

## DAILY CURRENT AFFAIRS (DCA)

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## **Table of Content**

New Chief Secretary Appointed in Manipur

**BIMSTEC Ports Conclave** 

Share of Clean Energy in India's Electricity less than 30% despite 50% of installed Capacity

Cabinet Approves Pradhan Mantri Dhan-Dhanya Agriculture Scheme

Artificial Intelligence (AI) Appreciation Day

Share of Clean Energy in India's Electricity less than 30% despite 50% of installed Capacity

#### **NEWS IN SHORT**

West Bank

Euthanasia

HIV Pre-exposure Prophylaxis (PrEP)

NATO

Prime Minister Professorships

Tribal Genome Sequencing Project

Javelin anti-tank guided missiles (ATGMs)

ADEETIE Scheme

**CAFE Norms** 

## NEW CHIEF SECRETARY APPOINTED IN MANIPUR

#### Context

 Recently, the Union Government has appointed Puneet Kumar Goel as the new Chief Secretary of Manipur, amid ongoing ethnic tensions and political uncertainty in the State, which was placed under President's Rule on February 13, 2025.

#### **About the Chief Secretary of State**

- It is the highest-ranking civil servant in the state's administrative hierarchy, serving as the principal advisor to the Chief Minister and the linchpin of governance.
- It plays a pivotal role in policy coordination, crisis management, and interdepartmental leadership.

#### **Appointment & Key Provision**

- The Chief Secretary is not explicitly mentioned in the Constitution, but derives authority from state rules of business and executive conventions.
  - All India Services Act, 1951 & IAS Cadre Rules, 1954 outline service conditions and deputation norms.
- A person as a Chief Secretary is appointed by the Chief Minister (taken in Governor's name), and the selection is typically based on seniority, service record, and trust.
  - It is **equivalent** to a Secretary to the Government of India.
- **Tenure Flexibility:** No statutory tenure; can be extended or curtailed.
- **Deputation Rules:** Governed by Rule 6(1) of IAS Cadre Rules for central deputation
- **Retirement Extension:** Can be extended up to 6 months in public interest with Centre's approval.

#### **Key Responsibilities**

- Principal Advisor: Guides the Chief Minister on administrative and policy matters
- Secretary to the Cabinet: Coordinates cabinet meetings, agendas, and implementation of decisions
- Head of State Civil Services: Oversees postings, transfers, and discipline of IAS and state service officers
- Crisis Manager: Leads emergency response during disasters, law and order issues, or health crises

• Interdepartmental Coordinator: Ensures smooth functioning across departments and resolves conflicts

#### **Strategic Importance**

- Acts as the ex-officio head of the State Civil Services Board, State Secretariat, and Crisis Management Committee.
- Serves as the interface between the state and central government, especially on centrally sponsored schemes.
- Plays a vital role in monitoring and evaluating government programs, ensuring accountability and delivery.

#### President's Rule and Its Extension in Manipur

- Constitutional Basis and Procedure: Article 356 empowers the President to impose central rule if a state government fails to function in accordance with constitutional provisions.
  - The proclamation must be ratified by both Houses of Parliament within two months, and can be extended every six months for up to three years [Article 356(3)], subject to conditions like a national emergency or Election Commission certification.

#### **Legal and Political Implications**

- Manipur has seen 11 instances of President's Rule since 1967, making it one of the most affected states in India.
- The **Assembly remains intact**, allowing for revival if a new government is formed.
- The S.R. Bommai Judgment (1994) allows judicial review of such proclamations, emphasizing that floor tests — not Governor's reports — should determine the majority.

Source: TH

#### **BIMSTEC PORTS CONCLAVE**

#### **Context**

 The Union Minister of Ports, Shipping & Waterways (MoPSW) inaugurated the second edition of BIMSTEC Ports Conclave.

#### **About Ports Conclave**

- The two-day BIMSTEC Ports Conclave was held under the auspices of the Visakhapatnam Port Authority.
- **Theme:** Blue Economy, Innovation and Sustainable Partnerships.



- Representatives of ministries from port authorities of BIMSTEC member nations of Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand participated in it.
- Aim: To operationalise the recently signed BIMSTEC Agreement on Maritime Transport Cooperation (AMTC), facilitate dialogue on portled development, and foster deeper integration in maritime trade, logistics, cruise tourism, and skill development.
- BIMSTEC Sustainable Maritime Transport Centre is going to be established under the Indian Ocean Centre of Excellence for Sustainable Maritime Transport (IOCE-SMarT) at Mumbai.

#### **About BIMSTEC**

- It is a regional cooperation organization formed in 1997 with the signing of the Bangkok Declaration.
  - It unites South and Southeast Asian nations bordering the Bay of Bengal.
- Founding Members (1997): Bangladesh, India, Sri Lanka, Thailand.
- Current Members: It comprises seven member states, Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand.
- **Objective:** To help countries in their economic growth, to support social development, and to encourage development in other areas, like science, technology and economic development.

#### Significance of BIMSTEC Ports Conclave for India

- Advancing Maritime Connectivity and Trade Efficiency: The conclave emphasized the operationalization of the BIMSTEC Coastal Shipping and Maritime Transport Agreements, which is vital for India's ambitions to become a regional maritime logistics hub.
- Strengthening India's 'Act East' and 'Neighbourhood First' Policies: By engaging BIMSTEC countries the conclave reinforces India's 'Act East' policy, which seeks deeper ties with Southeast Asia.
  - Neighbourhood First policy, especially with Bangladesh, Nepal, and Bhutan, by improving their access to the sea through Indian ports.
- Operationalizing the Kaladan Multi-Modal Transit Transport Project: The conclave showcased India's flagship Kaladan project,

- which connects Kolkata Port  $\rightarrow$  Sittwe Port (Myanmar)  $\rightarrow$  Inland waterway to Paletwa  $\rightarrow$  Road to Mizoram.
- This corridor is a model for multi-modal regional connectivity and vital in improving access to its northeastern states.
- Enhancing India's Leadership in Regional Maritime Architecture: India used the conclave to project itself as a maritime leader in South and Southeast Asia by hosting the conclave in Visakhapatnam, a strategically located eastern port.
- Promoting the Blue Economy and Sustainable
   Development: The conclave promoted
   sustainable maritime practices, this aligns with
   India's Blue Economy Policy Framework, which
   seeks to balance economic growth with ocean
   ecosystem protection.

#### Challenges

- Uneven Infrastructure Across BIMSTEC Countries: While India has made substantial investments in port modernization, many BIMSTEC members lack comparable port or transport infrastructure.
  - This infrastructure asymmetry makes it difficult to operationalize seamless port-toport connectivity and multimodal transport corridors.
- Institutional and Regulatory Divergences:
   Differing customs regulations, maritime safety standards, and documentation requirements across member countries create operational bottlenecks.
- Delays in Ratification and Implementation of Agreements: Although India has ratified the BIMSTEC Agreement on Maritime Transport Cooperation, several other member states are yet to do so.
  - This leads to sluggish progress in transforming agreements into actionable frameworks and corridor-level coordination.
- Geopolitical Competition in the Bay of Bengal: Rising influence of China through the Belt and Road Initiative (BRI) in BIMSTEC countries challenges India's maritime leadership.
- Financial and Capacity Constraints: Despite India's commitments, limited financial resources and human capital in smaller BIMSTEC countries restrict large-scale participation in port development or digital upgrades.



#### **Way Ahead**

- While the BIMSTEC Ports Conclave has opened up vast opportunities for India to become the maritime centre of the Bay of Bengal, several challenges — infrastructural, institutional, geopolitical, and logistical — must be addressed.
- A coordinated push involving capacity building, diplomatic engagement, infrastructure financing, and security cooperation is necessary to translate vision into outcomes.

Source: TH

# SHARE OF CLEAN ENERGY IN INDIA'S ELECTRICITY LESS THAN 30% DESPITE 50% OF INSTALLED CAPACITY

#### Context

- India has reached 50% of its total installed electricity capacity from non-fossil fuel sources, achieving its NDC target five years early.
  - However, these sources contribute less than 30% to actual power generation.

#### **India's Renewable Energy Capacity**

- Overall Renewable Energy Growth:
  - Record capacity addition: 29.52 GW added in FY 2024–25.
  - Total installed RE capacity: Reached 220.10
     GW as of March 2025 (up from 198.75 GW).
  - Target: Progressing toward 500 GW nonfossil fuel capacity by 2030 under Panchamrit goals.
- Solar Energy:
  - **Leading contributor:** 23.83 GW added in FY 2024–25 (vs. 15.03 GW in previous year).
  - Total installed solar capacity: 105.65 GW.
- Wind Energy:
  - New capacity addition: 4.15 GW in FY 2024–25 (up from 3.25 GW).
  - Total installed capacity: 50.04 GW
- Bioenergy & Small Hydro:
  - **Bioenergy total capacity:** 11.58 GW, including 0.53 GW from off-grid/waste-to-energy.
  - **Small Hydro capacity:** 5.10 GW, with 0.44 GW under implementation.
- Project Pipeline:
  - Projects under implementation: 169.40 GW
  - Projects tendered: 65.06 GW

- Emerging solutions: 65.29 GW from hybrid, (Round-the-Clock) RTC, peaking power, and thermal+RE bundling.
- India stands 4th globally in Renewable Energy Installed Capacity, 4th in Wind Power capacity & 5th in Solar Power capacity (as per REN21 Renewables 2024 Global Status Report).
  - The leading states in India for renewable energy capacity are Rajasthan, Gujarat, Tamil Nadu, and Karnataka.

#### What are the Challenges?

- Low Capacity Utilisation Factor (CUF): Clean energy sources are intermittent and weatherdependent. Hence, their actual output is much lower despite high capacity.
  - **Eg:** Solar CUF: ~20%, Wind CUF: ~25–30%, Coal CUF: ~60%, Nuclear CUF: ~80%.
- Base Load Dependency on Coal: Coal continues to supply over 75% of India's electricity demand, especially at night when solar isn't available.
  - India's grid still depends heavily on thermal sources for round-the-clock (RTC) power.
- Storage and Transmission Limitations: Lack of grid-scale battery storage prevents storing surplus daytime solar energy.
  - Transmission planning is not in sync with the pace of RE (renewable energy) installation.
- Time-Insensitive Tariff Structures: India currently lacks time-of-day (ToD) pricing, discouraging daytime solar consumption.
  - Uniform tariffs provide no incentive for consumers or discoms to shift loads to peak solar hours.
- Land and Regulatory Constraints: Land aggregation issues for large-scale solar or hybrid projects.
  - Delays in regulatory clearances, especially for hybrid renewable systems and storage infrastructure.

## Why is there a need to increase Capacity Utilisation Factor?

- Energy Security: India's energy demand is expected to double by 2040. Inefficient use of clean energy slows diversification and increases coal dependence.
- Climate Commitments: Under its updated NDCs (2022), India committed to:



- 50% of total installed capacity from non-fossil sources by 2030 (already achieved) and Reduction in emissions intensity by 45% (from 2005 levels).
- Yet, current clean energy usage (~28%) risks undercutting actual emission reduction.
- Air Pollution and Public Health: Continued coal dominance contributes to air pollution, with India housing 13 of the world's 20 most polluted cities.
- **Economic Impact:** Inefficient RE usage leads to underutilisation of investments in solar/wind, poor returns for developers, and higher electricity costs for discoms.

### **Government Initiatives to Improve Clean Energy Utilisation**

- **Green Energy Corridor (GEC):** Aims to strengthen the transmission infrastructure to evacuate renewable energy efficiently from generation points to demand centres.
- PM-KUSUM Scheme: Promotes installation of solar pumps and grid-connected solar power plants in rural areas to reduce diesel usage and support farmers.
- National Green Hydrogen Mission: Seeks to promote the production and use of green hydrogen to reduce reliance on fossil fuels in sectors like refining, steel, and fertilisers.
- Production Linked Incentive (PLI) Scheme:
   Provides financial incentives for domestic
   manufacturing of high-efficiency solar
   photovoltaic (PV) modules and advanced battery
   storage systems.
- Renewable Energy Hybrid Policy: Encourages setting up of projects that combine solar and wind energy in the same location to increase capacity utilisation and reliability.

#### **Way Ahead**

- Grid Modernisation and Smart Management: Invest in smart grids with real-time demandsupply balancing.
  - Enable time-of-day pricing, especially to promote daytime solar usage.
- Battery and Storage Infrastructure: Accelerate deployment of Battery Energy Storage Systems (BESS) through VGF (Viability Gap Funding) or PLI.
  - Hybrid Projects (solar-wind-hydro with BESS) should be fast-tracked.
- Decentralised Renewable Energy: Promote rooftop solar, solar pumps, and mini-grids to relieve base-load pressure.

- Revamp Tariff and Market Design: Introduce differential tariffs for peak vs off-peak periods.
  - Set up green power markets on energy exchanges with open access for industries.
- Land and Transmission Reforms: National portal for land aggregation and clearance tracking.
  - Integrated transmission planning to synchronise RE project pipelines with grid readiness.
- Policy Predictability: Ensure long-term Power Purchase Agreements (PPAs).
  - Reduce DISCOM risks through payment guarantees or tripartite mechanisms.

Source: TH

## CABINET APPROVES PRADHAN MANTRI DHAN-DHANYA AGRICULTURE SCHEME

#### Context

 The Union Cabinet approved the "Pradhan Mantri Dhan-Dhanya Krishi Yojana" for a period of six years.

#### PM Dhan-Dhaanya Krishi Yojana

- It is the first dedicated scheme focused on agriculture and allied sectors. It is inspired by the Aspirational Districts Programme of NITI Aayog.
- Total outlay: Rs 24,000 crore per annum
- Resource pool: Convergence of 36 existing schemes from 11 Central Ministries / Departments, along with state schemes and private sector participation.
- **Coverage:** 100 districts, with at least one from every state/UT.
  - It will be identified on the basis of three key indicators- low productivity, low cropping intensity and low credit disbursement.
- Targeted beneficiaries: 1.7 crore farmers
- **Implementation period:** 6 years (starting from 2025-26)
- Objectives of the scheme:
  - Enhance agricultural productivity, promote crop diversification and encourage sustainable agricultural practices,

- Strengthen post-harvest storage at panchayat and block levels,
- Improve irrigation infrastructure,
- Provide long-term and short-term credit to farmers.

#### Implementation of the scheme

- For effective implementation and monitoring of the scheme, committees will be formed at the district, state and national level.
- The District Agriculture and Allied Activities
   Plan (DAAAP) will be finalized by the District
   Dhan Dhanya Committee.
- Monitoring and Evaluation: Progress will be tracked monthly using a dashboard based on 117 Key Performance Indicators (KPIs).
  - NITI Aayog will guide and review district plans.
  - Each district has a Central Nodal Officer for periodic review.

#### **Greener fields**

The PMDDKY aims at enhancing **agricultural productivity**, increasing adoption of **crop diversification** and **sustainable agricultural practices**, and augmenting **post-harvest storage** 

#### ₹ 24,000 cr. **100 districts** to come under the to be allocated yearly scheme which will begin this financial year for six years for Districts to be identified based on 3 key the scheme indicators: low productivity, low cropping States and private intensity, less credit disbursement sector to partner Helping hand: Nearly 1.7 crore farmers with the Centre to implement the will benefit from the scheme. PTI scheme

Source: TH

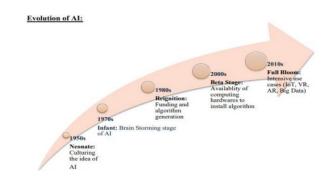
## ARTIFICIAL INTELLIGENCE (AI) APPRECIATION DAY

#### **In News**

 Artificial Intelligence (AI) Appreciation Day is being observed in India. The day celebrates the country's growing role in the global AI landscape.

#### India's Al journey

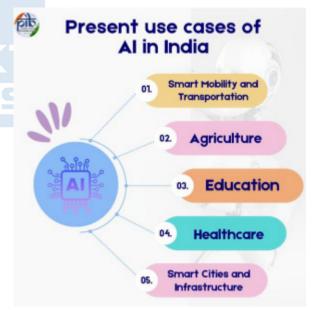
- Al is transforming healthcare, education, agriculture, governance, and industry in the country.
- India's Al journey began in the 1960s with early computer science research.



- A major step came in 1986 with the Knowledge-Based Computer Systems project. In the 1990s, organisations like C-DAC advanced supercomputing and early AI work.
- By the 2000s, IT companies such as TCS, Infosys, and Wipro began investing in AI, while universities built a strong talent pool.
- The Digital India push in 2015 and NITI Aayog's 2018 Al strategy accelerated growth.

#### **Progress in Al**

 India's progress in AI is the result of years of planning and support.



- India has emerged as the fastest-growing developer population globally and ranks second in public generative AI projects on GitHub.
  - The country is home to 16% of the world's Al talent, showcasing its growing influence in Al innovation and adoption.
- India has made significant strides in AI, emerging as a key player in the global AI landscape. According to Stanford University's AI Index Report, 2024, India ranks seventh globally in aggregate private AI investments between 2013



- and 2023, with a total of USD 9.85 billion.
- Today, India is becoming a global AI leader. Its software talent and access to large data sets help create effective AI solutions.
- India's diverse needs also provide real-world testing for Al-from farming and healthcare to traffic control and public services.

#### **Various Steps**

- India is rapidly enhancing its AI and semiconductor infrastructure with the 2024-approved IndiaAI Mission, which allocates ₹10,300 crore over five years.
- The government launched programmes like the Skill India Al Portal, National Al Skilling Programme, and Al Youth Bootcamp.
  - These initiatives offer training, certifications, and hands-on projects to students and workers.
- Vocational centres are also adopting AI tools to boost traditional industries.
- The government is also investing in AI research through funding programs and new centres that link education and industry.
- Partnerships with tech giants like Google, Microsoft, and IBM are helping India stay connected to global developments.
- BharatGen: The world's first governmentfunded multimodal LLM initiative, BharatGen was launched in 2024 in Delhi.
  - It aims to enhance public service delivery and citizen engagement through foundational models in language, speech, and computer vision.
  - It involves a consortium of AI researchers from premier academic institutions in India.
- India's Digital Public Infrastructure (DPI) has redefined digital innovation by combining public funding with private sector-led innovation.
  - Platforms like Aadhaar, UPI, and DigiLocker serve as the foundation, while private entities build application-specific solutions on top of them
  - This model is now being enhanced with AI, integrating intelligent solutions into financial and governance platforms.
- The government's AI for AII vision and the National Strategy for AI aim to use AI not just for economic growth, but also to improve lives, ensure inclusion, and promote equity.

#### **Future Outlook**

- India's balanced Al regulation promotes innovation while ensuring accountability, avoiding both overregulation and unchecked market dominance.
- Instead of just laws, it invests in Al-driven safeguards through top universities and IITs to tackle issues like deep fakes, privacy, and cybersecurity.
  - This techno-legal strategy fosters ethical and inclusive AI growth.
- Focused on open data, affordable computing, and local solutions, India is creating an inclusive ecosystem benefiting businesses, researchers, and citizens.
  - This proactive approach strengthens the digital economy and advances self-reliance, positioning India as a future leader in Al innovation worldwide.

Source: AIR

#### NEWS IN SHORT

#### **WEST BANK**

#### Context

 The UN warned that mass displacement in the West Bank had hit levels not seen since the start of Israel's occupation of the Palestinian territory nearly 60 years ago.

#### **West Bank**

- The West Bank lies to the west of the Jordan River, bordered by Israel to the west, Jordan to the east, and Jerusalem to the south-west.
- Major cities include Ramallah (administrative capital of the Palestinian Authority), Hebron, Nablus, Jenin, and Bethlehem.



• **1948:** After the Arab-Israeli War, the West Bank was occupied and later annexed by Jordan (1949–1967).

- 1967: During the Six-Day War, Israel captured the West Bank from Jordan, and it has remained under varying degrees of Israeli control since.
- 1993–1995 Oslo Accords: These agreements created the Palestinian Authority (PA) and divided the West Bank into three areas:
  - Area A: Full Palestinian civil and security
  - Area B: Palestinian civil control and joint Israeli-Palestinian security.
  - Area C: Full Israeli control (about 60% of the West Bank).

Source: TH

#### **EUTHANASIA**

#### **In News**

 The Kerala government has decided to allow local bodies to carry out euthanasia of diseased stray dogs by making use of the provisions of the Prevention of Cruelty to Animals (Animal Husbandry Practices and Procedures) Rules 2023.

#### Do you know?

- Under Section 8 of the Animal Husbandry Rules, euthanasia of an animal is allowed if it is severely diseased and poses a risk of spreading the disease, or if it is mortally or severely injured.
- A registered veterinary practitioner must certify that keeping the animal alive would be cruel.

#### **Euthanasia**

- It refers to the practice of an individual deliberately ending their life, oftentimes to get relief from an incurable condition, or intolerable pain and suffering.
- It can be administered only by a physician, and can be either 'active' or 'passive'.
- Active euthanasia involves an active intervention to end a person's life with substances or external force, such as administering a lethal injection.
- Passive euthanasia refers to withdrawing life support or treatment that is essential to keep a terminally ill person alive

#### **Supreme Courts Observations**

 In 2011, the Supreme Court of India allowed passive euthanasia for the first time in the case of Aruna Shanbaug, distinguishing it from active euthanasia and permitting it in certain situations.



- In 2018, the court further recognized the legality
  of passive euthanasia for terminally ill patients,
  affirming the 'right to die with dignity' under
  Article 21 of the Constitution.
  - It provided guidelines for withdrawing life support based on advance directives or in their absence.
  - The Supreme Court and draft guidelines clarify that withholding or withdrawing lifesustaining treatment, including do-notresuscitate orders, is legal in India when it no longer benefits the patient or only prolongs suffering.

Source: TH

## HIV PRE-EXPOSURE PROPHYLAXIS (PREP)

#### In News

- Generic drugmakers Aurobindo Pharma, Cipla and Viatris will develop, manufacture and supply long-acting injectable cabotegravir (CAB LA) for HIV treatment in 133 countries.
  - It builds on the voluntary license for CAB LA for HIV pre-exposure prophylaxis (PrEP).

#### **About Pre-exposure prophylaxis (PrEP)**

- It is a preventive strategy where HIV-negative individuals take antiretroviral medication to reduce their risk of acquiring HIV infection.
- PrEP blocks the HIV life cycle, preventing the virus from taking hold and spreading in the body after exposure.
- Forms of PrEP:
  - **Daily oral pills:** Truvada (TDF/FTC) and Descovy (TAF/FTC) are approved options.
  - Long-acting injectables: Apretude (cabotegravir) is administered every two months, and Yeztugo every six months.

Source: TH



#### **NATO**

#### Context

 The NATO Secretary said that countries like India, China and Brazil could be hit very hard by secondary sanctions if they continued to do business with Russia.

#### **About**

- India and China are the **top importers of Russian crude**.
- India depends on imports to meet around 88 per cent of its crude oil needs.
- **Oil imports from Russia** were at 87.4 million tonnes in the financial year 2024-25, accounting for almost **36 per cent** of India's total oil imports of 244 million tonnes.
- Prior to the war in Ukraine, Russia's share in India's oil import basket was **less than 2 per cent.**

#### **About NATO**

- NATO, or the North Atlantic Treaty Organization, is a **military alliance of countries**.
- **Establishment:** It was founded in **1949** with the signing of the North Atlantic Treaty, more popularly known as the **Washington Treaty**.
- Aim: To ensure the security and defense of its member countries through collective defense.
- Founding Members: The original members of NATO were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States.
- Collective Defense: The cornerstone of NATO is Article 5 of the North Atlantic Treaty, which states that an armed attack against one or more of its members is considered an attack against all members
- Decision-Making: Decisions within NATO are made on the basis of consensus among member countries.
  - The North Atlantic Council, which includes the ambassadors of all member countries, is the principal political decision-making body.
- Members: It has 32 member countries, Finland and Sweden became the 31st and 32nd members respectively.
  - On signing the Treaty, countries voluntarily commit themselves to participating in the political consultations and military activities of the Organization.

Source: IE

#### PRIME MINISTER PROFESSORSHIPS

#### Context

 The Anusandhan National Research Foundation (ANRF) has announced the Prime Minister Professorships.

#### **About**

- The scheme facilitates structured mentorship engagements, wherein superannuated/retired, active experts will provide sustained academic and research support to faculty and students in institutions with emerging research capacity.
- Duration: Up to 5 years, based on performance evaluated by the expert committee constituted for the purpose.
- Eligibility: Open to overseas scientists, including Non-Resident Indians, Persons of Indian Origin, and Overseas Citizens of India.
  - Professionals from industry and experienced Professors of Practice with a "distinguished record" of research and innovation are eligible to apply.
- Funding Support: The PM Professor will receive a fellowship of Rs. 30 lakh plus Research Grant of Rs.24 Lakh per annum. Additionally, Rs. 1.00 Lakh (fixed) is provided as overhead to the host institute per year.
- Eligible host institutions are the state universities which have been qualified/listed as spoke institutions, in Category A of recently awarded PAIR program of ANRF.

#### **Anusandhan National Research Foundation (ANRF)**

- It has been established with the ANRF 2023 Act, under the **Department of Science & Technology**.
- Aim: To seed, grow and promote research and development (R&D) and foster a culture of research and innovation throughout India's universities, colleges, research institutions, and R&D laboratories.
- It will act as an apex body to provide highlevel strategic direction of scientific research in the country as per recommendations of the National Education Policy (NEP).
- The Science and Engineering Research Board (SERB) established in 2008 has been subsumed into ANRF.

Source: TH

## TRIBAL GENOME SEQUENCING PROJECT

#### In News

 Gujarat has become the first state in India to launch a Tribal Genome Sequencing Project.

#### **About**

- Objectives: Identify genetic markers associated with various hereditary and immunity-related conditions.
- **Key Implementation Agency:** Gujarat Biotechnology Research Centre (GBRC)
- **Sample Size & Scope:** The project will sequence the genomes of 2,000 individuals from tribal communities across 17 districts of Gujarat.
- Target Population: Focus includes major tribal groups such as Bamcha, Garasia Bhil, Chaudhar, Dubla, Gond, Nayaka, Warli, and the Sidi community.

Source: TH

## JAVELIN ANTI-TANK GUIDED MISSILES (ATGMS)

#### In News

 India has submitted a letter of request to the United States for co-production of Javelin antitank guided missiles (ATGMs) in the country.

#### Javelin anti-tank guided missiles (ATGMs)

- It is a single man-portable fire-and-forget medium-range antitank weapon system designed to defeat all known and projected threat armor.
- Its fire-and-forget capability provides superior survivability by enabling the operator to immediately relocate after firing.
- It can defeat all known and anticipated battlefield armor, including main battle tanks and softer targets, and can be launched in both top-attack and direct-attack modes.
- It is developed and produced jointly by American defence majors Raytheon and Lockheed Martin.

Source:TH

#### **ADEETIE SCHEME**

#### In News

 The Assistance in Deploying Energy Efficient Technologies in Industries & Establishments (ADEETIE) scheme was officially launched at Arya (P.G.) College, Panipat, Haryana.

#### **ADEETIE scheme**

- The ADEETIE scheme, with a budgetary outlay of ₹1000 crore, is an initiative by the Ministry of Power, Government of India, is being implemented by the Bureau of Energy Efficiency (BEE).
- It is structured to provide end -to-end hand holding through subvention on loans, Investment Grade Energy Audits (IGEA), Detailed Project Reports (DPRs), and post-implementation Monitoring and Verification (M&V).
- The scheme covers 14 energy-intensive sectors: Brass, Bricks, Ceramics, Chemicals, Fishery, Food Processing, Forging, Foundry, Glass, Leather, Paper, Pharma, Steel Re-rolling, and Textiles.
- It envisages to provide interest subvention of 5% for Micro and Small Enterprises, and 3% for Medium Enterprises on loans, ensuring accessibility and affordability for MSMEs seeking financial aid for energy efficiency (EE) projects.

#### **Importance**

 It marks a decisive step toward India's transition to a low-carbon economy by enabling Micro, Small, and Medium Enterprises (MSMEs) to upgrade to energy-efficient technologies through comprehensive financial and technical support.

#### **Bureau of Energy Efficiency (BEE)**

- The Government of India set up the Bureau of Energy Efficiency (BEE) on March 1, 2002 under the provisions of the Energy Conservation Act, 2001.
- It aims to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 with the primary objective of reducing the energy intensity of the Indian economy.
- It coordinates with designated consumers, designated agencies and other organizations and recognises, identifies and utilises the existing resources and infrastructure, in performing the functions assigned to it under the Energy Conservation Act.

Source :PI

#### **CAFE NORMS**

#### Context

 The Government of India is finalizing stricter Corporate Average Fuel Efficiency (CAFE) norms—CAFE-III and CAFE-IV, to be implemented between 2027 and 2037.



#### **About**

- These norms mandate fleet-wide CO<sub>2</sub> emission reductions for automakers to promote fuel efficiency and clean technologies.
- Introduced in 2017 by the Bureau of Energy Efficiency (BEE) under the Ministry of Power to regulate fuel consumption and CO<sub>2</sub> emissions from passenger vehicles (PVs).
- Applicable to all vehicles under 3,500 kg, including those powered by petrol, diesel, LPG, CNG, hybrids, and EVs.
- Objectives:
  - Reduce oil imports and energy dependency.
  - Curb air pollution and emissions.
  - Encourage production of low-emission vehicles (EVs, hybrids, and CNG models).
- CAFE-II Norms (Effective from FY 2022–23)
  - **Set stricter benchmarks:** Fuel consumption ≤ 4.78 litres per 100 km.

- CO₂ emissions ≤ 113 grams/km (directly linked to fuel use).
- Non-compliance penalties were increased to ensure stronger enforcement.

#### **Impact on Automakers and Innovation**

- The framework penalizes lightweight cars:
  - Although reducing weight is a proven strategy to improve fuel efficiency and reduce emissions, the CO<sub>2</sub> target becomes even more demanding for such lighter vehicles.
  - Hence, lightweighting is not adequately rewarded, especially for entry-level small cars.
- This disincentivizes innovation in the affordable car segment, which is crucial for mass mobility in India.

Source: BS

