

The Hindu Important News Articles & Editorial For UPSC CSE

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—It's about quality—

The President of the European Commission and 21 EU Commissioners are visiting India for two days.

Trump's Russia-Ukraine policy hangs over EU-India talks

Suhasini Haidar
MADRID/NEW DELHI

Stung by the shifts in U.S. foreign policy, particularly on the Russia-Ukraine conflict, the two-day visit by the President of the European Commission (EU), Ursula von der Leyen, and 21 EU Commissioners beginning Thursday will send the message that Europe is shoring up other partners, including India, as much as they focus on the task of resetting EU-India ties.

The College of Commissioners' travel is "unprecedented", a EU statement said, as they have never travelled to any country in such strength before. According to EU officials who briefed European and India media this week, the visit has been planned for some months, and was announced by Ms. von der Leyen at Davos on January 21. The policy changes wrought by U.S. President

Donald Trump since then hang over the meetings in Delhi.

"A new push for greater cooperation, to be clear, was already identified and planned quite a while ago," an EU official said, adding: "But the timing of this visit is, of course, particularly interesting given the global developments that we are facing."

The European delegation comes just after the third anniversary of Russia's invasion of Ukraine, which was marked by a moment of solidarity with the Ukrainian President Volodymyr Zelenskyy, and the presence of more than a dozen European and Western leaders, including Ms. von der Leyen, in Kyiv for commemorative ceremonies. The EU also imposed a 16th round of sanctions on Russia, even as the U.S. broke with it at the United Nations by voting with Russia against an EU reso-



European Commission President Ursula von der Leyen along with Ukrainian President Volodymyr Zelenskyy at a security summit. AP

lution calling for the withdrawal of Russian troops from Ukraine.

Their meetings with Prime Minister Narendra Modi and many members of the Union Cabinet will coincide with Mr. Zelenskyy's travel to Washington to sign a "mineral deal" and discuss a Russia-Ukraine ceasefire proposal with Mr. Trump, seen as a significant climbdown by the Ukrainian President, even after Mr. Trump

called him a "dictator" with "4% approval ratings". The EU visit to Delhi will also come days before an extraordinary European summit on March 6.

"One specific point that I expect President Leyen to raise in the context of that conversation is not just our support for Ukraine, but also our sanctions that we are maintaining on Russia," the EU official said, indicating that despite the setback from the U.S.'s U-

turn, the EU would continue "intensifying enforcement of its sanctions against Moscow".

New Delhi, which has rejected all sanctions against Russia thus far, and increased its oil imports from the Russian Ural multi-fold since 2022, is unlikely to change its position, especially in the revised circumstances.

The substance of the visit, then, will come from a restart in EU-India relations that have been somewhat cast in the shade over the Ukraine conflict. There has been no EU-India annual summit since 2020, although they held a 'Leader's Summit' in 2021, and are now preparing for a summit later in 2025.

Despite relaunching the long-pending EU-India Bilateral Trade and Investment Agreement (BTIA) talks in 2022, the two sides have not made much headway over tariff issues on

cars, wine and spirits, and on non-tariff barriers, officials conceded, and will hope for a political push during the Delhi visit ahead of the next round of trade talks on March 10-14 in Brussels.

The visit will begin with a meeting of the Trade and Technology Council (TTC), which is expected to work on aligning AI policies as well as cooperation on semiconductors, quantum computing, and green technology areas. This will be followed by bilateral meetings between EU Commissioners and Indian Ministers, a plenary with Mr. Modi, Ms. von der Leyen and their Cabinets, as well as meetings with key Indian industry leaders. The two sides are expected to hold broad discussions on updating the EU-India Strategic Roadmap (2020-2025), including cooperation in the Indo-Pacific.

Historic Visit by EU Leaders

- This is an unprecedented visit, as the EU has never sent such a large delegation to any country before.
- The visit aims to strengthen EU-India ties, especially amid shifts in U.S. foreign policy.

Impact of Russia-Ukraine Conflict

- The visit comes shortly after the third anniversary of Russia's invasion of Ukraine.
- The EU recently imposed its 16th round of sanctions on Russia.
- However, the U.S. has taken a different stance by voting against an EU resolution at the United Nations.
- The EU is expected to discuss its continued support for Ukraine and the enforcement of sanctions against Russia.

India's Position on Russia

- India has rejected all sanctions against Russia and significantly increased its oil imports from the country since 2022.
- New Delhi is unlikely to change its position, despite global pressure.
- This visit is expected to focus on EU-India bilateral ties rather than disagreements over Russia.

Revival of EU-India Ties

- There has been no annual EU-India summit since 2020, though a 'Leader's Summit' was held in 2021.
- Both sides are preparing for a major summit in 2025.
- Talks on the EU-India Bilateral Trade and Investment Agreement (BTIA), restarted in 2022, have seen little progress.
- Key trade issues include tariffs on cars, wine, and spirits, along with non-tariff barriers.

Focus on Trade and Technology Cooperation

- The visit begins with a Trade and Technology Council (TTC) meeting.
- Key areas of discussion include AI policies, semiconductors, quantum computing, and green technology.
- The EU-India Strategic Roadmap (2020-2025) will also be updated, with a focus on cooperation in the Indo-Pacific.
- Indian ministers, industry leaders, and EU officials will hold meetings to push forward economic and strategic partnerships.

UPSC Mains Practice Question

Ques :How does the evolving EU-India partnership reflect shifting global geopolitical dynamics? Examine the key areas of cooperation and challenges in their bilateral ties. (150 Words /10 marks)

- ➔ New research from Stanford University in the US shows that coal-fired power plants are reducing India's rice and wheat production, causing up to a 10% loss in several states.

Coal-fired power plants in India cut rice, wheat yield by up to 10%

Nitrogen oxides are a side effect of India's coal dependence. They are phytotoxic, meaning they stress plants, and have been known to hinder cellular function and worsen crop damage. A new study has attempted to link the two in a systematic way at the power-plant level

Ashmita Gupta

According to new research led by researchers at Stanford University in the U.S., coal-fired power plants are quietly depleting India's rice and wheat output, destroying up to 10% of the yield in several States.

The emissions from coal power plants include carbon dioxide, nitrogen oxides, sulphur oxides, fly ash, soot, suspended particulate matter, and other trace gases. These pollutants have been linked to smog, acid rain, eutrophication and various other environmental burdens.

An elusive link

In the new study, PhD student Kirat Singh and his colleagues turned the spotlight on the less-explored consequences of nitrogen dioxide (NO₂) on crop productivity.

The nitrogen oxides in general are an established side effect of India's coal dependence. They are phytotoxic, meaning they stress plants, and have been known to hinder cellular function and interfere with crucial enzymatic activities. The oxides also contribute to the formation of ozone, which in turn exacerbates crop damage and produces particulate matter that limits the amount of sunlight available for photosynthesis.

"We know that coal-fired power plants contribute significantly to air pollution," Singh said. "And we also know from past studies that various pollutants, including NO_x, can negatively impact crop growth. But there hadn't been a study linking the two in a systematic way at the power-plant level, particularly in India."

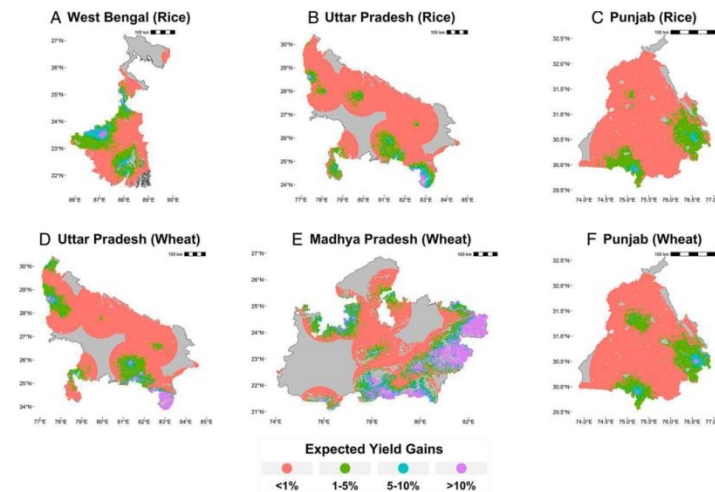
Tracking plant health

To compensate for the lack of ground monitoring stations in agricultural areas, the researchers used data from satellite images to glean high-resolution insights into NO₂ concentration across India. Since multiple power plants contribute to NO₂ pollution across different distances, the researchers summed up all coal-attributable NO_x emissions reaching each location instead of isolating individual sources. This approach gave them a comprehensive picture of the amount of pollution to which agricultural regions were exposed.

Then, to estimate how NO₂ from coal-fired power plants affected crop yield, the researchers turned to a satellite-derived vegetation index. They used a physical signal called near-infrared reflectance of vegetation (NIRv) as a proxy for plant health. NIRv measures greenness. Healthy crops are richer in chlorophyll, which cannot be detected by visible light but is sensitive to near-infrared light. So a higher percentage of near-infrared light is reflected by leaves in healthy plants.

Using pre-established coefficients, the researchers could link NO₂ levels, measured by the TROPOMI satellite, to changes in NIRv. They used India-specific coefficients of 0.0006 for monsoon rice and 0.0007 for winter wheat. For every 1 mol/m³ increase in NO₂, for example, the corresponding drop in NIRv was 0.0006 and 0.0007, respectively.

Prior research has already shown a linear relationship between NIRv and crop yield, allowing the researchers to



Expected yield gains from eliminating coal-attributable nitrogen dioxide concentrations in major rice- and wheat-producing states. Large tracts of cropland in all key states are expected to see yield improvements of 1% from eliminating coal-related NO₂. Data from 2019 growing seasons. PNAS: 122 (6) E2421679122

directly estimate how much yield was lost due to pollution. They set a baseline NIRv of 0.007, representing zero crop growth, and calculated the percentage decrease in yield based on pollution-driven declines in greenness. This method helped them quantify the agricultural damage wrought by NO₂ without requiring physical field measurements.

Blowin' in the wind

They also analysed wind patterns to differentiate between pollution from coal plants and other industrial and environmental sources. This step helped the team unravel major differences in the effects of coal pollution across States.

For example, Chhattisgarh, a major hub for coal-fired power, had the highest share of NO₂ pollution from coal plants: about 19% of NO₂ detected in the monsoon season and 12.5% in winter came from coal plants.

Surprisingly, Uttar Pradesh had high overall NO₂ levels but only a small portion of that came from coal power, while Tamil Nadu had relatively low NO₂ pollution but the bulk of it came from coal power.

Coal's contribution to air pollution thus varied by region. Not all power plants have the same impact: those located near



The researchers turned the spotlight on the less-explored consequences of nitrogen dioxide on crop productivity. GETTY IMAGES/ISTOCKPHOTO

Targeting highly polluting plants could have significant benefits for agricultural productivity. The yield of 5.7% of cropland in West Bengal near coal-fired power stations could increase 5-10%

fertile farmland with a high emissions exposure caused the most agricultural damage, Singh said.

An overlooked loss

Crop damage intensity – measured as monetised loss per gigawatt-hour (GWh) of electricity generated – for wheat and rice touched up to \$17,370/GWh (\$15 lakh on February 6, 2025) and \$13,420/GWh (\$11.7 lakh) respectively.

About 20% of coal-fired electricity generation during the monsoon season accounted for half of all coal NO₂-related rice losses while 12% of total winter season generation was linked to 50% of wheat losses.

This suggested that targeting a relatively small subset of highly polluting power stations could still have significant benefits for agricultural productivity.

To wit, as per the study, the yield of 5.7% of cropland in West Bengal near coal-fired power stations could increase 5-10% while the gains of 1.66% could exceed 10%.

Similarly in Madhya Pradesh, the yield in 5.9% of cropland could increase 5-10% yield gains and another 11.9% could gain by more than 10%.

To compare, the annual yield growth for kharif rice and rabi wheat has averaged just 1.7% and 1.5% respectively between 2011 to 2020.

According to the study, India's rice production could gain \$420 million a year and wheat \$400 million a year, roughly

₹7,000 crore in total.

India and coal

As the 2025-2026 Economic Survey as well as energy experts have noted, coal power plays a crucial role in India's growth at the moment. The 2025-2026 Union Budget has allocated 25% more for the Ministry of Coal over revised estimates of FY 2024-2025.

India's demand for food is soaring as well. In 2024, the Global Hunger Index ranked India 105th out of 127 countries on food security. Rice and wheat are staple crops in India and in many parts of the world to which these grains are exported.

Singh said he hopes to inform policy reforms that will allow the coal and agricultural sectors to meet in the middle.

"When you're crafting policy around controlling pollution from the power sector, considering crop impacts alongside health and greenhouse gas emissions can help policymakers prioritise where that pollution control equipment should be installed," he said.

"If you want to optimise the money that is being invested in installing all of this pollution-control equipment, you want to focus on power plants where it would bring the most benefit."

Policymakers might find information in our research that could be helpful in terms of figuring out which power stations to prioritise," he added.

Singh grew up in New Delhi and said its poor air quality motivated him to study the consequences of air pollution on human as well as crop health.

He is planning to further study how coal power plants affect agriculture at large in India, including the effects of other pollutants on crop productivity.

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Why did the researchers focus on nitrogen dioxide (NO₂) emissions?

- ➔ **Phytotoxic Effects on Crops:** NO₂ is phytotoxic, meaning it directly harms plant health by interfering with cellular functions and enzymatic activities. Example: In agricultural areas near coal plants, NO₂ exposure leads to lower chlorophyll levels, reducing plant vitality and yield.
- ➔ **Formation of Secondary Pollutants:** NO₂ contributes to the formation of ground-level ozone, which further damages crops by limiting photosynthesis and causing oxidative stress. **Example:** Increased ozone formation near coal hubs like Chhattisgarh exacerbates crop loss during peak growing seasons.
- ➔ **Limited Existing Research in India:** While global studies link NO₂ to agricultural damage, there was no systematic study at the power-plant level in India. **Example:** This research fills the gap by connecting NO₂ emissions from coal plants directly to wheat and rice yield losses.
- ➔ **Satellite Data Availability:** Advanced satellites like TROPOMI allow precise tracking of NO₂ concentrations, making it easier to study the pollutant's widespread effects. Example: Researchers used satellite-derived vegetation indices (NIRv) to measure crop health across polluted regions.
- ➔ **High Contribution from Coal Plants:** Coal-fired power plants are a major source of NO₂ emissions, especially in industrial and agricultural belts. Example: In Chhattisgarh, around 19% of monsoon-season NO₂ comes from coal plants, causing significant crop damage.

How does this pollutant impact plant health and crop yield?

- ➔ **Disruption of Photosynthesis:** NO₂ reduces the amount of sunlight available for photosynthesis by forming secondary pollutants like particulate matter. This limits energy production in plants. **Example:** In areas near coal plants, reduced sunlight exposure leads to a 5-10% decline in rice and wheat yields in states like West Bengal and Madhya Pradesh.
- ➔ **Cellular and Enzymatic Damage:** NO₂ interferes with crucial cellular processes and enzymatic functions, weakening plant growth and reducing their ability to absorb nutrients. Example: Crops exposed to high NO₂ levels in Chhattisgarh show slower growth and lower productivity, especially during peak seasons.
- ➔ **Ozone Formation and Oxidative Stress:** NO₂ contributes to ground-level ozone, which causes oxidative stress in plants, leading to leaf damage and reduced crop yields. Example: In Uttar Pradesh, where overall NO₂ levels are high, wheat crops suffer significant losses due to ozone-induced stress during the winter season.

Which states show the highest agricultural losses?

- ➔ **Chhattisgarh:** The most affected region with the highest share of NO₂ pollution from coal plants (19% during the monsoon and 12.5% in winter). It is a major hub for coal-fired power generation, leading to severe air pollution and crop yield losses.
- ➔ **West Bengal:** There are significant NO₂ exposure from coal plants that affects 5.7% of cropland, with yield losses between 5-10% and even greater than 10% in some areas. The proximity of coal plants to fertile agricultural zones increases the impact on rice and wheat production.
- ➔ **Madhya Pradesh:** About 5.9% of cropland near coal plants experiences 5-10% yield losses, while 11.9% of agricultural land could face losses exceeding 10%.
- ➔ **Uttar Pradesh:** High overall NO₂ pollution, but only a small portion originates from coal-fired power plants. The other industrial sources dominate NO₂ emissions, yet coal plants still add to the burden on winter wheat yields.
- ➔ **Tamil Nadu:** Low overall NO₂ levels but a large share comes from coal plants, disproportionately affecting local agriculture. The concentration of coal-fired power plants contributes a substantial portion of the region's air pollution.

What steps have been taken by the Indian government?

- ➔ **Increased Budget Allocation for Coal Sector:** The 2025-2026 Union Budget has increased the allocation for the Ministry of Coal by 255% over the revised estimates of FY 2024-2025, reflecting a focus on managing coal resources and addressing environmental concerns.
- ➔ **Pollution Control Mandates:** The government has introduced emission norms for coal-fired power plants, requiring the installation of pollution control equipment like Flue Gas Desulphurization (FGD) to reduce nitrogen oxides (NO₂) and other pollutants.
- ➔ **Renewable Energy Promotion:** Policies such as the National Solar Mission and incentives for renewable energy aim to reduce coal dependency and minimize air pollution while promoting cleaner energy alternatives.

Way forward:

- ➔ **Strengthen Emission Regulations:** Implement stricter NO₂ emission limits for coal-fired power plants, enforce regular monitoring, and expedite the adoption of advanced pollution control technologies like selective catalytic reduction (SCR).
- ➔ **Promote Sustainable Agriculture and Clean Energy:** Support farmers in NO₂-affected regions with resilient crop varieties and promote a transition to renewable energy through increased investment in solar and wind infrastructure.

UPSC Mains Practice Question

Ques :Discuss the impact of coal-fired power plants on India's agricultural productivity, with a focus on nitrogen dioxide (NO₂) pollution. (150 Words /10 marks)



Danish archaeologists discovered a 2000 BC wooden circle, possibly linked to Britain's Stonehenge, in Aars.

Analysis of the news:

- Danish archaeologists discovered an ancient wooden circle in Aars, Denmark, which may be linked to Stonehenge.
- The structure consists of 45 wooden piles arranged in a 30-meter diameter circle, spaced two meters apart.
- It is estimated to date back to around 2000 BC, but further analysis is underway to confirm its age and purpose.
- Similar timber circles used for sun worship have been found on the Danish island of Bornholm.
- Excavations also revealed an early Bronze Age settlement with a chieftain's grave and a bronze sword.
- Archaeologists are investigating possible cultural links between Denmark and the builders of Stonehenge.

Stonehenge, England

- **Location:** Stonehenge is a prehistoric monument located in Wiltshire, England.
- **Construction Period:** Built between 3100 BC and 1600 BC in multiple phases.
- **Structure:** Consists of two concentric circles of massive standing stones, some weighing up to 25 tons.
- **Purpose:** Believed to be a ceremonial site, burial ground, and astronomical observatory.
- **Bluestones Origin:** Some stones were transported from Wales, over 200 km away.
- **Astronomical Alignment:** Aligned with the summer and winter solstices.
- **UNESCO Status:** Recognized as a World Heritage Site in 1986.



The Stonehenge in England. Archaeologists believe the ancient circle of wood uncovered in a Danish town could be linked to the renowned structure. GETTY IMAGES

Archaeologists find Stonehenge-like circle in Denmark

Agence France-Presse
COPENHAGEN

Danish archaeologists have uncovered an ancient circle of wooden piles that they say could be linked to Britain's world-renowned Stonehenge.

The 45 neolithic-era wooden pieces, in a circle with a diameter of about 30 metres, were found during work on a housing estate in the northwestern town of Aars. The piles are about two metres apart. "It is a once in a lifetime find," Sidsel Wahlin, conservationist at the town's Vesthimmerland museum, said in an email.

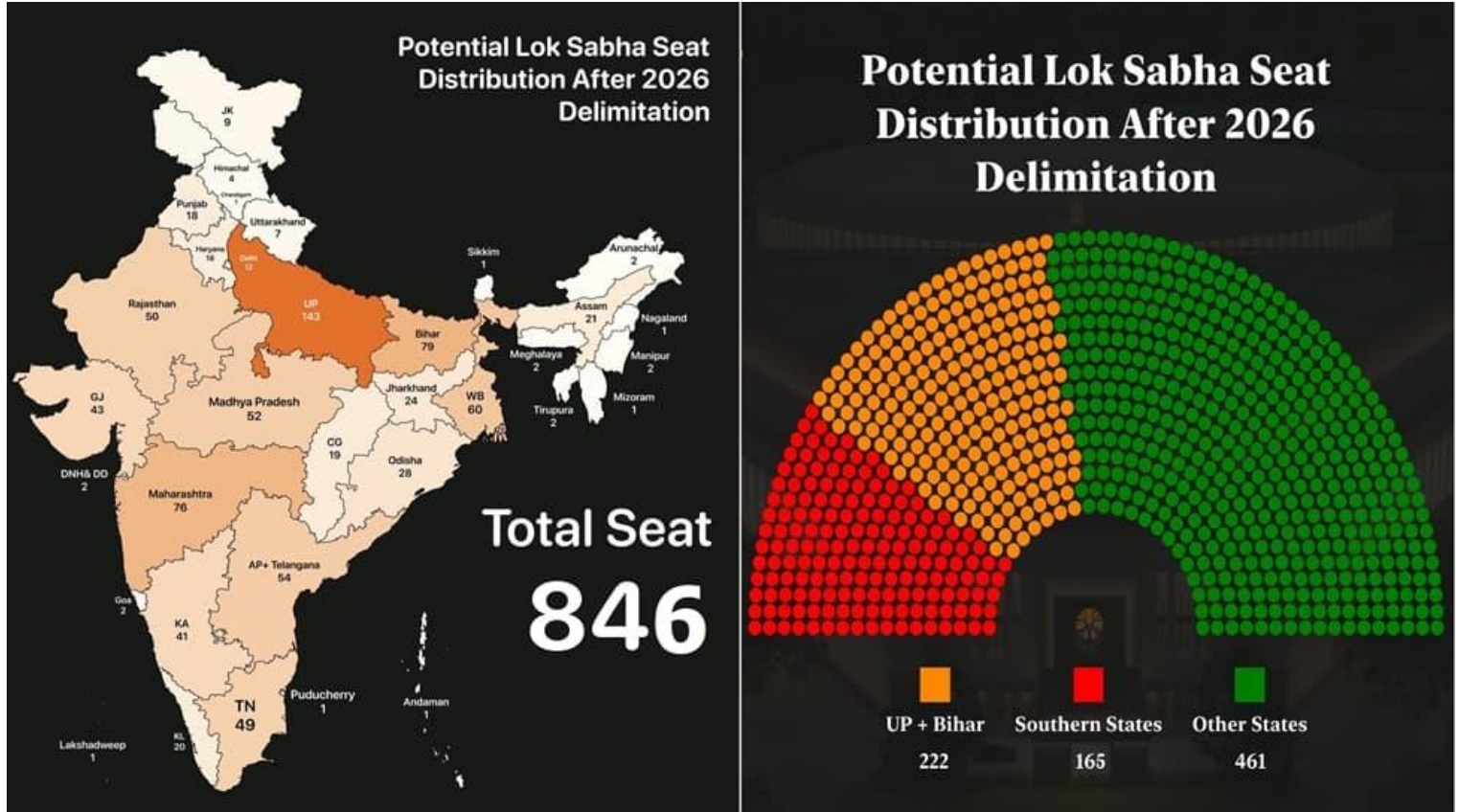
The wooden circle is estimated to date from about 2000 BC but Ms. Wahlin said the team had started detailed work on Monday to definitively identify its age and function. The circle "points to a strong connection with the British henge world," she added.

The two circles of stones at Stonehenge in southern England are believed to have been erected between 3100 BC and 1600 BC. Archaeologists are now trying to find if there is an inner circle at the Aars site. Ms. Wahlin said that some timber circles, considered part of worshipping of the sun, have been found on the Danish island of Bornholm.

Archaeologists first found an early Bronze Age settlement at the building site that included a chieftains grave and a bronze sword, Ms. Wahlin said. The archaeologists are now looking for "ritual deposits" such as flint arrowheads and daggers as part of a major sampling exercise at the site. Ms. Wahlin said the next searches would seek to find if there were links between the region and other peoples, such as those who built Stonehenge.

In News : Delimitation in India: Impact on Southern States & Parliamentary Seats

Union Home Minister Amit Shah assured that southern states would not lose any parliamentary seats after delimitation, addressing concerns of states like Tamil Nadu and Kerala.



- Due to slower population growth in the South compared to the North, delimitation based on the latest data could have resulted in a significant increase in seats for northern states.
- Delimitation, which redraws constituency boundaries, is expected after the delayed Census and was initially set for 2026. In Independent India's history, delimitation has taken place four times – 1952, 1963, 1973 and 2002.

Need for Delimitation

- Delimitation is a constitutional mandate carried out after each Census to readjust the number of seats in Parliament and state Assemblies and redefine constituency boundaries.
- Article 82 of the Constitution mandates that after each Census, the allocation of Lok Sabha seats must be adjusted based on population changes.

- However, Article 81 limits the total number of Lok Sabha members to 550, with 530 from states and 20 from Union Territories.
- It also requires that the ratio of seats to the population in each state be as uniform as possible, ensuring that constituencies across the country have roughly equal populations.
- The goal is to ensure equal representation by maintaining similar population sizes across constituencies.

History of Delimitation in India

- **Pre-1976:** After the Censuses of 1951, 1961, and 1971, seats in Lok Sabha, Rajya Sabha, and state Assemblies were redistributed.
- **42nd Amendment (1976):** During the Emergency, Parliament froze the total number of seats until the 2001 Census to prevent states with higher population growth from losing representation while implementing family planning measures.
- **2001 Delimitation:** While constituency boundaries were redrawn, the number of seats remained unchanged due to opposition from southern states.

Impact of Delimitation on Lok Sabha Seats and Elections

- The number of seats each state receives after delimitation will depend on the base average population that a future delimitation commission establishes.
- In 1977, each MP represented an average of 10.11 lakh people. Ideally, constituencies should be evenly distributed around this average.

Potential Increase in Lok Sabha Strength

- If the 10.11 lakh average is retained, Lok Sabha strength could rise to nearly 1,400 based on 2025 population projections.
- UP (including Uttarakhand) could see its seats triple from 85 to 250, while Bihar (including Jharkhand) could increase from 25 to 82.
- Tamil Nadu and Kerala would see only moderate increases (39 to 76 and 20 to 36, respectively).
- Since the new Parliament has only 888 seats, this formula is unlikely to be implemented.
- Experts believe that regardless of the formula, southern states would gain fewer seats compared to northern states, reinforcing concerns over their diminishing political influence.

Impact of Delimitation on Elections

- ▶ Regional parties in the South fear that delimitation based on population will benefit parties with a strong base in North India.

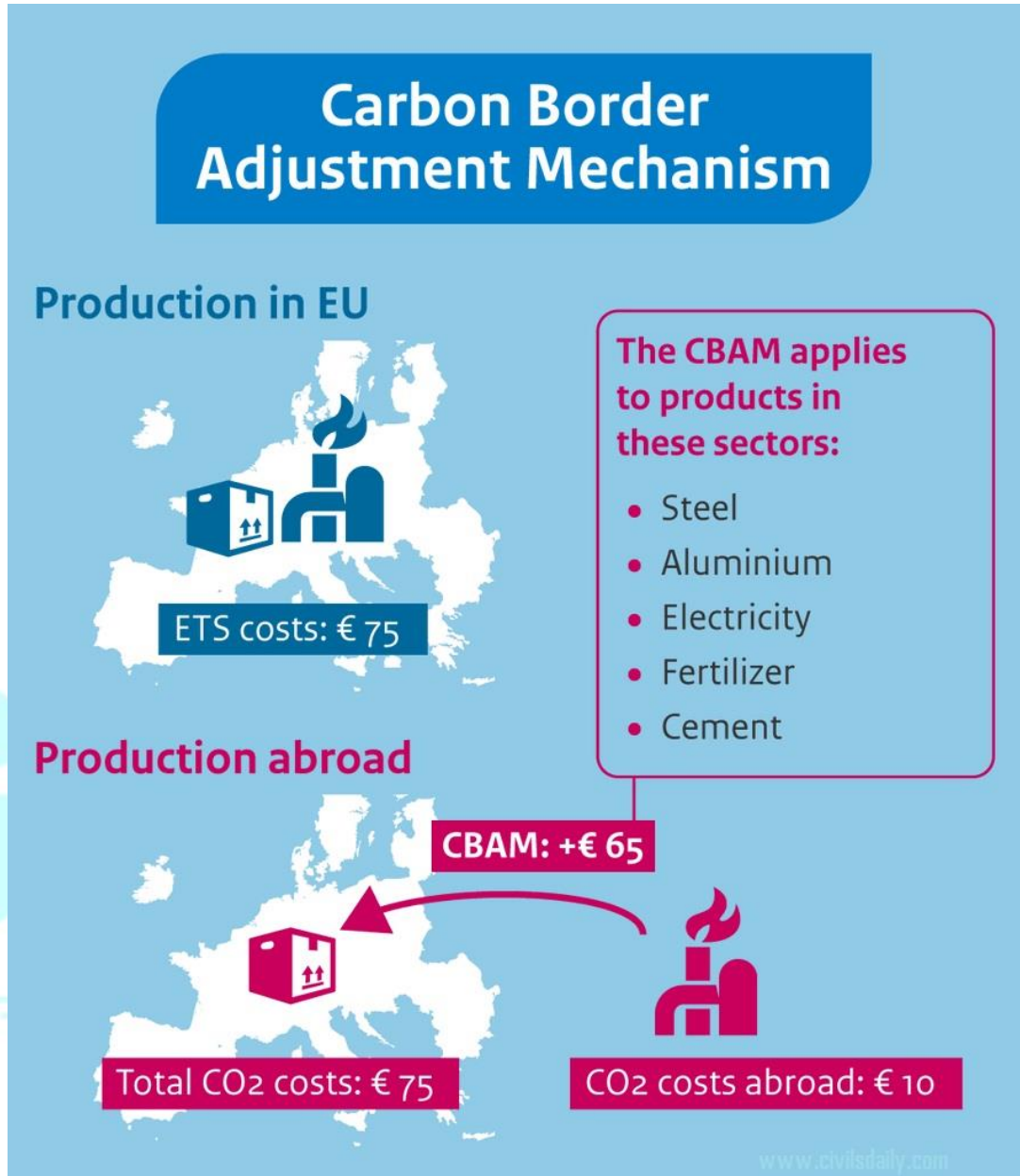
Concerns of Southern States Over Delimitation

- ▶ Southern states fear that delimitation based on the latest population data will reduce their representation in Parliament, weakening their political influence.
- ▶ Tamil Nadu CM M.K. Stalin announced an all-party meeting on March 5 to discuss delimitation, calling it a looming threat to southern states.
- ▶ He warned that Tamil Nadu could lose parliamentary seats due to its success in family planning.



In News : Carbon Border Adjustment Mechanism

The European Union recently acknowledged India's "specific concerns" about implementing the Carbon Border Adjustment Mechanism (CBAM).



About Carbon Border Adjustment Mechanism

- It is a European Union (EU) tariff on carbon-intensive products.

- It is a new EU instrument for preventing carbon leakage, that is, the shifting of the production of goods to non-EU countries where there is a lower or no carbon cost associated with their production.
- **Purpose:** To put a fair price on the carbon emitted during the production of carbon-intensive goods that are entering the EU and to encourage cleaner industrial production in non-EU countries.
- By confirming that a price has been paid for the embedded carbon emissions generated in the production of certain goods imported into the EU, the CBAM will ensure the carbon price of imports is equivalent to the carbon price of domestic production, and that the EU's climate objectives are not undermined.
- Imports mean any imports to the EU from outside the EU, including e.g., imports of goods ordered online and imports of gifts.
- The CBAM is designed to be compatible with WTO rules.

Carbon Certificates:

- If implemented as planned, EU importers will have to buy carbon certificates corresponding to the carbon price that would have been paid in the EU if the goods had been produced locally.
- The price of the certificates would be calculated according to the auction prices in the EU carbon credit market.
- The number of certificates required would be defined yearly by the quantity of goods and the embedded emissions in those goods imported into the EU.
- EU importers will declare the emissions embedded in their imports and surrender the corresponding number of certificates each year.
- If importers can prove that a carbon price has already been paid during the production of the imported goods, the corresponding amount can be deducted.
- Companies in countries with a domestic carbon pricing regime equivalent to the EU's will be able to export to the EU without buying CBAM certificates.

Implementation Timeline:

- CBAM will apply in its definitive regime from 2026, while the current transitional phase lasts between 2023 and 2025.
- The CBAM commenced in its transitional phase as of 1 October 2023.
- Only reporting obligations arise during the transitional period, and financial obligations apply from 2026.

Daily News Analysis

- ➔ **Coverage:** CBAM will initially cover several specific products in some of the most carbon-intensive sectors at risk of "carbon leakage": iron and steel (including some downstream products such as nuts and bolts), cement, fertilizers, aluminium, electricity, and hydrogen.



A leap backward for maternity entitlements

Even as State after State is splurging on cash transfers for women, the most vulnerable among them, pregnant women, continue to be deprived of their legal right to maternity benefits. Worse, whatever little used to be paid to them seems to be shrinking. The main responsibility for this lies with the central government.

Under the National Food Security Act (NFSA) 2013, all pregnant women (except those already covered in the formal sector) are entitled to maternity benefits of ₹6,000 a child. At today's prices, this would mean ₹12,000 at the very least. Even that, of course, is a pittance. Still, affirming the principle of universal maternity entitlements was a groundbreaking feature of the NFSA. Even in relatively well-off households, pregnant women are often deprived of nutritious food, health care or rest time. Maternity benefits can help them to look after themselves and the newborn child.

Meagre as they are, maternity benefits under the NFSA are yet to be delivered. The central government is making a pretence of doing so under the Pradhan Mantri Matru Vandana Yojana (PMMVY). The PMMVY's benefits, however, are restricted to one child a family, recently extended to a second child if it is a girl. This restriction is a blatant violation of the Act. Further, the benefits have been arbitrarily reduced to ₹5,000 for the first child.

Scant information

Even these restricted and reduced benefits are



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All pregnant women in India are entitled to maternity benefits, but most of them have not got a single rupee in recent years

being denied to large numbers of entitled women. This failure is well hidden, because the Ministry of Women and Child Development discloses very little information on the PMMVY. The Ministry seems unaware of Section 4 of the Right to Information (RTI) Act, which calls for pro-active disclosure of basic information. Even the simplest of the PMMVY's statistics are not in the public domain.

The Ministry, however, did respond to our RTI queries, on the PMMVY. Based on this information, we have estimated the PMMVY's effective coverage, defined as the proportion of pregnant women who receive at least one instalment of PMMVY benefits. This is a broad definition: the first instalment is just ₹3,000, and strict conditionalities apply to the second instalment (front-loaded for second-child girls). The estimates are sobering: effective coverage peaked at an unimpressive 36% in 2019-20 and declined sharply after that, except for a partial revival in 2022-23. In 2023-24, effective coverage crashed to just 9% (*see graph*).

This crash is also visible in the Budget's figures. Central government spending on the PMMVY was at an all-time low of ₹870 crore in 2023-24 – barely one third of the corresponding figure five years earlier, that too in money terms. To cover 90% of all births at just ₹6,000 a birth, the PMMVY would require a total budget of at least ₹12,000 crore.

The official line

We discussed these figures with the officials concerned in the Department of Women and Child Development, at the central and State levels. They did not deny that the PMMVY had come to a virtual standstill in 2023-24. They blamed this on major changes in software and implementation processes that were introduced in late 2023. Further scrutiny of the data suggests that the main problem was not a reduction in applications, but a reduced disbursement rate. According to one official, there were software problems "every day".

The problem, however, did not begin in 2023-24. The PMMVY, launched in 2017, has been plagued with complications all along. More than a few of them are related to Aadhaar-based payments and digital tyranny. There have been numerous reports that have drawn attention to these complications and their exclusionary effects. Instead of responding to these ground reports, however, the central government created

more complications in 2023-24, with disastrous consequences for Indian women. For the government, of course, the reduction in PMMVY expenditure is a good deal. Could this be one reason why the tendency to create hurdles is so resilient?

The examples of Tamil Nadu and Odisha Meanwhile, States such as Tamil Nadu and Odisha have shown the possibility of designing simple and effective maternity-benefit schemes, from 1987 and 2009 onwards, respectively. The monetary support offered by them is more substantial than under the PMMVY – ₹10,000 a child in Odisha and ₹18,000 a child in Tamil Nadu. In Odisha, the amount was doubled ahead of the 2024 general election. In Tamil Nadu, the Dravida Munnetra Kazhagam (DMK) promised to increase it to ₹24,000 in its 2021 election manifesto, and the party appears to be waiting for the next election to implement this promise. The PMMVY benefits, for their part, have never been raised, despite being lower than NFSA norms in the first place.

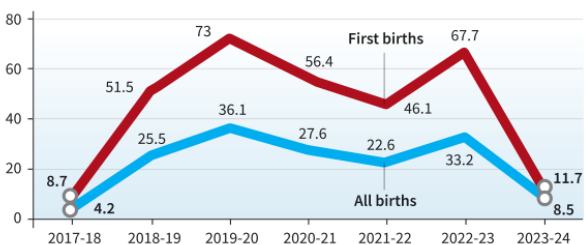
Not only are the amounts higher in Odisha and Tamil Nadu, but their implementation is also much better. Figures reported in Odisha's Economic Survey suggest that maternity benefits covered about 64% of all births there in 2021-22 (the latest year for which data are available). In Tamil Nadu, coverage was 84% in 2023-24, when the all-India coverage under the PMMVY was below 10%. The contrast could hardly be sharper.

In the formal sector, Indian women enjoy a full 26 weeks of paid maternity leave (based on a 1917 amendment of the Maternity Benefits Act 1961), compared with a World Health Organization norm of 14 weeks. In the unorganised sector, they get a flat ₹5,000 if they are lucky enough to survive all the hoops they have to jump through for PMMVY benefits. These double standards are mind-boggling.

The time has come to admit that the PMMVY is a flop show. The central government seems to be more concerned with saving money than with helping pregnant women. As a result, it has ruined a programme that could have proved very useful and popular. It also stands in flagrant violation of the NFSA. The entire programme needs to be revamped in line with the letter and spirit of the Act. The benefits should also be raised and indexed to the price level. The entire society stands to gain from better public support for pregnant women.

Estimated coverage of Pradhan Mantri Matru Vandana Yojana

Percentage of pregnant women who received at least one PMMVY instalment



Source: Official PMMVY data obtained under RTI; birth numbers were estimated from birth rates and projected population.

GS Paper 02: Governance - Schemes For Vulnerable Sections

UPSC Mains PYQ : 2021 What are the salient features of the National Food Security Act, 2013? How has the Food Security Bill helped in eliminating hunger and malnutrition in India?

All pregnant women in India are entitled to maternity benefits, yet the majority have not received any financial support in recent years.

What are the legal maternity benefit provisions under the National Food Security Act (NFSA) 2013?

- **Universal Entitlement (Except Formal Sector):** All pregnant and lactating women (excluding those already receiving maternity benefits in the formal sector) are legally entitled to receive ₹6,000 per child to support nutrition and health.
- **Objective of Nutrition and Health Support:** The provision aims to improve maternal and child health by ensuring better access to nutrition, rest, and medical care during pregnancy and after childbirth.
- **Legal Obligation for Central Government:** It is the legal duty of the central government to ensure maternity benefits are provided without arbitrary reductions or restrictions.

How do they compare to the benefits provided under the Pradhan Mantri Matru Vandana Yojana (PMMVY)?

- **Coverage Scope**
 - **NFSA 2013:** Provides ₹6,000 per child to all pregnant and lactating women (excluding those in the formal sector).
 - **PMMVY:** Provides ₹5,000 only for the first child (recently extended to the second child if it is a girl), violating the universal entitlement under NFSA.
- **Implementation Efficiency**
 - **NFSA 2013:** Mandates universal coverage without restrictive conditions to ensure access for all eligible women.
 - **PMMVY:** Imposes strict conditions (e.g., Aadhaar verification) and complex processes, leading to low disbursement rates and exclusion of many entitled women.

What are the issues related to Scant information?

- **Minimal Data Disclosure:** The Ministry of Women and Child Development provides limited information on PMMVY, violating Section 4 of the RTI Act, which mandates proactive disclosure of public data. For example, basic details like the number of beneficiaries and payment status are not available.

- ➔ **RTI-Driven Insights:** Information on PMMVY coverage is only accessible through RTI queries. For instance, RTI data revealed that effective coverage dropped from 36% in 2019-20 to just 9% in 2023-24, highlighting the program's declining reach.
- ➔ **Budgetary Secrecy:** There is little transparency about financial allocations and expenditures. For example, official records do not openly explain why central government spending fell to ₹870 crore in 2023-24—just one-third of the amount five years earlier.

Why has the effective coverage of the PMMVY declined sharply since 2019-20?

- ➔ **Software-Related Issues and Technical Glitches:** In 2023-24, major changes in the PMMVY's software and implementation processes caused frequent system failures, delaying or blocking payments. Officials admitted to facing software issues "every day," leading to a reduced disbursement rate despite consistent applications.
- ➔ **Restrictive Eligibility and Complex Documentation:** PMMVY limits benefits to only the first child (and a second child if a girl), violating the universal entitlement under the NFSA. Strict Aadhaar-based verification and other conditions exclude migrant workers and women in remote areas who struggle to complete the paperwork.
- ➔ **Budget Cuts and Reduced Government Spending:** Central government spending on PMMVY fell to ₹870 crore in 2023-24, just one-third of the amount five years earlier. This underfunding directly reduced the number of eligible women receiving maternity benefits.

How do the maternity benefit schemes in Tamil Nadu and Odisha differ from the PMMVY?

- ➔ **Higher Financial Assistance:** Tamil Nadu provides ₹18,000 per child (with a promise to increase it to ₹24,000), and Odisha offers ₹10,000 per child. In comparison, PMMVY provides only ₹5,000 for the first child (and a second child if a girl), which is below the ₹6,000 mandated by the NFSA.
- ➔ **Inclusive Eligibility Criteria:** Tamil Nadu and Odisha offer benefits for every childbirth without restrictive conditions. PMMVY, however, limits benefits to the first child (with a recent extension to the second child if a girl), excluding many eligible women.
- ➔ **Better Implementation and Coverage:** Tamil Nadu achieved 84% coverage in 2023-24, and Odisha covered 64% of births in 2021-22. In contrast, PMMVY's effective coverage fell to just 9% in 2023-24 due to software glitches, reduced spending, and complex documentation.

What role did software-related problems play in further reducing disbursements in 2023-24?

Daily News Analysis

- ➔ **Frequent System Failures:** Major changes in PMMVY's software and implementation processes in 2023-24 caused regular technical glitches, disrupting the payment system and delaying disbursements. Officials reported encountering software issues daily.
- ➔ **Reduced Disbursement Rate:** Despite consistent applications, technical problems led to a sharp decline in the actual release of benefits. The disbursement rate dropped significantly, contributing to a fall in effective coverage to just 9% in 2023-24.

Way forward:

- ➔ **Simplify Implementation and Strengthen Technology Infrastructure:** Ensure robust, user-friendly software systems with regular maintenance to prevent glitches. Simplify application processes and reduce bureaucratic hurdles for timely disbursement.
- ➔ **Expand Coverage and Increase Funding:** Align PMMVY benefits with NFSA provisions by providing ₹6,000 for every child. Increase budgetary allocations to ensure universal access and include marginalized groups like migrant workers.