

KEY FACTS ABOUT ARAVALLI RANGE



- The Aravalli Range, estimated to be around **670 million** years old, predates the Himalayan Range, making it one of the **oldest fold mountains on Earth**.
- It is the **oldest mountain range in India**.
- It stretches over approximately **692 kilometres** (430 miles) in a northeastern direction.
- It traverses the Indian states of **Gujarat, Rajasthan and Haryana** before culminating in
- It is characterised by **rugged hills, rocky outcrops and sparse vegetation**, and it plays a crucial role in the region's ecology and hydrology.
- **Formation:**
 - The Aravalli Range was formed **during the Proterozoic Eon through a process of orogeny**, or mountain-building, that occurred as a **result of tectonic activity** in the Indian subcontinent.
 - The range consists of a series of ridges and hills, **formed through a combination of volcanic and sedimentary rock formations**.
 - The range is **composed primarily of metamorphic rock**, with granite, gneiss, and schist being the most common types of rock found in the region.
 - The Aravalli Range has **undergone significant erosion** over millions of years, with its current landscape shaped by the **forces of weathering and water**.
- The Aravallis serve as a **natural barrier against desertification** and help **regulate the climate**, support diverse ecosystems and act as a **watershed for several rivers**, including the **Sabarmati, Luni and Banas (tributary of Yamuna)**.
- The **Guru Shikhar**, located in **Mount Abu**, is the **tallest point** in the Aravalli range, rising to an elevation of 1,722 metres.
 - The peak is **named** Guru Shikhar, or “peak of the guru,” **after Dattatreya, an incarnation of Vishnu**.

- **Dilwara** is the **second highest peak** in Rajasthan, and like Guru Shikhar, is **located in Mount Abu**.
 - Dilwara is **renowned for the Dilwara Temples**, which were built between the 11th and 13th centuries. The Dilwara temples consist of **5 temples of the Jain faith**.

Aravalli Green Wall Project:

- The project is a major initiative to **green the 5 km buffer area around Aravalli Hill**.
- It is part of the Union Environment Ministry's vision to create green corridors across the country **to combat land degradation and desertification**.
- The project **covers the states of Haryana, Rajasthan, Gujarat and Delhi** - where the Aravalli Hills landscape spans over 6 million hectares of land.
- The project will involve **planting native species of trees** and shrubs on scrubland, wasteland, and degraded forest land, along with **rejuvenating and restoring surface water bodies** such as ponds, lakes, and streams.
- The project will also focus on **agroforestry and pasture development** to enhance the livelihoods of local communities.

KHEER BHAWANI TEMPLE

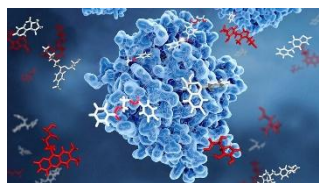


- It is a **Hindu temple** situated at Tulla Mulla village **near Srinagar, Jammu and Kashmir**.
 - It is dedicated to Hindu **Goddess Ragnya Devi**, an **incarnation of Goddess Durga**.
- **Maharaja Pratap Singh** built this temple in **1912**, which was later **renovated by Maharaja Hari Singh**.
- The temple was originally named Bhawani Mandir but eventually came to be **known as Kheer Bhawani** due to the famous **Indian dessert Kheer**, which is the **main offering** to the goddess.

Current Affairs - 04 June 2025

- Goddess Ragnya Devi is prominently worshipped as the **patron deity** by the **Kashmiri Pandits**.
- The most significant event connected with the temple is the **annual festival of Mela Kheer Bhawani**, celebrated on the Zyeshta Ashtami during May or June.
- **Architecture:**
 - The architecture of the temple is simple yet beautifully created using **smooth grey stones**.
 - The **main altar** of the temple is **built amidst a pond**. This structure **hosts a marble platform** on which the **idol of the goddess is placed** in the sanctum sanctorum.
 - It is bracketed by four stone pillar-like structures that roof the statue.
 - There is also a **holy spring flowing from the western end** of the temple, which is **known to change its colors**. Rumour has it that the **waters turn black as a warning** for any looming calamity.

WHAT ARE NANOZYMES?



- Enzymes are **proteins that help speed up metabolism** or the chemical reactions in our bodies.
- They **build some substances and break others down**.
- **All living things have enzymes**.
- Our **bodies naturally produce** but enzymes are also in **manufactured products** and food.

About Nanozymes:

- They are **nanomaterials that display enzyme-like characteristics**.
- They may be **metallic, metal oxide-based, carbon-based**, or of other types.
- **Advantages:**

- They are **less expensive** and **recyclable**.
 - They can also be **easily manufactured** and **stored for long periods of time**, further reducing their cost.
 - **Typical inorganic enzymes require high temperature, high pressure, and extreme pH** In contrast, **nanozymes are able to work in environments closer to physiological conditions** and **respond to a range of external stimuli**.
 - The most important advantage is the **display of size/composition-dependent activity**, meaning that **nanozymes can be designed with a range of catalytic activity** by simply varying shape, structure, and composition.
 - They also have unique properties compared to other artificial enzymes, including **integrated multi-functions not related to catalysis**.
- **Applications:**
 - They have a large range of applications for **diagnostic medicine, targeted therapy, and biosensing**.
 - In recent years, it has been found that various nanozymes have **antioxidant activity**, allowing them to simulate the endogenous antioxidant system and play an **important role in cell protection**.
 - Therefore, nanozymes can be **applied in the treatment of reactive oxygen species (ROS)-related neurological diseases**.

CLEAN PLANT PROGRAMME



- It is an initiative by the Indian Government aimed at **boosting the availability of disease-free and high-quality planting material for horticultural crops**, such as fruits, vegetables and flowers.
- Its focus is to **enhance the productivity and quality of horticultural produce** by ensuring that farmers have access to certified, disease-free planting material, which can significantly reduce crop losses and improve yields.

- The programme consists of three key components
- **Establishment of Nine Clean Plant Centers (CPCs):** These centres will offer **disease diagnostics and treatments**, develop mother plants for nurseries, and quarantine all domestic and imported planting materials intended for commercial propagation and distribution.
- **Infrastructure Development:** This includes setting up **large-scale nurseries** to efficiently multiply clean planting material. The mother plants produced by the CPCs will be propagated in these nurseries and then distributed to farmers.
- **Regulatory and Certification Framework:** A robust regulatory and certification process will be created to ensure complete accountability and traceability in the production and distribution of planting material.
- **Implemented by:** It will be implemented by the Ministry of Agriculture and Farmers Welfare through the **National Horticulture Board (NHB)** and the **Indian Council of Agricultural Research**.

UMEED PORTAL



- The 'Unified Waqf Management, Empowerment, Efficiency, and Development (UMEED) Portal is a centralised digital platform to register **Waqf properties across the country**.
- It aims to promote better management and enhance transparency.
- The portal is being launched against the backdrop of the recently enacted **Waqf (Amendment) Bill, 2025**, which received presidential assent.
- Registrations will be facilitated by respective **State Waqf Boards**.
- **Key Features of Portal**
 - Under the new plan, all Waqf properties must be **registered on the portal within six months** of its launch.

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- Each registration must include full details such as measurements (length and width) and **geotagged locations**.
- Properties that are registered under women's names will not be eligible to be classified as Waqf properties.
- However, women, children, and people from **economically weaker sections** will continue to be key beneficiaries of Waqf assets.
- Properties not registered within the stipulated time frame due to technical or other significant reasons may be granted an extension of one to two months.
- However, **properties that remain unregistered beyond the permitted period** will be **considered disputed** and referred to the Waqf Tribunal for resolution.

CENTRE'S NEW REGULATIONS FOR JOBS AND DOMICILE IN LADAKH

- The Centre has introduced new regulations for Ladakh to address long-standing concerns of its civil society. The key measures include:
 - **Domicile-based job reservation** to safeguard employment opportunities for locals.
 - **Recognition of local languages** to preserve Ladakh's cultural identity.
 - **Clear procedures for civil service recruitment**, ensuring transparency and fairness.
- These steps aim to protect Ladakh's land, jobs, and cultural heritage.

Five Newly Notified Regulations for Ladakh

- Earlier, Ladakh was governed by adapted J&K laws, such as the J&K Reservation Act, 2004 and Civil Services Decentralization and Recruitment Act, 2010.
- The 2025 regulations mark a clear departure, creating a legal framework tailored specifically for Ladakh.
- **Domicile-Based Government Job Reservation**

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- **Regulation:** Ladakh Civil Services Decentralization and Recruitment (Amendment) Regulation, 2025
- Introduces **domicile requirement** for government jobs in Ladakh.
- A domicile is defined as:
 - Resident of Ladakh for 15 years; or
 - Studied for 7 years and appeared in Class 10 or 12 in Ladakh; or
 - Children of Central Government employees serving in Ladakh for 10 years; or
 - Spouses and children of Ladakh domiciles.
- **Procedure for Domicile Certification**
 - **Regulation:** Ladakh Civil Services Domicile Certificate Rules, 2025
 - Specifies **application process and documents** for obtaining domicile certificates.
 - **Tehsildar** will issue the certificate; **Deputy Commissioner** is the appellate authority.
 - Applications can be submitted **online or offline**.
- **Expanded Reservation in Jobs and Education**
 - **Regulation:** Union Territory of Ladakh Reservation (Amendment) Regulation, 2025
 - Total reservation for **SC, ST, OBC, and other backward groups capped at 85%**, excluding 10% EWS quota.
 - Reservation extended to **professional institutions** (e.g., engineering and medical colleges).
 - Earlier quota in education was capped at 50%, now raised to 85%.
- **Recognition and Promotion of Local Languages**
 - **Regulation:** Ladakh Official Languages Regulation, 2025
 - Recognizes **English, Hindi, Urdu, Bhoti, and Purgi** as official languages.
 - Mandates support for **Shina, Brokskat, Balti, and Ladakhi** for cultural preservation.

A STRATEGY FUELLED BY VISION, POWERED BY ENERGY

- In recent years, **India has witnessed a historic transformation across multiple sectors**, with energy at the heart of its rise.
- As of 2025, **India has overtaken Japan to become the world's fourth-largest economy**, with its **GDP surpassing \$4.3 trillion**, more than double its size in 2014.
- This **economic leap is not an accident but the outcome of a meticulously executed decade-long strategy** under Prime Minister Modi, **grounded in reform, resilience**, and a push toward self-reliance.
- At the **core of this strategy is the energy sector**, which has undergone a sweeping transformation and now serves as **a pillar of India's economic and strategic ascent**.

The Strategic Reorientation of India's Energy Landscape

- India's energy sector has evolved into **a robust and strategic force**. With a GDP growth rate of 6.7% in the last quarter, India stands out as the fastest-growing major economy.
- A large portion of this momentum is driven by **a forward-looking and pragmatic energy policy** designed to address the trilemma of availability, affordability, and sustainability.
- India has already **emerged as the third-largest consumer of energy and oil**, the **fourth-largest refiner**, and the **fourth-largest importer of LNG globally**.
- By 2047, **its energy demand is projected to increase 2.5 times**, with 25% of the global incremental energy demand emanating from India.
- In response, **the Modi administration has implemented a comprehensive strategy**: diversification of sources and suppliers, expansion of domestic production, acceleration of renewable transitions, and enhanced affordability.

The Transformation of India's Energy Landscape

- **Strengthening Upstream Capabilities**
 - The upstream oil and gas sector has witnessed a **dramatic expansion**.

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Current Affairs - 04 June 2025

- Exploration acreage has **doubled from 8% in 2021 to 16% in 2025**, with an ambitious target of covering one million square kilometres by 2030.
- This expansion has been **facilitated by decisive policy reforms, including a 99% reduction in 'No-Go' areas**, simplification of **licensing through the Open Acreage Licensing Policy (OALP)**, and revenue-sharing models that incentivize production while reducing compliance burdens.
- **Technological Advancements**
 - Technological advancements such as the **National Seismic Programme, Mission Anveshan**, and geophysical surveys have enabled exploration in frontier basins.
 - These **efforts have resulted in more than 25 hydrocarbon discoveries** across multiple basins.
 - **ONGC's partnerships with global companies like BP are significantly boosting output**, exemplified by a projected 44% increase in oil and 89% in gas production from the Mumbai High fields.
- **Expanding Downstream Infrastructure**
 - India's downstream energy infrastructure has **scaled impressively**.
 - The country now boasts **24,000 kilometres of product pipelines, 96,000 retail outlets**, and substantial strategic and LPG storage capacities.
 - **Over 67 million people access fuel daily**, an indication of the system's robustness and reach.
 - **City gas distribution has expanded from 55 areas in 2014 to 307 in 2025**.
 - The **number of piped natural gas (PNG) connections has surged from 25 lakh to 1.5 crore**, supported by over 7,500 compressed natural gas (CNG) stations.
 - **Affordability is maintained through unified pipeline tariffs** and targeted pricing reforms, ensuring even remote states are connected to the grid.