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LOK SABHA SESSION STARTS NOV 30, RAJYA SABHA DEC 2; CABINET MEETING LIKELY TODAY

4-day House special sitting next week to push delimitation, women's quota

Govt sources claim two-third support for Bills, point to splits in TMC, Sena, backing of DMK

Liz Mathew & Jatin Anand
New Delhi, November 26

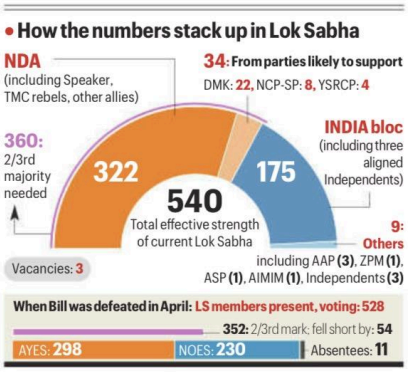
WITHIN EIGHT months of facing defeat in Lok Sabha over implementation of the women's reservation Bill that was tied to delimitation, the government Thursday convened a special sitting of both Houses of Parliament next week to once again push the Constitutional amendment Bill related to the delimitation package.

The package comprises Bills that seek to expand the Lok Sabha from 543 members to upto 850 members, and advance 33 per cent women's reservation to the Lok Sabha, state Assemblies and Union Territories such that it is effective before the 2029 national elections.

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Lok Sabha Speaker Om Birla at an event in Parliament on Constitution Day, Thursday. PTI



Behind BJP's majority math: Signals of support from DMK and NCP (SP)

Arun Janardhanan, Alok Deshpande, Jatin Anand & Liz Mathew
Chennai, Mumbai, New Delhi, November 26

BEHIND THE BJP-led government's confidence of securing a two-thirds majority are clear signals from the DMK that it will be open to back the Constitution amendment Bill tied to delimitation and implementation of 33% women's reservation if Tamil Nadu's existing share of roughly 7.2 per cent of Lok Sabha seats is assured. The ruling alliance is also counting on support from the NCP (Sharadchandra Pawar).

In the 540-member Lok Sabha — three seats are vacant — the DMK has 22 MPs and NCP (SP) eight. For a Constitution amendment, at least 360 MPs will have to support the Bill.

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4-day House special session

upto 850 members, and advance 33 per cent women's reservation to the Lok Sabha, state Assemblies and Union Territories such that it is effective before the 2029 national elections.

The Union Cabinet is likely to meet Friday to possibly discuss and approve the contours of the new draft Bill on delimitation, top government sources said. It may explicitly say number of seats for each state would go up by 50%. In fact, Union Home Minister Amit Shah had said this earlier in the House when the Bill was discussed in Parliament in April this year.

A senior government functionary, who did not wish to be named, had earlier said the Bill could have a clause to freeze the increase in the Lok Sabha strength for the next 25 years i.e., until 2051.

Following a request by the government earlier during the day, both the Lok Sabha Speaker and the Rajya Sabha Chairman reconvened the two houses which were adjourned sine-die on August 13. While the Speaker directed the Lok Sabha to sit at 11 am on November 30, the Rajya Sabha will reconvene on December 2.

Union Parliamentary Affairs Minister Kiren Rijiju had posted on X that the government had requested that the Lok Sabha and Rajya Sabha be reconvened to "transact essential Government Business". "Subject to exigencies of the Business, the sitting of both the Houses may conclude on 3rd December 2026," he said.

A top source in the NDA said a key objective to push through these Bills now is to project the "invincibility" of Prime Minister Narendra Modi, and fight the Uttar Pradesh Assembly elections from a position of strength. Back channel talks with a number of parties earlier opposed to the Bills have yielded results, the source said.

The BJP has mustered the numbers — two-third of the members present in Lok Sabha — with regional parties like DMK, NCP (Sharad Pawar) as well as the split-away factions of Trinamool Congress and Shiv Sena agreeing to the delimitation formula proposed by the government. There have been talks with other INDIA alliance partners too, sources said.

The government has been giving assurances to the southern political parties that Lok Sabha seats for all states would be increased proportionally. But the draft bill tabled in the House did not mention that seats across states will proportionally increase by 50%.

During discussions on April 17, Union Home Minister Amit Shah had said if the proceedings were to be paused for an hour, he would bring an official amendment assuring 50% increase in seats for every state. The Opposition, however, did not believe this last minute promise. The Bills were defeated in the special session with 298 'Ayes' and 230 'Noes' with 11 'Abstains'.

Sources in the government said the BJP and its allies, which together had 298 members in the Lok Sabha in April, currently have 299 (with one more BJP MP winning a by poll in Assam). With SAD turning an ally once again, it brings an additional seat. As many as 20 members from the breakaway group of TMC, and six more from the Shiv Sena (Eknath Shinde) have also added to the ruling party's tally. Party sources claimed the 22-member DMK and eight-member NCP have pledged their support to the Bill if the number of seats in the states is increased by 50 per cent.

A Constitutional amendment must be passed in each House by a majority of the total membership and at least two-thirds of members present and voting. It cannot be passed in a joint sitting of both Houses. The BJP-led NDA's strength is 155 in the Rajya Sabha.

Tamil Nadu CM C Joseph Vijay, DMK's biggest rival at the moment, had urged the Centre to provide a clear legislative assurance that no southern state will suffer a reduction in its share of parliamentary seats because it had managed to stabilise its population. The state Assembly had earlier passed a resolution seeking a freeze on LS seats at the current strength of 543. The shift in the TVK's stand, though it has no MP at present, also had given the BJP leadership optimism that the DMK could take a favourable stand.

1. Delimitation & Women's Reservation: Special Parliament Session

Source: The Indian Express | **Date:** 27 November 2026
GS Paper II: Polity – Parliament, Federalism and Constitutional Amendments

Context: Government plans a four-day special Parliament session (30 November–3 December) to advance delimitation and implementation of 33% women's reservation before the 2029 General Elections.

1. Proposed Changes

- **Lok Sabha expansion:** From 543 to a maximum of 850 seats.
- **State-wise increase:** Proposed 50% increase in seats for every state.
- **Women's reservation:** 33% in Lok Sabha and State Assemblies.
- **Proposed freeze:** Increased Lok Sabha strength until 2051.

2. Previous Attempt – April 2026

- Delimitation-related Constitutional Amendment Bills failed to secure the required majority.
- Voting: 298 in favour, 230 against; 11 absent.
- Required: 352 votes; shortfall of 54.
- Opposition rejected the government's assurance of a 50% increase in seats for every state, as it was not included in the Bills.

3. Current Political Developments

- NDA: 322; INDIA bloc: 175; Others: 9 (newspaper figures).
- Potential support: DMK (22), NCP (SP) (8), YSRCP (4).
- Southern parties seek protection of their relative parliamentary representation.

4. Constitutional Provisions

Article	Significance
81	Lok Sabha composition
82	Delimitation after Census
85(1)	President summons Parliament

170	State Assembly composition
330, 332	SC/ST reservation
334A	Women's reservation
368	Constitutional amendment

Special Session: Convened under Article 85(1), on the advice of the Council of Ministers.

106th Constitutional Amendment Act, 2023: Provides 33% reservation for women in Lok Sabha and State Assemblies, linked to Census and subsequent delimitation.

5. Major Concerns

1. **Federal imbalance:** Southern states fear reduced relative representation despite population stabilisation.
2. **Population versus performance:** States controlling population growth may lose relative political influence.
3. **Regional representation:** Delimitation may alter the distribution of political power among states.
4. **Implementation delay:** Women's reservation remains linked to Census and delimitation.
5. **Political consensus:** Constitutional amendment requires a special majority in both Houses; no joint sitting.

UPSC Prelims PYQs

2024: How many Delimitation Commissions have been constituted by the Government of India till December 2023?

(a) One (b) Two (c) Three (d) Four

Answer: (d) Four — 1952, 1963, 1973 and 2002.

2012: With reference to the Delimitation Commission, consider the following statements:

1. Its orders cannot be challenged in a Court of Law.
2. Parliament or State Legislatures cannot modify its orders.

(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (c) Both 1 and 2.

'Two-thirds of adolescents in India deficient in vitamin B12'

ICMR findings raise concerns about long-term consequences of deficiency across generations; B12 is essential for brain development, healthy nerve function and formation of red blood cells

Bindu Shajan Perappadan
NEW DELHI

Nearly two-thirds of Indian adolescents are deficient in vitamin B12, a micronutrient essential for brain development, healthy nerve function, and the formation of red blood cells, according to a new national survey by the Indian Council of Medical Research (ICMR).

The findings raise concerns about the long-term consequences of nutritional deficiencies across generations, particularly among children, adolescents, and pregnant women.

The Survey for Assessment of Markers of Population Health, Activity, Diet and Anthropometry (SAMPADA), conducted by the ICMR's National Institute of Nutrition during 2023-25, found vitamin B12 deficiency in 66.1% of adolescent boys and 65.4% of adolescent girls. The prevalence was 63.1% among pregnant women, 60.4% among adult men aged 20-59, and 57.4% among women aged 15-49. Even among children aged five to nine, 46.5% were deficient.



Research conducted in Pune over the past three decades showed that B12 deficiency is common among adolescents. FILE PHOTO

The survey, which analysed over 1.7 lakh blood samples from a population of more than two lakh people across 183 districts and 35 States and Union Territories, defined deficiency as serum vitamin B12 levels below 203 pg/mL.

Vitamin B12 plays a critical role in DNA synthesis, red blood cell formation, and maintenance of the protective covering around nerves. Prolonged deficiency can cause peripheral neuropathy, impaired balance, memory problems, and, in severe cases, irreversible neurological damage. In infants, severe deficiency can result in developmental delays and neurological impairment.

"Research conducted in Pune over the past three decades has shown that vitamin B12 deficiency is common among adolescents and women of reproductive age, with important implications for the health of future generations. Low maternal B12 status, particularly when accompanied by high folate levels, has been associated with increased fat accumulation and insulin resistance in children, potentially predisposing them to diabetes and other non-communicable diseases later in life. These effects are believed to be linked to epigenetic programming arising from nutritional imbalances before conception and during pregnancy," said Chittaranjan Yajnik, director, diabetes unit, KEM Hospital, Pune.

He added that India must move beyond an exclusive focus on iron and folic acid and consider including physiological doses of B12 in supplementation programmes for women, alongside carefully planned food fortification, improved nutrition literacy among adolescents, particularly girls, and the generation of robust, India-specific evidence to establish appropriate nutritional requirements and interventions.

Vitamin B12 is found naturally in foods such as meat, fish, eggs, and dairy products. Inadequate dietary intake, particularly among people consuming predominantly plant-based diets, and impaired absorption can contribute to deficiency.

The Anemia Mukt Bharat strategy focuses substantially on iron and folic acid supplementation, testing and treatment of anaemia, deworming, and food fortification.

2. Vitamin B12 Deficiency Among Indian Adolescents: ICMR Survey

Source: Newspaper clipping | **Date:** 27 November 2026
GS Paper II: Health, Nutrition and Human Development

Context: ICMR's national nutrition survey (2023–25) highlights widespread Vitamin B12 deficiency among Indian adolescents, raising concerns over neurological development and intergenerational malnutrition.

1. Key Findings – SAM-PADA Survey
Survey for Assessment of Markers of Population Health, Activity, Diet and Anthropometry.

- **66.1%** adolescent boys and **65.4%** adolescent girls suffer from Vitamin B12 deficiency.
- Pregnant women: 63.1%; children (5–9 years): 46.5%.
- Analysed over 1.7 lakh blood samples across 183 districts and 35 States/UTs.
- Deficiency threshold: Serum Vitamin B12 below **203 pg/mL**.

2. Why Is Vitamin B12 Essential?

1. **Brain development:** Supports cognitive development, memory and neurological functioning.
2. **Nerve health:** Maintains myelin sheath (protective covering of nerves); deficiency can cause neuropathy and balance problems.
3. **Blood formation:** Essential for DNA synthesis and red blood cell formation; deficiency can cause megaloblastic anaemia.
4. **Child development:** Severe deficiency can cause developmental delays and irreversible neurological damage.

3. Causes and Intergenerational Impact

- **Dietary deficiency:** Predominantly plant-based diets provide limited natural Vitamin B12.
- **Poor absorption:** Gastrointestinal conditions can reduce B12 absorption.
- **Maternal deficiency:** Low maternal B12, particularly with high folate levels, is associated with fat accumulation and insulin resistance in children, increasing future metabolic risks.
- Nutritional deficiencies before conception and during pregnancy can affect successive generations.

4. Government Measures and Gaps

- **Anaemia Mukt Bharat:** Focuses on iron-folic acid supplementation, anaemia testing, treatment and food fortification.
- Existing interventions focus substantially on iron and folic acid, requiring greater attention to Vitamin B12 deficiency.

5. Way Forward

- Include appropriate Vitamin B12 supplementation in maternal nutrition programmes.
- Promote B12-rich foods: milk, eggs, fish and meat.
- Strengthen food fortification and nutritional awareness, particularly among adolescent girls.
- Develop India-specific nutritional requirements and evidence-based supplementation guidelines.

India saw record production of foodgrains in 2025-26: govt.

The Hindu Bureau
NEW DELHI

Farmers produced 378.53 million tonnes of foodgrains in 2025-26, according to the fourth and final crop production estimates released here on Thursday by Union Agriculture Minister Shivraj Singh Chouhan.

"This is 208 lakh tonnes more than 2024-25 and it is a record production," Mr. Chouhan said, addressing a press conference from his official residence on the estimates.

The Minister also released the first advance estimates for the 2026-27 kharif season. Despite El Niño and inadequate rainfall, the Minister said production is expected to be robust for the upcoming season and is estimated at 167.143 million metric tonnes. "This is 97.67 lakh tonnes higher than the average production recorded over the previous five years, reflecting the resilience and determination of the country's farmers," he said.


Shivraj Singh Chouhan

The 2025-26 rice production is estimated at 155.15 million tonnes, which is 49.70 lakh tonnes more than last year. "India continues to be the largest producer of rice, surpassing China," the Minister said and added that wheat production is 122.06 million tonnes, making India the second-largest producer of wheat after China.

Wheat production increased by 41.19 lakh tonnes to 117.945 million tonnes produced in 2024-25. "These figures underline the continued strength of India's two major foodgrain crops and the country's capacity to maintain high levels of production," Mr. Chouhan added.

The Minister also said maize and millet production increased during the period. Pulses production was 272 lakh tonnes, higher than last year's harvest. Edible oil crops production is also expected to increase. "2025-26 has been a year of new records," Mr. Chouhan said.

In global agricultural rankings, the Minister said, India holds the first position in the production of rice, pulses, jute, millets, and spices. "It ranks second after China in wheat, cotton, groundnut, fruits and vegetables, and second after Brazil in sugarcane production," he said.

3. India Records Highest-Ever Foodgrain Production in 2025–26

Source: The Hindu
GS Paper III: Agriculture, Food Security and Crop Diversification

Context: India achieved record foodgrain production of **378.54 million tonnes in 2025–26**, an increase of 20.81 million tonnes over the previous year.

1. Crop-wise Increase in Production

Crop	2024–25 (MT)	2025–26 (MT)
Rice	150.18	155.15
Wheat	117.95	122.06
Maize	43.41	55.03
Pulses	25.68	27.24
Oilseeds	42.99	43.26

- Maize recorded the highest increase: 11.62 MT.
- Rice increased by 4.97 MT; wheat by 4.12 MT.
- Record groundnut production: 13.17 MT.
- Record rapeseed and mustard production: 13.77 MT.

2. Kharif 2026–27: First Advance Estimates

- Foodgrain production: 167.14 MT, 9.77 MT above the previous five-year average.
- Rice: 121.91 MT; maize: 26.06 MT.
- Pulses: 7.13 MT; oilseeds: 23.95 MT.

3. Regional Agricultural Challenges

- Maharashtra, Karnataka, Telangana and Andhra Pradesh faced drought-like conditions and low soil moisture.
- June rainfall was reportedly 35–40% below normal.
- Paddy, maize, tur, soybean and cotton sowing were affected by delayed monsoon and El Niño conditions.

4. Significance and Policy Focus

1. **Food security:** Higher production strengthens domestic food availability.
2. **Crop diversification:** Growth in maize, pulses and millets supports diversification beyond rice and wheat.
3. **Import dependence:** Increased pulse and oilseed production supports domestic self-reliance.
4. **Climate resilience:** Greater use of climate-resilient seeds, irrigation and scientific farming practices.

5. Government Initiatives

- National Pulses Mission – improving domestic pulse production.
- National Mission on Edible Oils – Oilseeds – reducing import dependence.
- Digital Crop Survey – improving crop data and production estimates.

Bridging India's critical border infrastructure gap



Harinder Singh is a former corps commander

China and India have never agreed where their border lies. Without a boundary, both countries have treated border infrastructure as the practical means of defending territorial claims. Beijing has pursued this strategy systematically for decades, extending the logic to border settlements and dams in recent years. New Delhi has caught up since the 2017 Doklam standoff and the 2020 border clashes. The question then is what that gap consists of and how India could bridge it.

Where the gap exists

China's border infrastructure is not just larger; it is built for permanence. In contrast, India's response is often triggered by crisis rather than standing policy, and is annual and project-based. The result has been slower mobilisation, limited operational reach and weaker forward logistics at the Line of Actual Control (LAC). The 2020 Ladakh crisis showed the gap in India's capacity to move, sustain and rotate forces in high-altitude and extreme weather conditions.

China's advantage rests on two important factors. First, its multi-year financing – Tibet's five-year plan for 2021-25 commits over 600 billion yuan for infrastructural development. Second, its 2022 Land Border Law makes border development statutory rather than a shifting frontier policy. That framework now covers everything: roads, rail, airfields, 5G and Xiaokang settlements, extending the reach of China's People's Liberation Army towards the frontier.

India has two major constraints: funding and terrain. Its Border Roads Organisation (BRO)'s budgetary support has only now increased substantially, from ₹10,179.5 crore in 2023-24 to ₹12,107.41 crore in 2024-25, with actual expenditure reaching ₹16,690 crore in 2024-25. Terrain compounds this cost. The Atal and Sela tunnels have cut seasonal closures, while Zoji La, Shinku La and the Arunachal Frontier Highway aim to extend all-weather access.

The rail network tells a starker story. The Bilaspur-Manali-Leh line has a completed survey and detailed project report but awaits sanction. The Missamari-Tenga-Tawang line has completed its final location survey, its DPR also prepared and submitted to MoD, but remains short of construction approval. Logistics along these stretches are still reliant on trucks. The Vibrant Villages Programme has connected and electrified remote areas, but power still runs on diesel and solar. The one place where India has an edge is airlift capacity, an advantage because of its lower-altitude bases.

To take on China, India must move beyond reactive projects towards a coordinated, long-term frontier development strategy

Why India lags behind China

China treats border infrastructure as a means of asserting sovereignty at the last mile. A road or a settlement in contested territory is a claim made by changing facts on the ground rather than holding negotiations. That logic echoes in the South China Sea as well. On the other hand, India held back on its roads for four decades after 1962, then reversed course.



Responsibility for border infrastructure is spread across several Ministries and agencies, including the Ministries of Defence and Home Affairs, State governments and environmental regulators. This fragmentation cost the Indo-China Border Roads (ICBR) Phase-I 16 years, from 2005 to 2021, to complete. The Border Infrastructure Management (BIM) Scheme, created in 2022, precisely to fix this, remains under-resourced.

India's planning has been to match the Chinese, kilometre by kilometre, in threatened sectors. Take the case of the Vibrant Villages Programme, which had the same objective as the Xiaokang settlements. Yet, it was implemented years later.

One approach rarely tried is treating border infrastructure as national infrastructure rather than as a defence project confined to the BRO. Frontier development must open the doors to the National Highways Authority of India (NHAI), and other public-private players, which can undertake tasks alongside the BRO.

Changes needed

Three changes are required in policy, technological capacity and durable last-mile presence. First, legislate an India Border Infrastructure Act to give the frontier a single authority. It should establish a Border Infrastructure Development Authority with authority to align Ministries, State governments and regulators in order to secure clearances and multi-year funding. This body should be tasked with computing the Composite Frontier Infrastructure Index, sector by sector, with China. The infrastructure differential should be used to identify the threatened sectors and become the basis of multi-agency planning. Second, scale border development beyond the BRO. The issue is not its commitment or competence, but its ability to deliver on both – forward area roads, hinterland infrastructure and connectivity – under tight timelines. There must be a fair division of work: the BRO undertakes operational tasks, while the NHAI and other agencies build the deeper, backbone connectivity.

India already has some of what it needs, such as L&T's tunnelling capacity. It now needs to scale up this capacity and add proven Qinghai-Tibet permafrost techniques to address design flaws. Execution quality also needs similar scrutiny through independent audits and monitoring by the Indian Space Research Organisation to flag defects and delays early.

Third, roads alone cannot secure the last mile. They must be inhabited and connected with reliable power, fiber, health services and livelihoods. Such villages provide the local knowledge and civilian presence and resources needed to give the forward-deployed troops staying power. India needs to treat its frontier infrastructure as a national enterprise in order to assert authority at the last mile.

4. Bridging India's Critical Border Infrastructure Gap

Source: The Hindu
GS Paper III: Internal Security – Border Management and Infrastructure

Context: India's infrastructure gap along the Line of Actual Control (LAC), compared with China, affects military mobilisation, logistics and sustained presence in border areas.

1. India–China Infrastructure Gap

- **China:** Follows long-term, integrated border development through roads, railways, airfields, 5G connectivity and border settlements.
- **India:** Infrastructure development has often been reactive and project-based.
- **Impact:** Delayed mobilisation, limited operational reach and weaker last-mile connectivity.

2. India's Key Challenges

- **Funding:** Border Roads Organisation (BRO) budget increased from ₹10,179.5 crore (2023–24) to ₹12,107.41 crore (2024–25); expenditure reached ₹16,690 crore.

- **Terrain:** High-altitude conditions, extreme weather and seasonal road closures delay construction.
- **Rail connectivity:** Bilaspur–Manali–Leh railway line has completed its survey and Detailed Project Report but awaits approval.
- **Logistics:** Remote stretches remain dependent on trucks; some electrified villages still rely on diesel and solar power.

3. Strategic Importance

1. **Military preparedness:** Faster movement of troops, weapons and supplies.
2. **Border security:** Sustained deployment strengthens India's position along disputed boundaries.
3. **Strategic deterrence:** Reduces vulnerability and improves response during border crises.
4. **Civilian presence:** Connectivity, electricity, healthcare and livelihoods support population retention in border villages.

4. Government Initiatives

- **Border Roads Organisation (BRO):** Develops strategic roads, bridges and tunnels.
- **Vibrant Villages Programme:** Improves connectivity and livelihoods in border villages.
- **Border Infrastructure Management Scheme (2022):** Supports border infrastructure development.

5. Reforms Suggested

1. **Institutional coordination:** Enact an India Border Infrastructure Act and establish a Border Infrastructure Development Authority.
2. **Infrastructure expansion:** Involve National Highways Authority of India (NHAI) and private players alongside BRO.
3. **Technology:** Adopt permafrost construction techniques and independent infrastructure audits.
4. **Last-mile connectivity:** Integrate roads with electricity, fibre networks, healthcare and livelihoods.
5. **Long-term planning:** Develop a Composite Frontier Infrastructure Index to identify infrastructure gaps and prioritise investment.

• HISTORY

Is India the mother of democracy? The history and politics behind the claim



EXPERT EXPLAINS

GAURAV GARG
ASSISTANT PROFESSOR OF HISTORY AT ASHOKA UNIVERSITY

INDIA HAS often claimed that it is the world's oldest democracy, and in the strong version, it is "the mother of democracy." On Constitution Day (November 26), it is worth examining the historical basis of this claim.

Origins of 'democracy'

The elements of what we call democracy today were assembled only in the 20th century. That said, democracy is also very ancient. The term democracy is derived from the Greek word *demokratia*, a term used from the middle of the 5th century BCE to denote the political systems in some Greek city states of which Athens was the prime example.

Athenian *demokratia* had some form of representation; the agendas of the assembly that consisted of all members of the demos comprising male citizens over 18 years of age was set by the Council of Five Hundred. The council in turn was chosen by lots (not votes) from each of the 139 divisions or *demes* of Athens. Within the assembly, decisions were taken by voting via show of hands and the majority view of those present and voting prevailed.

Why India's claim matters

The history of democracy is far too complicated to be traced in a straight line from Athens to America and then beyond.

Nevertheless, there is no doubt that democracy in the West was inspired, informed, and often legitimised by the Athenian example. In the context of colonialism and India, the linking of democracy with western civilisation has also served to convey the impression that Indian democracy was a gift of colonial modernity.

It is against this background that the claim that India is the mother of democracy has charge. It undercuts the boast that democracy is a western implant or gift to India.

The basis of the Indian claims

The claim that India is the world's oldest democracy comes from the quite remarkable existence and persistence of various *gana-sanghas* in northern and western South Asia from about 600 BCE onwards until the mid-first millennium CE.

As Romila Thapar has explained, the terms *gana-sangha* or *gana-rajya* has the "connotation of *gana*, referring to those who claim to be of equal status, and *sangha* meaning an assembly, or *rajya*, referring to governance."

In early South Asia, the *gana-sanghas* occupied the periphery of the kingdoms concentrated in the Gangetic Plains. They could also be found in the Terai region and in the foothills of the Himalaya, in northwest India, Punjab, Sindh, and in central and western India.

According to Buddhist sources, which are prime sources for learning about *gana-sanghas*, prominent *gana-sanghas* included Vajji and Malla, which were *mahajanpadas* or confederations of clans; as well as the Sakyas, Koliyas, Bulis, Kalamas, Moriyas and Bhaggas, to name a few.

These *gana-sanghas* were governed by an assembly that comprised the head of families belonging to a clan or clan chiefs in a confederacy through an assembly, of which they alone were members.

The *gana-sangha* had an assembly located in the main city of the polity. It was presided over by a head. This office was not hereditary, even if these chiefs would at times be referred to as "Raja." Matters for discussion were placed before the assembly, discussed, and if a unanimous decision could not be reached it would be put to vote.

Advisors, a treasurer and a commander of the soldiers would assist the Raja. The *sanghas* also had an elaborate judicial procedure, with a suspect having to face a hierarchy of seven officials.

The idea that *gana sanghas* show that India is the world's oldest democracy came from, as Upinder Singh has highlighted, nationalist historians of the late colonial period who glorified these polities.

Gana-sanghas and democracy

Gana-sanghas cannot be understood as a democracy if measured against the modern understanding of the ideal. However, neither does Athens measure as democracy against the modern yardstick.

So, if Athenian *demokratia* can be considered as the beginning of democracy, then why not the *gana-sangha*? After all, both Greek city-states and *gana-sanghas* have broad similarities in their mode of government. Both involved assemblies that entailed discussion and voting in which the principle of majority prevailed. Both had some form of mechanism to dispense justice. And both excluded from their ambit a large number of people as "democracy" was limited to adult males or heads of clans.

'World's oldest democracy'

The existence of *gana-sanghas* gives good reasons to throw water on the hegemonic claim that democracy is a uniquely western idea. But that does not mean that India can conclusively be called the world's oldest democracy or the mother of democracy either. Why?

Forms of government that are based on collective deliberation involving most members of a community can and have appeared across the world even before 6th century BCE. In fact, scholars have argued that prior to the advent of agriculture when human beings started to settle in fixed communities, hunting and gathering societies were more likely to have governed themselves by some principles of democracy.

FULL VERSION ON
WWW.INDIANEXPRESS.COM/EXPLAINED

5. Is India the Mother of Democracy? History and Politics Behind the Claim

Source: The Indian Express – Explained
GS Paper I: Ancient Indian History | **GS Paper II:** Democracy and Governance

Context: India's claim of being the "Mother of Democracy" is rooted in the existence of ancient *Gana-Sanghas*—collective political institutions that practised assembly-based governance from around 600 BCE.

1. Evolution of Democratic Traditions

Athenian Democracy (5th century BCE)

- *Demokratia* = Demos (people) + Kratos (rule).
- Assembly of male citizens above 18 participated in political decisions.
- Council of 500, selected through lottery, prepared the assembly's agenda.
- Decisions were taken through voting and majority rule.
- **Limitation:** Women, slaves and foreigners were excluded.

2. Ancient Indian Gana-Sanghas (c. 600 BCE – mid-first millennium CE)

Meaning: Gana refers to a group of people claiming equal status; Sangha means an assembly or collective body.

- **Geographical spread:** Gangetic plains, Terai region, Himalayan foothills, Punjab, Sindh and central and western India.
- **Important examples:** Sakyas, Koliyas, Bulis, Kalamas, Moriyas and Bhaggas.
- **Historical sources:** Buddhist texts are important sources for understanding these political institutions.

3. Governance Structure of Gana-Sanghas

1. **Assembly:** Comprised clan chiefs or heads of prominent families who participated in collective deliberations.
2. **Leadership:** Presided over by a chief, sometimes called Raja; the position was not necessarily hereditary.
3. **Decision-making:** Unanimity was preferred; if consensus failed, matters were put to vote.
4. **Administration:** Advisors, treasurers and military commanders assisted the Raja.
5. **Judiciary:** An organised judicial hierarchy comprising seven officials.

4. Comparison: Gana-Sanghas vs Athenian Democracy

Parameter	Gana-Sanghas	Athens
Political structure	Clan-based republican assemblies	Citizen assembly
Participation	Clan chiefs and eligible members	Adult male citizens
Decision-making	Deliberation and voting	Direct voting
Leadership	Chief/Raja	Elected or selected officials
Exclusion	Women and wider population	Women, slaves and foreigners

5. Historical Assessment: Were They Democracies?

Similarities

- Collective deliberation and assembly-based governance.
- Voting and mechanisms for resolving disagreements.
- Political decisions not entirely dependent on hereditary monarchs.

Limitations

- Participation was restricted to a narrow section of society, largely male clan elites.
- No universal political participation or equal representation of all citizens.
- Therefore, they were closer to ancient republican or oligarchic systems than modern democracies.

Conclusion: Gana-Sanghas establish that India had indigenous traditions of collective deliberation and republican governance. However, their existence does not conclusively establish India as the world's oldest democracy or the sole birthplace of democracy.

C-DAC eyes indigenous GPU by mid-2028, seeks private sector partners

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The Centre for Development of Advanced Computing (C-DAC) is targeting the middle of 2028 to develop a full-fledged indigenous graphics processing unit (GPU), with plans to make it price-competitive through economies of scale. The government research institution is seeking private-sector partners to take the design through fabrication, packaging and testing and eventually commercialise the chip.

"In volumes, we will be fully competitive," C-DAC Director General E. Magesh told The Hindu on the sidelines of Tec-Verse 2026 on Thursday. He said the institution intended to create price pressure on existing suppliers and bring down GPU prices, though he did not disclose a target price or cost comparison.

The GPU is currently at the functional-model stage, running on field-programmable gate array (FPGA) hardware. It is yet to undergo physical design and fabrication to produce a silicon dry access, advanced packaging, testing, manufacturing yield improvement and market access.

"We don't want somebody to design GPUs again with us. It will be competitive. We want someone who can complement us," he said. C-DAC has not identified a partner yet but is open to sharing intellectual property and commercial returns in proportion to the contributions and investments made by collaborators. The proposed arrangement would allow companies to invest in manufacturing and commercialisation stages rather than make direct cash investments in C-DAC.

The institution has been working on the GPU since August 2023. It has developed its own instruction-set extensions, compiler and libraries, and says its software stack is ready to run applications on the FPGA-based model. The platform can also support large language model (LLM) training and inference, Mr. Magesh said.

As an intermediate step, C-DAC expects to deliver a smaller chip with more than 30 cores by

6. C-DAC Targets Indigenous GPU by Mid-2028

Source: The Hindu
GS Paper III: Science & Technology – Semiconductors, AI and Indigenous Computing

Context: The Centre for Development of Advanced Computing (C-DAC) aims to develop a fully indigenous Graphics Processing Unit (GPU) by mid-2028 to reduce dependence on foreign computing technologies and strengthen India's AI ecosystem.

1. C-DAC's Indigenous GPU Project

- **Target:** Full-fledged GPU with approximately 32,000 cores by mid-2028.
- **Intermediate milestone:** Smaller chip with over 30 cores by mid-2027.
- **Current stage:** Functional model operating on Field-Programmable Gate Array (FPGA) hardware.
- Working on the project since August 2023.
- Seeking private-sector partners for fabrication, physical design, advanced packaging, testing and commercialisation.

2. Important Technology Concepts

Technology	Meaning
CPU	General-purpose processor for sequential and varied computing tasks
GPU	Performs parallel processing; useful for AI and graphics
FPGA	Reprogrammable hardware used to test and validate chip designs
LLM	Large Language Model; requires substantial computing power for training and inference

3. Strategic Significance

1. **Technological self-reliance:** Reduces dependence on foreign GPU suppliers.
2. **AI development:** Builds domestic capacity for training and running Large Language Models.
3. **Economic competitiveness:** Economies of scale can reduce computing costs.
4. **Strategic security:** Strengthens India's indigenous semiconductor and advanced computing ecosystem.

4. Key Challenges

- Access to advanced semiconductor fabrication facilities.
- Advanced packaging and manufacturing yield.
- High research and development costs.
- Competition with established global GPU manufacturers.
- Development of a compatible software ecosystem.

5. Private-Sector Participation

C-DAC seeks complementary industry partners for manufacturing and commercialisation. Intellectual property and commercial returns will be shared according to partners' contributions and investments.

6. UPSC Prelims PYQ – 2026: DHRUV64

Which of the following statements about DHRUV64 is/are correct?

1. It is the third chip fabricated under the Digital India RISC-V (DIR-V) Programme.
2. It is India's first homegrown 1.0 GHz, 64-bit dual-core microprocessor.

(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer: (c) Both 1 and 2.

Remember the distinction:

- **DHRUV64:** Indigenous 64-bit dual-core microprocessor developed under DIR-V.
- **C-DAC GPU:** Separate indigenous graphics processor project targeting approximately 32,000 cores by mid-2028.