



# Daily Current Affairs



## To The Point by Dhananjay Gautam

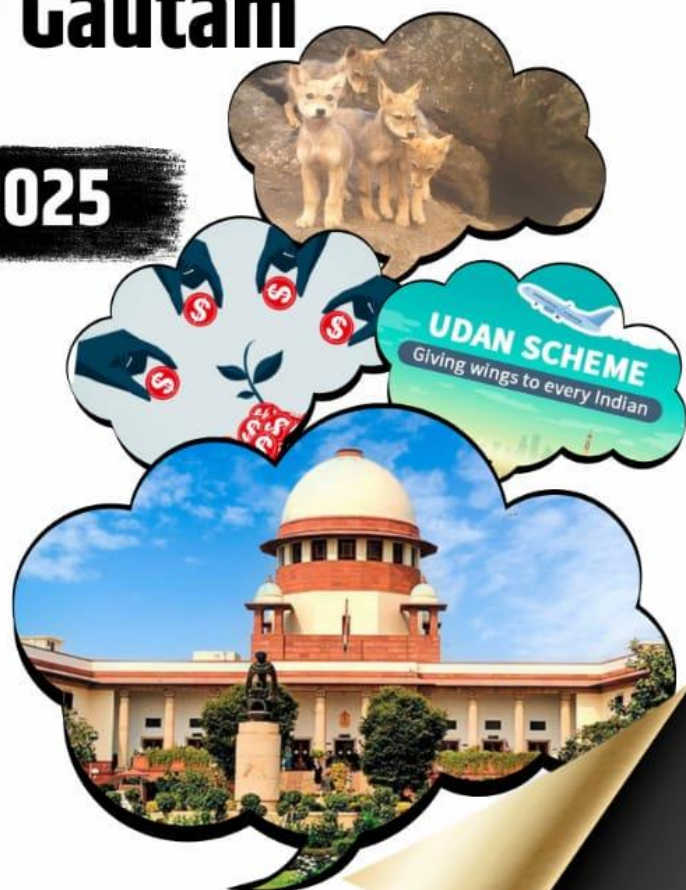
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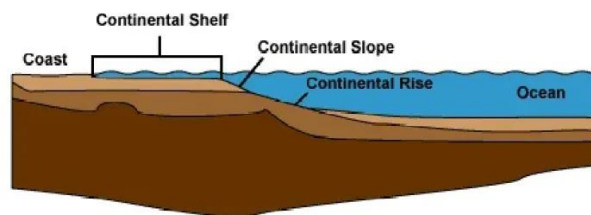


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## 1 Continental Shelf: Gateway to Oceanic Wealth

**Context:** India has **expanded its claim** in the **Central Arabian Sea** by nearly **10,000 sq. km** as part of its **Extended Continental Shelf** initiative. Significantly, India also **modified an earlier claim** to sidestep a **long-standing maritime boundary dispute** with **Pakistan**, reflecting strategic foresight in international maritime law.



### Understanding the Continental Shelf:

#### What is a Continental Shelf?

The **Continental Shelf** is the **submerged extension** of a coastal country's landmass, lying under relatively **shallow ocean waters**. It stretches from the **shoreline** to a point known as the **shelf break**, after which the sea floor slopes steeply down into the **continental slope** and eventually to the **deep ocean basin**.

Importantly, a **continent's true geological boundary** lies not at its coastline, but at the **edge of the continental shelf**.

#### How are Continental Shelves Formed?

- **Inorganic materials**, carried by rivers as **sediments** (rock, soil, gravel), gradually accumulate at the ocean's edge.
- **Organic materials** such as the remains of marine plants and animals also settle, enriching the sediments.
- This process spans **millions of years**, leading to the creation of broad, fertile shelves.

#### Key Characteristics:

- **Average Width:** About **65 km (40 miles)**, but can vary greatly.
- **Average Depth:** Around **60 meters (200 feet)** underwater.
- **Sunlight Penetration:** Allows for rich ecosystems, including **microscopic shrimp**, **seaweed forests** (like **kelp**), and **vibrant marine life**.
- **Nutrient Flow:** Ocean currents and river runoff bring nutrients, making shelves ideal for **marine biodiversity**.
- **Surface Coverage:** Continental shelves make up **less than 10%** of the total **oceanic area**.

In certain regions, **deep underwater canyons** and **submarine channels** slice through the shelves, forming **unexplored and mysterious zones**.

#### The Concept of the Extended Continental Shelf (ECS):

##### Legal Framework:

Under the **United Nations Convention on the Law of the Sea (UNCLOS)**, coastal nations enjoy **exclusive rights** over the continental shelf up to **200 nautical miles** from their baseline, known as the **Exclusive Economic Zone (EEZ)**.

However, nations can claim an even **greater maritime area** if they can **scientifically prove** that their continental shelf **geologically continues** beyond 200 nautical miles. This claim must be presented to the **Commission on the Limits of the Continental Shelf (CLCS)**, a special UN body.

#### Why Extend the Continental Shelf?

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- **Resource Access:** Countries gain sovereign rights to **explore and exploit** the seabed and subsoil for **minerals, polymetallic nodules, oil reserves, and gas hydrates**.
- **Strategic Control:** Securing an extended shelf strengthens **national security** and **economic influence**.
- **Environmental Stewardship:** Nations are also responsible for **protecting the marine environment** within their ECS.

**Conclusion:**

The **Continental Shelf** is more than just a geological formation; it is a **strategic and economic asset**. As nations like **India** move to secure their rightful claims, the **race for underwater resources** intensifies. Understanding the science and law behind continental shelves is essential to appreciating their **growing importance** in global affairs.



## 2 3D Microscope: A New Era in Medical Precision

**Context:** In a historic first, the **Indian Army's Department of Ophthalmology at Army Hospital (Research and Referral), New Delhi**, has successfully performed **Minimally Invasive Glaucoma Surgery (MIGS)** using a cutting-edge **3D Microscope**. This marks a major leap forward in the use of advanced technology for complex eye surgeries in India.

### Microscope: A Window to the Invisible World

#### What is a Microscope?

A **microscope** is an instrument that **magnifies tiny objects**, making them visible to the human eye by **refracting (bending) light rays** through **curved lenses**.

The most familiar type is the **optical microscope**, which uses **visible light** focused through a series of lenses to create an **enlarged image** of the specimen.

### 3D Microscope: Adding a New Dimension to Vision:

#### What is a 3D Microscope?

- A **3D Microscope** goes beyond traditional imaging by producing images with **depth information** along the **X, Y, and Z axes**.
- Unlike the flat images from conventional microscopes, **3D microscopes** use **advanced optical, electronic, or computational techniques** to capture and reconstruct **three-dimensional data**, providing a more detailed and realistic view of specimens.
- This revolutionary technology is extremely useful for studying **complex biological samples** like **soil microbes, aquatic organisms, human tissues, and microplastics**.

#### Outstanding Features of the 3D Microscope:

- **Three-Dimensional Visualization:** Allows surgeons to navigate intricate structures with **remarkable precision**, especially during complex eye surgeries like **squint correction, cataract removal, glaucoma treatment, corneal surgeries, and retinal procedures**.
- **State-of-the-Art Display:** Equipped with a **55-inch 4K Ultra-HD screen**, offering surgeons a **crystal-clear, enlarged view** of the surgical field.
- **3D Polarization Glasses:** Surgeons wear **specialized glasses** to perceive the surgery in **true 3D**, improving **depth perception** and **accuracy**.
- **Reduced Surgical Time:** Faster procedures with **lower complication rates** compared to surgeries performed using traditional 2D microscopes.
- **Lower Photo-toxicity:** The system needs **reduced endoilluminator power**, minimizing the **risk of light-induced damage** to delicate eye tissues.
- **Enhanced Handling of Complex Cases:** Makes it easier to perform surgeries on **rare and intricate medical conditions**.

#### Extra Knowledge: Where Else Are 3D Microscopes Used?

- **Neurosurgery:** For operating on extremely delicate parts of the brain and spinal cord.
- **Oncology:** For removing tumors with high precision, minimizing damage to surrounding tissues.





- **Material Science:** To study microstructures of metals, semiconductors, and nanomaterials.
- **Forensic Science:** To analyze microscopic evidence with depth and clarity.

**Conclusion:**

The introduction of the **3D Microscope** in India's premier military hospital showcases the transformative power of **technological innovation** in **healthcare**. As surgeries become safer, faster, and more precise, **3D imaging** is set to become a cornerstone of **modern medicine**, revolutionizing how doctors see and treat the human body.



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## Mahuadanr Wolf Sanctuary: India's Exclusive Wolf Haven

**Context:** Nestled in the **Latehar district** of **Jharkhand**, the **Mahuadanr Wolf Sanctuary** proudly stands as **India's first and only wolf sanctuary**. It plays a pivotal role in safeguarding the **Indian grey wolf**, an iconic yet vulnerable species of the Indian subcontinent.

**Discovering Mahuadanr Wolf Sanctuary****Overview:**

The **Mahuadanr Wolf Sanctuary** spans an area of approximately **63 square kilometers** and was officially **declared a sanctuary in 1976**. It was established specifically to ensure the **survival and protection** of the **Indian grey wolf** (*Canis lupus pallipes*).

This sanctuary is also an important component of the larger **Palamau Tiger Reserve**, blending wolf conservation with broader efforts to protect India's forest ecosystems.

**Wildlife Diversity:**

While the sanctuary's primary focus is the **Indian grey wolf**, it is also home to a variety of other wildlife species, including:

- **Spotted deer**
- **Wild boars**
- **Hyenas**
- **Sloth bears**
- Numerous species of **birds and reptiles**

The coexistence of different species highlights the **rich biodiversity** and **ecological importance** of this region.

**The Indian Grey Wolf: A Silent Hunter:****Species Profile:**

The **Indian grey wolf** is a **distinct subspecies** of the grey wolf, adapted to the **warm climates** of **Southwest Asia** and the **Indian subcontinent**.

It prefers **scrublands, grasslands, and semi-arid regions**, often avoiding dense forests.

**Behavior and Adaptations:**

- **Pack Size:** Generally smaller compared to other wolf species.
- **Vocalization:** Less vocal and more stealthy than its northern cousins.
- **Activity:** Primarily **nocturnal**, it hunts during the cooler hours from **dusk till dawn**.

This behavior helps the Indian wolf adapt to **harsher, warmer environments**, where conserving energy and water is crucial.

**Conservation Status:**

- **IUCN Red List:** Classified as **Endangered**, with an estimated population of just **2,000–3,000 individuals** in India.





- **CITES:** Listed under **Appendix I**, indicating **maximum international protection** against trade and exploitation.
- **Wildlife Protection Act, 1972:** Included in **Schedule I**, granting it the **highest level of legal protection** within India.

#### Interesting Facts: Going Beyond:

- The **Mahuadanr wolves** are known for their **unique denning behavior**, digging deep burrows for raising pups—a rare trait among wolf populations worldwide.
- **Cultural ties:** In many local tribal traditions of Jharkhand, the wolf is revered and featured in folklore, highlighting its deep-rooted significance to the region's heritage.
- **Challenges:** Habitat loss, human-wildlife conflict, and declining prey base are the major threats these wolves face today, making sanctuaries like Mahuadanr even more critical.

#### Conclusion:

The **Mahuadanr Wolf Sanctuary** is more than a protected land—it is a **symbol of hope** for one of India's most elusive and endangered carnivores. Strengthening conservation efforts here ensures that the **Indian grey wolf** continues to roam the wild landscapes of Jharkhand for generations to come.



## 4 Supreme Court Suggests Minimum Vote Requirement for Unopposed Elections

**Context:** In a significant move, the **Supreme Court of India** has proposed that when only **one candidate** contests an election, they should not be declared elected **automatically**. Instead, the candidate must **secure a minimum prescribed share of votes** to be formally elected.

This suggestion came during the hearing of a petition filed by the **Vidhi Centre for Legal Policy**, challenging the constitutional validity of **Section 53(2) of the Representation of the People Act, 1951** — which currently permits uncontested wins without any voting process.



### Background: The Petition and Core Arguments

#### About the Petition:

- **Filed:** August 2024
- **Petitioner:** Vidhi Centre for Legal Policy

The petition claims that in uncontested elections, voters are **denied their fundamental right** to express dissent through the "**None of the Above**" (NOTA) option.

#### Reference to Landmark Judgment

The petition cites the Supreme Court's **2013 judgment** in **People's Union for Civil Liberties vs Union of India**, which established that the **right to cast a negative vote** is protected under **Article 19(1)(a)** of the Constitution.

#### Main Argument:

- **NOTA** must be available **irrespective** of the number of candidates.
- Voters' ability to **reject candidates** is essential for **true democracy**.

### Uncontested Elections: Historical Context in Lok Sabha

#### According to the petition:

- **26 Lok Sabha constituencies** witnessed **unopposed elections** between **1951 and 2024**.
- As a result, **over 82 lakh voters** were **deprived of their right to vote**.

#### Breakdown of Uncontested Elections:

- **1957:** 7 seats
- **1951 & 1967:** 5 seats each
- **1962:** 3 seats
- **1977:** 2 seats
- **1971, 1980, 1989, 2024:** 1 seat each

#### Recent Example:

In **2024**, **Mukeshkumar Dalal** (BJP) from **Surat** was elected unopposed after all other candidates withdrew or were disqualified.



### State Assembly Elections:

The petition also highlights that **unopposed victories** are **more common in State Assembly elections**, underlining a deeper systemic issue.

### Response from the Election Commission of India (ECI):

#### Key Points from ECI's Affidavit:

- **Rare Occurrence:** Only **9 out of 20** Lok Sabha elections saw unopposed wins.
- **Recent Trend:** Since **1989**, only **one uncontested MP** has been elected.
- **Growing Political Participation:** Increasing number of candidates has **reduced uncontested elections** significantly.

### ECI's Stand on NOTA:

- **NOTA** is available **only when polling occurs**.
- **NOTA** is **not a contesting candidate** and thus **irrelevant** in unopposed situations.

### Need for Legislative Amendments:

- Recognizing **NOTA** or enforcing a minimum vote requirement would require **changes to the Representation of the People Act, 1951** and the **Conduct of Elections Rules, 1961**.

### Supreme Court's Perspective:

#### Minimum Vote Threshold Suggestion:

- The Court suggested that a **sole candidate must secure a minimum percentage of votes**, such as **10% or 15%**, from the **entire electorate** to be declared elected.

#### Democracy and Majority Principle:

- The **Supreme Court** emphasized that in a **true democracy**, even uncontested winners should have **affirmative support** from a **minimum number of voters**.
- It questioned the fairness of letting a candidate **enter Parliament by default**, without voter validation.

### Advice to the Government:

The Court urged the **Union Government** to **consider legislative measures** addressing this issue, stating that **Parliament** is best suited to define the specifics.

### Extra Insight: Why This Matters for Indian Democracy

- **Strengthening Voter Rights:** Ensuring minimum approval protects the **integrity of the electoral process**.
- **Discouraging Political Manipulation:** Prevents parties from achieving uncontested victories through intimidation, withdrawal, or technical disqualifications.
- **Global Examples:** Countries like **France** and **Australia** require minimum turnout or specific vote percentages in some elections to validate results.

### Conclusion:

The **Supreme Court's suggestion** for introducing a **minimum vote threshold** for unopposed elections aims to **safeguard democratic legitimacy** and **empower voters**. Whether through legislative action or broader electoral reforms, this debate could redefine the **future of Indian democracy** by ensuring that **every elected representative truly commands public support**.

## 5 CSR Spending in India Jumps 16% in FY24: Key Highlights and Insights

**Context:** India's **Corporate Social Responsibility (CSR)** landscape witnessed robust growth in **FY24**, with **listed companies** increasing their CSR spending by **16%** to a total of **17,967 crore**, compared to the previous year.

### What is Corporate Social Responsibility (CSR)?

**Corporate Social Responsibility (CSR)** refers to a company's commitment to operate in an economically, socially, and environmentally sustainable manner.

Under the **Companies Act, 2013**, effective from **April 2014**, Indian companies meeting specific financial thresholds must allocate **at least 2%** of their average net profits from the last three years towards CSR initiatives.

### Who Must Comply?

- Companies with **net worth  $\geq$  500 crore**
- Or **turnover  $\geq$  1,000 crore**
- Or **net profit  $\geq$  5 crore**

The objective is to ensure businesses contribute **meaningfully to societal development** while aligning corporate growth with **national priorities** such as **education, healthcare, rural development, environmental protection, and cultural preservation**.

### Important Figures:

- **Mandated CSR spend:** 18,309 crore
- **Actual CSR spend:** 17,967 crore
- **Unspent CSR (to be utilized later):** 2,329 crore

This marks a return to **strong growth** after **three years of muted expansion**, showing companies' renewed commitment to social causes alongside increasing profitability.

### Top 10 CSR Contributors in FY24:

The largest corporate houses continued to **lead the CSR efforts**:

Company	CSR Spend (Crore)
HDFC Bank	945.31
Reliance Industries	900
Tata Consultancy Services (TCS)	827
Oil and Natural Gas Corporation (ONGC)	634.57
Tata Steel	580.02
ICICI Bank	518.87
Indian Oil Corporation (IOC)	457.71
Infosys Ltd	455.67
ITC Ltd	404.05
Power Grid Corporation of India	330.48

Together, these companies accounted for a **significant share** of India's total CSR expenditure, underlining how **large corporations** continue to drive the nation's **social investment ecosystem**.

### Where Did CSR Funds Go? Sector-Wise Breakdown



CSR spending was primarily directed towards **priority sectors**:

- **Education**: 1,104 crore (Top sector)
- **Healthcare**: 720 crore
- **Environmental Sustainability**: Notable **54% increase** over the previous year!

However, certain sectors saw sharp declines:

- **Slum development**: -72%
- **Rural development**: -59%
- **Armed forces veterans' welfare**: -52%

This shift indicates an **evolving focus** towards **sustainability**, **climate action**, and **urban-centric development**.

### Compliance and Governance: A Positive Trend

India's corporate sector showed **strong compliance** with CSR rules:

- **98%** of **1,394 eligible companies** met their CSR obligations.
- **49%** of companies **exceeded** their mandated spending.
- Only **259 companies** underperformed, mainly due to **multi-year project planning**.

### Public Sector Undertakings (PSUs):

- **66 PSUs** contributed **3,717 crore**, a **19% increase** compared to the previous year.

### Corporate Governance in CSR:

Companies with **CSR budgets exceeding 50 lakh** must form a **CSR Committee**. Of the **1,028 companies** required to establish committees, **990** were fully compliant, ensuring **better oversight** and **transparency**.

### Future Outlook: CSR as a Strategic Asset:

Looking ahead, CSR in India is set to transform from a **compliance checklist** to a **core strategic pillar** for corporate success.

### Emerging Focus Areas:

- **Climate change mitigation and resilience**
- **Digital inclusion and access to technology**
- **Skill development for the future workforce**
- **Healthcare innovations (telemedicine, biotechnology)**
- **Integration with ESG (Environmental, Social, Governance) standards**

**Fact:** Many global investors now evaluate a company's CSR and ESG performance before investing, linking **social responsibility** directly with **financial success**.

**Conclusion:** India's **CSR landscape** in FY24 reflects a **mature, evolving corporate consciousness**, blending **profit with purpose**. With **rising corporate profits**, **strong governance structures**, and **new focus areas**, CSR is poised to play a **transformative role** in building a **sustainable, inclusive India**.

## 6 UDAN Scheme: Revolutionizing Regional Air Connectivity

**Context:** The UDAN (Ude Desh ka Aam Naagrik) Scheme recently celebrated its **8th anniversary**, marking a significant milestone in making **air travel more accessible, affordable, and inclusive** for the common citizens of India.

**What is the UDAN Scheme?**

**About the Initiative:**

Launched under the **National Civil Aviation Policy (NCAP), 2016**, the UDAN scheme aims to **democratize air travel** by enhancing **regional connectivity**, especially for **Tier-2 and Tier-3** cities.

It operates on a **market-driven model** supplemented with **financial support** to make aviation economically viable for airlines and passengers alike.

The **Airports Authority of India (AAI)** acts as the **nodal agency** for its effective implementation.

**Fact:** The scheme's tagline, "*Ude Desh ka Aam Naagrik*", literally means "**Let the common citizen of the country fly**".

**Objectives and Significance of UDAN:**

- **Promote balanced regional growth** by connecting underserved and unserved airports.
- **Make air travel affordable** for the common citizen.
- **Boost economic development** in smaller towns by facilitating business, tourism, and investment.
- **Enhance air infrastructure** across the country, including remote and isolated regions.

**Key Features of the UDAN Scheme:**

1. **Viability Gap Funding (VGF):** Airlines receive **financial support** to cover potential losses, ensuring operations remain viable even on less profitable routes.
2. **Regional Connectivity Fund (RCF):** Funded through a **small levy** on major flight routes, this supports the **VGF payments** needed for regional routes.
3. **Airfare Cap:** Airfares are **capped** at affordable rates (approximately ₹2,500 for a one-hour flight) to **keep flying within reach** of the middle and lower-income groups.
4. **Tax Concessions:** **Reduced taxes** on **Aviation Turbine Fuel (ATF)** and other operational **incentives** help airlines lower their operational costs.
5. **Collaborative Governance:** Strong **partnership** between the **Centre, State governments, AAI, and private airport operators** to ensure smooth execution and monitoring.

**Evolution and Growth of the UDAN Scheme:**

**Major Achievements:**

- **625 routes operationalized**, connecting **90 airports**, including **15 heliports** and **2 water aerodromes**.
- **Over 1.49 crore passengers** have benefited from **affordable regional flights**.

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- India's airport network **expanded dramatically** from **74 airports (2014)** to **159 airports (2024)**.

#### Key Innovations Introduced Under UDAN:

1. **UDAN Yatri Cafes: Affordable Cafeterias** launched at **Kolkata** and **Chennai airports**, providing **quality meals** at **reasonable prices** for travelers.
2. **Seaplane Operations: UDAN 5.5** initiated to explore **over 50 water bodies** for potential **seaplane connectivity**, enhancing access to remote areas and boosting tourism.
3. **Krishi UDAN Scheme:**
  - A special wing under UDAN to **support farmers** by providing **affordable air logistics** for **agri-produce**, especially from **Northeast India, hilly, and tribal regions**.
  - **Objective:** Increase **value realization** for farmers and **reduce wastage** of perishable goods.
4. **Lifeline UDAN:** Introduced during the **COVID-19 pandemic** to **transport essential medical supplies** and **PPE kits** to **remote regions** via air logistics, ensuring critical support.

