

**11th June DSC**

**Current Affairs 11th June 2025.**

### **Delimiting by Electors Rather than Population Offers a Fairer Approach**

#### **Core Proposition**

Parliamentary constituency boundaries should be determined by the number of electors rather than the total population.

This method truly upholds the democratic norm of “One person, one vote, one value.”

**Relevance:** *GS Paper 2 – Delimitation, Governance*

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#### **Why Elector Count Should Replace Population as the Basis**

Population figures from the Census include individuals who do not participate in voting, such as:

- Citizens below 18 years of age
- Migrants who are residents but not enrolled in local voter lists

On the contrary, electoral rolls reflect actual voters, thereby offering a clearer picture of democratic engagement.

Moreover, elector data is updated regularly and is not hindered by delays in the decadal census.

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#### **Disparity in Electorate and the Value of a Vote**

The value of a vote is inversely proportional to the number of electors in a constituency.

For instance:

- In Kerala’s Idukki, a vote carries **4.5 times** the weight of one in Telangana’s Malkajgiri.
  - Both the highest and lowest electorates are seen in southern states, suggesting that reform is necessary **within** the South as well, not merely between North and South.
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#### **Historical Perspective on Vote Value Fluctuation**

Southern states had relatively **higher vote value** in:  
1951, 2009, 2019, and 2024.

They saw **lower vote value** in:  
1961, 1971, 1980, 1991, and 1999.

This shows an ebb and flow in representation rather than any systemic bias.

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#### **Uneven Parliamentary Representation**

Although Southern states make up **22.45% of total electors**, they command:

- **23.8%** of Lok Sabha seats
- **24.4%** of Rajya Sabha seats

Meanwhile, the rest of the country, with **71.2% of electors**, holds:

- Only **67.4%** of Lok Sabha seats
- **64.4%** of Rajya Sabha seats

A peculiar case is Tamil Nadu, with:

- **39 Lok Sabha seats**, which is fewer than Bihar or West Bengal
- Yet, it has **18 Rajya Sabha seats**, more than both states.

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### Suggested Model for Delimitation Reform

Proposed increase in Lok Sabha strength to **800**, with an overall strength of **810** including seats for smaller states and UTs.

States to benefit the most include:

- Rajasthan (**+76%**)
- Karnataka (**+60.7%**)
- Telangana (**+58.8%**)

This model would fairly represent population without disincentivizing successful family planning efforts.

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### Correcting Misconceptions

- The idea that **population was always the sole criterion** is incorrect — geography and minimum representation were also considered.
- The claim that Southern states were **punished for population control** is simplistic — even within the South, inequities exist.
- Making representation proportional to fertility could open doors for divisive demands based on **religion or caste**.
- The current method fails to capture the reality of **migration and demographic transitions**.

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### Conclusion

Basing delimitation on electors rather than population offers:

- A more **authentic democratic basis**
- Real-time and **accessible data**

- Less vulnerability to manipulation based on fertility or population myths  
This is a timely reform to ensure fair representation in the context of India's evolving demographic realities.

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## How Drones Are Transforming Modern Warfare

### Introduction to Drone Warfare

Unmanned Aerial Vehicles (UAVs) are now at the forefront of combat due to their adaptability, cost-effectiveness, and strategic potential.

They have blurred the line between civilian and military tech, with commercial drones now modified for battlefield use.

**Relevance:** GS Paper 3 – Technology, Defence

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### India's Tactical Evolution

The recent **Operation Sindoor** post-Pahalgam highlights India's real-time deployment of drones in live combat situations.

This reflects a broader doctrinal shift in sync with global patterns, such as Ukraine's innovative "Operation Spider Web."

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### Global Case Studies

- **Nagorno-Karabakh (2020):** Harop loitering drones devastated enemy air defences.
  - **Ukraine War:** Proliferation of DIY drones and rapid cycles of innovation vs countermeasures.
  - **Myanmar:** Rebel groups utilize **3D-printed drones**, reducing technological disadvantages.
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### Drone Survivability Hinges on Counter-Countermeasures

Vulnerabilities: Jamming, electronic warfare, and traditional air defences.

To evade these, drones employ:

- AI-powered navigation
  - Terrain-aware machine vision
  - Frequency hopping techniques
  - Fibre-optic tethers (as seen in Ukraine)
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### India's Defence Measures

India has deployed counter-UAV systems integrated with:

- **IACCS**, S-400, Akash, and MR-SAM platforms.

Indigenous countermeasures have been tested and deployed along the Pakistan border.

Massed swarm drone attacks (e.g. Russian Shahed drones) challenge defence systems, requiring robust stockpiling and redundancy.

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### Asymmetric Advantages and Scaling Up

Drones offer strategic benefits to weaker forces, allowing them to challenge superior enemies. India must scale drone production to support **prolonged warfare**.

China's diversified drone arsenal (e.g., CH-901, Soaring Dragon) already gives it a tactical edge.

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### Civil-Military Tech Integration

Commercially available drones and open-source software are redefining warfare.

3D printing enhances:

- Distributed production
- Simplified logistics
- Rapid replacement in high-loss environments (as seen with Ukraine's **Titan Falcon**)

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### Internal Security Risks

Commercial drones, when weaponized, pose threats from insurgents and terrorists.

Counter-drone efforts must involve:

- Home ministry
- Civil aviation
- Police and paramilitary forces
- Airport and infrastructure security

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### Defence Manufacturing as a Strategic Imperative

Lessons from Ukraine show the importance of a scalable, innovation-friendly defence sector.

India's low procurement and irregular demand hinder domestic production.

There's a need for consistent orders and R&D incentives.

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### Way Forward for India

India must:

- Strengthen domestic manufacturing with **assured demand**

- Build **surge capacity** for emergencies
- Foster **public-private partnerships**
- Invest in AI, swarming technologies, and counter-drone measures
- Establish integrated civil-military drone deployment protocols

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## Sustainable Nickel Production: A Clean Tech Imperative

### Importance of Nickel

Nickel is a core input in green technologies, especially in EV batteries.

Demand could surpass **6 million tonnes annually by 2040**.

Yet, producing one tonne of nickel generates **20+ tonnes of CO<sub>2</sub>**, making it a high-emission process.

**Relevance:** GS Paper 3 – Minerals

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### Traditional Methodology: High Emissions

The process includes:

- Calcination
- Smelting
- Reduction
- Refining

It uses **carbon-based reducing agents**, resulting in high energy use and CO<sub>2</sub> emissions.

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### Hydrogen Plasma-Based Alternative

Researchers at **Max Planck Institute** (Nature, April 2025) developed a cleaner extraction method:

- Single-step process using an **electric arc furnace**
- **Hydrogen plasma** replaces carbon
- Uses electricity (ideally renewable) to produce active hydrogen ions

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### Benefits of This Method

- **Zero carbon:** By-product is water
- **Energy saving:** ~18% less energy required
- **Emission reduction:** Up to 84% lower CO<sub>2</sub> emissions



- **High purity:** Produces near-refined ferronickel directly
- **Faster, cleaner reactions** due to plasma's high reactivity

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### Focus on Laterite Ores

India has vast laterite deposits (e.g., Sukinda belt in Odisha) that are currently underutilized. Traditional methods prefer sulphide ores, which are rapidly depleting. This new technique could make **low-grade ores** economically viable.

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### Strategic Relevance for India

Enables:

- Utilization of chromite mine overburden
- Progress toward **Net Zero by 2070**
- Strengthening of industrial base while cutting imports

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### Challenges to Implementation

- High **capital investment**
- Need for robust **renewable energy supply**
- Engineering demands like continuous **oxygen supply at the melt point**
- May not be suitable for all ore types — requires further study

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### Conclusion

Hydrogen plasma extraction represents a **breakthrough in sustainable metallurgy**. It aligns industrial progress with environmental goals, particularly relevant for emerging economies like India. With proper investment and policy support, it can significantly lower the carbon cost of green technologies.

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### Shukla's Space Mission Delayed by Weather, Rescheduled for June 11

#### Mission Details

- **Axiom-4 (Ax-4):** A private crewed space mission to the ISS
- **Astronaut:** Group Captain Shubhanshu Shukla — first Indian on a private space mission
- **Rocket:** SpaceX Falcon 9 with Dragon

- **Duration:** Around 14 days

**Relevance:** GS Paper 3 – Space

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### Timeline of Launch Delays

Initially set for **June 8**, pushed to **June 10**, and now **June 11** due to poor weather.

New timing: **5:30 p.m. IST / 8:00 a.m. ET.**

**Reason:** High winds along the ascent path — safety protocols necessitate delay.

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### ISS Activities

- Microgravity experiments
  - Technology trials
  - Public outreach events
- These serve both commercial and scientific purposes.
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### Crew and Preparation

Shukla and the Ax-4 crew are under quarantine, following NASA protocol.  
Expected docking: **June 12**, subject to launch timings.

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### India's Strategic Gains

- Marks India's entry into **commercial human spaceflight**
  - Strengthens ties with **NASA and SpaceX**
  - Boosts momentum for India's upcoming **Gaganyaan** mission
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### Broader Implications

- Highlights spaceflight unpredictability
  - Reinforces the importance of **weather tracking and mission safety**
  - Demonstrates the rigorous standards upheld by SpaceX and NASA
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### Foreign Investors Pivot from Delhi to Maharashtra

#### FDI Distribution Trends (2015–2025)

FDI is concentrated — top 5 states attract **75–90%** of inflows.

However, investment preferences among these states have shifted considerably.

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### Delhi's Shrinking Share

- 2015–16: Held **32%** of FDI (~\$12.7B)
  - 2024–25: Dropped to **12%** (~\$6B)
- Possible reasons: **Slower infrastructure growth, regulatory uncertainty**
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### Maharashtra's Dominance

- 2015–16: Accounted for **24%**
  - 2024–25: Now **39%** (~\$19.6B)  
Factors include:
  - Mumbai's robust financial base
  - Superior logistics and industrial ecosystems
  - Predictable policy framework
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### Other Key States

- **Karnataka:** Rose from 10% to 13%, driven by Bengaluru's tech prowess
  - **Gujarat:** Doubled from 6% to 11%, aided by corridor development and export focus
  - **Tamil Nadu:** Declined from 11% to 7% — indicating comparative stagnation
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### Expert View: "Flight to Quality"

Global uncertainties have made investors more **risk-sensitive**, favoring states with:

- Strong infrastructure
  - Predictable governance
  - Favorable policies
- Maharashtra and Karnataka exemplify these trends.
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### What India Must Do

To address FDI disparities, Delhi and other states need to:

- Enhance the **ease of doing business**
- Invest in **world-class infrastructure**



- Frame **sector-specific** policies to attract targeted investment

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## Govt. Eases SEZ Rules to Boost Chip and Electronics Manufacturing

### New Policy Measures

SEZ rules amended to attract semiconductors and electronics manufacturers.

Aim: Promote **capital-intensive, strategic industries** and reduce dependency on imports.

**Relevance:** *GS Paper 2 – Governance | GS Paper 3 – Minerals, Manufacturing*

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### Major Amendments

- **Rule 5:** Minimum land reduced from 50 to **10 hectares**
  - **Rule 18:** SEZs can now sell in **Domestic Tariff Area (DTA)** after paying duties
  - **Rule 7:** Land can be mortgaged/leased even if not fully encumbrance-free
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### New Investments Approved

- **Micron:** ₹13,000 crore unit in Gujarat
  - **Aequs (Hubballi Cluster):** ₹100 crore investment in Karnataka
  - Total: ₹13,100 crore in post-reform projects
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### Strategic Significance

Semiconductors are:

- Costly to produce
  - Essential for electronics
  - Globally strategic due to long gestation and high import reliance
- India aims to:
- Build **chip self-reliance**
  - Strengthen **Atmanirbhar Bharat** goals
  - Create high-skilled jobs and resilient supply chains
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### Challenges to Implementation

- Timely infrastructure and permissions
- Skilled workforce availability

- Competing policies from China, Taiwan, Vietnam

**11th June 2025: Static MCQS**

**1. Consider the following statements with regard to pardoning power of the president of india:**

- The exercise of this power by the president can be subjected to limited judicial review.
- The president can exercise this power without the advice of the central government.

**Which of the statements given above is/are correct?**

- I only
- II only
- Both I and II
- Neither I nor II

**Correct Option: (a)**

**2. Consider the following statements:**

- On the dissolution of the house of the people, the speaker shall not vacate his/her office until immediately before the first meeting of the house of the people after the dissolution.
- According to the provisions of the constitution of india, a member of the house of the people on being elected as speaker shall resign from his/her political party immediately.
- The speaker of the house of the people may be removed from his/her office by a resolution of the house of the people passed by a majority of all the then members of the house, provide that no resolution shall be moved unless at least fourteen days' notice has been given of the intention to move the resolution.

**Which of the statements given above are correct?**

- I and II only
- II and III only
- I and III only
- I, II and III

**Correct Option: (c)**

**3. Consider the following statements:**

- If any question arises as to whether a member of the house of the people has become subject to disqualification under the 10<sup>th</sup> schedule, the president's

decision in accordance with the opinion of the council of union ministers shall be final.

II. There is no mention of the word 'political party' in the constitution of India.

Which of the statements given above is/are correct?

- a. I only
- b. II only
- c. Both I and II
- d. Neither I nor II

Correct Option: (b)

4. Consider the following statements:

Statements I:

In India, state governments have no power for making rules for grant of concessions in respect of extraction of minor minerals even though such minerals are located in their territories.

Statements II:

In India the central government has the power to notify minor minerals under the relevant law.

Which one of the following is correct in respect of the above statements?

- a. Both statement I and Statement II are correct and statement II explains statement I
- b. Both statement I and Statement II are correct but statement II are correct but statement II does not explain statement I
- c. Statement I is correct but statement II is not correct
- d. Statement I is not correct but statement II is correct

Correct Option: (d)

5. Which organization has enacted the Nature restoration law (NRL) to tackle climate change and biodiversity loss?

- a. The European union
- b. The world bank
- c. The organization for economic cooperation and development
- d. The food and agriculture organization

Correct Option: (a)