



## The Hindu Important News Articles & Editorial For UPSC CSE Thursday, 15 May, 2025

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#### Page 02: Prelims Fact

Sikkim is celebrating the golden jubilee (50th anniversary) of its statehood with a unique ecological event - a butterfly-watching race titled "Butterthon", organized across the State.

## Sikkim celebrates golden jubilee of Statehood with race to spot butterflies

#### The Hindu Bureau

**GUWAHATI** 

A race to watch butterflies has been one of the highlights of the celebrations marking the 50th year of Sikkim's Statehood.

Sikkim transitioned from a protectorate to India's 22nd State on May 16, 1975.

"We started the 16-day Butterthon, the first-of-its-kind event specific to butterflies, on May 1. This is not a test of speed but a leisurely race to spot the ecologically important butterflies across Sikkim," Sonam Wangchuk Lepcha, the president of the Butterfly Society of Sikkim-TPCF, said. TPCF expands to Thamblyok Putali Charphemba Famiyap, which, respectively, translates into





Enthusiasts involved in the Butterthon. At right, a double-spotted flat butterfly. Special Arrangement

butterfly in four languages in the Himalayan State -Lepcha, Nepali, Limboo, and Bhutia.

Several lepidopterists, ornithologists, and citizen scientists from other parts of India and abroad joined the event scheduled to conclude on May 16, marking the completion of Sikkim's 50th year as a State. The participants include

Indian Peter Lobo, American Joseph Coleman Thompson Jr, and Sri Lankan Indika Upul Jayatissa.

Mr. Lepcha said that foreigners have, for the first time, visited Sikkim specifically to watch butterflies.

#### 700 species

The Butterfly Society of Sikkim-TPCF said the event had been organised to promote butterfly watching as a new form of tourism in the State.

Members of the Butterfly Society have been helping visitors spot and document butterflies in the 7,086 sq. km State's jungles and high-altitude meadows. About 700 species of butterflies, almost half the number recorded across India, thrive in Sikkim.

#### **Key Highlights:**

#### Statehood Anniversary:

Sikkim became the 22nd State of India on May 16, 1975, transitioning from a protectorate.







 The 50th anniversary celebrations include a 16-day "Butterthon" that began on May 1, 2025, and ends on May 16, 2025.

#### • About the Butterthon:

- Organized by the Butterfly Society of Sikkim-TPCF.
- o Not a speed-based race but a leisure activity aimed at spotting and documenting butterflies.
- TPCF stands for Thamblyok Putali Charphemba Famiyap, the word "butterfly" in the four local languages: Lepcha, Nepali, Limboo, and Bhutia.

#### Participants:

- Lepidopterists, ornithologists, and citizen scientists from India and abroad (USA, Sri Lanka) joined.
- Notably, foreigners visited Sikkim for the first time specifically to watch butterflies.

#### **Environmental and Economic Significance:**

#### Ecotourism Promotion:

 The event is part of an effort to promote butterfly watching as a sustainable tourism model, offering a unique niche in the biodiversity-rich state.

#### • Butterfly Diversity in Sikkim:

- o Around 700 species of butterflies have been recorded in Sikkim.
- This accounts for almost 50% of India's total butterfly species, despite Sikkim being one of the smallest Indian states (area: 7,086 sq. km).

#### **Prelims pointer:**

- Statehood Facts: Date of Sikkim's statehood and its transition from a protectorate.
- **Biodiversity Hotspot:** Sikkim's butterfly diversity highlights its ecological significance in the Eastern Himalayas.
- **Ecotourism Initiative:** Butterthon as an innovative model for promoting citizen science and conservation tourism.
- **Linguistic-cultural integration:** Emphasis on local languages in environmental nomenclature (e.g., TPCF).





#### **UPSC Prelims Practice Question**

Ques: With reference to the "Butterthon" event recently held in Sikkim, consider the following statements:

- 1. It is a competitive marathon to raise awareness about butterfly extinction.
- 2. It aims to promote butterfly watching as a form of ecotourism.
- 3. It involves participation from both Indian and international scientists.

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

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

Ans:b)









#### Page 04: Prelims Fact

Justice Bhushan Ramkrishna Gavai has been sworn in as the 52nd Chief Justice of India (CJI) for a tenure of over six months, from May 2025 to November 23, 2025.

## Justice B.R. Gavai takes over as CJI for a six-month tenure

His time in office could see important hearings in the challenges to the Places of Worship Act and the Waqf (Amendment) Act; he has been part of many impactful decisions at the Supreme Court, including upholding of abrogation of Article 370

The Hindu Bureau NEW DELHI

ustice Bhushan Ramkrishna Gavai was sworn in by President Droupadi Murmu as the 52<sup>nd</sup> Chief Justice of India at the Rashtrapati Bhavan on Wednesday.

He took his oath of office, pledging his commitment to uphold the Constitution and faithfully discharge duties, in Hindi.

Chief Justice Gavai acknowledged the applause with folded hands, shook hands with Vice-President Jagdeep Dhankar, Prime Minister Narendra Modi, Law Minister Arjun Ram Meghwal, Home Minister Amit Shah, other dignitaries and family members sitting in the foremost row, including his immediate predecessor, Justice Sanjiv Khanna.

The Chief Justice of India touched his mother's feet. Mr. Modi was also seen going up to the Chief Justice's mother to greet her.

Judges of the Supreme Court and High Courts, both sitting and retired, were present at the ceremony.

Chief Justice Gavai has a tenure of over six months



In high office: Justice B.R. Gavai takes oath as the 52nd Chief Justice of India during the swearing-in ceremony, at Rashtrapati Bhavan, next to President Droupadi Murmu on Wednesday. PTI

till November 23. He was elevated as a judge of the Supreme Court on May 24, 2019 from the Bombay High Court.

Justice Gavai is the first Buddhist Chief Justice of India. He was born on November 24, 1960 at Amravati. He joined the Bar on March 16, 1985. Justice Gavai's father, Ramakrishna Suryabhan Gavai, also known as 'Dadasaheb', was a former Governor of Bihar and a prominent Dalit leader. Known as a bold and decisive judge who speaks his mind, Chief Justice Gavai will have a tenure that may see important hearings in the challenges to the Places of Worship Act and the Waqf (Amendment) Act of 2025.

As a Supreme Court judge, he was part of many impactful decisions at the Supreme Court, including the upholding of abrogation of Article 370 of the Constitution and the striking down of the electoral bonds scheme.

He was part of a Constitution Bench which held that States have a right to sub-classify Scheduled Castes.

He headed the Bench which had ordered the release of Perarivalan, a convict in the Rajiv Gandhi assassination case.

As a lawyer, he had practised independently in the Bombay High Court from 1987 to 1990. After

#### Bench to hear pleas against Waqf law today

#### NEW DELHI

A Bench of Chief Justice of India B.R. Gavai and Justice Augustine George Masih is scheduled to hear the challenge to the Waqf (Amendment) Act, 2025, on Thursday. The case last came up before a three-judge Special Bench led by Chief Justice Gavai's predecessor, Justice Saniiy Khanna, on May 5. Justice Khanna had at the time expressed reluctance to continue hearing the case, saving he had very little time till his retirement on May 13. The case was then posted on May 15.

1990, he appeared mainly before the Nagpur Bench of the Bombay High Court. He had practised in Constitutional and administrative law, and was standing counsel for the Municipal Corporation of Nagpur, Amravati Municipal Corporation and Amravati University

He was elevated as Additional Judge of the Bombay High Court in 2003 and became a Permanent Judge in November 2005.

#### **Key Highlights:**

#### Swearing-in Ceremony:

o Administered by President Droupadi Murmu at Rashtrapati Bhavan.







o Justice Gavai took oath in Hindi, underlining linguistic inclusivity in high constitutional offices.

#### Tenure:

Will serve as CJI for approximately 6 months, till November 23, 2025.

#### • Historic Significance:

- First Buddhist Chief Justice of India.
- Belongs to the Dalit community, and is the son of R.S. Gavai, former Governor of Bihar and a prominent Dalit leader.

#### • Judicial Career Overview:

- Supreme Court Judge since: May 24, 2019 (elevated from Bombay High Court).
- o Specialisation as Lawyer: Practiced in constitutional and administrative law.

#### Notable Past Roles:

- Standing counsel for Nagpur and Amravati Municipal Corporations and Amravati University.
- o Became Additional Judge in 2003 and Permanent Judge in 2005 at the Bombay High Court.

#### **Key Judgments and Constitutional Significance:**

#### Justice Gavai has been part of landmark judgments such as:

- Abrogation of Article 370 upheld constitutional validity of revoking Jammu and Kashmir's special status.
- o Electoral Bonds Scheme part of the Bench that struck it down as unconstitutional.
- Sub-classification of Scheduled Castes part of the Constitution Bench that ruled States can sub-classify SCs for targeted benefits.

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o Rajiv Gandhi Assassination Case – headed Bench that ordered release of convict Perarivalan.

#### • Upcoming Constitutional Cases (During His Tenure):

- Challenges to Places of Worship Act, 1991
- Waqf (Amendment) Act, 2025
- His tenure may see sensitive religious and legal issues debated in the Supreme Court.

#### **Prelims Pointer:**

- Constitutional Posts : Appointment and tenure of Chief Justice of India.
- **Judicial Landmark Cases :** Especially related to Article 370, electoral funding reforms, SC subclassification.
- **Social Justice**: Representation of marginalized communities in the judiciary.
- **Legal Developments**: Upcoming constitutional hearings with socio-political significance.





#### **UPSC PrelimsPractice Question**

Ques :With reference to Justice B.R. Gavai, recently appointed as the 52nd Chief Justice of India (CJI), consider the following statements:

- 1. He is the first Dalit to become the Chief Justice of India.
- 2. He took the oath of office in Hindi.
- 3. He will serve a full term of five years as CJI.

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

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

Ans: a)









Page: 05:GS 3: Science & Tech

The Government of India has affirmed the success and effectiveness of indigenous defence systems during Operation Sindoor, a limited military operation carried out against Pakistan on May 10, 2025. The event marks a significant demonstration of India's self-reliance (Atmanirbhar Bharat) in defence capabilities and its strategic dominance along the western border.

# Indigenous weapon systems highly effective, says Centre

All offensive strikes on Pakistan military targets were executed without loss of Indian assets, underscoring the effectiveness of the surveillance, planning, and delivery systems, says statement; situation along the western borders remains calm

<u>Dinakar Peri</u> NEW DELHI

he performance of indigenous defence systems against Chinese and Turkish weapon systems stood out during Operation Sindoor, government and military officials have said. For instance, the indigenous Akash short-range surfaceto-air systems proved their capability, while the Chinese HQ-9 SAMs deployed by Pakistan failed to effectively intercept the precision-guided munitions launched by India.

"All offensive strikes on Pakistan military targets were executed without loss of Indian assets, underscoring the effectiveness of our surveillance, planning, and delivery systems," the Press Information Bureau (PIB) said on Wednesday about India's offensive against Pakistani military installations on May 10.

"The use of modern indigenous technology, from long-range drones to guided munitions, made these strikes highly effective and



**Show of strength:** Akash short range surface-to-air systems proved their capability during Operation Sindoor, officials say. FILE PHOTO

calibrated," it said.

The Indian Air Force bypassed and jammed Pakistan's Chinese-supplied air defence systems, completing the mission in just 23 minutes, demonstrating India's technological edge, the statement said.

In a social media post, Defence Minister Rajnath Singh's office said: "India's defence sector is growing stronger than ever, driven by the spirit of Atmanirbhar Bharat. Defence exports have jumped from ₹686 crore in 2013-14 to ₹23,622 crore in 2024-25 – a 34-fold rise."

Several countries in southeast Asia, west Asia and Africa have expressed interest in the Akash and BrahMos systems among others, an official noted. "The recent episode is a validation of the performance of these systems in real-time. We anticipate further interest in Indian systems," he said.

Over the course of five days since Operation Sindoor was launched on the night of May 6-7, the country's air defence network proved its capability and resilience as Pakistan launched hundreds of drones in waves, unmanned combat aerial vehicles and missiles inclining high-speed ones. Most of them were shot down, and only a few made an impact.

The Indian armed forces struck several air defence radar sites, among others, disabling the HQ-15 SAM system in Lahore. The air defence networks of the Army and the IAF were backed by the Akashteer air defence and the Integrated Air Command and Control Systems (IACCS), respectively.

Operation Sindoor also produced concrete evidence of hostile technologies neutralised by the Indian systems — with the recovery of pieces of Chinese PL-15 air-to-air missiles, Turkish-origin UAVs, long-range rockets, quadcopters and commercial drones, the PIB statement noted. "These were recovered and identified, showing that despite Pakistan's

attempts to exploit advanced foreign-supplied weaponry, India's indigenous air defence and electronic warfare networks remained superior."

The nearly ₹2,000-crore contract for Akashteer, a networking and automation project, was signed in March 2023 and was fielded a year later. Bharat Electronics Ltd. (BEL) said on social media that its inhouse designed and manufactured Akashteer system had proved its mettle on the war field. "Groundbased defence systems integrated with Akashteer made it hell for Pakistan's air adventures," it said. "The system performed beyond users' expectations, providing robust air defence to India during the current conflict."

The situation along the western borders remained calm on the intervening night of May 13-14. Army sources said there was no schedule as yet for the next round of talks between the Directors-General of Military Operations of India and Pakistan.



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#### **Key Highlights:**

#### 1. Operation Sindoor Overview:

- Launched during the night of May 6–7, 2025.
- Aimed at targeting Pakistani military installations, especially air defence systems and radars.
- Completed in 23 minutes, with no loss of Indian assets.
- India's precision-guided munitions and long-range drones were successfully used.

#### 2. Indigenous Systems that Excelled:

- Akash Short-Range Surface-to-Air Missile (SAM): Intercepted Pakistani drones and missiles.
- Akashteer Air Defence Control System: Played a key role in automating and coordinating air defence.
- IACCS (Integrated Air Command and Control System): Enabled real-time coordination between radar, aircraft, and missile batteries.
- Electronic Warfare Capabilities: Successfully jammed Pakistan's Chinese-origin HQ-9 and HQ-15 SAM systems.

#### 3. Adversa<mark>ry We</mark>apon Systems Neutralised:

- Chinese PL-15 Air-to-Air Missiles
- Turkish-origin UAVs
- High-speed missiles
- Quadcopters and commercial drones

Recovered fragments of these systems serve as evidence of Pakistan's dependence on foreign-supplied weapons and India's technological edge in neutralising them.

#### **Strategic & Policy Significance:**

#### Important Fact

- Indigenous systems like Akash, BrahMos, Akashteer, and IACCS are central to India's air defence strategy.
- o India's defence exports surged to ₹23,622 crore in 2024–25 from ₹686 crore in 2013–14 (a 34-fold increase).
- o Bharat Electronics Limited (BEL) played a key role in designing and deploying Akashteer.

#### Self-Reliance in Defence:

o Operation Sindoor validates the operational readiness of India's indigenous defence manufacturing.







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o Aligns with the Atmanirbhar Bharat Abhiyan and Defence Production and Export Promotion Policy (DPEPP).

#### • Electronic Warfare Superiority:

- o Demonstrates India's evolving cyber-electronic warfare capabilities.
- o Effective use of network-centric warfare platforms like IACCS and Akashteer.

#### • Diplomatic & Strategic Impact:

- o The deterrent value of indigenous systems boosts regional strategic confidence.
- o May enhance export prospects to Southeast Asia, West Asia, and Africa.

#### • Countering Hostile Technology:

- o The recovery and neutralisation of advanced foreign-supplied weaponry show technological resilience.
- o Reflects India's readiness to counter hybrid warfare threats using drones and commercial UAVs.

#### Conclusion:

Operation Sindoor represents a watershed moment in India's military capability, with indigenous systems taking center stage. It not only strengthens India's defence preparedness but also sends a message about its technological and strategic maturity in a volatile regional security environment.

#### **UPSC MainsPractice Question**

Ques: Operation Sindoor has demonstrated the growing reliability and sophistication of India's indigenous defence systems." In this context, critically evaluate India's progress in defence indigenisation and its implications for national security.







### Page 06: GS 3: Internal Security

A 21-day coordinated anti-Naxal operation was conducted by Central and State security forces in the Karegutta Hill region on the Chhattisgarh–Telangana border from April 21 to May 11, 2025. It was hailed as one of the largest operations of its kind in recent years and is being termed as a turning point in India's counter-Naxal strategy.

# '21-day anti-Naxal operation dislocated Maoist leadership'

The operation was carried out in the 'very difficult, hilly terrain' around Karegutta Hill on the Chhattisgarh-Telangana boundary; Maoist leadership is completely segregated and their military formations have been splintered, say top officials

Shubhomoy Sikdar BIIAPUR

op officers of the Central Reserve Police Force and Chhattisgarh Police on Wednesday said that the recently concluded 21-day anti-Naxal operation along the Karegutta Hill on the Chhattisgarh-Telangana

boundary had met its main objective of "dislocating" the top leadership of the Maoists, who had congregated at one place.

The operation was carried out from April 21 to May 11 in the areas around the Karegutta Hill, "a very difficult, hilly terrain about 60-km long and 5-20-km wide", officials said.

According to the police, 21 encounters took place as part of the operation that saw large mobilisation of forces and led to the deaths of at least 31 uniformed Maoists, including 16 women.

Preliminary investigation suggested that the deceased were members of the banned Communist Party of India (Maoist) group, and were part of the People's Liberation Guerrilla Army (PLGA) Battalion



**Operation success:** Weapons seized by the police along the Karegutta Hill after anti-Naxal operations on display in Bijapur, Chhattisgarh, on Wednesday. PTI

No. 1, their strongest military formation, the Telangana State Committee, and the Dandakaranya Special Zonal Committee, the police claimed.

#### Key objective

"The main objective of launching the operation on Karegutta Hill was to dislocate the leadership [of the Maoists] that had congregated in one place. In that objective, the forces have completely succeeded and their leadership is completely segregated and dis-

located. Even their military formations have been splintered into smaller groups," said Chhattisgarh Additional Director-General of Police (Naxal Operations) Vivekanand Sinha.

Personnel from different units, including the District Reserve Guard (DRG), Bastar Fighters, Special Task Force (STF), all units of State police, the CRPF and its elite unit Co-BRA, conducted the operation that Mr. Sinha described as "the largest comprehensive and coor-

dinated anti-Maoist operation" in Chhattisgarh till

Officers said that in the past two-and-a-half years, Maoists gradually built their base on the hill, which became the refuge of 300-350 of armed cadre, including the Technical Department (TD) unit of the PLGA that manufactures weapons, and other important organisations.

The shifting of Maoists to Karegutta Hill, they added, had happened as a result of the increasing dominance of the security forces, which had set up new camps and executed sustained operations in other areas. The Maoists had formed a Unified Command and taken refuge on the hill as they considered it was impregnable.

CRPF Director-General Gyandendra Pratap Singh said that in recent years, the CRPF along with the State police forces had carried out several such operations in inaccessible regions of the country that were once identified as Naxal bastions. He mentioned the Chakarbanda Hilly Region and Boodha Pahad as areas similar to the Karegutta Hill. "These inaccessible regions were acting as bastions for the Naxals and were no-go areas for the security forces. With them being cleared, achieving the goal of Naxal-free India in the future seems easy," he

Reiterating the deadline of March 31, 2026 set by Union Home Minister Amit Shah for eradication of Naxalism, Mr. Singh described the latest encounter as the "beginning of the end" for Naxals.

#### **Key Objectives and Achievements:**

Dislocation of Maoist Leadership:







- The primary aim was to break the concentration of senior Maoist leaders, particularly those of the banned CPI (Maoist), including:
  - PLGA Battalion No. 1
  - Telangana State Committee
  - Dandakaranya Special Zonal Committee

#### Neutralization and Encounters:

- 21 encounters in total.
- o At least 31 Maoists killed, including 16 women cadres.
- High-value losses to the Maoist infrastructure, including the Technical Department that manufactures weapons.

#### Strategic Gain:

- Maoists were forced to scatter into smaller groups, ending their centralized command in the region.
- o A blow to their Unified Command, which they believed was protected by the terrain.

#### **Strategic and Tactical Significance:**

#### • Terrain and Location:

- Karegutta Hill spans 60 km x 5–20 km, characterized by difficult and forested terrain—ideal for guerrilla warfare.
- o Once a Maoist stronghold, considered impregnable due to topography.

#### Force Coordination:

- The operation involved multiple units:
  - CRPF and CoBRA (elite commando unit)
  - District Reserve Guard (DRG)
  - Bastar Fighters and STF
  - State Police of Chhattisgarh and Telangana

#### Precedent for Future Operations:

 Officials likened Karegutta to previous successful clearances in Boodha Pahad (Jharkhand) and Chakarbanda (Bihar), reinforcing the doctrine of deep penetration and encirclement.

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#### **Policy and Governance Implications:**

Shift in Maoist Strategies:







 Due to expanding security presence and pressure, Maoists are retreating from core zones and regrouping in hilly terrains. This is a reflection of territorial losses and waning popular support.

#### • Atmanirbhar Bharat in Security:

o Indigenous intelligence gathering and locally recruited forces (e.g., Bastar Fighters) are enabling context-sensitive operations in culturally sensitive zones.

#### • 2026 Deadline for Eradication of LWE:

Union Home Minister has reiterated the goal of "Naxal-free India" by March 31, 2026, and this
operation is being hailed as a milestone towards that target.

#### **Challenges Ahead:**

- **Resurgence in Peripheral Areas:**While core zones are being cleared, Maoists may attempt to resettle in fringe tribal belts in Odisha, Maharashtra, or border regions.
- **Civilian Engagement and Development Gap:**Security operations must be followed by development, governance outreach, land reforms, and PESA compliance, or ideological revival remains possible.
- **Human Rights Oversight:** Ensuring accountability in operations is key, especially when casualties include female cadres. Maintaining trust with local tribal populations is crucial to long-term peace.

#### **Conclusion:**

 The Karegutta anti-Naxal operation is a strategic success in India's long fight against Left-Wing Extremism. It reflects the increasing coordination between central and state forces, better terrain intelligence, and the benefits of sustained pressure. However, success in military terms must be complemented by effective governance, infrastructure development, and tribal rights-based administration for permanent resolution of Naxalism.

#### **UPSC MainsPractice Question**

Ques: The recent Karegutta operation marks a tactical victory, but the strategic defeat of Left-Wing Extremism in India will depend on governance and development." Critically examine this statement in the context of India's counter-Naxal policy.







#### Page 06: GS 1 & 2: Social Issue and Social Justice

The Sample Registration System (SRS) Statistical Report 2021, released by the Registrar General of India, reveals significant demographic transitions across Indian states. Notably, Delhi, Kerala, and Tamil Nadu are witnessing a crude birth rate (CBR) decline twice the national average, indicating a critical shift in India's fertility dynamics.

## Birth rates in Delhi, Kerala, and T.N. declining at twice the rate of national average: report

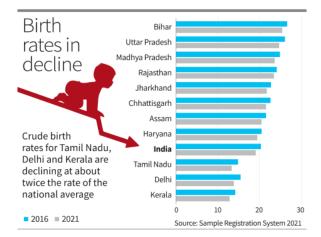
#### **Abhinay Lakshman**

NEW DELHI

The annual crude birth rates (live births per 1,000 people in the population) in Tamil Nadu, Delhi and Kerala are declining at twice the rate of the national average, showed data from the Sample Registration System (SRS) Statistical Report, 2021, released by the Registrar-General of India last week.

The data showed that the all-India crude birth rate was 19.3 in 2021, dropping at a rate of 1.12% every year from 2016 to 2021. In comparison, in the same period, the birth rate in Tamil Nadu has been declining at a rate of 2.35% every year, Delhi's at a rate of 2.23% and Kerala's at 2.05%.

The data showed that the slowest rate of decline in birth rate was seen in States such as Rajasthan



(0.48%), Bihar (0.86%), Chhattisgarh (0.98%), Jharkhand (0.98%), Assam (1.05%), Madhya Pradesh (1.05%), West Bengal (1.08%), and Uttar Pradesh (1.09%). The data further revealed that Uttarakhand was the only State which saw a rise in birth rate in this period.

The birth rates data from the SRS 2021 further

revealed that the rate of decline was faster than the national average for 13 large States and Union Territories.

All southern States – Andhra Pradesh (1.26%), Telangana (1.67%), Karnataka (1.68%), Kerala, and Tamil Nadu – featured among these 13 large States and Union Territories.

The SRS is the largest de-

mographic survey in the country, meant to provide annual estimates on fertility and mortality indicators such as birth rates and death rates.

Apart from the southern States, birth rates were seen declining faster than the national average for Maharashtra (1.57%), Gujarat (1.24%), Odisha (1.34%), Himachal Pradesh (1.29%), Haryana (1.21%), and J&K (1.47%), with Punjab's birth rate declining almost at the same rate as that of the national average.

#### Registered births

Corresponding to this data set in the SRS 2021 Statistical Report, the Civil Registration System 2021 dataset showed that some of the States seeing the slowest decline in birth rates are also reporting increasing number of registered births. The Vital Statistics Report based on CRS 2021

showed that the number of registered births were seeing a rise in about 11 States and Union Territories, which included Bihar, Rajasthan, Uttar Pradesh, Uttarakhand, West Bengal, Arunachal Pradesh, Mizoram, Nagaland, Jammu and Kashmir, Ladakh, and Lakshadweep.

The SRS 2021 data on total fertility rate (TFR) and gross reproduction rate (GRR) too correspond to the birth rate data – showing that States such as Bihar, Uttar Pradesh, Rajasthan, Madhya Pradesh had a TFR and GRR higher than the national average.

The TFR measures average number of children expected to be born per woman during her entire span of reproductive period and GRR refers to the average number of daughters each woman has who survive to reproductive age and have children of their own.

#### **Key Highlights of the Report:**

- All-India Crude Birth Rate (CBR):
  - Stood at 19.3 births per 1,000 population in 2021.
  - Declined at 1.12% annually (2016–2021).







#### States with Fastest Decline:

Tamil Nadu: –2.35%

Delhi: -2.23%Kerala: -2.05%

Other southern states (AP, Telangana, Karnataka) also recorded a decline faster than national average.

#### States with Slowest Decline or Increase:

- Uttarakhand saw a rise in birth rate.
- o Bihar, Rajasthan, UP, Chhattisgarh, Jharkhand, Assam, MP, WB showed marginal decline (<1%).

#### Fertility Indicators (SRS 2021):

- o Total Fertility Rate (TFR): Higher than national average in Bihar, UP, Rajasthan, MP.
- o Gross Reproduction Rate (GRR): Corresponds with TFR trends.

#### • Civil Registration System (CRS) 2021:

 Several high-fertility states (e.g., Bihar, UP, Rajasthan) are also reporting a rise in registered births, highlighting demographic pressure and improved registration systems.

#### Implications for Policy and Governance:

#### 1. Regional Demographic Divide:

- Southern and western states are undergoing demographic transition faster aging population, shrinking workforce.
- Northern and eastern states continue to experience population momentum, implying future challenges in healthcare, education, employment, and urbanisation.

#### 2. Fertility and Development Link:

- States with better female literacy, healthcare access, and urbanisation (e.g., Kerala, TN) show faster fertility decline.
- Conversely, socio-economic backwardness, early marriage, and gender inequality correlate with higher fertility rates (Bihar, UP, MP).

#### 3. Policy Challenges:







- Population Stabilisation needs region-specific approaches:
- In high-fertility states: Focus on women's education, family planning, child nutrition, healthcare access.
- In low-fertility states: Policies on ageing population, pension reforms, and labour shortages.

#### 4. Data Utility:

- SRS and CRS data highlight the critical role of demographic statistics in designing evidence-based policies, including:
  - National Population Policy
  - o Health infrastructure planning
  - Labour market reforms

#### Conclusion:

• The disparate trends in crude birth rates and fertility across Indian states underline a complex demographic reality. While some states are reaping the benefits of a demographic transition, others lag behind. Addressing this imbalance through targeted social development, health interventions, and women empowerment will be essential to ensure balanced and sustainable population growth in India.

#### **UPSC Mains Practice Question**

**Ques:** India's demographic landscape is undergoing a regionally uneven transition." In this context, analyse the implications of differential crude birth rate (CBR) and fertility rate decline across Indian states. **(250 words)** 







## Page: 08 Editorial Analysis The road to safety

ndia is at a crucial juncture in mobility transformation, where economic growth and urbanisation bring both opportunities and challenges to road safety. With one of the world's largest road networks, India also carries the burden of having among the highest number of road traffic fatalities globally. In 2022, India recorded 1.68 lakh road accident fatalities. This translates to approximately 12.2 deaths per 1 lakh population. To put this in perspective, Japan and the U.K. have road traffic death rates of 2.57 and 2.61, respectively.

The economic repercussions of this are equally alarming. Road crashes cost India an estimated 3% of its GDP annually. This hampers national development and underscores the urgency for effective road safety measures.

#### Right to life

The foundation of all road safety efforts must rest on a fundamental constitutional principle: the right to safe road travel is an essential component of the right to life under Article 21 of the Constitution. Every citizen, whether a pedestrian, cyclist, or driver, has the right to move through public spaces without fear of injury or death. Recognising this right imposes a moral and legal duty on the state and society to treat road safety not as a privilege or technical matter, but as a human right and public good.

India's urban landscape is poised for significant transformation. By 2047, the urban population is expected to account for about 50% of the total population. This rapid urbanisation will be accompanied by a substantial rise in vehicle ownership. The growing urban and vehicular population necessitates people-centric interventions to ensure that streets remain safe, especially for vulnerable road users such as pedestrians, cyclists, the elderly, and public transport commuters.

At the heart of future-ready urban mobility lies the Safe



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philosophy acknowledges that people will make mistakes, but those mistakes should not result in fatalities or serious injuries. Prioritising pedestrian safety is fundamental under this approach. Urban streets must be redesigned with wider footpaths, dedicated cycling tracks, well-marked crossings, pedestrian refuge islands, reduced speed limits, and calming measures such as raised intersections. This system moves away from blaming individual road users and instead emphasises creating a forgiving and resilient road environment. Recognising the urgency of the

System Approach, which places

the centre of road design. This

human vulnerability and error at

road safety crisis, the Ministry of Road Transport and Highways (MoRTH) has launched a series of targeted initiatives. These include rectification of over 5,000 black spots on highways, mandatory road safety audits, and stricter safety norms such as airbags and anti-lock braking systems in vehicles. Electronic enforcement mechanisms such as speed cameras and CCTV surveillance have also been rolled out to improve compliance. In a major push to strengthen driver training, Union Minister Nitin Gadkari recently announced the setting up of driving training centres and vehicle fitness centres in every district. This bold initiative aims to ensure safer driving practices and reduce accidents caused by unskilled driving.

To meet the massive financial requirements of road safety improvements, innovative funding models must be explored. One such approach could be a nationwide mandate for all automobile manufacturers to channel their entire Corporate Social Responsibility funds towards road safety initiatives for the next 20-25 years. This investment, executed in collaboration with the Indian government, could support black spot elimination, public awareness campaigns, emergency trauma

care, driver training, and road safety research. As primary stakeholders in the mobility ecosystem, auto-makers bear a shared responsibility for making Indian roads safer, and this long-term commitment can become a cornerstone of India's Vision Zero ambitions.

#### Road safety strategy

The four Es of road safety – engineering, enforcement, education, and emergency care – remain the cornerstone of an integrated road safety strategy. While enforcement and emergency care are gaining ground, there is an urgent need to strengthen infrastructure design and user education to prevent accidents before they occur.

Importantly, the World Bank Report 2020 outlines a strategic framework for enhancing road safety in India. It emphasises the need for substantial investment, estimating that an additional \$109 billion over the next decade is required to achieve a 50% reduction in road crash fatalities. The report highlights that this investment will yield enormous social and economic returns by saving lives, reducing injuries, and improving mobility efficiency.

The iRAP Four States Report and other global analyses further confirm that investments in road safety deliver high returns. For every rupee spent on proven safety interventions, India can save up to four rupees in avoided crash costs, lives saved, and productivity gains.

India's roads must also become kinder to the most vulnerable users – pedestrians, cyclists, and children. Roads are not just conduits for vehicles but shared public spaces that reflect our civic values. Urban mobility must be reimagined to prioritise inclusivity and safety over speed. As we envision Viksit Bharat 2047, the path ahead must be paved with accountability and data-driven policy. Road safety is not a luxury; it is a prerequisite for sustainable and equitable development.

Urban mobility must be reimagined to prioritise inclusivity and safety over speed





#### Paper 02: Governance

UPSC Mains Practice Question: The right to road safety is an extension of the right to life under Article 21 of the Constitution. In this context, examine the role of the state in ensuring safe and inclusive urban mobility. (250 words)

#### **Context:**

India, with one of the largest road networks in the world, is facing a road safety crisis, recording 1.68 lakh road accident fatalities in 2022 — a death rate of 12.2 per 1 lakh population, much higher than countries like Japan (2.57) and UK (2.61). The situation poses a constitutional, economic, and social challenge, demanding urgent, people-centric and systemic reforms.

#### **Constitutional Dimension:**

- Article 21 of the Constitution guarantees the Right to Life, which implicitly includes the Right to Safe Road Travel.
- This expands the State's duty beyond infrastructure to include protecting citizens from road-related fatalities and injuries.
- Road safety, therefore, is not merely a technical issue, but a public good and a human right.

#### Key Challenges in India's Road Safety Ecosystem:

- High Fatality Rates & Economic Cost:
  - o Road crashes cost India ~3% of GDP annually, impacting productivity and development.
  - High fatalities impact vulnerable users pedestrians, cyclists, elderly, and public transport commuters.

#### • Unplanned Urbanisation & Rising Vehicle Ownership:

- o By 2047, 50% of India's population is projected to be urban.
- o Without reimagined urban mobility, fatalities will continue to rise.

#### • Design Deficiencies in Roads:

- Streets prioritise speed over safety.
- o Lack of footpaths, cycling tracks, pedestrian crossings, and calming measures.

#### • Insufficient Enforcement & Education:

- o Gaps in driver training, awareness, and electronic enforcement.
- o Road behaviour remains unregulated and largely unsafe.

#### **Policy Responses & Initiatives:**







#### Safe System Approach (SSA):

- o Focuses on forgiving road environments, acknowledging human error.
- o Includes raised intersections, speed control, pedestrian zones, and resilient infrastructure.

#### • Government Interventions (MoRTH):

- o Rectification of 5,000 black spots.
- Mandatory road safety audits and airbags/ABS in vehicles.
- o Setting up driver training and fitness centres in every district.

#### • Innovative Financing for Road Safety:

- Proposal to channel CSR funds of automobile manufacturers towards road safety for 20–25 years.
- o Investment in emergency trauma care, awareness, and research.

#### Four Es Strategy: The Pillars of Road Safety

- **Engineering:**Safe road design, black spot identification, traffic calming infrastructure.
- Enforcement: Speed cameras, surveillance, stricter penalties, and automated monitoring.
- Education: Mass awareness campaigns, school curriculum integration, community programs.
- Emergency Care: Golden hour response, trauma centres, trained first responders.

#### Global Insights & Economic Justification:

- World Bank Report (2020):
  - Calls for \$109 billion investment over a decade to reduce crash fatalities by 50%.
  - Emphasizes high returns on safety investments.
- iRAP Report:
  - Every ₹1 spent on proven interventions can save ₹4 in costs and lives.

#### Way Forward:

- Data-Driven Policy: Use real-time crash data for dynamic intervention planning.
- Inclusive Urban Planning: Design for vulnerable groups, not just vehicles.
- Public-Private Partnership: Involve corporates in long-term road safety campaigns and infrastructure upgrades.
- Strengthening Legal Framework: Amendments to the Motor Vehicles Act must be enforced uniformly across states.
- Accountability and Civic Values: Shift road use culture from vehicle-centric to people-centric.

#### **Conclusion:**

As India progresses towards Viksit Bharat 2047, ensuring road safety is not a choice but a necessity.
 It is central to constitutional values, economic prosperity, and inclusive development. A comprehensive, systemic, and ethical approach must guide the country towards Vision Zero — zero fatalities, zero tolerance.

