence and cultural impact.

### Sukhatme National Award in Statistics

- Government of India has invited nominations for the Sukhatme National Award in Statistics – 2026.
- The Sukhatme National Award in Statistics was instituted in 2000 to honour Prof. P. V. Sukhatme, a pioneer of modern statistics in India. Conferred once every two years, the award aims to encourage high-quality research and sustained contributions that improve data quality, methodology and the credibility of official statistics. It recognises eminent Indian statisticians aged 45 years and above for their lifetime achievements and scholarly impact in the field.
- The award is instituted by the Ministry of Statistics and Programme Implementation, is awarded biennially and recognises Indian statisticians aged 45 and above. The award ceremony will take place on Statistics Day, 29 June 2026 and recipients receive a citation, shawl and memento.

### First Indian formally inducted into Kenjutsu

- Andhra Pradesh Deputy CM Pawan Kalyan has become the first Indian formally inducted into Kenjutsu, the ancient Japanese samurai swordsmanship tradition, a rare honour usually reserved for Japanese practitioners.

### Major Swathi Shantha Kumar

- Major Swathi Shantha Kumar has been awarded the UN Secretary-General's Award 2025 in the Gender Category for her project "Equal Partners, Lasting Peace", chosen from nominations across all UN peacekeeping missions worldwide.

### Best Picture at Oscars 2026

- Five Indian films—Kantara: A Legend – Chapter 1, Tanvi The Great, Mahavatar Narsimha, Tourist Family and Sister Midnight—are eligible for Best Picture at Oscars 2026.
- Several others, including Homebound and Dashavatar, qualify in other categories. Oscars 2026 nominations are voted 12–16 Jan, announced 22 Jan, with the ceremony on 15 Mar at Dolby Theatre, LA. This marks a proud moment for Indian cinema on the global stage.

### Pradhan Mantri Rashtriya Bal Puraskar

- The Pradhan Mantri Rashtriya Bal Puraskar is India's highest civilian award for children, recognizing outstanding achievements of individuals below 18 years.
- Conferred by the President of India, it honors young role models in six categories: Bravery, Social Service, Environment, Sports, Art & Culture and Science & Technology.
- Instituted to replace the National Bravery Awards, the scheme aims to inspire, encourage and celebrate children making a positive impact on society.

### Turner Prize

- Nnena Kalu has become the first artist with a learning disability to win the Turner Prize, the UK's top visual art award. Her cocoon-shaped sculptures impressed judges for their bold presence and emotional impact. Kalu, an ActionSpace resident artist, marks a historic step for inclusivity in global contemporary art.
- The Turner Prize, established in 1984 and named after J.M.W. Turner, is the UK's top visual art award, open to all media. Initially for artists under 50, it is now open to any age and is awarded biennially at Tate Britain or alternate UK venues, widely publicised globally.

### Miyana Railway Station

- Miyana Railway Station in Guna, Madhya Pradesh won the National Energy Conservation Award (NECA) 2025, presented

by President Droupadi Murmu on National Energy Conservation Day.

- Recognised as the **Best Performing Unit in the Transport Category**, the station saved **9,687 units of electricity** through **LED lighting, BLDC fans and smart lighting systems**,

showcasing how small stations can drive **energy efficiency and sustainability**.

- The award is conferred annually by the **Bureau of Energy Efficiency (BEE)** under the **Ministry of Power**.

## BOOKS & AUTHORS

Books	Author
Hajar Churashir Maa, Rudali, and Aranyer Adhikar	Mahasweta Devi
Kaaler Dhuloy Lekha, Smritir Shohor	Shamsur Rahman
Putul Nacher Itikatha, Padma Nadir Majhi	Manik Bandyopadhyay
Chaitali Ghurni (1928), Pashanpuri (1933), Nilkantha (1933), Raikamal	Tarasankar Bandyopadhyay
Chharpatra (1948), Abhijan (1953), Mithe-Kadha (1951), Giti Guccha (1965)	Sukanta Bhattacharya

## SPORTS

### Saina Nehwal Retires

- **Saina Nehwal**, Olympic bronze medallist and former **World No.1**, has officially retired from competitive badminton after battling **chronic knee injuries**. She made history with her **London 2012 Olympic medal**, multiple international titles and top national honours, leaving a lasting legacy in **Indian badminton**.

The **Vijay Hazare Trophy**, India's premier **50-over domestic List A tournament** named after cricketer **Vijay Hazare**, saw Vidarbha claim their first title in this competition, building on their earlier **Ranji Trophy successes**.

### National Paralympic Powerlifting Championship 2026

- The **National Paralympic Powerlifting Championship 2026** was inaugurated virtually by **Uttarakhand CM Pushkar Singh Dhami** from **COER University, Roorkee**. The event promotes **inclusive sports**, empowering **persons with disabilities** and provides para-athletes a platform for **national-level competition** and talent identification for international events.

### Aaryan Varshney

- **Aaryan Varshney**, a 21-year-old chess player from Delhi, became **India's 92nd Grandmaster** after securing his final GM norm at the **Andranik Margaryan Memorial** in Armenia. He sealed the title with a round to spare, becoming the **eighth GM from Delhi**.

### National Sports Governance (National Sports Bodies) Rules, 2026

- India has notified the **National Sports Governance (National Sports Bodies) Rules, 2026**, operationalizing provisions of the **National Sports Governance Act, 2025** to ensure **transparency, athlete-centric governance and gender representation** in national sports bodies. The Rules define the **composition of General Bodies and Executive Committees**, election procedures, eligibility

### Vijay Hazare Trophy

- **Vidarbha** created history by winning their maiden **Vijay Hazare Trophy** in 2026, defeating **Saurashtra by 38 runs** at Bengaluru.



norms and accountability measures, aiming to professionalize sports governance and align it with global best practices.

- A major reform is the mandatory inclusion of **at least four Sportspersons of Outstanding Merit (SOMs)** in every General Body, with **50% being women**. SOMs must be **25 years or older, retired from active sports and observe a one-year cooling-off period**. In Executive Committees, at least **four women members** are required, with provisions to reserve specific posts for women. Athlete representation follows a **10-tier system**, covering achievements from **Olympic/Paralympic medals to National Games medals**, ensuring inclusive recognition across disciplines.
- The Rules also enforce a **transparent election process** with strict disqualification norms, barring individuals convicted of imprisonment from holding positions. A **National Sports Election Panel** of at least 20 qualified members oversees elections, with officers' fees capped at ₹5 lakh. All National Sports Bodies must amend their bye-laws within six months, with the government allowed to extend compliance by up to 12 months in special cases.
- **Key Points:** Notification under **National Sports Governance Act, 2025**; minimum **4 SOMs in General Body, 50% women; 4 women in Executive Committee**; minimum age **25 years**, retired from sports; elections overseen by **National Sports Election Panel**.

### FIDE World Rapid Chess Championships 2025

- India impressed at the **FIDE World Rapid Chess Championships 2025 (Doha)**, with **Koneru Humpy** and **Arjun Erigaisi** winning **bronze medals** in the Women's and Open sections respectively, highlighting India's rising stature in global chess.

### 10,000 International Runs

- **Smriti Mandhana** became the **second Indian woman and fourth player globally** to score

**10,000 international runs**, achieving the milestone during the **4th Women's T20I vs Sri Lanka at Thiruvananthapuram (Dec 28, 2025)**. She joined an elite club featuring **Mithali Raj, Suzie Bates and Charlotte Edwards**.

- **Smriti Mandhana** also became the first Asian batter to complete 4,000 runs in Women's T20Is during the India vs Sri Lanka first T20I.

### First Bowler to Take 8 Wickets

- Bhutan's **Sonam Yeshey** created history by becoming the **first bowler to take 8 wickets in a men's T20 International**, achieving sensational figures of **8/7 in 4 overs** against Myanmar in the **3rd T20I at Gelephu (Dec 29, 2025)**.

### SAFF Women's Club Championship 2025

- **East Bengal FC** created history by winning the **inaugural SAFF Women's Club Championship 2025**, defeating Nepal's **APF 3-0** in the final at **Dasrath Stadium, Kathmandu**. This landmark victory made **East Bengal the first Indian women's club to win an international football title**, highlighting India's rising stature in South Asian women's football.

### FIFA Best Football Awards 2025

- The **FIFA Best Football Awards 2025** were held in **Doha, Qatar**, where **Ousmane Dembélé** won **Men's Player of the Year** and **Aitana Bonmatí** claimed her **third straight Women's Player of the Year** award. Other major winners included **Luis Enrique** (Men's Coach), **Gianluigi Donnarumma** (Best Men's Goalkeeper), **Sarina Wiegman** (Women's Coach), **Santiago Montiel** (Puskás Award), **Lizbeth Ovalle** (Marta Award) and **Zakho SC supporters** (Fan Award).

### WSF Squash World Cup 2025

- India won the **WSF Squash World Cup 2025** for the first time, defeating **top-seeded Hong Kong 3-0** in the final at **Express Avenue Mall, Chennai**. The historic title..India's **second-ever medal** at the event after **bronze in 2023**—was sealed by wins from **Joshna Chinappa, Abhay**

Singh and Anahat Singh, marking a major leap for Indian squash ahead of its **Olympic debut** at LA 2028.

### Khelo India Tribal Games

- The logo, mascot 'Morveer' and theme song of the inaugural Khelo India Tribal Games were unveiled at Late B.R. Yadav Sports Stadium, Bilaspur. Scheduled to begin on 14 February 2026, the Games will be India's first national-level sporting event exclusively for

tribal athletes under the **Khelo India Scheme**. **Morveer** symbolises tribal pride and bravery, rooted in Chhattisgarhi culture. Hosted in **Chhattisgarh** due to its strong tribal presence, the Games will feature **7 disciplines** including archery, athletics, football, hockey, wrestling, swimming and weightlifting, along with **indigenous demonstration sports**. Top performers will be inducted as **Khelo India Athletes**, receiving **₹5 lakh annual support** for 8 years.

## IMPORTANT DAYS

Date	Details
Republic Day 2026	<b>77 years</b> since the Indian Constitution came into force in <b>1950</b> , establishing India as a <b>sovereign democratic republic</b> . The national celebrations will be held at <b>Kartavya Path, New Delhi</b> , with leaders of the <b>European Union—Ursula von der Leyen and António Costa—as Chief Guests</b> , reflecting strong India-EU ties. The <b>theme</b> focuses on <b>150 years of 'Vande Mataram' and Aatmanirbhar Bharat</b> . The day commemorates the <b>supremacy of the Constitution, rule of law, democracy, unity and national pride</b> , highlighted by the grand parade, cultural diversity and presentation of national awards.
January 25	<b>National Tourism Day</b> is observed in India on <b>25 January</b> to highlight tourism's role in economic growth, heritage conservation, cultural exchange and sustainable development.
January 25	<b>National Voters Day</b> is observed every year on <b>25 January</b> to mark the <b>foundation day of the Election Commission of India (ECI)</b> . In 2026, it falls on <b>Sunday, 25 January</b> and marks the <b>16th National Voters Day</b> , highlighting the importance of <b>voter awareness, democratic participation and free and fair elections</b> in India.
January 24	<b>National Girl Child Day</b> is observed every year on <b>24 January</b> in India to promote awareness about the <b>rights, education, health and empowerment of girls</b> . It was initiated in <b>2008</b> by the <b>Ministry of Women and Child Development, Government of India</b> , to highlight challenges faced by girls and encourage gender equality and inclusive development.
January 23	<b>Parakram Diwas 2026</b> is observed on <b>23 January</b> to <b>honour the birth anniversary of Netaji Subhas Chandra Bose</b> , one of India's most courageous freedom fighters. The day was officially <b>announced by the Government of India on 19 January 2021</b> to celebrate his valor, leadership and contributions to India's struggle for independence.
January 21	<b>Tripura, Manipur and Meghalaya Foundation Day 2026</b> is observed on <b>21 January</b> , marking <b>54 years of statehood</b> . The day commemorates the <b>implementation of the North Eastern Areas Reorganisation Act, 1971</b> , which restructured India's northeast. On <b>21 January 1972</b> , Tripura and Manipur transitioned from Union Territories and Meghalaya was carved out of Assam, officially becoming separate states.
January 19	<b>Kokborok Day 2026</b> will be observed on <b>19 January</b> , marking the <b>48th anniversary of</b>

	<b>Kokborok's recognition as an official language of Tripura.</b> Also called Tripuri or Tiprakok, Kokborok is the native language of the Tripuri people, belonging to the <b>Tibeto-Burman language family</b> . It is mainly spoken in Tripura and the <b>Chittagong Hill Tracts of Bangladesh</b> . As one of the fastest-developing indigenous languages in Northeast India, Kokborok forms the <b>core of Tripuri cultural identity</b> .
<b>January 16</b>	<b>National Startup Day 2026</b> is celebrated on <b>16 January</b> , marking <b>10 years of the Startup India Initiative</b> . Launched and led by the <b>Department for Promotion of Industry and Internal Trade (DPIIT)</b> under the <b>Ministry of Commerce and Industry</b> , the initiative has grown into a <b>comprehensive support framework</b> for startups, fostering innovation, entrepreneurship and economic growth across India.
<b>January 15</b>	<b>Indian Army Day</b> is observed on <b>15 January</b> to honour the courage and sacrifice of soldiers. It marks <b>1949</b> , when <b>K.M. Cariappa</b> became India's first <b>Indian Commander-in-Chief</b> , symbolizing full control over the Army post-Independence.
<b>January 12</b>	<b>National Youth Day</b> is observed on <b>12 January</b> to commemorate <b>Swami Vivekananda's birth</b> . His ideals of courage, discipline and social service inspire Indian youth. Vivekananda gained global recognition at the <b>1893 Chicago Parliament of Religions</b> , addressing the audience with "Sisters and Brothers of America."
<b>January 9</b>	<b>Pravasi Bharatiya Divas (PBD)</b> is observed on <b>9 January</b> every year to honour the contributions of the <b>Overseas Indian community</b> to India's growth. The date marks <b>Mahatma Gandhi's return from South Africa in 1915</b> , a key moment in India's freedom movement. Since 2015, <b>PBD conventions are held biennially</b> .
<b>January 8</b>	<b>Earth's Rotation Day</b> is observed globally on <b>8 January</b> to highlight the importance of Earth's rotation. It commemorates <b>Léon Foucault's 1851 pendulum experiment</b> , which provided the first public proof of Earth's rotational motion. In <b>2026</b> , the day marks the <b>175th anniversary</b> of this landmark scientific demonstration.
<b>January 6</b>	<b>World Day of War Orphans 2026</b> is observed on <b>6 January</b> to draw attention to children orphaned by wars and armed conflicts. The day emphasizes the urgent need for <b>care, protection and rehabilitation</b> , urging governments and societies worldwide to support these vulnerable children.
<b>January 6</b>	<b>World Braille Day</b> is observed annually on <b>4 January</b> to honor <b>Louis Braille</b> , the French educator who invented the Braille system in the 19th century. Officially recognized by the <b>United Nations in 2019</b> , the day celebrates Braille as a <b>fundamental tool of inclusion</b> and emphasizes that access to Braille is a <b>basic human right</b> .
<b>January 3</b>	<b>Rani Velu Nachiyar (1730–1796)</b> , was the first Indian queen to fight the British, reclaiming <b>Sivagangai</b> before 1857. Trained in <b>martial arts and warfare</b> , she allied with <b>Hyder Ali</b> and strategist <b>Gopala Nayaker</b> to defeat the British. She led an army including <b>women soldiers</b> , used <b>innovative tactics</b> and ensured <b>strong governance</b> . Known as <b>Veeramangai</b> , she remains a symbol of <b>bravery, anti-colonial resistance and women's empowerment</b> .
<b>January 3</b>	<b>Savitribai Phule (1831–1897)</b> was a pioneering social reformer and India's <b>first woman teacher</b> . Alongside her husband <b>Jyotirao Phule</b> , she <b>co-founded India's first girls' school (1848)</b> , promoted <b>women's and Dalit education</b> and challenged <b>caste and gender discrimination</b> . She opposed <b>child marriage</b> , supported <b>widow remarriage</b> and ran shelters for widows and orphans.

## STATIC GK

**Monoclonal antibodies** are **man-made proteins**, bind specific antigens and are used to treat viral infections like **Nipah**.

Cement manufacturing mixes **silica clay with limestone**; limestone is converted to lime; cement industry contributes over **5% of global CO<sub>2</sub> emissions**.

**Rare earth elements**, like **europium and yttrium**, are used in **flat-screen TVs** and computer monitors for their phosphorescent properties that emit light when excited.

**Dornier-228** is a **maritime patrol aircraft**, **IL-76** is a heavy transport aircraft and **C-17 Globemaster III** is a military transport aircraft.

**Groundnut, horse-gram and soybean** belong to the **pea (legume) family**, which are nitrogen-fixing plants important for **soil fertility**.

**Nitric oxide** is synthesized in the human body to dilate **blood vessels** and **increase blood flow**.

**Radioisotope thermoelectric generators (RTGs)** convert heat from radioactive decay, typically of **Plutonium-238**, into electricity to power

spacecraft and are not fission reactors.

**Hydrogels** are **three-dimensional polymer networks** that absorb water and are used in controlled **drug delivery**, **mobile air-conditioning** systems and industrial lubricants.

**Hydrogen fuel cell electric vehicles** generate electricity from **hydrogen and oxygen**, emitting only water vapour as exhaust, making them **zero-emission vehicles**.

**Green hydrogen** is a clean fuel that can be used directly in internal combustion engines, blended with natural gas for heat/power, or in hydrogen fuel cells for vehicles.

**Microsatellite DNA** consists of repetitive sequences used in genetics to study **species relationships** and **population diversity**.

**Ballistic missiles** are rocket-powered and follow a trajectory, while cruise missiles are jet-propelled; **Agni-V** is ballistic and **BrahMos** is a supersonic cruise missile.

**B cells and T cells** protect the body from **pathogens** by producing **antibodies** and coordinating immune responses.

**Polyethylene terephthalate (PET)** fibres can be blended with cotton/wool and PET bottles can be recycled into new products.

**Biofilms** are microbial communities that can form on **medical implants, food surfaces** and often exhibit **antibiotic resistance**.

**Rice paddies** are major **anthropogenic** sources of methane and nitrous oxide due to waterlogged anaerobic conditions.

System of **Rice Intensification** reduces **seed usage**, lowers **methane emissions** and decreases electricity consumption in rice cultivation.

**Bisphenol A (BPA)** is a key component in **polycarbonate plastics**, used in bottles and containers.

**Triclosan**, an antimicrobial, is commonly present in **toiletries like soaps and toothpaste** and may be harmful in high exposure.

**Recombinant vector vaccines** use **genetic engineering** and **viral/bacterial vectors** to deliver antigens for immunity.

**Mitochondrial** replacement therapy prevents maternal transmission of mitochondrial



diseases; **mitochondria** are inherited only from the mother.

**Bollgard I and II** are genetically modified cotton technologies engineered for pest resistance.

**Bacteria** and **fungi** can be cultured in **synthetic media**, whereas viruses require living cells to grow.

**Adenoviruses** have **double-stranded DNA**; retroviruses have **RNA genomes**; common cold can be caused by adenoviruses, **AIDS** by retroviruses.

**Lemongrass** contains **citronella oil** and is used as a natural mosquito repellent.

**Carbon nanotubes** can carry **drugs** and **antigens** in the body, be used for artificial blood capillaries and in biochemical sensors, but they are not **biodegradable**.

**Public Key Infrastructure (PKI)** in India refers to **digital security systems** using **encryption** and **digital certificates**.

**Plant cells** have **cellulose walls** and usually one large vacuole; animal cells lack walls and have many small vacuoles.

**Visible Light Communication (VLC)** uses light wavelengths **375–780 nm**, transmits data faster than **Bluetooth** and has no **electromagnetic interference**.

**Atal Innovation Mission** is under **NITI Aayog** to promote innovation and entrepreneurship.

**RNA interference (RNAi)** is used in **gene silencing** therapies, **cancer treatments** and **creating virus-resistant crops**.

**Lipstick** may contain **lead**, soft drinks may have **brominated oils** and Chinese fast food often contains **MSG**.

**Hepatitis B** has a **vaccine**; unlike **HIV**, some infected people remain symptom-free for years.

**Cas9** is a molecular “scissors” used for **precise gene editing** in **CRISPR technology**.

**PSLV** launches satellites for Earth observation; **GSLV** mainly launches communication satellites; **GSLV Mk III** uses a mix of solid and liquid stages.

**THAAD** is an American anti-missile defense system

designed to intercept short- and medium-range ballistic missiles.

**IRNSS** has three geostationary and four **geosynchronous satellites**, covering India and 5500 sq. km beyond.

**Einstein’s General Relativity** predicts light is affected by gravity, the universe is expanding and matter warps space-time.

**WannaCry, Petya and Eternal Blue** are cyber attacks.

**Zika virus** spreads via the same mosquito as dengue and also sexually.

**eLISA** project aims to detect **gravitational waves**.

**OLED** displays can be flexible, roll-up and transparent.

**Bitcoins** can be sent/received anonymously without **central bank tracking**.

**Astrosat** is India’s **multi-wavelength space observatory** orbiting at 1650 km.

## CURRENT AFFAIRS GK

The ₹80 crore Agarwood Value Chain Development Scheme aims to boost agarwood cultivation and trade. Agarwood (*Aquilaria malaccensis*), also called Oud or Gaharu, is a prized resin used in incense, perfumes and medicine, formed when the tree is infected by a specific mold. Native to India's Northeast (Assam, Tripura, Arunachal Pradesh, Nagaland, Mizoram, Manipur) and Southeast Asia, it grows in varied soils and elevations, with cultivated trees maturing faster, offering high economic potential.

Forever Chemicals (PFAS) are a group of highly persistent, toxic, man-made chemicals that do not easily break down due to their strong carbon-fluorine bonds, earning them the name "forever chemicals." Widely used in products like non-stick cookware, cosmetics, food packaging, textiles and firefighting foam, PFAS can accumulate in soil, water, air and human blood, leading to health risks such as liver damage, thyroid issues, developmental delays, high cholesterol, hypertension and certain cancers.

Vitamin B1 (Thiamine) is a water-soluble B-complex vitamin essential for converting carbohydrates into

energy, supporting the nervous system, brain, muscles, heart and digestive health.

The PLI Scheme for White Goods aims to strengthen India's domestic manufacturing of air conditioners and LED lights and integrate the country into global supply chains. It offers 4-6% incentives on incremental turnover for eligible companies over five years, promoting investment, exports, employment and a robust component ecosystem. Implemented from FY 2021-22 to FY 2028-29 under DPIIT, Ministry of Commerce and Industry, the scheme recently selected five companies for participation.

Sonic Boom is a loud noise produced when an object, like an aircraft or space debris, travels faster than the speed of sound, generating shock waves in the air.

Instituted in 1986 in memory of Indira Gandhi, the prize awards ₹25 lakh and a citation annually to individuals or organizations promoting international peace, disarmament, racial equality, economic cooperation, development of nations and the use of science for

humanity's benefit, regardless of nationality, race, or religion.

Muna Island, in Southeast Sulawesi, Indonesia, spans 1,704 sq.km. Key attractions include Liangkobori Cave with prehistoric paintings and Napabale Lake, connected to the sea through a natural tunnel.

Borax, or sodium tetraborate decahydrate ( $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$ ), is a white mineral composed of boron, sodium and oxygen. It is widely used in ceramics (glass and pottery glazes), metallurgy, welding, fertilizers, soaps, disinfectants, mouthwash and water softeners. Found naturally in evaporite deposits from seasonal lakes, borax can also be synthetically produced and refined through recrystallization.

Steel Slag is an industrial byproduct from steel manufacturing using electric arc or basic oxygen furnaces, composed mainly of calcium, magnesium, manganese and aluminium silicates and oxides. Recently, its use in road construction and repair, especially in hilly and Himalayan regions, has been advocated for wider adoption. Applications include environmental remediation, treating acidic water

discharges and as a coarse aggregate in roads due to its high strength and anti-skid properties.

India recently launched the Responsible Nations Index (RNI) at the Dr. Ambedkar International Centre, New Delhi. Developed by the World Intellectual Foundation with JNU, IIM Mumbai and Dr. Ambedkar International Centre, the index assesses 154 countries on responsible governance, social well-being, environmental stewardship and global responsibility, beyond GDP or power metrics. It is structured around internal responsibility (citizens' dignity and well-being), environmental responsibility (natural resource stewardship and climate action) and external responsibility (peace and global cooperation), promoting ethical, value-based global leadership.

Kamchatka Peninsula in Russia's Far East is experiencing record-breaking snowfall with powerful winter storms dumping several metres of snow. Located between the Sea of Okhotsk and the Pacific Ocean/Bering Sea, it is a geothermal hotspot and home to the UNESCO-listed Volcanoes of Kamchatka, including over 150 volcanoes with 29 active ones. Known as the land of fire and ice, it has severe, snowy winters, cool summers and its highest point is Klyuchevskaya

Sopka. The Kuril Islands extend from its southern tip toward Hokkaido, Japan.

The Central Silk Board (CSB), a statutory body under the Ministry of Textiles headquartered in Bengaluru, has had its financial approval limit raised to ₹1 crore from ₹50 lakh by amending Rule 22 of the Central Silk Board Rules, 1955. Established in 1948, CSB advises the government on silk industry development, import-export of raw silk and promotes scientific sericulture to boost employment and income. India, the second-largest silk producer and consumer, produced 38,913 MT of raw silk in 2023-24, with Karnataka and Andhra Pradesh as major producers of Mulberry, Eri, Tasar and Muga silk.

Artemis II Mission is NASA's first crewed lunar mission in over 50 years, scheduled for a 10-day flight around the Moon as early as February.

The 2026 Henley Passport Index ranks passports based on visa-free access to global destinations, reflecting diplomatic ties and international trust. Asia dominates the top ranks, with Singapore first and Japan and South Korea tied for second. India climbed five spots to 80th, while Afghanistan remains last at 101st, with access to only 24 destinations.

Dardanelles Strait in northwestern Turkey connects the Aegean Sea to the Sea of Marmara, separating Asia from Europe. Entirely within Turkey, it is part of the Turkish Straits..along with the Bosphorus..and serves as a vital shipping lane for Black Sea countries like Russia and Ukraine. Key ports include Gallipoli, Eceabat and Çanakkale.

Charophytes are a type of green algae and the closest living relatives of land plants, with fossils dating back to the Silurian Period (443 million years ago). Found in silt, mud, peat, or sand across all continents except Antarctica, they have no true leaves, stems, or fruits and are loosely attached by holdfasts. Charophytes stabilize lake beds, produce oxygen, improve water clarity and provide habitats for aquatic life, playing a key role in lake biodiversity and water quality.

The Bhadrakali Inscription (1169 CE) on the wall of Bhadrakali Temple, Prabhas Patan, Gujarat, records the history and development of Somnath Temple and highlights Solanki dynasty patronage.

Bargi Dam, on the Narmada River in Madhya Pradesh, is a multi-purpose dam for irrigation, water supply and power generation.

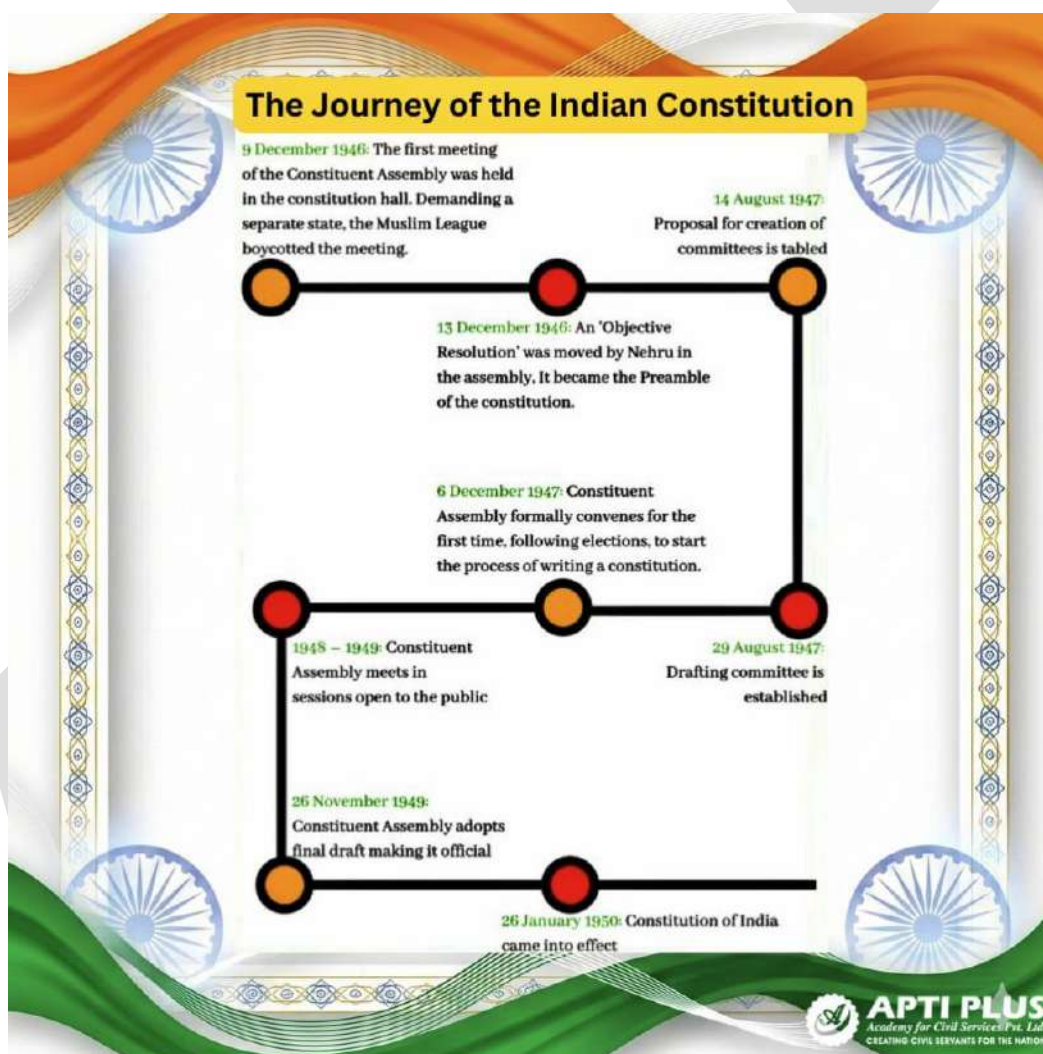
Graphene is a two-dimensional carbon allotrope arranged in a honeycomb lattice, first isolated in 2004 and forms graphite when stacked. It is one atom thick, 200 times stronger than steel, lightweight, flexible, an excellent conductor of heat and electricity, almost

transparent and impermeable to gases, enabling applications in electronics, energy storage, sensors and healthcare.

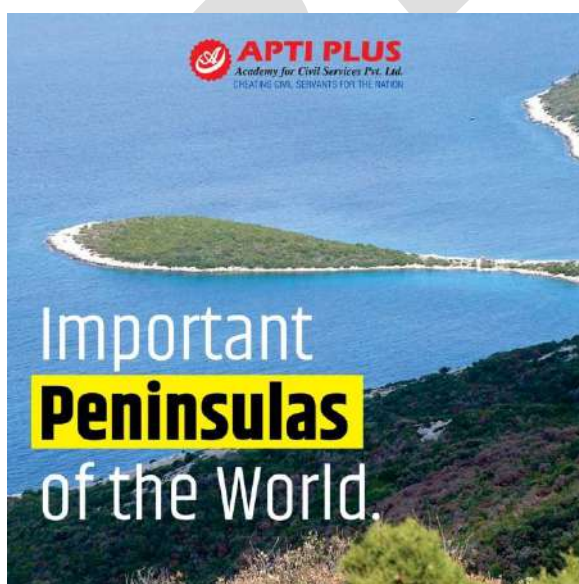
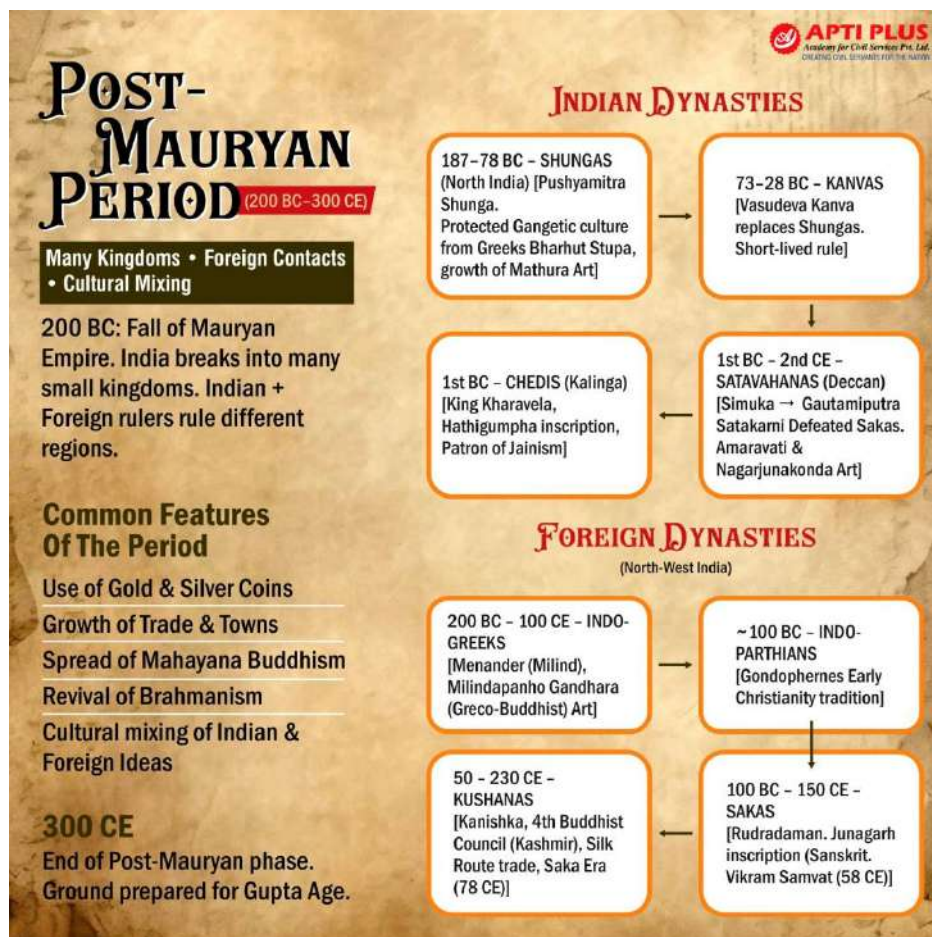
Ethylene Glycol (EG) is a colorless, odorless, sweet-tasting, water-soluble organic compound ( $C_2H_6O_2$ ), produced from ethylene oxide and

water. Primarily used as an antifreeze and coolant, it also finds applications in hydraulic fluids, inks, paints, polyesters, explosives and synthetic waxes. Highly toxic, EG can cause severe illness or death if ingested, with automotive antifreeze being the most common source of poisoning.

## LEARNING THROUGH INFOGRAPHICS







**Peninsulas of West Asia & South Asia**

**Arabian Peninsula**  
Bordering Seas: Persian Gulf, Gulf of Oman, Arabian Sea, Gulf of Aden, Red Sea  
Countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE, Yemen

**Indian (Deccan) Peninsula**  
Bordering Seas: Arabian Sea, Bay of Bengal, Indian Ocean  
Region: South India

## Southeast & East Asian Peninsulas

### Indo-China Peninsula

Bordering Seas: South China Sea, Bay of Bengal, Malacca Strait, Indian Ocean  
Countries: Cambodia, Laos, Myanmar, Thailand, Vietnam



### Malay Peninsula

Bordering Seas: Andaman Sea, Strait of Malacca, South China Sea  
Regions: Southern Thailand, Southern Myanmar, Malaysia



## East Asia & Europe

### Korean Peninsula

Bordering Seas: Yellow Sea, East China Sea, Korean Strait  
Countries: North Korea, South Korea



### Scandinavian Peninsula

Bordering Seas: Baltic Sea, North Sea, Norwegian Sea  
Countries: Norway, Sweden, Northern Finland



## Southern & Western Europe

### Balkan Peninsula

Bordering Seas: Adriatic, Ionian, Aegean, Mediterranean, Black Sea  
Countries: Albania, Bulgaria, Greece, Romania, Serbia, Croatia, etc.



### Iberian Peninsula

Bordering Seas: Atlantic Ocean, Mediterranean Sea  
Countries: Spain, Portugal, Andorra, Southern France



## Mediterranean Peninsulas

### Italian Peninsula

Bordering Seas: Adriatic, Ionian, Tyrrhenian, Mediterranean Sea  
Countries: Italy, San Marino, Vatican City



### Sinai Peninsula

Bordering Waters: Suez Canal, Gulf of Aqaba, Red Sea, Mediterranean Sea  
Country: Egypt



## African & Arctic Peninsulas

### Horn of Africa (Somali Peninsula)

Bordering Seas: Gulf of Aden, Arabian Sea  
Countries: Somalia, Ethiopia, Eritrea, Djibouti



### Kola Peninsula

Bordering Seas: Barents Sea, White Sea  
Country: Russia



## North American Peninsulas

### Alaska Peninsula

Bordering Seas: Pacific Ocean, Bering Sea  
Country: USA

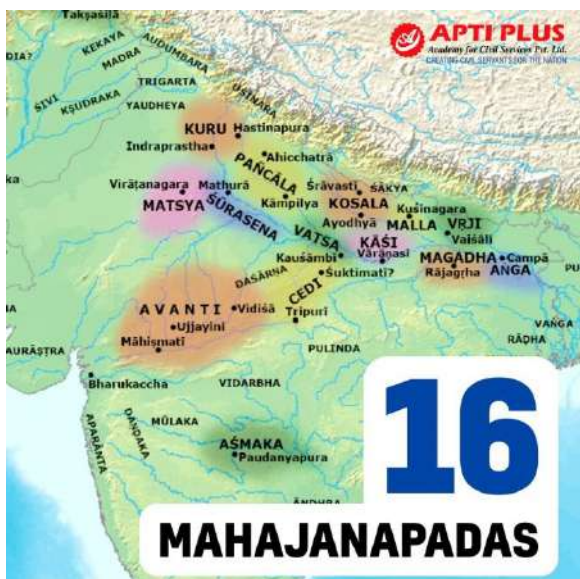


### Labrador Peninsula

Bordering Seas: Hudson Bay, Labrador Sea, Atlantic Ocean, Gulf of St. Lawrence  
Country: Canada







### Panchala

Capital: Ahichhatra  
Modern Location: Bareilly, Budaun (Uttar Pradesh)  
Rivers flowing in the Region: Ganga, Yamuna



### Kuru

Capital: Indraprastha  
Modern Location: Meerut (Uttar Pradesh)  
Rivers flowing in the Region: Yamuna, Ganga



### Matsya

Capital: Viratnagar  
Modern Location: Jaipur (Rajasthan)  
Rivers flowing in the Region: Chambal



### Chedi

Capital: Sothavati  
Modern Location: Bundelkhand (Madhya Pradesh/UP)  
Rivers flowing in the Region: Ken, Yamuna



### Avanti

Capital: Ujjain / Mahishmati  
Modern Location: Malwa (Madhya Pradesh)  
Rivers flowing in the Region: Shipra, Narmada



### Gandhara

Capital: Taxila  
Modern Location: Pakistan / Afghanistan  
Rivers flowing in the Region: Indus, Kabul



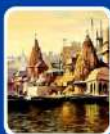
### Anga

Capital: Champa  
Modern Location: Munger & Bhagalpur (Bihar)  
Rivers flowing in the Region: Chandan (Champa)



### Magadha

Capital: Rajgirha / Pataliputra  
Modern Location: Nalanda, Gaya, Patna (Bihar)  
Rivers flowing in the Region: Ganga, Son



### Kasi

Capital: Kasi  
Modern Location: Varanasi (Uttar Pradesh)  
Rivers flowing in the Region: Ganga



### Vatsa

Capital: Kausambi  
Modern Location: Prayagraj (Uttar Pradesh)  
Rivers flowing in the Region: Ganga, Yamuna



### Kosala

Capital: Sravasti  
Modern Location: Awadh (Uttar Pradesh)  
Rivers flowing in the Region: Sarayu (Ghaghara)



### Saurasena

Capital: Mathura  
Modern Location: Mathura (Uttar Pradesh)  
Rivers flowing in the Region: Yamuna



### Kamboj

Capital: Rajapura  
Modern Location: Kabul Valley (Afghanistan / Kashmir)  
Rivers flowing in the Region: Vipas (Beas)\* or Indus tributaries



### Asmaka

Capital: Palthan  
Modern Location: Godavari Basin (Maharashtra)  
Rivers flowing in the Region: Godavari



### Vajji

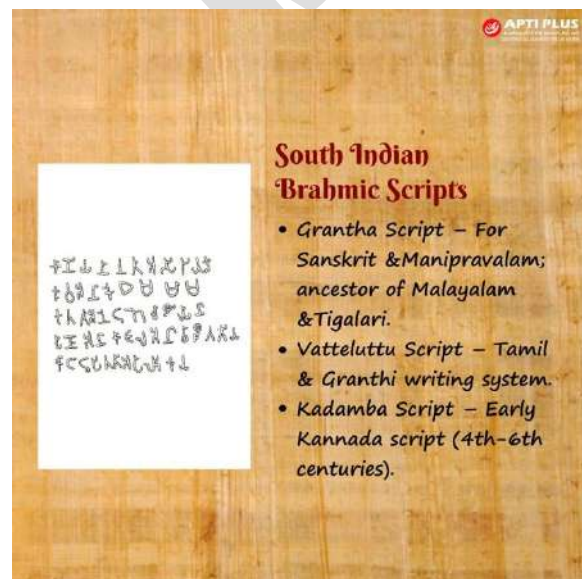
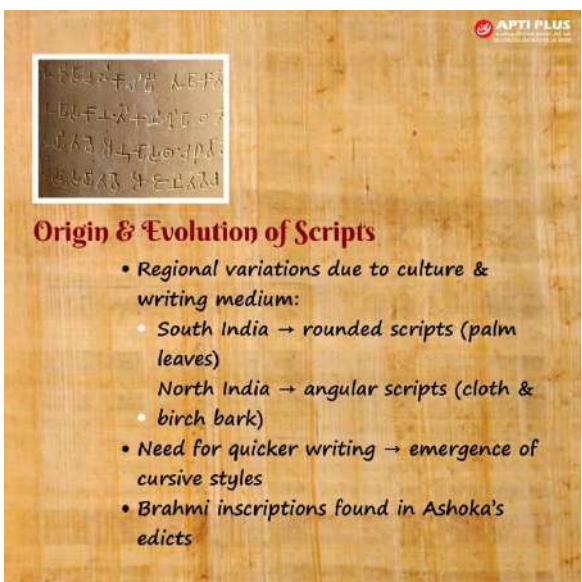
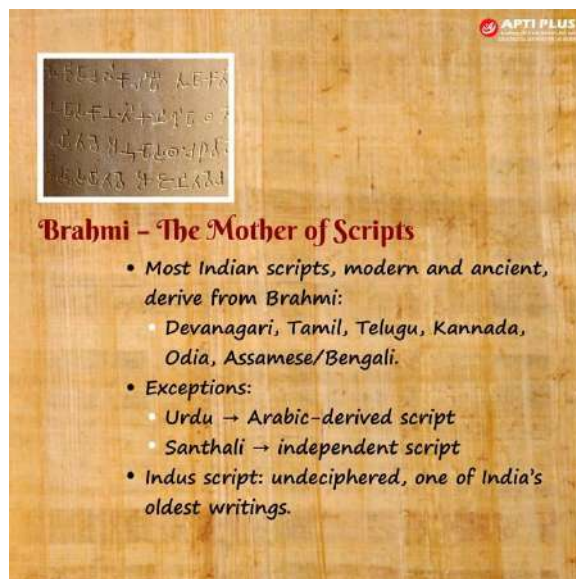
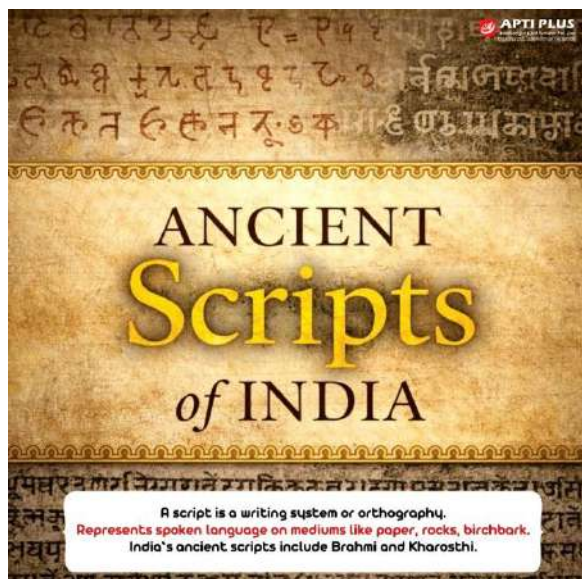
Capital: Vaishali  
Modern Location: Vaishali (Bihar)  
Rivers flowing in the Region: Gandak

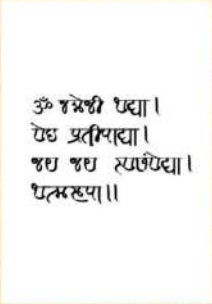


### Malla

Capital: Kushinara  
Modern Location: Kushinagar (Uttar Pradesh)  
Rivers flowing in the Region: Rapti, Gandak



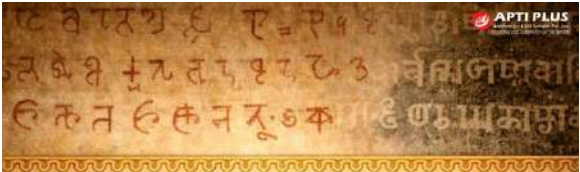




ॐ नमो भगवते  
वसुधैव कुटुम्बकम्  
॥

**Other Notable Scripts**

- Modi Script – Used for Marathi; also written Urdu, Kannada, Gujarati, Hindi, Tamil.
- Urdu Script – Arabic-Persian derived, right to left; Shahmukhi variant for Punjabi & Saraiki.



**Summary & Influence**

Indian scripts evolved over millennia influenced by Buddhism, Islam, and regional culture.

Spread of Buddhism → influenced scripts in Sri Lanka, Tibet, SE Asia.

Globalization & English → challenge for traditional scripts' survival.

Brahmi remains the foundation of most Indian writing systems.

