

The Hindu Important News Articles For UPSC CSE

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Page 04 :GS II : International Relations

The recent visit of Prime Minister Narendra Modi to Oslo, Norway, highlights India's deepening engagement with the Nordic region. In a diplomatic environment marked by global polarization, the bilateral discussions between the Indian and Norwegian Prime Ministers brought forward a fine balance: navigating clear differences over the Russia-Ukraine conflict while simultaneously expanding strategic, scientific, and resource-based economic partnerships.

1. Key Themes and Analytical Breakdown

A. Strategic Autonomy vs. Western Expectations (The Ukraine Conflict)

- **The Norwegian Standpoint:** As a frontline NATO member state, Norway has actively financed a special fund for Ukraine, sent military aid, and advocated for stricter global sanctions against Russia. Norway argues that restricting Russian energy revenue is the most effective way to compel a diplomatic settlement.
- **India's Multi-Vector Diplomacy:** India has significantly scaled up its imports of Russian crude—surging from under 1% prior to February 2022 to nearly 40% of its total imports at peak points.
- **The Diplomatic Equilibrium:** Despite acknowledging that India and Norway "do not always see eye to eye," PM Støre explicitly stated that these differences have not negatively impacted bilateral ties. This highlights a growing maturity in European diplomacy, recognizing India's policy of strategic autonomy.

Hope India can push for Ukraine truce: Norway PM

Store says Modi can use channels to Russia to help bring a ceasefire; he says the Nordic country respects India's energy needs but there has to be 'more pressure on Russia to come to the table'

Subhasini Haider
 Oslo

Norway hopes India will use its channels with Russia to push for a ceasefire in the war in Ukraine, said Norwegian Prime Minister Jonas Gahr Støre. Speaking to Indian journalists here in Oslo during Prime Minister Narendra Modi's two-day visit to Norway, Mr. Støre indicated that while the two sides had differences on the issue, he understood India's need to source energy.

The Norwegian government has built a fund for Ukraine and sent military support in the conflict, and has consistently pushed for more sanctions against Russia.

Mr. Støre said it was useful to exchange views with Mr. Modi on Tuesday on geopolitical issues, and he had "respect" for the reasons for India's position on the Russia-Ukraine conflict. He also said that External Affairs Minister S. Jaishankar and National Security Adviser Ajit Doval had met their Norwegian counterparts for further discussions on the issue.

"India is a huge country and has needs for its energy supplies. And Norway being an energy exporter,



Growing ties: Prime Minister Narendra Modi with Norwegian Prime Minister Jonas Gahr Støre, in Oslo, Norway on Monday. PTI

we should respect that," Mr. Støre said in response to a question from *The Hindu*, but added that there had to be "more pressure on Russia to come to the table and make real effort to end this war".

Since the Russian invasion of Ukraine in February 2022, India has increased its intake of Russian oil manifold, with Russian crude that once made up less than 1% of India's imports reaching a high point of 40% of the whole.

Mr. Støre's comments came shortly before the U.S. government announced it would extend its sanctions waivers on the import of Russian oil for a third month during the war in West Asia, while India said it would continue

its oil imports from Moscow. "We believe that when Russia can feel that energy [exports] are also being restricted — their sales — that creates pressure on Russia. At the same time, I know that the Indian Prime Minister and Indian leadership have channels with the Russian leadership, and I hope to see that they can use them to get a ceasefire going," Mr. Støre continued, when asked about his comments during a joint press appearance earlier in the day, where he referred to issues where "Norway and India do not always see eye to eye".

However, he denied that the differences had impacted the bilateral relationship between India and

Norway in any negative way.

On the Arctic Council Mr. Støre was also asked about whether the divide over Russia would affect India's engagement with the eight-nation Arctic Council that includes all Arctic states: Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the U.S. India has been a permanent member of the grouping that discusses trade routes, climate change and ocean management since 2013.

"We wish to see that India, with its science can also be part of the research on Arctic climate, which is important for India," he added.

The meeting is taking place a year after it was originally scheduled, as Mr. Modi had to cancel his visit after the terror strikes in Pahalgam and the four-day India-Pakistan conflict.

Mr. Støre said that all countries must take a firm position against terrorism. "We have to stand together against [terrorism], to fight it in its darkest shapes, but also to prevent it. And for that, we need political cooperation and today's visit has confirmed that Norway and India are getting closer," Mr. Støre said.

B. The Geopolitics of Energy and Sanctions

- **Waiver Interplay:** The bilateral exchange occurred alongside the U.S. government's extension of sanctions waivers on Russian oil due to parallel geopolitical vulnerabilities in West Asia.
- **Economic Realism:** Norway, being a major energy exporter itself, validated India's practical domestic imperatives. This demonstrates how global energy security dynamics frequently supersede absolute ideological blocks during protracted international crises.

C. India's Engagement in the Arctic Council

- **The Structural Matrix:** The Arctic Council comprises eight permanent Arctic states (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the U.S.). India has maintained permanent observer status since 2013.

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Daily News Analysis

- **Scientific and Strategic Imperatives:** Despite the broader geopolitical freeze between Russia and Western Arctic states, Norway explicitly welcomed India’s continued scientific contributions.
- **Monsoon-Arctic Linkage:** For India, studying Arctic climate systems is scientifically critical, as changing Arctic ice melt patterns directly correlate with the variability and intensity of the Indian Monsoon system (essential for India's food security).

D. Shared Commitments on Counter-Terrorism

- Following prior disruptions to bilateral schedules due to regional cross-border security challenges in South Asia, both nations strongly reaffirmed the need for political cooperation to prevent and fight global terrorism.

2. Comparative Summary of Divergences and Covergences

Domain	Divergence Points	Convergence Points
Russia-Ukraine War	Norway pushes for absolute economic isolation and sanctions against Russia; India maintains a neutral diplomatic stance and deep trade.	Both nations firmly agree on the ultimate goal of a ceasefire and the restoration of peace.
Energy Dynamics	Norway favors stringent energy caps on Moscow to cripple its war funding.	Norway respects India's domestic economic obligation to import affordable energy.
Multilateral Forums	Great Power rivalries risk paralyzing elements of the Arctic Council.	Direct agreement on keeping scientific research and climate studies insulated from geopolitical conflicts.

Conclusion

The dialogue in Oslo demonstrates the evolving paradigm of India’s foreign policy, where economic pragmatism and strategic neutrality are increasingly accepted—even by traditional Western allies. By successfully delinking disagreements over the war from broader collaborative efforts in climate science, the Arctic, and counter-terrorism, India and Norway are setting a modern precedent for resilient, multi-issue bilateral diplomacy.

UPSC Mains Exam Practice Question

Ques: "India's continued pursuit of strategic autonomy in its energy imports has altered its bilateral engagements with European partners from transactional friction to mutual accommodation." Analyze this statement in light of recent diplomatic interactions between India and the Nordic countries **(150 Words)**

Page 04:GS II : International Relations

The recent visit of Defence Minister Rajnath Singh to Hanoi underscores the rising trajectory of India-Vietnam relations. Positioned at critical junctures of the Indo-Pacific, both nations are rapidly converting their historical ties into a robust defense and technology partnership. This engagement highlights India's proactive **"Act East" policy** and its vision for **SAGAR** (Security and Growth for All in the Region), aimed at maintaining a rules-based order in the face of rising regional assertiveness.

1. Key Themes and Analytical Breakdown

A. Strategic Alignment in the Indo-Pacific & Maritime Security

- **Freedom of Navigation:** Both nations reaffirmed the critical importance of maintaining peace, stability, safety, and freedom of navigation and overflight in the Indo-Pacific, a subtle but clear reference to contesting unilateral hegemonies in the South China Sea.
- **Net Security Provider:** India's commitment to supporting Vietnam's defense modernization reflects New Delhi's evolving role as a reliable security partner and defense exporter to Southeast Asian nations.

India and Vietnam deepen defence ties with focus on maritime security

B. The Transition to Next-Gen Defense Technology

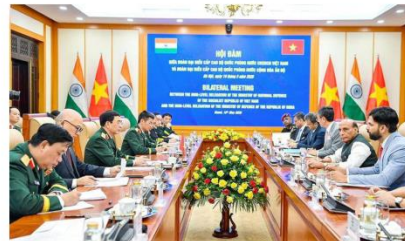
The engagement signals a shift from traditional military hardware transfers to advanced technological capacity-building:

- **AI and Quantum Cooperation:** The MoU between India's Military College of Telecommunications Engineering and Vietnam's Telecommunications University moves bilateral ties into strategic tech domains like Artificial Intelligence and Quantum Technology.
- **Capacity Building Infrastructure:** The virtual inauguration of a Language Lab at the Air Force Officers' College and the announcement of a new AI Lab at the Telecommunications University in Nha Trang demonstrate India's soft-power approach to defense capability enhancement.

Saurabh Trivedi
 NEW DELHI

Defence Minister Rajnath Singh held bilateral talks with Vietnam's Deputy Prime Minister and Defence Minister General Phan Van Giang in Hanoi on Tuesday, with both sides agreeing to further strengthen defence and strategic cooperation.

The Defence Ministry said the talks focused on enhancing collaboration in maritime security, defence industry, military training, cybersecurity, capacity building, and regional stability in the Indo-Pacific. The leaders reviewed regional and global security developments and reaffirmed the importance of maintaining peace, stability, safety, and freedom of



Defence Minister Rajnath Singh in a meeting with General Phan Van Giang in Hanoi on Tuesday. ANI

navigation in the region. Both countries agreed to expand cooperation through regular dialogues, joint military exercises and exchange programmes between their armed forces. Mr. Singh reiterated India's commitment to supporting Vietnam's defence modernisation and capaci-

ty enhancement initiatives under the bilateral defence cooperation framework, it added. General Phan Van Giang appreciated India's continued support and highlighted the long-standing friendship and growing strategic partnership between the two countries.

During the visit, the two Defence Ministers virtually inaugurated a 'language lab' at the Air Force Officers' College in Vietnam, established with Indian assistance. Mr. Singh also announced the setting up of an Artificial Intelligence lab at the Telecommunications University in Nha Trang, it added.

In another key development, India's Military College of Telecommunications Engineering and Vietnam's Telecommunications University signed an MoU on cooperation in Artificial Intelligence and Quantum Technology. Later, Mr. Singh also called on Vietnam's President and General Secretary To Lam and conveyed greetings from India's President and Prime Minister.

C. Institutionalizing Defense Ties

- **Three-Service Engagement:** The agreement to expand regular dialogues, joint military exercises (such as VINBAX), and exchange programs creates a permanent, institutionalized framework between the two armed forces.
- **Diplomatic Solidarity:** Meeting with Vietnam's top leadership—including President and General Secretary To Lam—reinforces that defense cooperation enjoys absolute political backing at the highest state levels in both democracies.

2. Structural Pillars of India-Vietnam Defense Cooperation

A. Maritime Security & Indo-Pacific Cooperation

- Freedom of Navigation in the South China Sea
- Support for a Rules-Based Indo-Pacific Order
- Strategic Autonomy and Regional Stability
- Maritime Domain Awareness and Naval Cooperation

B. Technology & Capacity Building

- Cooperation in Quantum Technology and Artificial Intelligence (AI)
- Establishment of Language and AI Laboratories
- Defence Modernisation and Skill Development
- Training and Capacity Building Programs

C. Operational Interoperability

- Joint Military and Naval Exercises
- Regular Defence Dialogues and Strategic Consultations
- Enhanced Coordination between Armed Forces
- Exchange of Defence Personnel and Expertise

Conclusion

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India's deepening defense relationship with Vietnam is a cornerstone of its strategic counter-balancing architecture in Asia. By moving beyond traditional defense sales into collaborative research in Quantum Technology and Artificial Intelligence, India is embedding itself as an indispensable technological and security anchor for Vietnam. This relationship proves that India's "Act East" policy has successfully graduated from economic posturing to hard-nosed, strategic maritime security execution.

UPSC Mains Exam Practice Question

Ques:"The security of the western Pacific is intrinsically linked to the stability of the Indian Ocean." In light of this statement, critically analyze how the deepening defense and technological ties between India and Vietnam serve their mutual strategic interests in the Indo-Pacific region. **(150 Words)**

Page 07: GS III : Science & Tech / Prelims Exam

A groundbreaking paleogenomics study published in Nature by Harvard Medical School has challenged the long-standing scientific belief that human biological evolution slowed down after the dawn of civilization. By conducting the largest survey of ancient human genomes to date, researchers proved that natural selection has actively—and in some cases, rapidly—shaped human biological traits within the Holocene epoch (the last 10,000 years). This study fundamentally bridges the gap between historical archaeology and modern medical genetics.

1. Key Themes and Analytical Breakdown

A. The Analytical Methodology: Ancient DNA (aDNA) & Carbon-14 Dating

To understand how scientists mapped these evolutionary changes, it is essential to understand the underlying technology:

- **Carbon-14 (¹⁴C)** is a radioactive isotope formed in the upper atmosphere. Living organisms maintain a relatively constant ratio of ¹⁴C to stable Carbon-12 (¹²C) through food consumption and atmospheric exchange. After death, the intake of carbon stops, and ¹⁴C gradually decays back into Nitrogen-14 through radioactive decay, with a half-life of 5,730 years.
- **Mass Spectrometry:** By measuring the remaining fraction of ¹⁴C relative to stable carbon isotopes using a mass spectrometer, scientists can accurately estimate the age of skeletal remains up to approximately 50,000 years old.
- **Statistical Differentiation:** The study's core

Revealed: how humans evolved in the past 10,000 years alone

Even though some of the human remains the scientists examined were 18,000 years old, they were able to obtain enough genetic material to meaningfully calculate gene frequencies for the last 10 millennia alone; the study is in fact the largest survey of ancient human genomes to date.

D.P. Kashekar

People who lived and died thousands of years ago have left behind their skeletons—remains as a legacy. In recent years, scientists have isolated and sequenced the DNA from more and more of these remains.

A team of researchers led by scientists at the Harvard Medical School in the U.S. has compared 65,508 ancient DNA sequences from across Western Eurasia with the sequences of 6,438 modern people from the same countries. (Western Eurasia includes Europe, Russia, Central Asia, the Middle East and Iran.)

The comparison revealed evidence that for many genes for which two significant variants have been known, one variant had undergone a sustained increase or decrease in frequency relative to the other over the past eight to 10 millennia, using new statistical methods coupled with computer simulations, the team found that these changes in frequency can be attributed in many cases to natural selection rather than to processes like genetic drift and population migration. The findings were reported on April 15 in Nature.

The oldest remains examined were dated to 18,000 years ago—yet the scientists were able to obtain enough genetic material to meaningfully calculate gene frequencies for the last 10 millennia alone. The study is, in fact, the largest survey of ancient human genomes to date.

Carbon dating

Scientists figure out how ancient a skeleton is by measuring the relative amount of carbon-14, also known as radioactive carbon, in its bones and teeth. Carbon-14 is a carbon isotope generated when cosmic rays collide with nitrogen atoms in the earth's upper atmosphere. Its chemical properties are identical to that of the non-radioactive isotopes carbon-12 and carbon-13.

When an individual is alive, the fraction of carbon-14 in the body is the same as that in the carbon dioxide in the atmosphere, and in the plants and animals consumed as food. This level begins to drop after death. Radioactive decay turns carbon-14 back into nitrogen and there is no way to replenish its level.

Carbon-14 decays with a half-life of 5,730 years. That is, the fraction of radioactive carbon-14 remaining in the bones and teeth is only one-thousandth that at the time of death.

An instrument called a mass spectrometer is used to measure the relative amounts of each carbon isotope, then estimate the age of its source.

Blood types, gluten, colours

The human body has two copies of a gene called ABO. Each copy codes for three variants, called A, B, and O. Which combination of variants we have determines our blood type. These blood types appeared very early in evolution and we share them with other great apes.

The researchers found that over the last 6,000 years, the B variant has been occurring more commonly among the West Eurasians, with a concomitant decrease in the A variant. The A and B variants are associated with opposite effects with respect to many traits. Therefore, it may be that a population benefits by maintaining an optimal balance in response to changing pathogenic exposures.

Similarly, a variant of the HLA-DQB1 gene makes people susceptible to celiac disease. In individuals with two copies of this variant, the gluten in wheat, barley, and rye triggers the immune system to attack the small intestine, leading to diarrhea, vomiting, and abdominal pain. In the past 4,000 years, the frequency of occurrence of the disease-causing variant has increased from 0% to 20%. Since agriculture also began 10,000 years ago, the researchers have clarified that the increase was "not a phenomenon only or largely of the rise of agriculture."



THE GIST

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Perhaps the most interesting signals of ancient selection were found in the gene combinations today associated with modern traits such as performance on intelligence tests, household income, years of schooling, and healthy lifestyle.

ancient selection were found in the gene combinations today associated with modern traits such as performance on intelligence tests, household income, years of schooling, and healthy lifestyle (e.g. faster walking pace). Smoking was unknown to Eurasia until Christopher Columbus introduced tobacco from the Americas less than 600 years ago. The study found that the gene variants associated today with smoking were selected against even in those ancient times. However, it is not clear what traits governed the selection in that time.

As the researchers wrote: "It will be of interest to apply similar approaches to ancient DNA time series over longer times and to other world regions. This would allow more generalizable insights by identifying which patterns of selection are shared and which are distinctive to Holocene West Eurasia."

South Asians have genetic contributions from ancestors from Eurasian Neolithic Farmers and western steppe herders, but not indigenous Eastern Eurasian ancestors, including ancient Southern Indians, East and Southeast Asian and Australasian ancestors. A comparable ancient DNA study of our ancestors is likely to be just as fascinating. But we need first start assembling our own legacy: the remains of our ancestors from thousands of years ago.

D.P. Kashekar is a retired scientist. kashekar@pepco.com

breakthrough was using computer simulations and novel statistical tools to successfully isolate actual **natural selection** (directional fitness advantages) from noisy genetic signatures caused by random **genetic drift** or **mass migrations**.

B. Key Evolutionary Markers and Anthropological Changes

Genetic/Trait Variant	Observed Evolutionary Shift	Inferred/Hypothesized Pressure
ABO Blood Type	Steady increase in the B variant over the last 6,000 years, with a parallel decrease in the A variant.	Adaptation to optimize population immunity against shifting pathogenic or viral exposures.
HLA-DQB1 Gene (Coeliac Disease)	The disease-causing variant surged from 0% to 20% frequency over the last 4,000 years.	Counterintuitively, data shows this was not a direct byproduct of the initial rise of agriculture; exact pressures remain unknown.

Daily News Analysis

Genetic/Trait Variant	Observed Evolutionary Shift	Inferred/Hypothesized Pressure
Skin Pigmentation	Selection of variants causing lighter skin tones and pigmented hair starting ~8,000 years ago.	Evolutionary adaptation to maximize Vitamin D synthesis in low-sunlight high-latitude regions, particularly as agricultural diets lacked it.
CCR5-Δ32 mutation	Frequencies rose from 2% to 8% between 6,000 and 2,000 years ago.	Gives modern humans immunity to HIV-1, but evolved millennia before HIV emerged—proving ancient, unknown pathogens drove the selection.

C. Linkages to Modern Behavioral and Complex Traits

One of the study's most striking revelations is that genetic variants associated today with "modern" socio-economic and behavioral indicators—such as performance on intelligence tests, years of schooling, household income, and a faster walking pace—showed strong historical signals of positive natural selection. Conversely, genetic variants linked to adverse traits (like a susceptibility to tobacco smoking) were actively selected against thousands of years before tobacco was even introduced to Eurasia.

2. The Indian Context: The Need for National Paleogenomics

The study notes that South Asians possess a deeply complex, multi-layered ancestral architecture composed of distinct maternal and paternal genetic lines:

A. Iranian Neolithic Farmers & Steppe Herders

- Genetic contribution from early Iranian agricultural communities
- Influence of Steppe pastoralist groups from Central Asia
- Associated with the spread of agriculture, pastoralism, and Indo-European languages

B. Indigenous Proto-South Indians (Eastern Eurasian Lineage)

- Ancient indigenous hunter-gatherer populations of the Indian subcontinent
- Considered one of the oldest genetic foundations of South Asia
- Major contributor to the ancestry of present-day South Indian populations

C. East / Southeast Asian & Australasian Components

- Genetic influence from East and Southeast Asian migratory groups
- Australasian-related ancestry visible among some tribal and northeastern populations
- Stronger presence in Northeast India and parts of eastern India

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The Policy Imperative for India: To unlock a similar understanding of how the Indian subcontinent's unique environmental pressures, monsoon variations, and endemic diseases shaped our biology, India must systematically build its own Ancient DNA Repository. Projects like the Genome India Project must expand backward into paleogenomics by systematically conserving and sequencing ancestral skeletal remains.

Conclusion

This landmark study shatters the illusion that human biology has been static during recent history. Instead, it reveals that the Holocene epoch was a crucible of rapid genetic adaptation. For a nation like India, with its unparalleled bio-diversity and complex endogamous history, investing in localized ancient DNA research is no longer just an academic pursuit—it is a vital tool for understanding our population's unique healthcare vulnerabilities and evolutionary past.

UPSC Prelims Exam Practice Question

Ques: With reference to Ancient DNA (aDNA) studies, consider the following statements:

1. Carbon-14 dating can be used to estimate the age of biological remains up to nearly 50,000 years.
2. Carbon-14 decays into Oxygen over time.
3. Mass spectrometry helps measure the ratio of radioactive and stable isotopes in skeletal remains.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Ans: b)

UPSC Mains Exam Practice Question

Ques: How can Ancient DNA (aDNA) research contribute to understanding contemporary public health vulnerabilities in India? Examine. (150 Words)

The health of a democracy is intrinsically tied to the political agency of its working population. Analyzing the Lokniti-CSDS National Election Study 2024, this analysis highlights a striking paradox within India's electoral ecosystem: while India's workforce displays highly sophisticated, practical, and balanced viewpoints regarding governance and state welfare, it remains largely politically passive in active civic engagement. This disparity is deeply aggravated by structural and gender-based divides across different occupational classes.

Key Themes and Analytical Breakdown

A. Deep Structural & Gender Divides in the Workforce

The internal structure of India's working class continues to be strictly segregated along gender lines:

- Male Monopolization of Economic Roles:** Men constitute the overwhelming majority across high-resource and skilled sectors, dominating business (87%), skilled labor (84%), semi-skilled employment (82%), and salaried positions (~80%).
- Feminization of Unpaid Labor:** Conversely, unpaid domestic labor remains highly gender-confined, with **95% of housewives/househusbands being women.**
- The Democratic Silver Lining:** The student demographic presents a significantly narrower gender gap (58% male vs. 42% female), pointing toward a gradual, long-term correction in workforce inclusivity.

Understanding the political voice of India's workforce

The workforce of India remains mostly politically passive, especially among vulnerable groups, despite holding balanced views on welfare and governance

DATA POINT
Kirti Sharma, Krishang Sinha

May 1, celebrated globally as International Workers' Day, traditionally turns attention to wages, rights, and working conditions. Yet, an equally important dimension often goes unnoticed — how India's workforce participates in politics. Occupation-wise data from the Lokniti-CSDS post-poll National Election Study 2024, reveals a layered story. The composition of the workforce itself highlights deep structural divides, particularly along gender lines (Table D). Across most occupations, men dominate, especially in business (87%), skilled work (84%), and semi-skilled work (82%). Even within salaried employment, men constitute nearly four-fifths of the workforce. In contrast, unpaid domestic roles remain overwhelmingly feminized, with 95% of housewives/househusbands being women. The student category offers a glimpse of a more balanced future, with a relatively closer gender split of 58% male and 42% female. Such structural inequalities in the workforce raise an important question: do these groups also differ in how actively they engage in politics?

Despite being central to the economy, most occupational groups exhibit low levels of political participation as highlighted in Table 2. A majority across nearly all categories describe themselves as "not at all active" in politics, specifically 60% among salaried workers, and 82% among housewives/househusbands. Even among the most engaged groups, those reporting high levels of participation rarely exceed 10-13%. This suggests that large sections of the workforce, particularly those with fewer resources or greater domestic responsibilities, remain distanced from active political processes. The issue is not merely awareness, but the capacity and opportunity to participate meaningfully. However, low participation does not necessarily imply weak or uninformed political opinions. To understand this, it is useful to examine workers' policy preferences. When it comes to welfare preferences, the workforce demonstrates a nuanced and pragmatic outlook as shown in Table 3. Across occupations, the most preferred option is not an either-or choice between direct cash transfers and subsidies, but a combination of both. Roughly one-third of respondents in each category support a hybrid model that provides both income support and subsidised essentials. While a smaller proportion favours only direct cash transfers (around 19-23%) or only subsidies (around 30-35%), the dominant preference reflects a desire for both flexibility and security. This indicates that workers are not guided by rigid ideological positions but by practical considerations shaped by everyday economic realities. Table 4 shows that across occupational groups, the largest share of respondents consider both Central and State government performances equally important while making electoral decisions, with proportions ranging from 37% to 45%. Although certain groups such as farmers and students show a slightly greater inclination towards evaluating the Central government, the overall trend suggests that voters are capable of assessing governance across multiple levels. Rather than relying on singular narratives, the workforce appears to adopt a more comprehensive approach to political accountability. It remains largely politically passive, particularly among vulnerable and unpaid groups, yet demonstrates thoughtful and balanced preferences when it comes to welfare and governance. Views are personal and do not express the views of the institution.

Workers and politics | The data for the charts were sourced from the Lokniti-CSDS post-poll National Election Study 2024



Table 1: Workforce composition by gender across occupations

Occupation	Male	Female
Professional	64	36
Salaried	78	22
Business	87	13
Skilled worker	84	15
Semi-skilled worker	82	18
Farmer	74	26
Housewife/ Househusband	5	95
Student	58	42

Table 2: Political participation levels across occupational groups

Occupation	Political participation*		
	Highly active	Somewhat active	Not at all active
Professional	12	28	60
Salaried	13	27	60
Business	10	28	61
Skilled worker	11	30	59
Semi-skilled worker	9	26	65
Farmer	5	25	65
Housewife/ Househusband	4	15	82
Student	9	23	68

Table 3: Welfare preferences: Direct cash transfers vs subsidies

Occupation	The government should deposit money in people's bank accounts rather than give wheat/ rice, gas cylinders etc. at a lower price		
	Should deposit money	Give wheat/ rice etc. both	Should do neither
Professional	21	32	47
Salaried	23	32	45
Business	22	30	48
Skilled worker	21	34	45
Semi-skilled worker	21	34	45
Farmer	21	35	43
Housewife/ Househusband	20	32	48
Student	19	34	47

Table 4: Voting priorities: Central vs State government performance

Occupation	Priority in voting decision: Central government performance vs State government performance		
	Central govt. equally	Neither govt.	State govt. equally
Professional	25	18	57
Salaried	24	19	57
Business	26	19	55
Skilled worker	24	20	56
Semi-skilled worker	24	20	56
Farmer	27	24	49
Housewife/ Househusband	22	20	58
Student	27	16	57

Note: All figures are in per cent. In Table 2, figures might not add up to 100 due to rounding off. In Tables 3 and 4, the rest did not respond.

B. The Paradox of Low Political Participation

A citizen's place within the economy directly determines their capacity for active political engagement.

i. Socio-Economic Constraints

- Around 60% of salaried workers describe themselves as "not at all active" in civic participation.
- Rigid working hours and limited economic resources reduce public engagement.
- Lack of time, financial security, and social capital weakens participation in civic life.

ii. Domestic Disproportion

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- Around 82% of housewives consider themselves “not at all active” in civic engagement.
- Excessive domestic responsibilities create a “double burden” for women.
- Household caregiving and unpaid labour restrict participation in the public sphere.

Across almost all sectors, active political participation peaks at a mere 10–13%. This indicates that political passivity among vulnerable groups is driven by a lack of real-world resources, time, and structural opportunity, rather than simple apathy.

C. Pragmatic Welfare Preferences Over Rigid Ideologies

Despite low active participation, Indian workers demonstrate a highly sophisticated understanding of economic policy. Rather than choosing between binary economic options, the workforce strongly supports a **hybrid model of welfare**:

- **The Hybrid Preference:** Roughly **one-third** of the workforce across all categories demands a combined model featuring both **Direct Cash Transfers (DCT)** (for immediate liquidity and financial flexibility) and **Material Subsidies** (for baseline security against market inflation).
- **Economic Realism:** Only a smaller, specialized group strictly favors pure cash transfers (19–23%) or exclusive subsidies (30–35%), proving that the electorate views welfare through a lens of household necessity rather than partisan ideology.

D. Multi-Tiered Accountability: The Anti-Narrative of the “Monolithic Voter”

The Lokniti data completely dispels the theory that Indian voters are driven exclusively by singular national waves or highly localized biases.

- **Balanced Evaluation:** Between **37% and 45%** of respondents evaluate the performance of both the Central and State governments with equal weight when casting their ballots.
- **Nuanced Accountability:** While specific demographics like farmers and students tilt slightly toward scrutinizing the Central government, the broader electorate views democratic accountability as a multi-layered responsibility, effectively separating federal issues from state-level governance.

Conclusion

The CSDS data paints the picture of a mature, discerning, yet structurally restricted electorate. India's workforce holds clear, pragmatic views on state delivery and federal accountability, but structural inequalities and a lack of economic resources prevent them from translating these opinions into active political participation outside of election days. For Indian democracy to become truly participatory, public policy must focus on reducing the structural constraints—particularly domestic labor imbalances—that keep the country's most vulnerable working classes silent in the public square.

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UPSC Prelims Exam Practice Question

Ques: With reference to political participation in a democracy, consider the following statements:

1. Economic vulnerability can reduce citizens' capacity for sustained civic engagement.
2. Political participation only refers to contesting elections and joining political parties.
3. Domestic labor burdens disproportionately affect women's participation in public life.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Ans: b)

UPSC Mains Exam Practice Question

Ques: "The political voice of India's workforce presents a unique paradox of low active participation paired with highly rational, mature policy preferences." Crucially analyze this statement using empirical indicators regarding gender divides, welfare requirements, and administrative accountability. **(150 Words)**

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Page 10 GS II : International Relations

The absolute stalemate of the May 2026 summit in Beijing between U.S. President Donald Trump and Chinese President Xi Jinping signals a profound deep-freeze in superpower relations. Moving beyond the era of "managed rivalry," China is increasingly projecting its rise not as a disruptive phenomenon, but as an inevitable global norm. Driven by its assessment of Western systemic decline, Beijing is leveraging new institutional architectures to challenge the post-World War II liberal international order and position itself at the center of global multilateralism.

1. Key Themes and Analytical Breakdown

A. The "Centenary Transformation" Framework and the Thucydides' Trap

To interpret China's diplomatic behavior, one must understand its specific ideological timeline:

- **Changes Unseen in a Century:** President Xi's guiding doctrine is that the global balance of power is undergoing an accelerating transition away from Western hegemony.
- **The Historical Parallel:** Beijing's analysts look back exactly 100 years, noting that the exhaustion of European empires across two World Wars shifted the global center of gravity across the Atlantic to the United States, cementing the liberal rules-based order. Today, China views events like Brexit and the isolationist, tariff-heavy "America First" policies of the Trump administration as clear symptoms of a parallel Western decline, rooted in the 2008 global financial crisis.
- **Weaponizing the Thucydides' Trap:** By framing the current impasse as a historical choice between avoiding total war or succumbing to structural friction, China places the absolute burden of regional and strategic stability onto Washington, refusing to make unilateral concessions.

China's new worldview and the future of global politics

Through its initiatives and its critique of the current order, China is seeking to lead multilateralism

Avinash Godbole

US. President Donald Trump completed his visit to the People's Republic of China on May 14 and 15, 2026, a first in nine years. The entire world watched this visit with great anticipation. However, it appears that the visit was a stalemate and little was achieved by way of progress, and the two sides are not even closer to returning to the state of managed rivalry. China frames it as "constructive strategic stability", but it seems to be unwilling to make any concessions to achieve that and puts the burden of instability squarely on the U.S.

China's strategic outlook

One of the expressions used by Chinese President Xi Jinping right at the start of his readout, that the "transformation not seen in a century is accelerating across the globe", merits special attention. While

this is not the first time Mr. Xi has used this expression in front of the U.S. President, its last usage led to a binary in which the ball was in the American court to choose whether they wanted confrontation or cooperation. This time, it's a choice on whether or not the two sides can avoid a Thucydides' trap that would eventually lead them towards conflicts or confrontations.

This term made its first appearance in December 2017, during China's ambassadorial work conference, when Mr. Xi said that the world is undergoing "profound changes unseen in a century". It reflects China's assessment that the global power transition has entered its most decisive stage and China's eclipsing of the U.S. is a matter of time. Chinese analysts have assessed that China's GDP is set to bypass the United States by 2030.

The reference to a century is what makes it especially curious. China seems to be thinking that a century ago, driven

by the decline of Europe across two world wars, global power made a transatlantic shift, making the U.S. the most powerful country in the world, and made liberalism its most central standpoint. Before that, the 19th century saw a different form of globalisation in the rise of colonialism and imperialism. In a similar fashion, China's rise is projected as inevitable and its rise as a norm-building power even more certain. It underpins China's confidence in ascending to what it calls its rightful place in the international system.

It seems that China views Brexit and the first election of Donald Trump as U.S. President – driven by a conservative, insecure, to a large extent supremacist and deglobalisation-driven agenda as signs of the inevitable decline of the West, the roots of which were seen in the 2008 financial crisis. After this, China emerged as a new voice of globalisation and began strongly criticising the West for its withdrawal from globalisation, just as the

prosperity was beginning to spread away from traditional centres of power.

Reshaping global dynamics

Towards the goal of its rise, China has accelerated its assault on the current international order through initiatives like the Global Development Initiative (GDI) and the Global Security Initiative (GSI). China is using these to discredit the U.S. led order by portraying it to be divisive and disruptive, while presenting its own approach to global security as driven by "common, comprehensive, cooperative and sustainable" security. Through its initiatives and critique of the current order, China is seeking to and in some cases is, leading multilateralism and south-south cooperation, while undercutting norms of the liberal order.

For countries like India, this increased power rivalry makes life more difficult. In the phase where there was a managed competition between the U.S. and China, other countries worked their way to hedge their bets between the two. However, now they are facing trade wars and tariffs, supply chain volatilities, the risks arising from the U.S.-Israel war on Iran and overall strategic instability. Add to it the rapid rise of artificial intelligence and its potential impact on the job markets, and the result is a volatile mix. (Avinash Godbole is a Professor and Associate Academic Dean, JSLH, JGU. Views expressed are personal.)

THE GIST

China has accelerated its challenge to the current international order through initiatives such as the Global Development Initiative and the Global Security Initiative

During the phase of managed competition between the U.S. and China, many countries sought to hedge their bets between the two powers. However, they now face trade wars, supply chain volatility and risks from the West Asia crisis, among other factors; creating a volatile mix.

B. Institutional Revisionism: GDI and GSI

Beijing is actively moving away from being a mere participant in Western-designed forums to becoming a chief architect of alternative multilateral institutions:

- **Global Development Initiative (GDI):** Aimed at restructuring South-South cooperation by aligning international development financing with Chinese state-directed infrastructure and supply lines, undercutting traditional Bretton Woods frameworks (IMF/World Bank).
- **Global Security Initiative (GSI):** Formulated to actively counter Western alliance security blocks like NATO and the Quad. GSI champions a "common, comprehensive, and cooperative" architecture that treats the security concerns of authoritarian states as equal to standard international law, effectively attempting to rewrite the rules of global governance.

C. Cascading Vulnerabilities for India and Emerging Economies

The transition from a managed U.S.-China competition to unmitigated systemic friction severely damages the strategic maneuvers of middle powers like India:

i. Economic Shock Waves

- Intensifying tariff wars and protectionist policies in global trade.

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- Rising volatility in global supply chains and production networks.
- Increased uncertainty in international markets and investment flows.

ii. Regional War Spillovers

- Trade route disruptions due to the ongoing U.S.–Israel–Iran conflict.
- Rising geopolitical instability affecting energy and maritime security.
- Potential impact on global commerce, shipping lanes, and strategic balances.

iii. Disruptive Technology Frictions

- Weaponisation of cross-border technological restrictions.
- Strategic competition over Artificial Intelligence (AI) and emerging technologies.
- Growing techno-nationalism and digital sovereignty concerns among states.

Conclusion

China's newly asserted worldview proves that Beijing no longer seeks to merely integrate into the existing international architecture—it wants to lead and redefine it. This systemic polarization shifts global geopolitics away from structured multi-alignment toward a highly volatile ecosystem. For India, navigating this reality requires doubling down on localized economic resilience, diversifying key technological supply chains, and fortifying tactical security partnerships, ensuring it does not become collateral damage in an uncompromising superpower stand-off.

UPSC Prelims Exam Practice Question

Ques Which of the following institutions are commonly associated with the “Bretton Woods System”?

1. International Monetary Fund (IMF)
2. World Bank
3. World Trade Organization (WTO)

Select the correct answer using the code below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only

(d) 1, 2 and 3

Ans: a)

UPSC Mains Exam Practice Question

Ques: "China's promotion of alternative architectures like the Global Development Initiative (GDI) and Global Security Initiative (GSI) signals a transition from system-integration to system-revisionism." Critically evaluate this statement and analyze its strategic and economic implications for India's foreign policy. **(250 Words)**

India's EV ambition needs a grid strategy to match

Every time crude prices spike as a result of tensions in the Strait of Hormuz, India's import bill bleeds. The latest escalation in West Asia has prompted two-wheeler commuters in Patna and Pune to browse electric vehicle (EV) prices with genuine intent. Short daily commutes, immediate fuel savings, and low switching costs mean that two-wheelers will lead India's electric transition – and rightly so. But the visibility of this shift risks obscuring where the deeper infrastructure challenge truly lies: not in scooters, but in the grid that must eventually power freight.

The arithmetic of a second power system
India has approximately 420 million registered vehicles. Full electrification of this fleet across all vehicle categories, accounting for their vastly different energy intensities and annual usage would require generating an additional 900 TWh to 1,100 TWh per year. Even at 50% fleet conversion by 2047, a moderate assumption, the additional demand is roughly 500 TWh, equivalent to roughly a third of India's current annual electricity generation. Electrifying Indian transport means building a substantial expansion of the power system, approaching the scale of the one that took seven decades to construct.

It is tempting to assume that two-wheeler-led adoption keeps grid impact gradual. Voters experience the transition as scooters on their streets; governments announce it as subsidies at rallies. But even 309 million electric two-wheelers – the largest vehicle class – would add only about 55 TWh/75 TWh (based on 5,000 km-7,000 km annual use at 0.035 kWh/km), less than 7% of total projected EV demand at full conversion. The political visibility of two-wheelers is thus inversely proportional to their grid impact.

The data in this article is based on the author's estimates, derived from fleet-scale modelling using VAHAN National Register data, the Parivahan analytics portal, CSTEP freight electrification research, and ICCT heavy-duty vehicle analysis. Goods vehicles are segmented into HGV and MGW categories with differentiated energy intensity and annual mileage. The figures cited reflect the mid-range of these scenarios, with full-conversion estimates noted as upper bounds. The heavier lift belongs to freight and here the numbers are stark. A single heavy goods vehicle produces emissions equivalent to roughly 25 passenger cars. India has approximately 6.26



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million heavy goods vehicles (HGVs), each consuming 1.2 to 1.5 kWh per kilometre over 60,000 km a year. Electrifying them alone would require 450 TWh to 565 TWh annually. Add nearly a million medium goods vehicles (MGVs) at lower but still significant energy intensities, and total freight electricity demand approaches 500 TWh to 600 TWh – several times the two-wheeler total, from barely 2% of the registered fleet.

When policymakers speak of "electrifying India's roads," they are largely speaking about electrifying India's supply chains.

This is already visible on the ground. Across several States, fleet operators seeking high-tension depot connections face long delays. The challenge is not only technical but also financial: discoms, already burdened by significant accumulated losses, face distribution upgrades that they have not budgeted for.

What happens at seven in the evening? Annual demand figures tell only half the story. Grids are stressed not by yearly consumption but by instantaneous demand. If millions of vehicles charge during the evening peak, modelling suggests additional loads of several hundred gigawatts even under managed conditions.

Without management, the risk extends to grid instability, supply disruptions, and tariff spikes affecting all consumers, not just EV owners.

The tools exist: time-of-use pricing, workplace charging during solar hours, battery storage at hubs, and swapping networks for lighter vehicles. Several States have introduced early EV tariff frameworks. But no national standard ensures that chargers installed today can respond to grid signals. Every conventional charger installed now is a retrofit cost later.

What the grid actually needs

EV charging at this scale places two distinct demands on the generation system. The first is sheer volume. Hundreds of terawatt-hours of new supply. The second is reliability: freight depots, highway chargers, and urban networks need power around the clock, not only when the sun is up or the wind blows. Any credible strategy must address both.

Each major source brings a distinct strength. Solar and wind power offer the lowest marginal cost and fastest scalable deployment but operate at 25%-30% capacity factors, requiring storage or complementary generation for reliability. Nuclear power provides high-capacity-factor, low-carbon

baseload independent of weather, but with long build cycles and high upfront costs. Pumped hydro and batteries bridge variability and demand, while gas can manage short-term peaks during the transition.

What does not belong in this mix is expanded coal use. If incremental terawatt-hours come mainly from coal, India merely replaces oil dependence with coal dependence – importing from Australia and Indonesia instead of the Gulf, without emissions gains. The logic of electrification breaks if the grid is not cleaner than the fuel it replaces. A diversified clean portfolio, where each source plays to its strengths, could cut required new capacity by half or more. For highway corridors and urban hubs needing firm baseload, micro modular nuclear reactors offer a weather-independent solution located close to demand centres.

There is a downstream dimension as well. Hundreds of millions of EV batteries will eventually reach end-of-life, and India does not yet have recycling infrastructure at anywhere near the required scale. Without it, the transition risks creating a new waste crisis even as it solves an energy one.

Steps to take

There are four things that would make a difference. The draft National Electricity Policy includes EV demand projections, but they do not yet drive capacity planning. Making EV load a primary variable modelling 30%, 50%, and 100% fleet electrification by 2047 would give the sector clarity. Smart-charging capability must be mandated for all new infrastructure at the equipment standard level.

The Golden Quadrilateral and Dedicated Freight Corridors need a joint power-mapping exercise before electric trucks reach commercial scale. An inter-Ministerial mechanism bridging transport, power, and distribution finance would ensure that no part of the system plans in isolation. And strengthening discom finances through a reformed Revamped Distribution Sector Scheme (RDSS) with EV-readiness benchmarks is essential to making last-mile delivery viable.

The commuter in Patna choosing an electric scooter this week is making the right call. The question is whether planning is keeping pace with the ambition. India's EV transition is inevitable. The task now is to build the grid that makes it sustainable.

India's electric vehicle (EV) future depends on a strong and clean energy electricity grid

GS Paper III: Environment

UPSC Mains Exam Practice Question: "The political visibility of India's electric vehicle transition is inversely proportional to its structural grid impact." Critically analyze this statement, highlighting the infrastructural and financial challenges faced by power distribution networks in accommodating heavy freight electrification. (250 Words)

Context : India's Electric Vehicle (EV) policy conversation is dominated by consumer-facing milestones: rising retail adoption, manufacturing subsidies, and the visible growth of electric two-wheelers in urban centers. However, a systemic analysis of transport energy metrics reveals a significant structural gap. The core challenge of India's

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mobility transition lies not in the urban commuter fleet, but in the power grid. Crucially, the grid must scale up to power the deep-tonnage freight corridors that form the backbone of the nation's supply chains.

1. Key Themes and Analytical Breakdown

A. The "Two-Wheeler Illusion" vs. Freight Reality

There is a stark inversion between political visibility and grid impact within India's transport demographics:

- **The Commuter Scale:** Electrifying 100% of India's massive two-wheeler base (~309 million vehicles) adds an estimated 55 TWh–75 TWh annually—comprising **less than 7%** of total projected EV energy requirements.
- **The Freight Scale:** Heavy Goods Vehicles (HGVs) and Medium Goods Vehicles (MGVs) account for a tiny **2% of the total registered fleet**. Yet, a single HGV consumes 1.2 to 1.5 kWh/km, traveling roughly 60,000 km annually. Electrifying this freight segment alone demands **500 TWh to 600 TWh per year**.

The Macro Metric: Full vehicle electrification requires generating an additional **900 TWh to 1,100 TWh annually**. Even a moderate 50% fleet conversion by 2047 demands an extra 500 TWh—equivalent to **one-third of India's current total electricity generation**.

B. Instantaneous Load Stress and Discom Vulnerabilities

Grids are structurally threatened not by cumulative annual consumption, but by **instantaneous peak demand**:

- **The 7:00 PM Crisis:** Unmanaged evening charging when millions of commuters plug in simultaneously risks adding several hundred gigawatts of sudden load to the system, threatening grid stability, triggering supply disruptions, and causing tariff spikes.
- **Financial Bottlenecks at Discoms:** Heavily indebted Distribution Companies (Discoms) face massive, unbudgeted capital expenditures for upstream transformer upgrades and high-tension depot lines requested by freight operators.

C. Generation Mix Dilemma: The Clean Energy Mandate

Electrification fails to deliver environmental benefits if the primary energy source is structurally flawed:

i. Coal Dependence Variant

- Additional electricity demand (TWh) continues to rely heavily on coal-based power generation.
- Energy transition merely shifts strategic dependence from Gulf crude oil to imported Australian and Indonesian coal.
- Risk of carbon lock-in and continued fossil-fuel vulnerability in the power sector.

ii. Diversified Clean Energy Portfolio

- Deployment of Micro Modular Nuclear Reactors (MMRs) near freight and industrial hubs.
- Expansion of wind and solar energy capacity for cleaner electricity generation.
- Integration of pumped hydro storage and battery storage systems to address renewable intermittency.
- Creation of a resilient and low-carbon energy ecosystem for EV-led growth.

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2. Structural Roadmap for an EV-Ready Grid

i. Institutional Governance

- Inter-ministerial coordination between Power and Transport ministries.
- Integrated power infrastructure mapping for Dedicated Freight Corridors (DFCs) and highway corridors.
- Coordinated policy framework for EV charging and grid expansion.

ii. Technical & Demand Controls

- Mandatory smart charging standards for EV infrastructure.
- Time-of-Use (ToU) pricing to manage electricity demand efficiently.
- Synchronisation of EV charging with solar-energy generation hours, especially for heavy vehicle depots.

iii. Downstream Circularity

- Development of institutional-scale battery recycling infrastructure.
- Promotion of secondary-life battery applications for grid storage.
- Strengthening circular economy mechanisms in the EV ecosystem.

Conclusion

India's EV transition cannot progress faster than the infrastructure supporting it. To protect the economy from volatile global crude prices without overwhelming domestic power networks, policy priorities must shift from vehicle sales to grid modernization. By implementing automated smart-charging standards, restructuring Discom finances under the Revamped Distribution Sector Scheme (RDSS) with explicit EV benchmarks, and anchoring highway corridors with green baseload power, India can ensure that its transport transition builds a resilient, self-sustaining energy ecosystem.