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Discussion on Newspaper Analysis

Special class

Abhaykumar M Havalad • Oct 2, 2023

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Gross GST revenue growth slowed to 10.2% in Sept.

Vikas Dhoot
NEW DELHI

Growth in India's gross Goods and Services Tax (GST) revenues slowed to a 27-month low of 10.2% in September, from around 10.8% in the previous two months. However, collections improved 2.3% over August revenues to touch ₹1,62,712 crore.

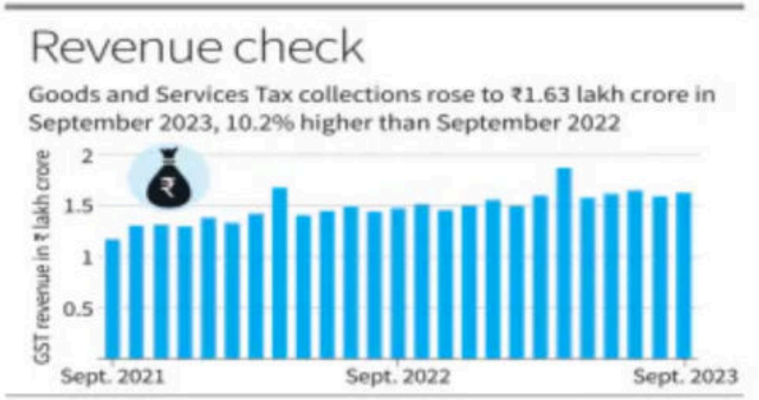
Revenues from domestic transactions, including services imports, were 14% higher than the tax collected from these sources during September 2022. This is the fourth time that the gross GST kitty has crossed the ₹1.60 lakh crore mark in 2023-24, the Finance Ministry said.

GST inflows from goods imports had recovered from two months of contraction to grow 3% in August, but shrank again in September, albeit by a fraction. While the Finance Ministry did not specify the extent of decline in its statement, back-of-the-envelope calculations show that GST revenues from goods imports dropped 0.11% from last September.

The last time that GST revenues grew at a slower pace was in June 2021, when collections rose a mere 2% amid the second wave of the COVID-19 pandemic. The revenues in that month were based on domestic transactions between June 5 and July 5, since taxpayers were given various relief measures in the form of waivers and reduction in interest on delayed filings for firms with an aggregate turnover up to ₹5 crore.

Last month's GST revenues, based on transactions carried out in August, included Central GST (CGST) collections of ₹29,818 crore, State GST (SGST) of ₹37,657 crore, and Integrated GST (IGST) of ₹83,623 crore, which included ₹41,145 crore collected on goods imports.

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Gross GST revenue growth slowed to 10.2%

GST compensation cess inflows were ₹11,613 crore, including ₹881 crore collected on the import of goods.

"The government has settled ₹33,736 crore to CGST and ₹27,578 crore to SGST from IGST. The total revenue of Centre and the States in the month of September, 2023 after regular settlement is ₹63,555 crore for CGST and ₹65,235 crore for the SGST," the Finance Ministry said.

Manipur highest, Bihar sees contraction

Revenues in strife-torn Manipur, which recovered from a contraction in August, recorded the highest growth among States in September, rising 47%. GST revenues in Telangana grew 33%, followed by Jammu and Kashmir (32%), Arunachal Pradesh (27%), Tamil Nadu (21%), and Karnataka (20%).

As many as 17 States recorded revenue growth below the national average of 14%, while 12 States reported 14% or higher growth. States seeing a slower uptick included Gujarat, Uttar Pradesh, Kerala, Haryana, Odisha, and Jharkhand, with Delhi, Meghalaya, and Assam recording the weakest growth of 2%, followed by West Bengal (3%).

Bihar was the only State to report an actual contraction in GST collections in September, with revenues down 5%. The Union Territories of Lakshadweep, and Andaman and Nicobar Islands also clocked a sharp decline in revenues, which fell 45% and 30% year-on-year, respectively. By contrast, revenues shot up 81% in the Union territory of Ladakh.

Settling pending dues

A part of the rise in September's revenues could have been spurred by businesses settling pending tax dues since the start of the GST regime in 2017-18, tax experts reckoned.

"With normal period of limitation for the financial year 2017-18 ending on September 30, some of this increased collection could be linked to businesses having settled issues with payment of taxes for the said period," said Abhishek Jain, indirect tax head and partner at KPMG. Revenues from the indirect tax may rise further with the festive season around the corner, he added.

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Oil firms raise ATF and commercial LPG prices

Commercial cooking gas prices rise by ₹209 a cylinder; establishments such as restaurants to shell out more for fuel; in the fourth monthly increase since July, the price of jet fuel hiked by 5%

The Hindu Bureau
NEW DELHI

Oil companies on Sunday raised the price of commercial cooking gas by a sharp ₹209 per 19-kg cylinder. And, in the fourth straight monthly increase since July, the price of aviation turbine fuel (ATF), or jet fuel, was raised by 5%.

The price of a 14.2-kg domestic LPG cylinder though remains unchanged.

The increase in prices of commercial LPG may add to the expenses of commercial establishments such as hotels and restaurants. A 19-kg cylinder now costs ₹1,731.50 in Delhi, ₹1,684 in Mumbai, and ₹1,898 in Chennai.

The latest increase largely reverses the cut of ₹157.5 a cylinder made on September 1 and the ₹100 cut on August 1.

The ₹200 reduction in the price of domestic cylinder made in August is applicable to beneficiaries enrolled in the Pradhan Mantri Ujjwala Yojana (PMUY), meaning a total subsidy of ₹400 for every 14.2-kg LPG cylinder. The Union Cabinet had approved approximately 75 lakh new LPG connections under the Prime Minister's Ujjwala Yojana in September. The initiative aims to provide these connections over the next three years at an estimated cost of ₹1,650 crore.

The revision in rates of ATF is expected to lead to a rise in airfares ahead of the festive season. Airlines attribute approximately 40% of the ticket price to fuel costs. ATF prices are notified on the first of every month by state-owned fuel retailers. They are revised based on the average international price in the previous month. The ATF price has now increased to ₹1,18,199.17 a kilolitre (kl) in Delhi, ₹1,22,423.92 in Chennai, and ₹1,10,592.31 in Mumbai for domestic airlines. ATF prices had seen their steepest-ever hike of 14.1% in September, an 8.5% hike in August and 1.6% in July. After Sunday's increase, jet fuel prices have gone up by a whopping ₹29,391.08 per kl.

Dearer fuel

Price of jet fuel increased by ₹5,779.84 per kilolitre, or 5.1 per cent, in the national capital to ₹118,199.17 per kl

- The price of aviation turbine fuel (ATF) increased by 5% in the fourth consecutive hike since July. This price increase is expected to impact airfares as approximately 40% of ticket price is attributed to ATF price
- The rates of 19-kg commercial cooking gas (LPG) were raised by ₹209. This hike may lead to higher expenses for hotels and restaurants
- The price of 14.2-kg domestic LPG cylinder that had been slashed in August has remained unchanged
- The Union Cabinet approved 75 lakh new LPG connections under the Ujjwala scheme in September



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AFSPA extended in 4 districts of Assam

Press Trust of India
GUWAHATI

The Assam Police on Sunday said the Armed Forces (Special Powers) Act has been extended in four districts of the State for six more months.

At the Assam Police Day celebrations here, Director-General of Police Gyanendra Pratap Singh said the "disturbed area" tag, which allows enforcement of the AFSPA, has, however, been withdrawn from four other districts.

"From today, only four districts in Assam will have AFSPA. These are Dibrugarh, Tinsukia, Sivasagar and Charaideo," Mr. Singh said.

The AFSPA has been withdrawn from Jorhat, Golaghat, Karbi Anglong and Dima Hasao with effect from October 1, the DGP added.

The Assam government had last extended the "disturbed area" notification under the AFSPA for another six months with effect from April 1 in these eight districts.

"Assam has reached a peaceful stage after passing through a volatile phase during the last 30 to 40 years," Mr. Singh said.

On September 9, Chief Minister Himanta Biswa Sarma had said that the Cabinet approved recommendation for withdrawal of the "disturbed area" tag from the eight districts.

The AFSPA was first imposed in Assam in November 1990.

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J&J not to enforce patents on TB drug

Bindu Shajan Perappadan
NEW DELHI

The U.S.-based drug maker Johnson & Johnson has announced that it will not enforce patents for Sirturo – its brand name for bedaquiline, which is used in the treatment of multi-drug-resistant tuberculosis – in 134 low- and middle-income countries.

The decision follows global pressure on the company against pursuing secondary patents on its breakthrough tuberculosis drug, including the Indian Patent Office's rejection of J&J's secondary patent application for the fumarate salt of bedaquiline.

Bedaquiline is the first drug for tuberculosis, or TB, to be globally approved in over 40 years, and is less toxic and more effective than traditional TB treatments.

"The announcement will finally pave the way for unfettered access to affordable generic versions of bedaquiline for all people living with drug-resistant tuberculosis who need the drug in low- and middle-income countries. This success is a testament to the persistent efforts of TB activists, civil society and also countries prioritising public health over corporations' interests," said the Access Campaign, which is part of Médecins Sans Frontières, a medical humanitarian organisation.

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J&J not to enforce patents on TB drug

The group's statement notes that after J&J lost its attempt to extend its monopoly in India, national TB treatment programmes from Ukraine and Belarus also requested the company to drop its secondary patents in their countries.

"The recent investigation by the South African Competition Commission undoubtedly added significant pressure on J&J, ahead of their announcement," the Access Campaign said.

Japanese drug is next target

The group added that it now wants to see Japanese pharma major Otsuka follow suit and publicly announce that it will not enforce any secondary patents in low- and middle-income countries for the other critical new TB drug Delamanid, especially as the corporation's primary patent is set to expire in 10 days in India and other countries.

Delamanid is another key drug-resistant TB drug used in combination with bedaquiline, and is particularly important for the treatment of children.

Meanwhile, at least three Indian companies – Lupin, Natco, and Macleods – have reportedly said that they are preparing to bring out generic versions of bedaquiline.

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Kashmir bat industry hits its sweet spot after 102 years

Peerzada Ashiq
SANGAM (ANANTNAG)

For the first time in the 102 years of its manufacturing history in the Valley, the Kashmir bat will be used in 50-over World Cup matches. At the International Cricket Council (ICC) Men's Cricket World Cup 2023, hosted by India and which begins on Oct 5, the Afghan team will be wielding the Kashmir willow.

"Players of Team Afghanistan have our bats in the tournament this year. At least five Afghan players have already used them in the past," says Fawzul Kabiir, 31, managing director of the GR8 cricket bat company.

Displaying grand posters of international cricketers like Virat Kohli and Babar Azam, bat manufacturing units and their outlets, dotting the national highway in south Kashmir, are in a celebratory mood this year.



The first stage: Willow is cut to size and stacked at a factory in Sangam village in Anantnag district of Kashmir. NISSAR AHMAD

In November last year, the bats tasted success when UAE player Junaid Siddique hit Sri Lankan bowler Dushmantha Chameera to a 109-metre six, making it the longest six in the T20 World Cup, and bringing the bats manufactured by their company into international focus.

"I always dreamt of seeing Kashmir bats at the global level. The longest six proved good for us. Over one lakh bats were exported after the World Cup appearance last year," Mr. Kabiir says.

Kashmir's bat industry is mainly concentrated in south Kashmir's Pulwama and Anantnag districts, with willow groves growing in the wet highlands nearby. Around 200 bat manufacturing units engage around 50,000 people for production. The female cultivar of white willow is considered the best for bats. Each cleft is expertly shaped, especially the middle spot and the toe blade. A bat weighing around 2 pounds and 7 ounces (a little over 1 kg) remains the most preferred bat globally.

"Kashmir exported around 1.35 lakh bats in 2022. Our company manufactures around 3,000 bats a month these days because the demand is up," says a visibly pleased Mr. Kabiir. His company was the first in Kashmir to get a certification from the ICC in 2021 and also bagged a contract to supply bats to the Oman Cricket Board the same year. As per official government estimates, 1.5 million bats are manufactured in Kashmir annually.

Khalid Mir, another bat manufacturer in Anantnag's Khanabal town, has hired extra hands to meet the demand. The World Cup has already propelled cricket fever in Kashmir. "We work in double shifts to meet the demand which has gone up from 500 bats a month to over 1,500," says Mr. Mir.

Owners of several other bat manufacturing units also said the demand is up by three times this year. They have received bulk orders from Maharashtra, Gujarat, Karnataka, Punjab, Delhi, and Kerala.

"Customized bats are becoming popular among domestic cricketers now. A player gets to choose the weight and position of sweet spots of a bat," Mr. Mir explains.

However, Mr. Kabiir says the bat's sweet spot remains popular at the lower middle in Asia because of the pitch condition, as the ball remains low. "In the West, the sweet spot is higher up because of bouncy tracks," he adds.

It was industrialist Allah Baksh from Pakistan who established the first cricket bat unit in Bijbehara's Halmulla area in the 19th Century. It achieved the status of small scale industry by 1922. Bat clefts would be ferried through the Jhelum Valley road, getting its finishing touch at Sialkot in Pakistan. Then, they were used by the British, who introduced the game to India.

"However, it was the English willow that remained the preferred bat among international players because we could not get the science and the specifications right. But I see a great future for Kashmir bats with new technology," says Mr. Kabiir, who also supplied bats to the Sri Lanka and the Bangladesh teams in 2022.

Around 75,000 willow trees are cut annually to keep the bat industry in the State ticking. A tree that attains a girth of 58 inches (147 cm or so) is felled for the bat industry. Manufacturers say the raw material is depleting now. "Only around 3,000 trees were available this season. The government needs to promote organised willow farming and maintain the supply as per the demand," Mr. Kabiir says.

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Change in Maldives

India must engage with the new government in Male and deepen ties

The Maldives has chosen a new leader, replacing President Ibu Solih, who won by a landslide in 2018, with Mohamed Muizzu, the Mayor of Male and the choice of the previous ruling party, the PPM. Mr. Muizzu won Saturday's presidential run-off that followed an inconclusive first round in which no candidate crossed 50% of the vote, winning nearly 54% to Solih's 46% in this round. Mr. Solih's electoral loss is being attributed to a heavy anti-incumbency sentiment and concerns over the post-COVID-19 economy that is dependent on tourism, the rift within Solih's party, the MDP, due to a rupture in his old friendship with former President Mohamed Nasheed, as well as concerns over "sovereignty" issues, whipped up by Mr. Muizzu's PPM that is behind an "India out" campaign to oust Indian military personnel. PPM chief and former Maldives President Abdulla Yameen, the chief architect of that campaign and serving a jail term of 11 years, was openly at odds with India during his tenure. He had paved the way for a free trade agreement with China and loans for infrastructure projects that the Opposition said had led the Maldives into a "debt trap". Mr. Solih turned the Maldives's international compass, committing publicly to an "India First" policy, as New Delhi undertook many infrastructure projects, assisted the Maldives during the pandemic, and helped it during the campaign to have Maldives Foreign Minister Abdulla Shahid elected President of the UN General Assembly. As a result, the Solih-Muizzu run-off was billed as an India versus China contest by commentators, who have sought to portray the result as a "setback" for India.

Prime Minister Narendra Modi was among the first to congratulate President-elect Muizzu on social media. New Delhi must avoid the impression that it has favourites within the Maldivian polity. The ball is now in Mr. Muizzu's court to take up the promise of keeping India-Maldives ties close – he has not himself criticised India in the way his party has. Among his tasks would be shoring up the Maldivian economy as debt repayments come due, and taking lessons from events in the neighbourhood such as Sri Lanka's handling of its economic crisis. It remains to be seen whether he will ensure the release of Mr. Yameen, and what control the previous President will have over the new government. Mr. Muizzu will have to preside over an upcoming referendum vote, which Mr. Nasheed has pushed for, to decide whether the Maldives will revert to a parliamentary system rather than the presidential one. Given its location in the Indian Ocean, along key shipping routes, Mr. Muizzu will have to balance traditional, strategic interests with India, which is its closest and most powerful neighbour, while engaging China and the United States, that keenly watch developments there. It is important that neither Delhi nor Male view these interests through the prism of "zero sum" games, as that has led to tensions between them in the past.

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Victory for the weak

The Vachathi judgment brings to a just closure the fight of a tribal people

A tribal community in Tamil Nadu that witnessed state-led brutality three decades ago has just won a battle that reinforces faith in the democratic process and the criminal justice system. This victory, on September 29 at the Madras High Court, signals a paradigm shift in Indian jurisprudence, for it is the first time that a community of 655 Adivasis defeated the collective might of the state. The people of Vachathi in Tamil Nadu's Dharmapuri district, who for generations lived in the idyllic foothills of Chiteri in the Eastern Ghats, had their lives altered on June 20, 1992. Police, forest and revenue officials – 269 in number – descended upon the village and accused the villagers of hoarding illegally felled sandalwood and allowing a conduit to smuggling. For the next three days, the villagers, women, the elderly and children included, were beaten up, their homes destroyed, wells poisoned and 18 women, including a girl, raped. All this happened under the watch of Jayalalithaa, who was the Chief Minister.

The state refused to register a case against its officials, forcing the villagers to approach the Madras High Court to seek a Central Bureau of Investigation inquiry. The CBI filed its charge sheet in 1996, and the case was tried by a Sessions Court in Dharmapuri for another 15 years. While the villagers won an unprecedented victory at the trial court in 2011 that convicted all the accused on charges ranging from rape to atrocities under the SC/ST (Prevention of Atrocities) Act, 1989, this order was stayed by the Madras High Court on appeals by the bureaucrats. Successive State governments under the DMK and the AIADMK, chose to protect their bureaucrats. At a time when the judiciary has been at odds with the government over attempts to maintain the autonomy of the three branches of governance, the High Court's judgment upholding the trial court's conviction, warns an elected government that it cannot rule with impunity. And while the SC/ST law has often been criticised for being ineffective, Vachathi is a rare instance where it has served its purpose. This judgment is also a pivotal moment in the long battle for Adivasi rights. It will be remembered as a case where despite India's stark inequities, the convergence of an alert civil society, committed lawyers, an independent judiciary and the resolve of victims seeking justice, could still work a democratic Constitution and the judicial system to their advantage.

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India's statistical performance on the global stage

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The World Bank's compilation of Statistical Performance Indicators (SPI) ranks India 67 among 174 countries in 2019. Analysis reveals both shortcomings and a commendable performance in various aspects of SPI. The importance of SPI evaluation to enhance international competitiveness has been highlighted in this article with recommendations for strategic improvements in critical pillars. There is also a need for more robust representation to the World Bank to refine SPI.

As India celebrates its election to the United Nations Statistical Commission, India's own official statistical system has come under scrutiny within the country recently. Questions have been raised about the credibility of the statistics it produces and the competence of the official statisticians. Even acclaimed statistical methods devised to generate these statistics, which were subsequently adopted by other developing countries, now face questioning. What is even more surprising is the assertion that the results of statistical exercises, such as censuses and surveys, are claimed to be of poorer quality when compared to data from administrative sources, most of which suffer from uncertain coverage and conceptual shortcomings. In general, the statistical system is now facing a trial. In this context, looking at the international rankings of national statistical systems compiled by the World Bank can provide valuable insights.

The SPI and dimensions

The World Bank compiles SPIs to assess the performance of national statistical systems across 174 countries. The SPI is based on the assessment of five dimensions of performance, commonly referred to as the "five pillars" of a national statistical system, i.e., data use; data services; data products; data sources, and data infrastructure.

India's Score 2019 (SPI Overall Score: 70.4; Pillar 1 - Data use: 80.0; Pillar 2 - Data Services: 88.0; Pillar 3 - Data Products: 60.0; Pillar 4 - Data Sources: 68.9; Pillar 5 - Data Infrastructure: 55.0) and India's Rank 2019 (SPI Overall Score: 67; Pillar 1 - Data Use: 101; Pillar 2 - Data Services: 35; Pillar 3 - Data Products: 105; Pillar 4 - Data sources: 31; Pillar 5 - Data infrastructure: 73).

The latest available scores are from 2019. According to these scores, India's overall SPI score stands at 70.4, placing it in the 67th rank (ranks are self-computed) among the 174 countries assessed. The pillar-wise scores show India's lower performance in the 'Data use' and 'Data products' pillars, with scores of 80 and 60, respectively, resulting in poor rankings of 101 (with an average rank of 116.5) and 105.

The score in the 'Data use' category depends on how different sectors of society, including the legislature, executive, civil society, academia, and international bodies, utilise the statistics produced by the system. The SPI assessment 2019 considered only data usage by international bodies. India performs well in measures assessing the comparability of estimates of child mortality, debt reporting, drinking water, and labour force participation. However, it loses 20 points due to the unavailability of comparable poverty estimates for the World Bank over the last 10 years (from 2017). This stems from a new comparability indicator introduced by the World Bank's PovcalNet for poverty estimation. It is important to note that India did produce poverty estimates within this period through the NSS Consumption Expenditure Survey.

Even as India celebrates its election to the United Nations Statistical Commission, the country's own official statistical system is under scrutiny

An India assessment

The pillar 'Data Products' anchors the national statistical system's performance around the essential data required for Sustainable Development Goals (SDGs). To improve upon this, India has already taken the right step by conducting a Multiple Indicator Survey and Comprehensive Annual Modular Survey in the NSS 78th round (2020-21) and 79th round (2022-23), respectively, for collection of data on SDGs.

Regarding 'Data infrastructure', India's score is 55, ranking 73 (with an average rank of 75.5). This pillar encompasses five sub-dimensions: 'Legislation and Governance', 'Standards and Methods', 'Skills', 'Partnership', and 'Finance' ('Skills' and 'Partnership' were not considered for SPI 2019). India's scores for 'Legislation and Governance' are high, given that the national statistical legislation aligns well with the Fundamental Principles of Official Statistics. Nonetheless, the overall score for 'Data infrastructure' is diminished due to moderate performance in 'Standards andmethods' and poor performance in 'Finance'.

In 'Standards and Methods', India fares well in indicators assessing the adoption of System of National Accounts (SNA) 2008, COICOP (Classification of Individual Consumption According to Purpose), and the latest standards for the compilation of government finance statistics, monetary, and financial statistics.

However, the score in this dimension decreases due to the non-adoption of the latest standards for classifying employment status (such as International Classification of Status in Employment or ICSE-93 or North American Industry Classification System or NAICS 2012), the accounting basis for reporting central government financial data, and the non-utilisation of the Generic Statistical Business Process Model (GSBPM). This is perplexing given that the process followed in NSS surveys closely mirrors and predates the adoption of the GSBPM. The 'Finance' category receives a low score since, according to the World Bank, India's national statistical plan lacks full funding. India excels in data services (score 88, rank 35) and data sources (score 68.9, rank 31), securing a place in the top quintile for these pillars. Under data sources, three indicators are evaluated (with the fourth indicator not considered in 2019): censuses and surveys, administrative data, and geospatial data. Among these indicators, censuses and surveys (score: 100/100 for censuses and 86.6/100 for surveys) contribute the most to India's ranking, followed by administrative data (score: 50/100), and finally, geospatial data (score: 38.9/100).

The relatively low score of administrative data is mainly due to non-fulfilment of criteria of at least 90% registration of births under the Civil Registration System (CRS). The World Bank has taken the estimate of coverage under CRS from the UN SDG monitoring database, which shows estimates of coverage as 89% for children under five and 87% for children under one . However, these estimates are actually derived from the National Family Health Survey conducted between 2019 and 2021– a period significantly affected by lockdowns following COVID-19. Conversely, the publication of the Office of the Registrar General of India), "Vital Statistics of India", cites the coverage of births under CRS for 2019 at approximately 93%, which is a much more reliable source than NFHS for estimation of coverage of CRS.

In the 'Data services' dimension, India gets full points for data releases and data services, yet avenues for improvement remain in terms of online accessibility. Enhancements in this area could be achieved by improving download options, providing more comprehensive metadata availability, and open terms for data usage. India's commendable rank of 40 in the 'Openness' score from Open Data Inventory deserves recognition.

SPI score, its relevance

Clearly, the SPI for 2019, as compiled by the World Bank, underscores India's superior performance in censuses and surveys in comparison to administrative data. A thorough examination of the SPI score is crucial to drive improvement and enhance international competitiveness. It is through identifying issues and establishing attainable goals that a substantial rise in rankings can be achieved. For instance, achieving a 20-point increase in each of the three pivotal pillars ('Data products', 'Data use', and 'Data infrastructure') would have positioned India at 34 in 2019. Moreover, proactive engagement with the World Bank to fortify the robustness of the SPI is warranted. Use of "Vital Statistics of India" in place of the NFHS for estimating the registration of births and deaths is one such case.

The views expressed are personal

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A time to articulate new constitutional ideas for India



Arghya Sengupta

is the author of 'The Colonial Constitution'

The Government of India is on a mission to decolonise the country. Edwin Lutyens and Herbert Baker's grand Parliament building has just given way to Bimal Patel's modern reinterpretation and the name "Bharat" is being used more frequently to describe the country, challenging the monopoly of "India". So far, names and buildings are on the chopping block. But what about the Constitution? Should it change? If so, in what way? And following whose ideas?

Hind Swaraj

When we think of the Constitution of India, our mind may naturally go back to 1950 when it came into force. But constitutional ideas in India predated it. A startlingly original, indigenous account of what the Constitution would look like was presented by Mahatma Gandhi in 1908. Gandhi was steadfast in his view that without decolonising the Constitution, we may become independent but would not have swaraj. The English would be driven away and India would get itself a new democratic government, but the nature of government itself would not change. It would be "English rule without the Englishman", "not Hindustan but Englistan".

But what kind of constitution would India have? For him, a swaraj constitution ought to ideally be based on ancient village republics and not a large government in Delhi. The economy would be founded on ordinary Indians producing enough to be self-sufficient and trading the rest at local markets. India would be united not because a constitution promised rights, but because Indians themselves considered it their duty to forge a nation out of a people.

His ardent follower, Shriman Narayan Agarwal was given the task of drafting such a constitution to put Hind Swaraj into action. But Agarwal's draft of the "Gandhian Constitution for Free India", first published in 1946, was less of a legal text and more a moral code. In it, the rights to personhood, liberty and equality would be contingent on a duty to be faithful to the state.

As legal provisions, these were absurd. How would a citizen have to demonstrate loyalty? If they failed, could they be killed because the right to personhood was dependent on it? When properly thought through, the Gandhian Constitution was a recipe for untold oppression.

Handing it over to Ambedkar

This is why Gandhi pragmatically distanced himself from a constitution that bore his name. At that time, there was considerable momentum towards a progressive post-war constitution based on a big state with the authority to ensure law and order, separation of powers to prevent overreach and a range of fundamental rights to capture the global move towards universal human rights for all. Gandhi found such a constitution "entirely Western" but grasped its prospect of consensus instinctively.

He himself rang the death knell of the Gandhian Constitution by persuading Rajendra Prasad to appoint B.R. Ambedkar as the Chairperson of the Drafting Committee of the Constitution in August 1947. Ambedkar had a clear and well-articulated vision of what India's Constitution should look like. It was nothing like Gandhi's.

He believed that India needed a powerful state machinery that could ensure law and order at the margins of the country. Gandhi on the other hand believed that a large state would be too distant from the people. For Ambedkar, the state would be duty-bound to manage the economy and control industries for the common good. But for Gandhi, self-sustaining villages based on agriculture and cottage industry were the way forward. Centuries of feudalism, sectarianism and casteism would be uprooted, in Ambedkar's vision, through fundamental rights to life, liberty and equality for every individual. Gandhi thought differently: history could not be undone by a policy document such as a constitution – it needed individuals to change themselves.

Gandhi had grave disagreement with each of Ambedkar's visions but realised that they enjoyed a wide consensus across party lines. As a result, he was content in letting his ideal constitution wait its turn.

A constitutional moment?

Today, we are much like India was in 1908 when Gandhi wrote *Hind Swaraj* – a nation in flux – than in 1950, when India was a nation imbued with new-found freedom. This is why it is a good time not to draft a new constitution, but to articulate a vision of what new constitutional ideas India needs. These ideas have to be built not just on the existing Constitution worked on by B.R. Ambedkar and other members in the Constituent Assembly but also with the Gandhian ideas they ignored as too radical. This is not a suggestion to be pre-modern as many Gandhian thoughts were. Rather, it is an invitation to ask the fundamental question that Gandhi did – what kind of constitution can bring good governance to India? During the frenetic years of 1947-1950, the urgency to enact a constitution for free India meant that this question had to be given a go-by. Seventy-five years on, it is time to set that right. Unlike names and buildings, constitutions do not, and should not change overnight. But that does not mean that they should not change at all.

These ideas have to be built not just on the existing Constitution but also with the Gandhian ideas ignored earlier as too radical

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An ageing India needs age-responsive TB care

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is an independent consultant associated with REACH and authored 'TB in the Elderly: A Rapid Assessment Report'

India is moving towards a future where the elderly will make up a significant proportion of society, primarily due to advances in health care and increased life expectancy. In 2011, about 9% of India's population were over the age of 60. This is expected to increase to 12.5% by 2030. The elderly represent a storehouse of wisdom, and respect for their rights and freedoms benefits society. On International Day of Older Persons (October 1), we must resolve to invest in the health of our elderly population, and pay attention to their unique needs.

This is especially true in the case of tuberculosis (TB), which affects over 25 lakh Indians every year, and kills at least 1,000 every day. India's National TB Prevalence Survey, 2021, revealed that the prevalence of TB in people over the age of 55 was 588 (per one lakh population), much higher than the overall national prevalence of 316. These findings were the starting point for a first-of-its-kind rapid assessment report on TB among the elderly, which we published earlier this year in collaboration with the National TB Elimination Programme and the U.S. Agency for International Development, highlighting TB's impact on the elderly and the need for age-specific TB guidelines.

How TB impacts the elderly

Interviews with older persons with TB revealed that their TB care journeys were fraught with challenges at every step, resulting in an overall sub-optimal experience. Symptoms of TB including cough, fatigue and weight loss are mistaken as signs of other diseases or dismissed as signs of old age. The risk of having a TB diagnosis delayed or missed altogether is higher for the elderly compared to other adults.

Once diagnosed, management of TB among the elderly is often complicated by multiple comorbidities, particularly diabetes. At an individual level, this means a higher pill count and an increased likelihood of side effects. At a health system level, this can result in irregular treatment adherence and poor outcomes, including death. Some older people with TB spoke about their lowered 'will to live', especially in the absence of social and emotional support systems.

Once diagnosed, management of TB among the elderly is often complicated by multiple comorbidities, particularly diabetes

Older people, and older women in particular, also face specific challenges in accessing health services. For instance, in rural and hilly areas, they struggle to travel to health facilities by themselves. Their access to reliable information on health is also limited – social networks inevitably shrink for the elderly. Older persons also experience infrastructure-related challenges such as lack of adequate seating. Crucially, they may not have access to high-quality nutritious food, which is critical for recovery.

All of this is augmented by a loss of economic independence. Most people over the age of 60 are no longer working; they are living off savings or they are completely dependent on families. There are some social welfare schemes for the elderly but these are limited in scope and difficult to access. Data on TB-related stigma among the elderly is sparse but we know that ageism is real and has been recognised by the World Health Organization as a cause of poor health and social isolation. Many older people we spoke to referred to their fragile mental health, accentuated by the loss of purpose and connection, loneliness from losing spouses or family, and the anxiety of not being 'useful'.

Building age-responsive care

So, how can we design and deliver TB care that is elder-friendly? First, we must move away from disease-specific, vertical care programmes to holistic care models that reduce the need for the elderly to interact with multiple providers and facilities. We must also build capacity among health professionals at all levels for an improved clinical understanding of TB in the elderly and better management of multiple morbidities. Case-finding among the elderly can be improved through effective sputum collection and transportation systems, access to mobile diagnostic vans and active case finding at geriatric OPDs, residential homes for the elderly and other institutional settings.

Technical and operational protocols that provide clear guidance on diagnosing and treating TB in the elderly – for example, sample extraction protocols, comprehensive assessment of co-morbidities and drug dosage adjustments – need to be developed.

To address socio-economic needs, we must design and roll out well-considered support protocols, with inputs from elderly people with TB. Examples include an elder-focused community care model with linkages to local caregivers; doorstep delivery of medicines; age-responsive peer support and counselling for older people and their families; special help desks for the elderly at facilities; and support with documentation to access social support schemes.

At a macro level, we must ensure rigorous gender and age-disaggregated collection and analysis of data, to identify TB trends across age groups, and to make sure that the elderly are included as a separate age category in all TB reports. An important step towards building elderly-friendly systems is strengthening collaboration within the health system.

Finally, we need a stronger research agenda focused on TB in the elderly, to better understand State-specific trends in case finding and outcomes among elderly people with TB; substance use; drug-resistance and co-morbidity patterns across geographies; uptake of TB preventive therapy in the elderly; and intersectionality with other aspects of equity such as gender, disability, class, and caste.

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Have household savings reduced?

Financial liabilities of households have risen faster than their assets, an indication of rising indebtedness. The government has, however, countered these claims. The Finance Ministry has explained that financial savings are reducing because households have been taking advantage of low interest rates to invest in more physical assets

ECONOMIC NOTES

Rahul Menon

The release of the Reserve Bank of India's (RBI) Monthly Bulletin in September revealed that households' net financial savings had fallen to 5.1% from 11.5% in 2020-21. Financial liabilities of households rose faster than their assets, with many writers highlighting this trend as an indication of rising indebtedness and increasing distress. The government, however, countered these claims. The Finance Ministry explained that while household financial savings may be reducing, it did not imply total savings were falling, since households took advantage of low interest rates after the pandemic to invest in assets such as vehicles, education and homes. These are two contrasting narratives, one of pessimism and distress, the other of optimism. What does data tell us about the state of the economy?



GETTY IMAGES

The optimistic claim

There is evidence to support the government's narrative of a shift from financial to physical assets. Post-COVID, there has been an increase in household construction. Between 2020-21 and 2021-22, the construction sector was the fastest growing sector, growing at nearly 15% (when measured in 2011-12 prices), and 10% between 2021-22 and 2022-23. Only the trade, hotels, transport and communications sector grew faster in the latter period. Housing loans from Scheduled Commercial Banks (SCBs) grew at double-digit rates in all years between 2018-19 and 2022-23, with loans from housing finance companies growing almost 17 times between 2019-20 and 2022-23.

Liabilities in other non-financial assets have also increased. Education and vehicle loans from SCBs increased significantly between 2021-22 and 2022-23, growing at 17% and around 25% respectively. This has led to significant changes in the composition of household savings. The share of physical assets – excluding gold and silver – is almost 60% of households' total net savings, with the share of financial savings reducing from 39.6% in 2017-18 to 38.77% in 2021-22. That is, by taking advantage of the low interest rates set by the RBI in the wake of the pandemic, households may have increased their liabilities not to fuel consumption, but to purchase non-financial assets such as houses.

The pessimistic claim

Other evidence points to a slightly different picture. The fall in household net financial savings was driven largely by a rise in liabilities. Gross financial assets declined marginally as a share of GDP between 2021-22 and 2022-23 from 11.1% to 10.9%. Gross liabilities, remaining steady at roughly 3.8% of GDP between 2019-20 and 2021-22, increased to 5.8% of GDP in 2022-23. This rise in liabilities would not imply households have reduced savings if increasing loans financed the construction and purchase of homes. However, there is evidence to the contrary. While loans for housing, education and vehicles have no doubt increased, other components of personal loans have risen even faster. The share of housing loans in total non-food personal loans from SCBs – including priority sector lending – has fallen from 51.08% in 2018-19 to 47.4% in 2022-23. The share of education loans has fallen from 3.32% to 2.37%, while vehicle loans have remained constant at around 12%.

In contrast, outstanding credit card loans increased from 3.8% to 4.7% over this period, with loans against gold jewellery rising from 1.07% to 2.16%, and the category of "Other Personal Loans" – which excludes loans for purchasing consumer durables – showing the largest rise from 24% to 27.42%. While one cannot say what these loans are being used for, these categories of loans do not necessarily indicate that they are being used solely for asset creation. Households may be taking on credit card debt and taking loans against jewellery to finance consumption. The biggest contributor to the large rise in financial liabilities between 2021-22 and 2022-23 has been loans from non-banking institutions, which grew by almost ten times in just the last year, contributing to 32.1% of the total rise in financial liabilities over this period.

The road ahead

An examination of the data reveals that even though housing loans increased, other forms of loans which might possibly be used for consumption increased even faster. But does this imply distress? It is difficult to say from just one year's data, for we do not know if this is a trend or a one-time event. One could say that households are borrowing to maintain consumption in the face of income loss after COVID and high inflation. On the other hand, it could also be that pent-up demand during the pandemic is being realised in the form of debt-financed consumption, with households optimistic about future repayment.

However, even if the optimistic narrative is true, there are grounds for concern. The U.S. Federal Reserve's commitment to maintaining higher interest rates to combat inflation would have a knock-on effect on interest rates around the world. Rising interest rates in India would cause significant stresses for households to meet increasing liabilities. If households have invested in real estate, rising interest rates would curtail their consumption spending and reduce aggregate demand in the economy. If, however, the narrative of distress borrowing is true, households would be subjected to further stress if interest rates rise. Policy must be observant of the myriad pitfalls facing the Indian economy.

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THE GIST

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The largest climate action lawsuit against 32 countries

How have the countries responded? Are European nations lagging behind in their climate emission goals? Why do bodies like the UNICEF dub the climate crisis as a 'child rights' crisis?

Saumya Kalia

The story so far:

September 27 marked the beginning of a historic legal battle in the climate action movement. Six young people from Portugal, aged 11 to 24, are suing 32 European governments (including the U.K., Russia and Turkey) at the European Court of Human Rights in France's Strasbourg. The plaintiffs began arguing before 17 judges that their governments have failed to take sufficient action against the climate crisis, thus violating their human rights and discriminating against young people globally.

What is the lawsuit?

Duarte Agostinho and Others versus Portugal and Others was filed in September 2020, in the aftermath of the wildfires that consumed Portugal's Leiria in 2017. Over 60 people died, and 20,000 hectares of forests were lost. The recent spate of heatwaves and fires across Greece, Canada and other parts of Europe served as reminders that every increment beyond the 1.5°C temperature threshold would be catastrophic, intensifying "multiple and concurrent hazards," as the Intergovernmental Panel on Climate Change states in its report.

The Portuguese youths claim that European nations have faltered in their climate emission goals, blowing past their global carbon budgets consistent with the Paris Agreement target of limiting global warming under 1.5°C. The nations have thus violated people's fundamental rights protected under the European Convention on Human Rights, including the right to life, the right to be free from inhuman or degrading treatment, the right to privacy and family life and the right to be free from discrimination.

"These European governments are failing to protect us... Our ability to do anything, to live our lives, is becoming restricted. The climate crisis is affecting our physical health and our mental health; how could you not be scared?" said André dos Santos Oliveira, 15, to a media house. Since the 32 countries contributed to climate catastrophes and jeopardised the future of young people, it falls upon the nations to rapidly escalate their emissions reductions and aim higher in curtailing domestic emissions, in line with what scientific evidence shows, the lawsuit argues. Other measures include cutting the production of fossil fuels and cleaning up global supply chains.

The European Scientific Advisory Board on Climate Change (ESABCC), a body which provides scientific advice to EU countries, said countries will have to target an emissions reduction of 75% below 1990 levels (as opposed to the EU's current 55%). "Under some of these principles, the EU has already exhausted its fair share of the global emissions budget," their report states, echoing the plaintiffs' claim that European countries have overstated their carbon budget claims. The EU at present is the sixth largest emitter with 7.2 tonnes of CO_2 per capita, while the world averages 6.3 tonnes per capita.

UNICEF has dubbed the climate crisis as a "child rights crisis", as unhindered carbon emissions and extreme weather threaten access to education, health, nutrition and the future. Research concurs – air pollution is already linked to poor birth outcomes and increased risk of cardiovascular and respiratory diseases. Heat waves are triggering mental health issues.

How have governments responded?

It comes down to cause and effect: countries so far have rejected any relationship between climate change and its impact on human health. For instance, Greece, in its submissions, maintained that the effects of climate change "do not seem to directly affect human life or human health." This is even as the country witnessed devastating wildfires earlier this year and torrential rain and flooding in September.

The Portuguese and Irish governments have dismissed these concerns as 'future fears', arguing that there is no evidence to show climate change poses an immediate risk to their lives. According to *Reuters*, a ruling in the case is expected in the first half of 2024.

THE GIST

- Six young people from Portugal, aged 11 to 24, are suing 32 European governments (including the U.K., Russia and Turkey) at the European Court of Human Rights in France's Strasbourg.
- The Portuguese youths claim that European nations have faltered in their climate emission goals, blowing past their global carbon budgets consistent with the Paris Agreement target of limiting global warming under 1.5°C.
- Countries so far have rejected any relationship between climate change and its impact on human health.



GETTY IMAGES

How government agencies use commercial spyware to target opponents

How was former Egyptian MP Ahmed Eltantawy's device targeted by Cytron's Predator spyware? Is the use of spyware by governments targeting political opponents and dissidents increasing? Have tech companies made modifications to their devices to counter such attacks?

Suheel Ahmed

The story so far:

Between May and September, former Egyptian MP Ahmed Eltantawy was targeted with Cytron's Predator spyware sent via links on SMS and WhatsApp. Apple has since released an update for its products fixing the bug used in the attack. The attack on Mr. Eltantawy came after he publicly stated plans to run for President in the 2024 Egyptian elections, which is especially concerning since Egypt is a known customer of Cytron's Predator spyware, Citizen Lab said in a blog post.

Is this a first?

This was not the first time spyware was used for surveilling a political opponent in a country. In 2021, investigations under the Pegasus Project revealed the massive scale of potential targets of spyware — more than 50,000 phone numbers in 50 countries. Reports shared that victims of the spyware attacks were in India, Azerbaijan, Bahrain, Hungary, Kazakhstan, Mexico, Morocco, Rwanda, Saudi Arabia and the UAE. The Pegasus spyware was also reportedly used by the Kingdom of Saudi Arabia to target journalist Jamal Khashoggi's wife months before his death. Mr. Khashoggi, a U.S. resident, was murdered at the Saudi consulate in Istanbul. He was a known critic of the Saudi Arabian Crown Prince Mohammed Bin Salman.

However, in almost all known cases authorities either chose to deny allegations of the use of spyware or have been non-committal in their response.

What is spyware?

Spyware is loosely defined as malicious software designed to enter a device, gather sensitive data, and forward it to a third party without the user's consent. While spyware may be used for commercial purposes like advertising, malicious spyware is used to profit from data stolen from a victim's device. Spyware is broadly categorised as trojan spyware, adware, tracking cookie, and system monitors. While each type of spyware gathers data for the author, system monitors and adware are more harmful as they may make modifications to a device's software and expose the device to further threats.

What is commercial spyware?

Malicious spyware has been around since the 1990s. Earlier iterations of spyware were limited to being used by criminals to steal passwords or financial information. However, opportunities for governments and law enforcement agencies to use spyware as part of legal investigations led to the development of commercial spyware. Commercial spyware mainly targets mobile platforms and can legitimately be used against criminals and terrorists. However, the lack of global regulations for companies developing spyware has led to their use by authoritarian governments to spy on political opponents.

Commercial spyware, such as the Pegasus spyware from the NSO group, can reportedly not only snoop up information from mobile devices but also turn on the camera and microphone without the owner's knowledge, effectively turning handsets into a spying device.

How are the devices targeted?

Investigations by Citizen Lab and Google's Threat Analysis Group (TAG) revealed that spyware on the former Egyptian MP's device was delivered via network injection from a device located physically inside Egypt. The investigators, therefore, attribute the network injection attack to the Egyptian government with "high confidence".

Mr. Eltantawy's device was infected when he visited certain websites without 'HTTPS' from his phone using his Vodafone Egypt mobile data connection. When he visited those sites, his device was silently redirected to a website, that matches the fingerprint for Cytron's Predator spyware – this is where his device was injected with the spyware, Citizen Lab shared in a blog post. Further investigation revealed that Mr. Eltantawy received several SMS messages in September 2021, May 2023, and September 2023 that posed as messages originating from WhatsApp.

In India, the Pegasus spyware was part of a $2-billion "package of sophisticated weapons and intelligence gear" transaction between India and Israel after Narendra Modi became the first Indian Prime Minister to visit Israel, according to reports published in *The New York Times*. The spyware in India was used against at least 40 journalists, Cabinet Ministers, and holders of constitutional positions, according to reports in *The Washington Post*. The spyware was delivered to the victim's phones by exploiting zero-day vulnerabilities, which means even the device manufacturer was unaware of these exploits.

And while in all these cases, malicious links were sent to the victim's device, reports indicate that the spyware is capable of zero-click attacks. This means that they can infect a device without requiring users to click on a malicious attachment or link.

Is the use of spyware increasing?

Between 2011 and 2023, at least 74 governments contracted with commercial firms to obtain spyware or digital forensics technology, the Carnegie Endowment for International Peace, an independent international affairs think tank, shared in a blog post.

Autocratic regimes are more likely to purchase commercial spyware or digital forensics than democracies – 44 regimes classified as closed autocracies or electoral autocracies are known to have procured targeted surveillance technologies, the post said.

Earlier this year, an Indian defence agency was reportedly purchasing equipment from an Israeli spyware firm that is being billed as a potential Pegasus alternative, according to trade data reviewed by *The Hindu*. The firm in question is Cognyte Software Ltd, which faces a class action lawsuit in the U.S. from investors. In 2022, a report from *The New York Times* shared that the FBI in the U.S. had bought a version of the Pegasus spyware and that Mexican authorities had deployed NSO products against journalists and political dissidents. Similar uses have also been reported in the UAE and Saudi Arabia.

Inconsistencies in democratic governments' approach in tackling human rights abuses and lack of fragmentations in the regulatory framework are seen as enablers in the use of spyware by authorities. An example of this can be noted in the NSO Group establishing subsidiaries in Bulgaria and Cyprus to facilitate selling their products.

Do spyware firms face backlash?

In 2021, after 16 media outlets formed a consortium known as the Pegasus Project and gained access to a list of fifty thousand phone numbers targeted by the NSO group's clients, the U.S. blacklisted the NSO Group, driving the firm to the brink of bankruptcy. However, patrons of the surveillance industry turned to other companies in the domain to accomplish their goals, leaving the spyware industry as a whole relatively unscathed.

Even before the Pegasus Project raised an alarm about the use of spyware by government agencies, Germany's FinFisher and Italy's Hacking Team were dominant players in the market. Products from both companies were linked to surveillance abuses in a range of countries. Israel is the leading exporter of spyware and digital forensics, but the country has not sufficiently prioritised human rights considerations in its export licensing regime, according to Carnegie.

How have tech companies reacted?

Tech giants including Meta, Google, and Apple have taken concrete steps to address the problem of commercial spyware firms exploiting bugs in their software. In the case of Mr. Eltantawy, Apple and Google updated their software to fix the bugs exploited by Cytron's Predator spyware. Apple with its iOS 16 also released a 'Lockdown Mode', which the company called an "extreme protection" designed for high-risk individuals. While the Lockdown Mode in Apple's software limits the device's functionality, it has proven to be a viable option to protect against spyware attacks.

Meta-owned WhatsApp has gone as far as pursuing a lawsuit accusing Israel's NSO Group of exploiting a bug in its software. The lawsuit filed in 2019 seeks an injunction and damages from the NSO Group. WhatsApp has alleged that the spyware firm accessed its servers without permission six months prior to installing the Pegasus software on victim's mobile devices. The current U.S. administration has urged U.S. justices to reject NSO's appeal against the lawsuit.

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India-U.S. relation now on a different plane: Jaishankar

The two nations see each other as optimal and comfortable partners, says Minister at an event in Washington attended by Indian-Americans; he also cites the human bond between the countries

Press Trust of India
WASHINGTON

The India-U.S. relationship is at an all-time high and the two nations have moved to a position where they see each other as very desirable, optimal and comfortable partners, External Affairs Minister S. Jaishankar has said, stressing that like the Chandrayaan, bilateral ties will go to the moon and maybe even beyond.

Mr. Jaishankar made the remarks while addressing several hundred Indian-Americans who had gathered at the India House from various parts of the United States to attend the "Celebrating colours of friendship" event organised by the Embassy of India here on Saturday.

"There is one clear message today that our relationship is at an all-time high. But as they say in America, you ain't seen anything yet. So, we are going to take this relationship to a different level, to a different place," he said at the largest-ever gathering of Indian-Americans at the India House.



S. Jaishankar and Ambassador of India to the U.S. Taranjit Singh Sandhu with the Indian diaspora and others, in Washington. PTI

Mr. Jaishankar said that the success of the G-20 could not have happened without the support of the U.S.

"As the host, when things go well, the host always gets the credit. It's reasonable. But, the G-20 could not have come together if all the members of the G-20 did not work for its success," he said.

"The contribution, the support and the understanding that we got from the U.S. to make a successful G-20, I think that is something I would certainly like to recognise in public in Washington DC," Mr. Jaishankar said amidst applause from Indian-Americans.

"So, it may have been our success in a literal way, but I think it was the G-20 [nations] success. To me, it was also a success of the India-U.S. partnership... please keep giving this partnership the support it needs. And I can promise you that this relationship, like the Chandrayaan, will go to the moon, maybe even beyond," he said.

Mr. Jaishankar said that the human bond between the two countries makes the bilateral relationship unique.

He said the people remember Rajiv Gandhi's visit to the United States in 1985, Mr. Manmohan Singh's visit in 2005 and Prime Minister Narendra Modi's several visits.

"But I have to say that this one (PM Modi's recent state visit) was different, it was different in optics, and if you ask me what has changed, I would say India and the U.S. earlier used to deal with each other and now they work with each other," he said.

He recalled the recent collaborative endeavours between the two countries, all starting with the letter 'I.' These initiatives include the India-Middle East Economic Corridor, I2U2 (India, Israel, the U.S., the UAE), Indo-Pacific cooperation, and the initiative on Critical and Emerging Technologies (iCET).

He said the contribution of the diaspora in building the bilateral relationship is something fantastic.

"If there is something unique about our relationship, it is the human bond that we have. The commitment of the diaspora to the India-U.S. relationship is commendable," he added. The Minister said the India of today is different from what it was earlier.

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Over 9.2 lakh sites host cleanliness drive; PM appeals for *swachhata*

The Hindu Bureau
NEW DELHI

More than 9.2 lakh sites across the country hosted a mega cleanliness drive on Sunday in which people from across the spectrum, including politicians, celebrities and students, participated. Prime Minister Narendra Modi also took part in this cleanliness drive along with Ankit Baiyanpuria, who is a fitness influencer.

"Today, as the nation focuses on *Swachhata* (cleanliness), Ankit Baiyanpuriya and I did the same! Beyond just cleanliness, we blended fitness and well-being also into the mix. It is all about that *Swachh* and *Swasth Bharat* (clean and healthy India) vibe," Mr Modi posted on X (formerly Twitter).



Leading by example: Narendra Modi and Ankit Baiyanpuria taking part in the cleanliness programme, in New Delhi on Sunday. ANI

The post was accompanied by a video which shows Mr. Modi and Mr. Baiyanpuriya wielding brooms and cleaning and picking up trash.

Mega drive

The one-hour cleanliness drive, organised to mark Mahatma Gandhi's birth anniversary, saw NGOs, market associations, self-help groups, faith groups, trade bodies and private sector companies, volunteering for *shramdaan* (labour) in more than 22,000 market areas, 10,000 water bodies, 7,000 bus stands/toll plazas, 1,000 *gaushalas*, 300 zoos and wildlife areas and various other locations in rural and urban India, according to officials.

The Prime Minister had in an episode of *Mann Ki Baat* last week appealed for "one hour of *shramdaan* (voluntary labour) for *swachhata*" on Sunday by all citizens as a tribute to Mahatma Gandhi on the eve of his birth anniversary on October 2.

An array of Union Ministers and high-ranking officials also participated in the cleanliness drive.

Urging people to join the drive, Union Housing and Urban Affairs Minister Hardeep Singh Puri, posted on X: "Come, let's create a new history! At 10 AM today, let's volunteer for an hour, paying homage to Mahatma Gandhi through cleanliness."

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‘Launch was critical for Chandrayaan-3 success’

The launch is much more complex than even the Chandrayaan-3 spacecraft, says ISRO Chairman, as the rocket has to go through the atmosphere, do the turning, do the work under severe conditions, experience stress and strain, and reach the correct orbit; he explains how the unsuccessful attempt by Chandrayaan-2 helped the space agency understand the deficiencies and come up with solutions

INTERVIEW

S. Somanath

T.S. Subramanian

The Indian Space Research Organisation Chairman, S. Somanath, attributes the success of the Chandrayaan-3 mission to the result of the hard work of people in the space agency, rigorous reviews, and meticulous corrective action. He speaks about the learnings from Chandrayaan-2 and why a launch is the most critical event for a mission. Edited excerpts:

What were the contributing factors that led to Chandrayaan-3 mission’s success: the Vikram soft-landing on the moon and the rover Pragyaan rolling down from Vikram?

There were many. The first and foremost is Chandrayaan-2’s unsuccessful attempt itself. When there is an unsuccessful attempt, it gives a lot of information. The analysis of that event gave us so [many] additional insights... We understood the deficiencies very well. It was a chain of events that caused the failure. In any rocket mission, we make sure that one event does not propagate. If one event propagates and results ultimately in failure, it means the protection mechanisms you had planned are not functioning. There were at least five different events that culminated in the failure. There were windows left for the failure to propagate. Once we understood them, we looked at what more could happen in similar lines. Once they were understood, we devised a set of tests that were much more rigorous and involved than what we did earlier. All these tests were done without a single item being dropped. The tests’ results were reviewed and analysed, and corrective action taken meticulously. It took almost four years of work to be done. That is why we had a long gap between Chandrayaan-2 and Chandrayaan-3.

You know every success comes not out of review or checks but it is the work of the people... You should challenge them. Unless you challenge them, unless they feel secure, they will not do a great job. Complacency is dangerous. My job was to create ... awareness about themselves... You have to stir them. This is what we did.

Last time [during the Chandrayaan-2 mission], we had a problem with the software; we had problems with algorithms; we had problems with hardware; and we had problems with implementation. There was inadequacy of thrust.

These were the five causes?

Yes. All these were addressed. Whatever we could do, we did it. But things can go wrong. That question was addressed. Wherever we could bring in additional redundancies, where we could add sensors, introduce additional paths if the primary route fails... we built more and more alternatives in many scenarios. They are called software-driven redundancies.

We had extra hardware to take care of them. We loaded extra propellant to take care of dispersions. We strengthened the hardware to take care of high velocity. Yet, if nothing works and many things fail, how to land softly was the question placed in front of the designers. It was addressed. If nothing works, it should still land.

It should still land?

We said, “If nothing works, it will not land. But something should work.” The minimum configuration should be tested before landing. We devised a lot of tests in the orbit itself prior to landing. Those tests were done and they were successful. There was no doubt about the landing. During those 20 minutes, we knew that Vikram [would] land on the moon because everything had been tested and everything was working well. To our surprise, none of the contingencies were invoked. No redundancies were invoked. It landed in the primary path itself. That was the beauty of the rigour of the reviews.



S. SUBRAMANIAN

Was the removal of the central, fifth engine in the lander a contributing factor to Chandrayaan-3’s success? Originally, there were only four engines in Chandrayaan-2, but a fifth engine was added. This fifth, middle engine in Chandrayaan-2 did not perform well. Time and fuel were running out.

No, no. I will explain. It had nothing to do with the failure or success of the fifth engine. The fifth engine was necessary in [the lander of] Chandrayaan-2 because only that much thrust was necessary. Only the central engine was used for the final landing. If you have four engines, a fifth engine is a possibility. A central engine was necessary in Chandrayaan-2 because the thrust of that engine matched with the thrust of the mass of the craft. But when it came to Chandrayaan-3, the mass of the craft was 250 kg more. A single engine would be unable to sustain such a mass. So you have to fire two engines. When you have to fire two engines, four is a better configuration... The fifth engine was deleted in Chandrayaan-3 because the mass of the landing craft increased [and you needed two engines to fire]. The fifth engine in Chandrayaan-2 had nothing to do with the mission’s failure or success.

You had chosen a bigger area on the lunar surface to land now. Was it another contributing factor to Vikram’s successful landing?

Last time, we had an area of 0.5 km by 0.5 km to land. One of the biggest flaws last time was that we were trying to land exactly at a location. So the programme was trying to move the lander to that point and then land. Although it could have landed safely, it was not allowing... The software was trying to push it to that point. This was not really necessary. We could have landed in a place away. We could have been left with no time to land... We had a wider area this time. But a wider area was not possible last time because we did not have good images of the [lunar surface then]... This time, we already had the pictures from Chandrayaan-2. Using those pictures, we could choose a wider area. It was pre-planned. This time, there was no taking pictures from the previous orbit and analysing them. So Chandrayaan-2 helped Chandrayaan-3 to land safely. A wider area of 4.5 km by 2.5 km was selected this time. We were supposed to land in the middle of it. We landed within 300 metres of it.

You listed five “critical events” during the entire Chandrayaan-3 mission. They were the launch of the LVM-3 rocket and its putting Chandrayaan-3 into its initial earth-bound orbit; the propulsion module with the lander being put into trans-lunar orbit; the PM being captured by the moon’s gravity; the separation of the lander from the PM; and Vikram soft-landing on the moon. In your estimate, which was the most critical of these five events?

Undoubtedly, it was the launch.

But the LVM-3 rocket had had six successful flights in a row already.

People take it for granted that the launch is just a routine affair. But the launch is much more complex than even the Chandrayaan-3 spacecraft which is such a simple, upper stage of the PSLV only. It has a few more sensors and software. That is all.

But a rocket is much more complex. It should go through the atmosphere, do the turning, do the work under severe conditions, experience stress and strain, and reach the correct orbit. The number of systems [working in a rocket] is 10 times more than that of Chandrayaan-3 craft. The propulsion, algorithms, gyros, mechanisms, sensors, and so many complex events are taking place. Yet the rocket has to be successful. “It is all child’s play,” [people think]. The good part is that we are doing the launch multiple times. If we do it again and again, we have the confidence. That is all the result of the work of thousands of people. Chandrayaan-3 is also such a result.

I consider the launch to be the most critical event because there is no intervention in that. It is fully autonomous. There is no human intervention. From lift-off to the injection of the satellite into orbit, there is no human intervention. But the manoeuvres of Chandrayaan-3 spacecraft such as its trans-lunar injection, its being captured by the moon, Vikram landing on the moon, everything is with our intervention. All of these, we can intervene at any point. We can change the software. We can change the parameters. We can land appropriately.

All these are possible except in the launch. That is why the launch is more critical.

How do you view the Chandrayaan, Mars Orbiter, and Aditya-L1 missions?

Space has always been an inspirational domain for scientists who want to pursue a career in science, engineering, and technology. Every young boy and girl will say that he or she wants to become an astronomer, an astrophysicist, and so on.

Their career will take them to many places. They are fascinated by celestial bodies... Space technology is such an inspirational domain. We also know it is a complex domain. For countries like India, there are questions being asked even today about its relevance.

During [Vikram] Sarabhai’s time, there were a lot of such questions. These types of missions [to the moon, Mars, and so on] will bring down the number of such questions.

(For full interview: bit.ly/isrochiefinterview)

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No shortage of TB drugs in country, media reports are false, says Health Ministry

The Hindu Bureau
CHENNAI

Media reports of a shortage of anti-tuberculosis medicine are false, motivated and misleading, according to a statement issued by the Union government. All anti-TB drugs in the country are available with sufficient stock. The Centre proactively undertakes regular assessments to evaluate the stock positions at various levels, from central warehouses to peripheral health institutes, it said.

The statement cited information mentioned in media reports, and said they were "not only inaccurate and misleading, but also do not reflect the correct picture of the available stock of anti-TB drugs in the country".

The Union Health Ministry has explained that drug-sensitive TB was treated with two months of four drugs, available as 4FDC (Isoniazid, Rifampicin, Ethambutol and Pyrazinamide), followed by two months of three drugs available as 3FDC (Isoniazid, Rifampicin and Ethambutol).



All the drugs were available with sufficient stocks, says the Union government.

All the drugs were available with sufficient stocks for a period ranging from six months and above. The procurement process for the drugs for the financial year 2024-25 had started, the statement said.

The treatment regimen of multidrug resistant (MDR) TB consists of usually four months of seven drugs followed by five months of four drugs. Patients on multidrug resistant TB medicines form 2.5% of the total TB-affected population and even for this group, there is no shortage of drugs, the government said.

The procurement, storage, maintenance of stock and in-time distribution of anti-TB drugs and other materials are done at the Central level under the National TB Elimination Programme (NTEP). "In rare situations, States are required to procure a few drugs locally for a limited period using the budget under the National Health Mission so that individual patient care is not affected," the statement read.

At present, over 15 months of stock of Moxifloxacin 400mg and Pyridoxine are available under NTEP. Also, the government had procured Delamanid 50mg and Clofazimine 100mg in August and supplied the same across the country.

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DGCA may bar pilots from using perfume to avoid false-positive alcohol tests

S. Vijay Kumar
CHENNAI



The aviation regulator has called for comments from stakeholders on amending the Civil Aviation Requirements (CAR). REUTERS

The Directorate General of Civil Aviation (DGCA) may soon bar pilots from using perfume as it has alcoholic content and could cause a breath analyser test to show positive results.

The aviation regulator has called for comments from stakeholders on amending the Civil Aviation Requirements (CAR), issued under provisions of the Aircraft Rules, 1937, as regards safety regulations.

The proposed clause reads: "No crew member shall consume any drug/formulation or use any substance such as mouthwash/tooth gel/perfume or any such product which has alcoholic content. This may result into positive breath analyser test. Any crew member who is undergoing such medication shall consult the company doctor before undertaking flying assignment."

Going by CAR guidelines prescribed for all operators operating scheduled/charter/non-scheduled flights originating from India, each flight crew member and cabin crew member shall be subjected to pre-flight breath-analyser examination at first departure airport during a flight duty period.

The norm that all scheduled and non-scheduled operators shall ensure breath-analyser examination is recorded on camera and recordings preserved for six months would also be extended to State government aircraft operators.

The air safety guidelines say that even when the blood alcohol levels are zero in the body, there could be some effect of hangover, which is mainly due to congeners. A new amendment proposed is to advise aircraft operators to make available at least two serviceable fuel-cell technology-based breath-analysers capable of giving accurate digital value up to three decimal places with a memory to store at least the last 1,000 records.

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Clues to ancient Kosi superflood say it could happen again today

Geologists have found evidence of an extreme monsoon event and hyperconcentrated flows 11,000 years ago in the Kosi river, which can cause floods and avulsion. Climate change could increase the odds of such events, necessitating disaster response plans that are ready for such outcomes

Sayantan Datta

At Rajiv Sinha's laboratory in IIT Kanpur lie soil, sand, and rocks drilled out from across thousands of metres under the Karnali, Ganga, and Kosi rivers. Each sample, called a "sedimentary core" is held in a container 7.6 cm wide; together, they create snapshots of the rivers' ancient history.

Every centimetre of these cores reveals the size and kind of sediment that the rivers were carrying at a point in time. The cores thus show how the composition of these sediments changed over time.

New study

These cores have proved crucial to Prof. Sinha and a team of geologists from the Universities of Edinburgh and Glasgow, who are reconstructing river floods in the Gangetic plain between 23 and 5 million years ago, in the Miocene era.

Based on these studies, the researchers have reported that climate-change-related and seismic events ravaging the planet today could create super-floods that could be catastrophic for people in the Gangetic plain, in a paper published in the journal *Communications Earth and Environment* on August 23.

The findings signal that we need to urgently update India's disaster management strategy to account for what Prof. Sinha calls "cascading hazards": natural disasters that are triggered by other disasters.

Delayed transition

The study began with a peculiar observation.

As rivers flow from their origins in the mountains to the plains, they carry rocks, gravel, and sand. The heavier particles – rocks and gravel – settle down earlier in the river's trajectory whereas the lighter particles settle later. The part of the river's path where there is a gradual transition from heavier to lighter particles on the riverbed is called the gravel-sand transition.

With the river Ganga, for example, Prof. Sinha said that larger particles are restricted to the areas around Haridwar and Rishikesh, in Uttarakhand.

In normal circumstances, large particles should not be usually found in downstream areas.

But in a 2014 study, Prof. Sinha and colleagues reported that, around 11,000 years ago, in the Holocene era, there was coarse gravel in the Kosi river some 30-40 km downstream of the current gravel-sand transition. His team inferred this from sedimentary cores.



A road is washed away by an overflowing Kosi river in Rampur, Uttar Pradesh, on June 27, 2011. PTI

At the Mohand anticline

The team's investigation of this anomaly – such large particles downstream of the current transition spot – took the team to the Mohand anticline in Uttarakhand, around 45 km southwest of Dehradun.

An anticline is a fold in a sedimentary rock that bulges outwards. Older layers of sediments are found towards the centre and the younger ones are located towards the exterior.

At the Mohand anticline, the team documented all the layers and recorded the size and type of the sediments in each. The researchers estimated when each sediment layer was deposited based on how deep it was. By combining this data with that obtained from the drilled cores, they could compute the rivers' flow at different times.

An ancient event

That's how they landed at one potential reason the coarse gravel in the Kosi was so far away from the modern gravel-sand transition: an "extreme monsoon event" leading to a flood that occurs every 200-1,000 years.

This extreme event is expected to have occurred along with a complementary cause called hyperconcentrated flows. Hyperconcentrated flows occur when some event – a trigger, such as a landslide or a glacial lake outburst – causes the river to carry more sediments than usual. In such conditions, "high concentrations of sediments are distributed through the water column," according to the paper.

Hyperconcentrated flows can change the way rivers flow, so they often have devastating consequences.

> Researchers report that climate-change-related and seismic events ravaging the planet today could create super-floods that could devastate the Gangetic plain

"A major landslide combined with a heavy monsoon can generate hyperconcentrated flows, which can actually move very large particles further downstream," Prof. Sinha said. As a result, the river could be clogged, the water level could rise to dangerous levels, and cause a flood.

Hyperconcentrated flows can also change the course of the river in a process called avulsion, forcing thousands of people to move.

When the Kosi river avulsed in 2008, it deposited around 2 metres of sediment in the surrounding land, inundated and destroyed crops, left the soil infertile, and created conditions conducive to the spread of disease.

Old threat, new risk

In early 2021, a large rock and ice avalanche triggered a disastrous flood in Chamoli district, leaving more than 200 people dead or missing. According to Prof. Sinha, the incident, like several others in Himachal Pradesh and Uttarakhand in 2023, is a reminder of how areas prone to landslides and heavy monsoons are especially vulnerable to hyperconcentrated flows.

The odds of an extreme monsoon event in the same regions are expected to increase due to climate change. According to a 2021 study in western Nepal, the chance could increase by as much as 60%. More extreme rains could also mean more landslides, which in turn could mean hyperconcentrated flows leading floods downstream in the plains.

'Cascading hazards'

Prof. Sinha and his colleagues wrote in their paper that accounting for hyperconcentrated flows in "future disaster risk management strategies remains an important and major challenge". This is because, he added, India's disaster management strategy relies largely on a "compartmentalised" understanding of disasters, where how one disaster leads to the other is not taken into consideration.

"If we keep looking at these hazards in an isolated and compartmentalised way, we will never be able to understand the entire cascading effect of a disaster," he said. Instead, we need an "integrated disaster management approach" where the relationship between instances of earthquakes, landslides, and floods – along with the individual incidents themselves – is used to frame risk-mitigation plans.

Sayantan Datta (they/them) are a queer-trans freelance science writer, communicator and journalist. They are currently a faculty member at Krea University and tweet at @queerspringy.)

THE GIST

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