

## DAILY CURRENT AFFAIRS (DCA)

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## ARTESIAN CONDITION

### In News

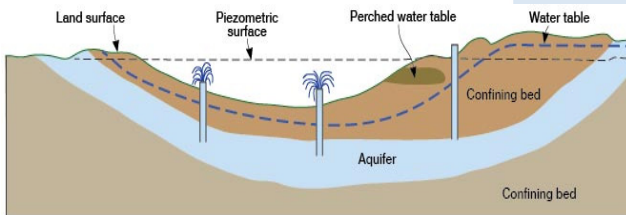
- Jaisalmer witnessed a unique natural event when artesian water began gushing to the surface, providing a striking example of artesian conditions.

### What is Artesian Condition?

- An artesian condition occurs when groundwater is confined under pressure between layers of impermeable rocks, creating what is known as an artesian aquifer.

### Factors Leading to Artesian Condition

- **Confined Aquifer:** Water is trapped between layers of impermeable rock, making it difficult for water to escape.
- **Pressure Gradient:** The natural geological pressure from the weight of overlying rock layers creates the internal pressure within the aquifer.
- **Rupture or Drilling:** When the confining layer is punctured, such as through drilling, the built-up pressure is released, forcing the water upward.



### How does it work?

- Once the top impermeable layer is breached, artesian water flows naturally to the surface, propelled by the internal pressure of the aquifer. The water can gush forcefully, depending on the depth and pressure within the aquifer.

### Global Examples

- **Artois, France:** Artesian wells in this region were among the first to be documented during the Middle Ages.
- **Australia:** Artesian wells are common in the dry central areas, helping support agriculture in otherwise dry regions.
- **Africa:** Certain regions of Africa, especially in desert areas, rely on artesian wells to access groundwater.

### Significance

- **Water Source in Arid Regions:** Artesian wells are particularly significant in desert and arid regions, where water is scarce. The natural flow of artesian water can provide a reliable water source without the need for energy-intensive pumps.

- **Agricultural Utility:** Artesian wells enable irrigation in places with limited access to surface water, allowing crops to be watered without the need for machinery.
- **Geological Insight:** Artesian conditions help scientists study subsurface water distribution, hydrology, and the overall geological makeup of a region.

**Source:** IE

## 10 YEARS OF NITI AAYOG

### Context

- NITI Aayog has completed 10 years of its establishment.

### About NITI Aayog

- **Established:** NITI Aayog (National Institution for Transforming India) is a government think tank established in **2015**.
- **Aim:** It replaced the Planning Commission, aiming to focus on more **contemporary challenges like sustainable development, policy innovation, and governance reforms**.
- **Composition:** It is led by the Prime Minister as the Chairperson, with the Vice-Chairperson and CEO leading the executive functions.
- **Governing Council:** The Prime Minister of India,
  - ◆ It comprises the Chief Ministers of states and Union Territories,
  - ◆ The Lieutenant Governors of Union Territories, except Delhi and Puducherry,
  - ◆ The Vice Chairman of NITI Aayog,
  - ◆ Full-time members of NITI Aayog.

### Roles of NITI Aayog:

- **Policy Formulation and Strategic Advice:** It provides strategic and technical advice to the central and state governments.
- **Promote Cooperative Federalism:** By encouraging state governments to partner with the central government in decision-making.
- **Monitoring and Evaluation:** It monitors and evaluates the implementation of policies and programs, ensuring they align with long-term development goals.
- **Innovation and Research:** It aims to foster innovation, research, and new technologies in critical sectors.
- **Promotion of Sustainable Development Goals (SDGs):** NITI Aayog plays a role in aligning India's development programs with the global Sustainable Development Goals (SDGs).

**The key differences between the Planning Commission and NITI Aayog are:**

Aspect	Planning Commission	NITI Aayog
<b>Purpose</b>	Centralized five-year planning and resource allocation.	Focus on cooperative federalism, long-term development, and policy research.
<b>Structure</b>	Led by the Prime Minister with a Deputy Chairman and full-time members.	Led by the Prime Minister with a Vice-Chairperson, CEO, and Governing Council.
<b>Approach</b>	Top-down, centralized planning.	Bottom-up, encouraging state participation and cooperation.
<b>Role in Governance</b>	Executive authority over policy implementation.	Advisory body, without direct enforcement power.
<b>Five-Year Plans</b>	Formulated and implemented Five-Year Plans.	Does not formulate Five-Year Plans, focuses on long-term policy.

**Why did the Government replace Planning Commission with NITI Aayog?**

- **Need for Flexibility:** NITI Aayog aims for a more flexible, adaptive approach to development.
- **Cooperative Federalism:** The Planning Commission was criticized for not adequately involving state governments in decision-making.
- **Focus on Innovation and Research:** NITI Aayog focuses on policy innovation, sustainable development, and technology, while the Planning Commission's focus was primarily on resource allocation and fixed targets.
- **Decentralization:** NITI Aayog aims to empower states with greater autonomy to design development policies tailored to their unique needs.

**Challenges of NITI Aayog**

- **Limited Authority:** NITI Aayog lacks the executive powers to enforce its recommendations, which limit its ability to drive significant change.
- **Coordination Between States and Centre:** Despite its emphasis on cooperative federalism, achieving effective collaboration between state governments and the central government remains a challenge.
- **Data Gaps:** NITI Aayog relies heavily on accurate data to guide policies, but inconsistent or incomplete data from states hinder effective policymaking and monitoring.
- **Resource Constraints:** Limited resources and competing priorities often make it challenging for NITI Aayog to fully implement its plans and initiatives.
- **Resistance to Change:** Some states and political entities resist NITI Aayog's initiatives, especially if

they feel their autonomy is being undermined or if there is a lack of alignment with local needs.

**Vision Plans of NITI Aayog for India**

- **Agenda for 2030:** Focuses on achieving the Sustainable Development Goals (SDGs) by addressing poverty, education, healthcare, clean energy, and gender equality.
- **15-Year Vision Document:** Aimed at creating a roadmap for India's development from 2020 to 2035, with a focus on economic growth, social equity, and environmental sustainability.
- **Focus on Data and Innovation:** Promotes digitalization, innovation, and evidence-based policymaking to drive economic development and improve governance.

Source: IE

**CASTE-BASED CENSUS IN INDIA****Context**

- Analysis of the caste based census of Bihar signifies why a **caste-based Census** is imperative in India to understand the **socio-economic conditions of disadvantaged groups**.

**What is the Census?**

- The Census refers to a **periodic and systematic collection** of demographic, economic, and social data of a population within a specific region.
- It is typically conducted by governments to gather **detailed information about the population's characteristics and living conditions**.
- The Census provides **crucial data that governments, businesses, researchers, and policymakers** use for various purposes such as

planning public services, allocating funding, and making informed decisions.

#### Census in India

- The Census in India has been conducted **regularly since 1871**. The first complete Census was conducted in **1881**.
- **Constitutional Mandate:** The Census of India is conducted under the **provisions of the Census Act of 1948**, which empowers the Government of India to conduct periodic population surveys.
- **Frequency:** The Census of India is conducted decennially, meaning it takes place **every ten years**.
  - ◆ The most recent Censuses were conducted in 2011.

#### Caste Based Census

- **Caste Based Census:** It involves enumerating the population based on their caste affiliations during the national census.
  - ◆ This data is used to understand the socio-economic status of different caste groups, identify disparities, and design policies for affirmative action.
- **Background:** From the colonial era's regimental assignments to identify "**criminal tribes**," caste data has been integral to administrative and political strategies.
  - ◆ In 2011, the government undertook the **first-ever Socio-Economic Caste Census (SECC)**; however, it was never made public.
  - ◆ There were many anomalies in the caste data as a large section of the population chose different ways to identify their castes.
- **Constitutional Recognition:** Post-independence, the Constitution institutionalised affirmative action through **Articles 16(4) and 340**, recognising the socio-economic backwardness of certain groups.
  - ◆ However, these classifications were often based on "expert assessments" rather than empirical data, as seen with the Mandal Commission.
- While repeated calls for a national caste Census did not materialise, Bihar went ahead, conducting its own in 2023.

#### Arguments in the Favour of the Caste Based Census

- **Accurate Data for Targeted Welfare:** It can provide precise data on the socio-economic conditions of different caste groups, allowing the

government to tailor welfare programs effectively for marginalized communities.

- **Identify Disparities:** It helps identify existing inequalities in education, employment, and access to resources.
- **Strengthen Affirmative Action:** It helps ensure that affirmative action policies like reservations are based on accurate and updated data, ensuring fair representation for underrepresented communities.
- **Social Justice:** The census could push for better policies for upliftment, enhancing social justice for historically disadvantaged groups.
- **Policy Evaluation and Reform:** The data could be used to assess the impact of existing policies on different caste groups, leading to better policy reforms and improved governance.

#### Arguments Against the Caste Based Census

- **Perpetuation of Caste Divisions:** It might reinforce caste identities, potentially deepening social divisions and promoting discrimination instead of fostering unity.
- **Focus on Caste Over Development:** Critics argue that focusing on caste may divert attention from more universal issues like poverty, education, and healthcare, which affect all communities.
- **Inaccurate Representation:** Some believe that caste-based data may be inaccurate due to the fluidity of caste identities and the reluctance of people to disclose their caste openly.
- **Risks to National Integration:** Some fear that caste-based enumeration could undermine national integration by creating a sense of competition among groups, rather than promoting a cohesive national identity.

#### Conclusion

- A detailed look at the Bihar Census 2023 highlights the deep-rooted socio-economic inequalities in the State.
  - ◆ The higher castes benefit from better income, education, and employment opportunities, while marginalised groups like Musahars and Bhuiyas remain excluded.
- The Bihar caste Census is proof of the **need for detailed caste data**.
  - ◆ By offering comprehensive insights, this Census shows how it can become an essential tool for informing policies and ensuring resources are allocated effectively.

**Source: TH**

## EASING OF RESTRICTIONS TO PUSH NUCLEAR DEAL WITH INDIA

### Context

- Recently, the **United States** has announced the **easing of restrictions on Indian nuclear entities**, such as *Bhabha Atomic Research Centre (BARC)*, *Indira Gandhi Atomic Research Centre (IGCAR)*, and *Indian Rare Earths Limited (IREL)* from the **US Entity list**.
  - US Entity List** is a tool used by the **United States Department of Commerce** to restrict certain foreign entities from accessing US-origin goods, services, and technology.

### Historical Background

- The bilateral 'Agreement for Co-operation between India & US concerning Peaceful Uses of Nuclear Energy' has been done under **Section 123 of US Atomic Energy Act 1954**.
  - Hence it is also **popularly known as the 123 Agreement**.
- The Agreement aims **to end technology denial regimes against India** that have been in place for three decades and end India's nuclear isolation.
- It opened the doors for India to **have civil nuclear cooperation** as an equal partner with the USA and the rest of the world.

### Indo-US Nuclear Deal (2008)

- The **Indo-US nuclear deal, signed in 2008**, was a landmark agreement that allowed India access to nuclear technology and fuel from the international market **despite not being a signatory to the Nuclear Non-Proliferation Treaty (NPT)**.
- It aimed to facilitate nuclear cooperation between the two countries, allowing India access to nuclear technology and fuel from the US and other **Nuclear Suppliers Group (NSG)** countries.
- The Agreement entails **no obligations for India** to sign the Comprehensive Nuclear-Test-Ban Treaty (CTBT) / Fissile Material Cut-off Treaty (FMCT).

### Significance of Indo-US Civil Nuclear Collaboration

- Initiative on Critical and Emerging Technology (iCET)**: It aims to foster innovation and enable joint manufacturing of nuclear components.
  - It could facilitate deployment of American atomic reactors in India and enhance mutual cooperation.
- India's Push for **Small Modular Reactors (SMRs)**.
- Collaboration in Light Water Reactors (LWRs).

### Implications of Easing of Restrictions by the US

- Strategic Importance**: The removal of Indian entities from the U.S. 'Restricted Lists' is expected

to provide fresh momentum to the nuclear deal, facilitating greater scientific and technological collaboration.

- Energy Security and Clean Energy Goals**: IndiaUS, with its growing energy demands, is keen to diversify its energy sources.
  - Nuclear energy offers a reliable and low-carbon alternative to fossil fuels, aligning with India's commitment to reducing greenhouse gas emissions and achieving its clean energy targets.
- Technological Advancements**: Collaboration with the US can provide India access to advanced nuclear technologies, enhancing the efficiency and safety of its nuclear power plants.
  - It can also spur innovation and research in nuclear science, benefiting both nations.

### Key Hurdles

- Nuclear Liability Laws**: One of the most significant barriers to Indo-US nuclear collaboration has been India's stringent nuclear liability laws. These laws hold the operator, rather than the supplier, liable for any nuclear accidents.
  - On the American Side**: The **'10CFR810' authorization under the US Atomic Energy Act of 1954** has been a significant impediment. It allows US nuclear vendors to export equipment to countries like India under strict safeguards but does not permit them to manufacture nuclear equipment or perform design work in India.
  - On the Indian Side**: The **Civil Liability for Nuclear Damage Act, 2010**, has been a major concern for foreign nuclear vendors. It channels operators' liability to equipment suppliers, causing apprehension among foreign investors about potential future liabilities.
- Regulatory and Bureaucratic Challenges**: Regulatory hurdles and bureaucratic red tape have also impeded progress.
  - The complex approval processes and stringent regulations in both countries have slowed down the implementation of nuclear projects.
  - Streamlining these processes and ensuring regulatory alignment is crucial for advancing collaboration.

### Future Prospects

- By leveraging American nuclear technology, India aims to expand its clean energy infrastructure, contributing to global efforts to combat climate change.

- Additionally, this partnership underscores the broader geopolitical significance of India-U.S. relations, particularly in the Indo-Pacific region.
- The easing of restrictions by the US marks a significant step forward in the Indo-US civil nuclear partnership.

Source: IE

## TWIGSTATS REVEALED HIGH-RESOLUTION GENOMIC HISTORY OF EARLY MEDIEVAL EUROPE

### Context

- In a recent study published in Nature, researchers used **Twigstats** to analyze ancient genomes from Europe and reconstruct the region's high-resolution genomic history.

### About

- Prehistoric human ceremonial burials, mass grave mounds, and war graves contain **ancient genetic material (aDNA)** that is crucial for understanding population dynamics and ancestry.
- aDNA analysis reveals insights into population expansion, replacement, admixture events, cultural transitions, and migrations.

### What is Twigstats?

- Twigstats is a **time-stratified ancestry analysis tool** designed to enhance the understanding of genetic history.
- It **utilizes statistical languages R and C++** to assist researchers in analyzing genetic data with greater precision.
- By focusing on recent mutations, Twigstats enables researchers to target specific historical periods, as these mutations offer clearer insights into events from those times.

### Traditional techniques for Genetic Analysis

- **Single Nucleotide Polymorphisms (SNPs):** SNPs are natural genetic variations commonly used for reconstructing genetic histories.
  - However, they require high-quality DNA samples and have limitations in distinguishing closely related groups.
- **Haplotype and Rare Variant Analysis:** It utilizes shared segments of DNA (haplotypes) and rare genetic variants for better resolution. It is more powerful than SNPs alone.
- **Genealogical Tree Inference Methods:** These methods apply to both modern and ancient genomes, effectively capturing time-specific genetic information and population structures.

### Challenges in Tracing Genetic Ancestry

- **Statistical Similarity:** Populations across regions usually appear statistically similar, making genetic differentiation difficult.
- **Sample Size and Quality:** Sample size variations pose challenges as ancient genomes have lower sequencing quality than medieval or modern genomes.
- **Gene Flow:** The Gene flow and the introduction of ancient genetic material into modern populations further complicate ancestry tracing.

### India's Genetic History Study

- A 2009 study by the Broad Institute and CSIR-Centre for Cellular and Molecular Biology, Hyderabad, explored Indian population history.
- The study found two ancestral groups;
  - **Ancestral North Indians** are linked to Central Asia, Europe, and the Middle East.
  - **Ancestral South Indians** identified as a distinct group.

### Conclusion

- The study exemplifies how innovative genomic methods refine our understanding of early medieval populations.
- By integrating genetic, archaeological, and historical data, it reveals how cultural shifts often align with genetic changes, offering a clearer view of the complex processes that shaped ancestral histories and enabling global high-resolution genetic reconstructions.

Source: TH

## U.S. NET NEUTRALITY ROLLBACK HIGHLIGHTS INDIA'S DIVERGENT PATH ON ISSUE

### In News

- The 6th U.S. Circuit Court of Appeals ruled against the second attempt of the Federal Communications Commission (FCC) to enforce **Net Neutrality**.

### About

- The U.S. tech companies like Netflix opposed telecom companies and ISPs charging them for extra bandwidth, fearing the creation of "fast lanes" and "slow lanes" for internet traffic.
- The U.S. experienced a cycle of net neutrality policy changes, with Obama-era rules being rolled back under President Trump and later reinstated under President Biden.

### What is Net Neutrality?

- Net neutrality is the principle that internet providers must treat all web traffic equally, preventing them from blocking or slowing access to websites or content.

### Significance

- **Consumer Rights:** It ensures consumers can access content freely without restrictions or extra charges from ISPs.
- **Innovation and Competition:** It promotes innovation by allowing startups to compete on an equal footing with large companies.
- **Freedom of Expression:** Protects free speech by preventing ISPs from censoring content or controlling information flow.

### The Debate

- **Proponents :** They argue net neutrality is essential for a free and open internet, preventing ISPs from controlling access or prioritizing content for profit.
- **Opponents:** ISPs and some policymakers argue regulation limits investment and innovation, suggesting prioritization may be necessary for quality service.

### India's approach

- India's approach to net neutrality has evolved differently over the last decade, with telecom companies seeking ways to extract payments from large tech platforms.
- In India, the net neutrality debate started in 2014 with Bharti Airtel's attempt to impose higher tariffs on internet calls (e.g., Viber), sparking widespread opposition against discriminatory data pricing.
- **In 2016, the Telecom Regulatory Authority of India (TRAI)** ruled in favor of net neutrality, ensuring equal treatment of all internet traffic. This decision ended a public debate, prohibiting programs like Facebook's Free Basics and telecom operators' plans to charge extra for data calls using apps like Viber.
- **In 2018, the Department of Telecommunications** further solidified net neutrality by embedding it into the Unified **Licence, making it a binding condition for all telecom operators and internet providers.**
- **Telcos' New Demand in India:** Indian telecom companies have recently pushed for network usage fees, demanding that large tech companies pay for the traffic they generate on telecom networks, a demand that has raised concerns among net neutrality advocates.

### Conclusion and Way Forward

- Net neutrality is key to preserving an open internet, safeguarding consumer rights, encouraging innovation, and ensuring freedom of expression.
- Balancing regulation and freedom will be crucial moving forward.

Source :TH

## NEWS IN SHORT

### KONDA REDDI TRIBE

#### Context

- Some youth of the Konda Reddi tribe in Andhra Pradesh, have begun to prefer entering into live-in relationships with the partners of their choice.

#### About

- The Konda Reddi Tribe is a **Particularly Vulnerable Tribal Group** inhabiting the Papikonda hill range in the **Godavari region of Andhra Pradesh.**
- Their mother tongue is **Telugu.**
- Konda Reddies have their own institution of social control called '**Kula Panchayat**'.
- Each village has a traditional headman called '**Pedda Kapu**'.

#### Particularly Vulnerable Tribal Group

- In 1973, the **Dhebar Commission** set up a separate category for **Primitive Tribal Groups (PTGs)**.
  - ♦ **In 1975,** the Union identified 52 tribal groups as PTGs.
  - ♦ **In 1993,** 23 more groups were added to the list. Later, in 2006, these groups were named PVTGs.
- PVTGs are a **more vulnerable group** among tribal groups in India.
  - ♦ These groups have primitive traits, geographical isolation, low literacy, zero to negative population growth rate and backwardness.
  - ♦ Moreover, they are largely dependent upon hunting for food and a pre-agriculture level of technology.
- It is said that more developed tribal groups take advantage of the development funds, and thus, there is a **need to direct more funds towards PVTGs.**
- According to the 2011 Census, **Odisha** has the largest population of PVTGs followed by Madhya Pradesh.

Source: TH

## UNIVERSITY GRANTS COMMISSION (UGC) DRAFT REGULATIONS 2025

### Context

- The UGC has announced draft regulations aimed at broadening the eligibility criteria for **Vice Chancellors and academic roles in universities**, aligned with the **National Education Policy (NEP) 2020**.

### What are the Draft Guidelines?

- Changes in Vice Chancellor Recruitment:** Candidates from fields like public administration, public policy, industry, and public sector undertakings are now eligible for V-C appointments.
  - They must have a minimum of **10 years** of senior-level experience and significant academic contributions.
  - Selection Committee Composition:** The committee will now consist of three members: nominees from the Visitor or Chancellor, the UGC, and the university's apex body.
- Relaxed NET Requirement:** Candidates with a Master of Engineering (ME) or Master of Technology (MTech) with a minimum of **55% marks** can apply for Assistant Professor roles without the need to qualify for the UGC National Eligibility Test (NET).
- Focus on Specialisation:** Faculty selection will now align more closely with candidates' highest specialisation, offering flexibility in teaching subjects outside traditional academic tracks.
- Revised Selection Criteria:** There will be emphasis on innovative teaching methods, contributions to digital content creation, securing research funding, and teaching in Indian languages.
- The Academic Performance Indicator (API) system**, previously used for faculty promotions, will be phased out in favour of a more qualitative assessment.

Source: HT

## MAIYA SAMMAN INITIATIVE

### In News

- Jharkhand CM Hemant Soren transferred ₹1,415.44 crore to 56.61 lakh women under the **Maiya Samman Yojana**.

### About Maiya Samman Yojana

- The scheme increased the amount from ₹1,000 to ₹2,500 per woman aged 18 to 50.

- The scheme requires women to have bank accounts, bringing millions of women into the formal banking system.
- The ₹2,500 installment was transferred for December, and January's installment will be transferred later.

### Importance

- The cash transfer is described as a transformative boost to women's household income, especially in rural areas.
  - Research shows women-directed cash transfers improve family health, education, and nutrition.
  - The government aims to involve women in economic activities to promote the state's economic growth.

Source :TH

## PM YASASVI SCHEME

### In News

- Punjab opened scholarship portal for OBC, EBC, DNT students under PM YASASVI scheme.

### About scheme

- The PM Young Achievers Scholarship Award Scheme for Vibrant India (PM-YASASVI) was launched by the Ministry of Social Justice and Empowerment
  - Selection Process:** Candidates are selected through the YASASVI Entrance Test (YET) conducted by NTA.
  - Eligibility:** Open to Other Backward Classes (OBC), Economically Backward Classes (EBC), and Denotified Tribes (DNT) students with family income up to ₹2.5 lakh.
  - Objectives:** The scheme promotes educational empowerment, helping disadvantaged students overcome financial barriers and complete their education.
  - It **combines several earlier schemes**, including **Dr. Ambedkar Post-Matric and Pre-Matric Scholarships for EBCs and DNTs**.
    - Sub-Schemes:** Pre-Matric Scholarship (Class 9-10)-₹4,000 for students from families with income below ₹2.5 lakh.
      - Post-Matric Scholarship (Post-secondary education)-₹5,000 to ₹20,000 based on course type.
      - Top Class School Education
      - Top Class College Education
      - Construction of Hostels for OBC Boys and Girls

Source: PIB



## INDIA'S COFFEE EXPORT SURPASSES USD 1 BILLION FOR THE FIRST TIME

### In News

- Indian coffee exports reached a record high of over USD 1.684 billion in 2024, a 45% increase from USD 1.160 billion in 2023.

### Coffee & Production in India

- Coffee is an important beverage used all over the world.
- It requires a warm, wet climate and well-drained loamy soil. Hill slopes are ideal for its growth.
- India produces Arabica (mild flavor, higher market value) and Robusta (strong flavor, used in blends).
- India became the **world's eighth-largest coffee grower in 2022-2023**.
- Regional Production:** Karnataka is the largest producer (71%).
  - Kerala follows with 20%.
  - Tamil Nadu produces 5%, mainly in Nilgiri.
  - Smaller contributions come from Orissa and northeastern areas.

### Reasons for growth

The growth in exports was driven by a **surge in global coffee prices**, impacted by poor weather in key coffee-producing countries like Brazil and Vietnam.

- The proposed European Union Deforestation Regulation (EUDR) led European roasters and traders to buy coffee in advance, boosting demand.
- Italy is the Largest buyer, with a 40% increase in volumes to 78,048 tonnes.
  - Germany is Second largest, with a 19% increase to 42,587 tonnes.

Source :TH

## JAMMU RAILWAY DIVISION

### In News

- Prime Minister inaugurates **Jammu railway division (under the Northern Railway Zone)**, marking a significant step in enhancing train service management in India's northernmost region.

### About

- Railway Division:** It is an administrative unit within Indian Railways, responsible for the management of train operations, maintenance, and infrastructure development in its jurisdiction.

- Indian Railways Structure:** 19 zones (including Metro Railway, Kolkata) and 70 divisions under these zones. Zones are headed by the **General Manager (GM)**.
- Significance of the Jammu Division**
  - Enhanced Connectivity:** Will oversee iconic rail infrastructure:
    - Anji Khad Bridge:** India's first cable-stayed rail bridge.
    - Chenab Rail Bridge:** The world's highest railway arch bridge.
  - USBRL Project:** Critical for linking Kashmir to the rest of India via the Udhampur-Srinagar-Baramulla Railway Link (USBRL).
  - Strategic Importance:** Drives regional development, enhances accessibility, and boosts tourism in Jammu and Kashmir.
  - Modern Infrastructure:** Equipped with advanced IT systems for streamlined and efficient rail operations.

Source: ET

## RUDRA HIGH-PERFORMANCE GREEN PROPULSION SYSTEM

### Context

- Bellatrix Aerospace has announced that it has achieved the desired results from the **Rudra High-Performance Green Propulsion System**.

### About

- It was onboard the PSLV Orbital Experimental Module (POEM-4) in the recently launched PSLV C-60 mission.
- Rudra 1N, is a green mono-propellant system featuring a fully integrated package.
  - It includes components such as tanks, valves, high-performance propellant, and a catalyst, all designed and developed in-house
  - POEM-4 platform is orbiting the earth at an altitude of 350 km.
- The POEM-4 platform, which is the fourth stage of the PSLV rocket, houses 24 experiments by various ISRO labs, start-up companies and educational institutions.

Source: TH

## NET-ZERO BANKING ALLIANCE (NZBA)

### Context

- United States banks Citigroup and Bank of America are exiting the **Net-Zero Banking Alliance (NZBA)**.

**About**

- The Net-Zero Banking Alliance (NZBA) is a **coalition of banks** that have committed to **aligning their financing activities** with the goal of achieving **net-zero greenhouse gas (GHG) emissions by 2050**.
- The alliance was established in **2021** under the **United Nations Environment Programme Finance Initiative (UNEP FI)**.
- It is part of the larger **Glasgow Financial Alliance for Net Zero (GFANZ)**, which includes other financial institutions and focuses on promoting climate action across the global finance industry.

Source: TH

**PANCHPRAN****In News**

- Vice-President Jagdeep Dhankhar, at the NCC Republic Day Camp - 2025 inauguration in Delhi, outlined India's national transformation plan through the **PanchPran (Five Resolutions)**.

**PanchPran (Five Pillars of National Transformation)**

- **About:** PanchPran refers to the five pledges announced by Prime Minister Narendra Modi during his Independence Day speech in 2022. These pledges aim to guide India towards a developed nation by 2047. These are:
  - ♦ **Social Harmony:** Promoting unity through diversity and transforming it into a cohesive force for the nation.
  - ♦ **Family Enlightenment:** Strengthening patriotic values at the grassroots level by nurturing these qualities within families.
  - ♦ **Environmental Consciousness:** Honouring Bharat Mata by protecting and conserving the environment for a sustainable future.
  - ♦ **Swadeshi and Self-Reliance:** Symbols of Atmanirbhar Bharat, fostering self-sufficiency and indigenous development.
  - ♦ **Civic Duties:** Guiding citizens towards progress through adherence to civic responsibilities.

Source: AIR

