

DAILY PT POINTERS

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The Hindu-GS2(Health)Page1

Declining fertility levels push up Kerala's maternal mortality ratio

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Kerala's maternal mortality ratio, the lowest in the country at 19 per one lakh live births, is now climbing steadily, much to the consternation of the State Health Department. The reasons for the increase may be beyond the control of officials.

The latest Sample Registration System special bulletin on maternal mortality in India (2018-20), brought out by the Registrar General of India, put Kerala's MMR at 19. However, while it depended on a sample survey to arrive at the figure, the State Health Department's actual estimates of maternal deaths – Kerala has near 100% institutional deliveries – put the figure at 29.

Except during 2020-21, when Kerala lost many women to COVID-19 during pregnancy and childbirth, the State had consistently held a firm grip over maternal mortality. Ironically, the current spike is not because more women are de-

A worrying trend

Kerala's MMR is beginning to climb now because of fewer child births than ever in the State.



Source: Sample Registration System bulletin of Registrar General of India

The State has now hit a low of 3.93.231 births from an average of 5-5.5 lakh annually earlier

of the State. It is this dip in the denominator that is pushing the MMR up and not necessarily an actual spike in maternal deaths.

The Health Department puts live births in the State between 3.4 lakh and 3.9 lakh currently. The full Vital Statistics Report (VSR) for 2023 is expected by January-end.

The decline in fertility

From an average of 5.5 lakh annual births since the 1980s, the graph went below the five-lakh mark for the first time in 2016, when 4,96,262 live births were recorded. Since 2018, the figure has been plummeting steadily, never going above the five-lakh mark again. The last published VSR (2021) recorded the total number of live births as 4,19,767.

"As part of the Sustainable Development Goals, Kerala was targeting an MMR of 20 by 2030. However, that looks quite unlikely now, given that birth rates are falling steadily. We

we have successfully addressed all major medical causes of maternal mortality, the issues that are impacting the State's MMR now are not something essentially within our control. We are seeing the impact of demographic changes like low fertility rates, immigration and changing societal attitudes towards marriage and childbirth in Kerala much earlier than we thought we would," Dr. Paily says.

"It has been three decades since the birth rate began falling in Kerala and the steep fall in the number of children born now is part of a larger trend. But the problem is that once the fertility rate comes down, the graph rarely goes up because demographic transition is hard to reverse," says S. Irudaya Rajan, Chairman of the International Institute of Migration and Development (IIMAD).

Kerala led the demographic transition in the South, attaining the replacement level fertility rate of 2.1 in 1987-88. Re-

- Kerala has the lowest MMR in India at 19 per 100,000 live births.
- The MMR is now climbing due to fewer childbirths, not more maternal deaths.
- Decline in Birth Rate:
- Kerala's annual live births have decreased from 5-5.5 lakh to 3.93 lakh.
- The decline in fertility levels and changing demographics impact the social fabric.
- Kerala targeted an MMR of 20 by 2030, now unlikely due to falling birth rates.
- Demographic Changes: Low fertility rates and changing societal attitudes affect MMR.
- Migration and delayed childbearing contribute to the decline in births.
- Migration of reproductive age group affects birth rates.
- Proportion of elderly population expected to exceed children in the next decade.

Should voter IDs be linked with Aadhaar?

Why was the National Electoral Rolls Purification and Authentication Program launched by the Election Commission? How do already existing voters link EPIC with their respective Aadhaar numbers? What did the Supreme Court mandate in the Puttaswamy case in 2018?

EXPLAINER

Rangarajan R

The story so far:

The Aam Aadmi Party (AAP) and the Bharatiya Janata Party (BJP) have accused each other of manipulating electoral rolls before the Delhi Assembly elections. This has reignited the debate about linking voter IDs (Election Photo Identity Card (EPIC)) with respective Aadhaar numbers.

What is the history of the proposal?

The Election Commission (EC) had in February 2015 launched the National Electoral Rolls Purification and Authentication Program (NERPAP). This was to address the issue of duplicate entries in the electoral roll and to remove such entries. In order to achieve this, the EC began authenticating EPIC data by linking it with the Aadhaar database. It had linked more than 300 million votes in a span of three months. However, the Supreme Court in an interim order, in August 2015, held that the mandatory use of Aadhaar should only be for welfare schemes and PAN linking. Following this order, the NERPAP exercise was discontinued.

After the Supreme Court's final order in Puttaswamy in September 2018, that upheld the constitutional validity of the Aadhaar Act, the EC sought amendments to the Representation of the People Act, 1950 (RP Act, 1950). The Parliament amended the RP Act, 1950 and the Registration of Electors Rules, 1960 in December 2021 to enable the linking of EPIC with Aadhaar. It provided the format in which Aadhaar information may be submitted to the electoral registration officer by a new voter at the time of fresh registration (Form 6) to establish identity or an existing voter already included in the electoral roll (Form 6B) for the purpose of authentication. Any other listed document may be submitted only if



Need to verify: A special camp for linking Aadhaar with voter ID card held in Madurai in 2022. (PTI/PTV)

number would definitely help in weeding out duplicate entries; that is essential. At present, more than 650 million Aadhaar numbers have already been uploaded in the process of finalising the electoral rolls. However, there are some concerns about this exercise that need to be considered.

Firstly, the errors in the Aadhaar database, however minuscule, may result in wrongful rejection or deletion of entries from the electoral roll. Secondly, Aadhaar is only a proof of residence and not a proof of citizenship. Thus, it may not help in removing voters who are not citizens from the electoral roll. It would require a separate effort from the EC.

Finally, while the linkage is to happen at the back end and a mere mention of the Aadhaar number on the EPIC electoral roll may not by itself be a violation of right to privacy, it may still result in misuse as the electoral rolls are widely circulated amongst political parties.

What can be the way forward?

The right to vote is a constitutional right and declared so by the Supreme Court in various cases. It is part of the basic structure of free and fair elections and cannot be restricted through legislative action. Citizens are the most important stakeholders in a democracy and any electoral process should gain their confidence. There must be wide publicity about the benefits of linking EPIC and Aadhaar to clean up the electoral roll of duplicate entries, which in turn strengthens the electoral process. Any misplaced concern amongst voters about the secrecy of their vote being compromised because of this linking should be assuaged.

Meanwhile, the forms should be suitably modified without any delay, to reflect that providing Aadhaar is not mandatory, as per the submission of the EC in the Supreme Court in September 2023.

Rangarajan R is a former IAS officer and author of 'Polity Simplified'. Views

THE GIST

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EPIC linkage with the respective Aadhaar number would definitely help in weeding out duplicate entries; that is essential.

- In 2015 , The Election Commission (EC) launched the National Electoral Rolls Purification and Authentication Program (NERPAP) to address duplicate entries in the electoral roll by linking voter IDs with Aadhaar.
- The Supreme Court limited Aadhaar’s mandatory use to welfare schemes and PAN linking, halting NERPAP.
- September 2018: SC upheld Aadhaar’s constitutionality, prompting the EC to seek amendments to the RP Act, 1950. December 2021: Parliament amended laws allowing voluntary voter IDs-Aadhaar linking.

September 2023: The EC clarified that submission of Aadhaar number is not mandatory, but the forms (Form 6 and 6B) remained unchanged, still requesting Aadhaar details.

Pros : Eliminates Duplicate Entries,Widespread Aadhaar Integration

Cons:Small errors could lead to wrongful rejection or deletion of voter entries.

Privacy Concerns Therefore The benefits of linking EPIC with Aadhaar, such as reducing duplicate entries, should be widely publicized to gain voter confidence

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What is different about small language models?

What led to the shift to small language models from large language models? What are the use cases for such models? Are they better than LLMs?

Poulomi Chatterjee

The story so far:

We've achieved peak data," former OpenAI chief scientist Ilya

Sutskever said onstage at the NeurIPS conference last year. "We have to deal with the data that we have, and there's only one Internet." Mr. Sutskever's comment comes amidst speculation that the speed of progress in large language models (LLM) was hitting a wall as scaling was reaching its digital end.

Why are smaller models in demand?

The race towards building large AI models has been building up ever since OpenAI released their 175 billion parameter LLM, GPT-3, in 2020. In the next three years,

parameters. But, in 2024, researchers started to look at language models differently as scaling training data, scoured from the Internet, was giving marginal gains. The idea of building smaller language models emerged then.

This is evident in announcements made by Big Tech firms. Most of them released a nifty language model alongside their flagship AI models. Google DeepMind released Gemini Ultra, Nano and Flash models, while OpenAI and Meta launched their GPT-4o mini and Llama 3 models. Amazon-backed Anthropic AI launched Claude 3 and Haiku alongside its Opus.

What are the pros and cons of small language models?

Small Language Models (SLMs) are cheaper and ideal for specific use cases.

required. Training small models require less time, less compute and smaller training data. French start up Mistral AI, an SLM provider, pitched its AI model to be as efficient as LLMs for specialised, focused applications. Microsoft released a family of small language models called Phi (the latest Phi-3-mini comprised 3.8 billion parameters).

Apple Intelligence, the AI system deployed in the latest iPhones and iPads, runs on-device AI models that can sort of match the performance of top LLMs. If LLMs are built to achieve Artificial General Intelligence (AGI), small language models are made for specific use cases.

How do use cases differ?

"Small language models are perfect for edge cases," said Rahul Dandwate, ML engineer at Adobe. "When I am using

trying to learn a new language because its reasonably good at translation and other basic tasks like this."

"But they wouldn't do well at most benchmarks that large language models are measured against like coding or logical problems. There still isn't a small language model that's as good at solving more complex problems," he said.

We still aren't fully aware why this bottleneck exists. "But the best way we can understand this is just as human beings have brains with a massive number of neurons, a smaller animal has a limited number of neurons. This is why human brains have the capacity for far more complex levels of intelligence. This is similar to how small language models and large language models work," he said.

How does it work for India?

In a country like India, where the scope of AI adoption is immense but resources are constrained, the diminutiveness of SLMs is perfect. Another AI initiative from IIT Hyderabad, Visvam, is building datasets from the ground up to build SLMs that can be used in healthcare, agriculture, education and to "promote and preserve language and cultural diversity through AI," their website stated. As the world of language model develops, it's not just enough to build frontier models from scratch. Sarvam AI's co-founder Vivek

THE GIST

▼ Small Language Models (SLMs) are cheaper and ideal for specific use cases. For a company that needs AI for a set of specialised tasks, a large AI model is not required.

▼ "Small language models are perfect for edge cases," said Rahul Dandwate, ML engineer at Adobe.

▼ In a country like India, where the scope of AI adoption is immense but resources are constrained, the diminutiveness of SLMs is perfect.

- Former OpenAI chief scientist Ilya Sutskever noted that we've reached the limits of data scalability with the current internet.
- Demand for Smaller Models: With large models showing diminishing returns, researchers are now focusing on smaller language models.
- Tech Announcements: Companies like Google DeepMind, OpenAI, Meta, and others have launched smaller models alongside their flagship models.
- **Pros:** Smaller models are cheaper, require less compute, and are ideal for specialized tasks.
- **Cons:** They may not perform as well on complex tasks like coding and logical problems.
- **India's Perspective:** Smaller models are well-suited for resource-constrained environments like India, with initiatives aiming to build AI that supports various sectors and cultural preservation

The Hindu- Environment(GSIII)-Page 10

Centre's wildlife panel clears oil and gas exploratory drilling in Assam sanctuary

Press Trust of India

NEW DELHI

The Centre's wildlife panel has approved a proposal to carry out oil and gas exploration in the ecosensitive zone of the Hoollongapar Gibbon Wildlife Sanctuary



According to the minutes of the NBWL meeting, a team comprising officials from the Union Environment Ministry, the Wildlife Institute of India, and the Assam Forest Department inspected the project site, located about

The Centre's wildlife panel has approved a proposal to carry out oil and gas exploration in the ecosensitive zone of the Hoollongapar Gibbon Wildlife Sanctuary in Assam's Jorhat district.

Hollongapar Gibbon Wildlife sanctuary, more popularly known as Gibbon Wildlife Sanctuary named after Hoolock Gibbon covers an area of 20.98 square kilometers (including the area under Military Engineering Services of Indian Army) at Jorhat district of Assam.

- The Hoollongapar Gibbon Wildlife Sanctuary was earlier known as Hoollongapar Forest during British period in 1881. This sanctuary is approximately 19 km from Jorhat's town centre and 5 km from Mariani.

Indian Express-IR(GSII)-Page 16

Trump's call to rename Gulf of Mexico: history of names 'America', 'Mexico'

RISHIKA SINGH
NEW DELHI, JANUARY 12

US PRESIDENT-ELECT Donald Trump said last week that he would rename the Gulf of Mexico "Gulf of America", while talking about trade deficit and illegal immigration from Mexico. He said, "We

help Mexico a lot...we do most of the work there and it's ours...we're gonna be changing the name of the Gulf of Mexico to the Gulf of America, which has a beautiful ring...and it's appropriate."

In response, Mexico President Claudia Sheinbaum said North America should be renamed "Mexican America", as mentioned in some 17th-century maps. She added sarcastically, "Mexican America, that sounds nice."

EXPLAINED
GLOBAL

Where do the names come from?
The most frequently cited theory about the origin of the name "America" stems from its first documented use on a map. When Christopher Columbus sailed to the Americas in 1492, he did not know he had reached another continent unknown to most in Europe.

Many voyagers followed him, Italian explorer Amerigo Vesputci was the first to write about the existence of a "New World" in his letters, though

many of his accounts are taken with a grain of salt today. When a German scholar, Matthias Ringmann, found these letters, he and fellow cartographer Martin Waldseemüller decided to create a world map. It showed a narrow strip of land marked "America", inspired by Vesputci's first name.

The US Library of Congress says: "Martin

Waldseemüller's 1507 world map... supported Vesputci's revolutionary concept by portraying the New World as a separate continent... It was the first map, printed or manuscript, to depict clearly a separate Western Hemisphere, with the Pacific as a separate ocean. The map represented a huge leap forward in knowledge..."

Coming to Mexico, the story behind its name is often linked to a powerful empire. It is said to be derived from the Nahuatl language spoken by the Aztecs, who ruled the region between the 14th and 16th centuries. According to a Mexico government website, the most accepted theory says the name "is formed from three Nahuatl words: *metztli* meaning 'moon', *xicilli* which translates to 'belly button' or 'centre', and the affix *-co* indicating 'place'." It refers to the olden city of Tenochtitlan that now lies in the heart of Mexico City. Mexico's official



Mexican President Claudia Sheinbaum last week. Reuters

According to The New York Times, "The gulf's name first appeared on maps used by Spanish explorers in the 16th century, well before the founding of the United States. Last Wednesday, Sheinbaum displayed a map from 1607 that included the Gulf of Mexico."

It is a significant region for the US, especially for energy resources. The government's Energy Information Administration states: "Gulf of Mexico federal offshore oil production accounts for 14% of total US crude oil production and federal offshore natural gas production in the Gulf accounts for 5% of total US dry production. Over 48% of total US petroleum refining capacity is located along the Gulf coast, as well as 51% of total US natural gas processing plant capacity."

Can Trump rename the Gulf of Mexico?

The Associated Press reported that any renaming would not be a "unilateral deci-

sion" of the US. It added, "The International Hydrographic Organisation -- of which both the United States and Mexico are members -- works to ensure all the world's sea oceans and navigable waters are surveyed and charted uniformly, and also names some of them. There are instances where countries refer to the same body of water or landmark by different names in their own documentation."

For instance, multiple nations have made overlapping claims regarding the South China Sea. However, there is no dispute over the Gulf of Mexico and before Trump, no major US politician ever demanded its renaming.

John Nyberg, the director of the International Hydrographic Organisation told The NYT there is "no formal international agreement or protocol in place for naming maritime areas".

And what about the Gulf of Mexico?

- President-elect Donald Trump announced plans to rename the Gulf of Mexico to the "Gulf of America" on January 7. This statement was part of a broader critique of Mexico's trade deficit and illegal immigration issues. Trump also made hostile remarks about US neighbors, including threats to take control of Greenland and the Panama Canal, and referred to Canada as the "51st" US state. He justified the renaming by stating that the US does most of the work in the region and that the new name is appropriate.
- The Gulf of Mexico is a semi-enclosed basin connected, to the south, to the Caribbean Sea, and to the North Atlantic Ocean to the east.

HEADLINES OF THE DAY



PIB-IR(GSII)



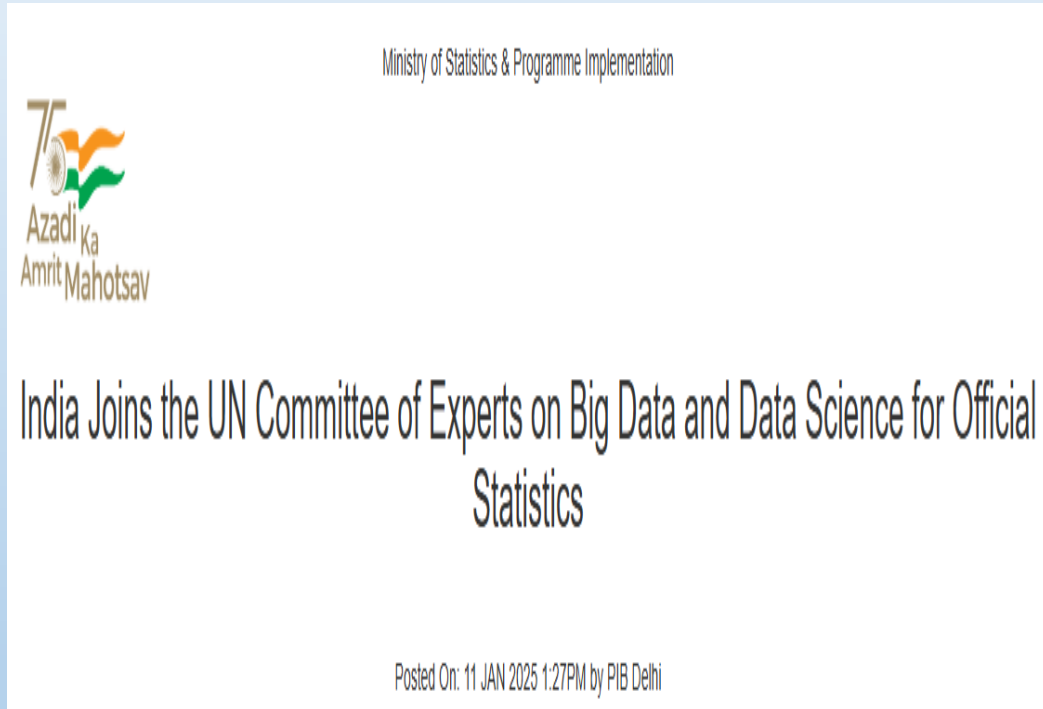
- The India-Nepal Inter-Governmental Committee (IGC) on Trade, Transit, and Cooperation to Combat Unauthorised Trade was held in Kathmandu from January 10-11, 2025.
- Secretary, Department of Commerce, Government of India, Shri Sunil Barthwal led the Indian delegation which included senior officials from various Ministries and the Embassy of India in Kathmandu.
- This meeting of the IGC, a bilateral mechanism aimed at strengthening trade and investment ties, carried out a comprehensive review of the whole gamut of bilateral trade and economic relationship. Both sides reviewed mutual market access issues, IPR and duty related issues. The agenda also included discussions on review of the Treaty of Transit and the Treaty of Trade, proposed amendments to existing agreements, the harmonization of standards and the synchronized development of trade infrastructure including the electrification of the Raxaul-Birgunj rail line.

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HEADLINES OF THE DAY



PIB-Economy(GSIII)



- In a significant milestone, India has joined the prestigious UN Committee of Experts on Big Data and Data Science for Official Statistics. The UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD) was created to further investigate the benefits and challenges of Big Data, including the potential for monitoring and reporting on the sustainable development goals.
- The inclusion in this expert committee comes at a pivotal time, as India recently assumed membership of the United Nations Statistical Council after a significant gap. India's inclusion in the Committee of Experts represents a significant leap forward for the country's statistical ecosystem. As part of the committee, India will contribute to shaping global standards and practices in harnessing big data and data science for official statistical purposes. This milestone underscores India's growing stature in the global statistical community and highlights its commitment to leveraging data and technology for informed decision-making.
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HEADLINES OF THE DAY

Air-Places (GSI)

India Extends Humanitarian Aid To Cuba After Hurricane Rafael



Cuba is a country in the Caribbean region.

Capital: Havana

Location: Cuba is located where the northern Caribbean Sea, Gulf of Mexico, and the Atlantic Ocean meet.

Cuba's terrain is mostly flat or rolling plains, with rugged hills and mountains in the southeast.

Highest point is **Pico Turquino**

It is a part of the Sierra Maestra Mountain range, located in the southeast of the island.

The country's longest river is the Cauto;

