

● POLITY

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POLITY & GOVERNANCE

'West Bengal suit against CBI probes has merit'

Key takeaways

In rejecting the Centre's claim that it did not control the CBI, the court clarified the hierarchy of operations



CBI officials in Nadia, West Bengal. PTI

■ The CBI is an organ or a body which is established by and which is under the superintendence of the Government of India

■ The powers of superintendence of the Centre will not relate to the superintendence of investigation of a particular case

■ The CBI will be entitled to investigate the offences independently. However, that will not water down the administrative control and superintendence of the DSPE that vests with the Centre

The Supreme Court upheld the maintainability of an original suit filed by West Bengal, which accuses the Centre of "constitutional overreach" and violating federalism by unilaterally employing the Central Bureau of Investigation (CBI) without the State's prior consent.

A Bench of Justices B.R. Gavai and Sandeep Mehta refused to accept the Union government's preliminary objection that it was wrongly made a defendant in the suit as it did not control the CBI, which was an "independent agency". The establishment, exercise of powers, extension of jurisdiction, the superintendence of the DSPE [Act], all vest with the Government of India. The court reminded the Centre that the Delhi Special Police Establishment (DSPE) Act mandated the State's prior consent to a CBI probe within its jurisdiction.

'Vitaly concerned'

The Centre notify offences to be investigated by the CBI under the DSPE Act, the statute which governs the premier probe agency. Under Section 4 of the DSPE Act, except the offences under the Prevention of Corruption Act, the superintendence of the DSPE in all other matters would vest with the Central government. The observations were only made to meet the preliminary objections raised by the Union government. They will have no bearing on the merits of the suit.

The Centre, represented by Solicitor General Tushar Mehta, had earlier contended that the CBI too could not be made a defendant in the suit as the agency was not the 'Government of India'. Original suits filed directly in the Supreme Court under Article 131 of the Constitution exclusively deal with disputes involving the

Union and the States. The law officer had pressed the court to dismiss the West Bengal suit on these preliminary grounds without going into its merits.

West Bengal, represented by senior advocate Kapil Sibal, had made specific contentions that the CBI had acted on the Centre's directions. West Bengal had withdrawn its general consent to CBI investigations way back on November 16, 2018. The CBI has registered 12 cases in West Bengal without obtaining the State government's consent.

Another Bench of the Supreme Court is tackling a similar question of law related to the State of Tamil Nadu in the case of Ankit Tiwari, an Enforcement Directorate officer against whom the Tamil Nadu Directorate of Vigilance and Anti-Corruption had launched a criminal prosecution for bribery.

POLITY & GOVERNANCE

Divorced Muslim women entitled to maintenance under secular statute: SC

The Supreme Court held that divorced Muslim women are entitled to maintenance under the "secular" Section 125 of the Code of Criminal Procedure. The court agreed with amicus curiae, senior advocate Gaurav Agrawal, that a remedy under the secular statutory provision of Section 125 of the Cr.PC cannot be foreclosed for divorced Muslim women by virtue of enactment of a personal law remedy under the Muslim Women (Protection of Rights on Divorce) Act, 1986. A divorced Muslim woman is entitled to all rights of maintenance available to other equally situated women in the country.

A separate but concurring judgment by a two-judge Bench of Justices B.V. Nagarathna and Augustine Goerge Masih came on an appeal filed by a Muslim man challenging a Telangana High Court decision upholding though modifying a Family Court order allowing his wife, whom he had divorced via triple talaq, interim maintenance under Section 125 of CrPC. Mohd. Abdul Samad, in his appeal, said his wife had to exclusively take recourse under the 1986 Act rather than Section 125 CrPC. He had argued that the 1986 Act was a special law and overrode the CrPC provision. He contended that a divorced Muslim woman's application for maintenance under Section 125 was not maintainable.

Besides, the court pointed out that Section 3 of the 1986 Act requires a man to provide for a "reasonable and fair provision of maintenance" to his divorced Muslim wife only during the iddat period. Once the iddat period expires, the personal law obligation to maintain the divorced Muslim woman ceases. On the other hand, Section 125 mandates a husband to provide monthly maintenance to his divorced wife, irrespective of her faith. "Any divorced wife who has not remarried is entitled to maintenance by her ex-husband who has sufficient means but has neglected or refused to maintain her," Justice Nagarathna pointed out.

Children's maintenance

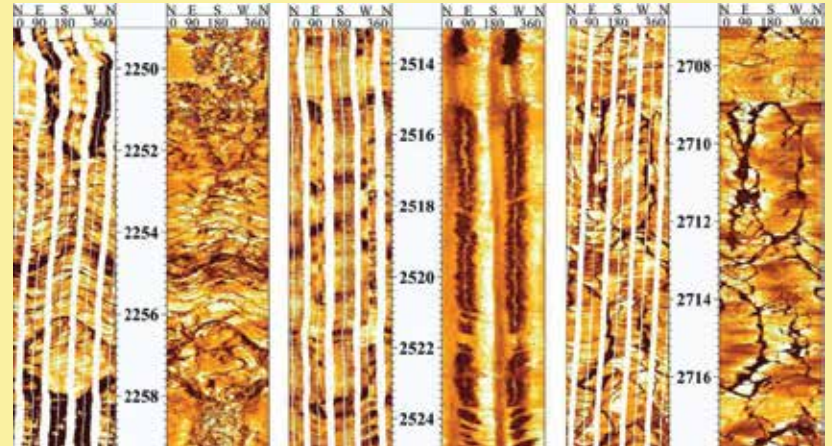
Further, the 1986 Act holds a Muslim man liable to pay his divorced wife maintenance for their children for only a period of two years from birth. Whereas Section 125 requires a husband to pay for their children till they attain the age of majority. Justice Masih, in his opinion, said Section 125 manifested the constitutional commitment towards special measures to ensure a life of dignity for women at all stages of their lives, irrespective of their faith.

Harmonious

He observed that Section 125 and the 1986 Act were not at loggerheads with each other. The 1986 Act did not extinguish the right of a divorced Muslim woman to seek maintenance under Section 125. The choice is left to the Muslim woman to apply for maintenance either under Section 125 or the 1986 Act. If a Muslim woman is unable to maintain herself, she could apply for maintenance under Section 125. If, on the other hand, she is able to take care of herself financially, she could very well seek maintenance under the 1986 Act till the expiry of the iddat period.

GEOGRAPHY

Why is India drilling a 6-km deep hole in Maharashtra?



Scientists don't yet have a way to predict when and where an earthquake will occur. We know powerful earthquakes at the boundaries of tectonic plates, which measure more than 7.5 on the Richter scale, are almost certainly associated with a severe loss of infrastructure and life. In the ocean, these geological events trigger tsunamis. However, more minor earthquakes that occur in a plate's interior are more challenging to predict because they occur at the least expected sites and could strike densely populated habitats. This is why scientific deep drilling is an indispensable tool for progress in the earth sciences.

What is scientific deep drilling?

Scientific deep-drilling is the enterprise of strategically digging boreholes to analyse deeper parts of the earth's crust. It offers opportunities and access to study earthquakes and expands our understanding of the planet's history, rock types, energy resources, life forms, climate change patterns, and more.

The Borehole Geophysics Research Laboratory (BGRL) in Karad, Maharashtra, is a specialised institute under the Ministry of Earth Sciences mandated to execute India's sole scientific deep-drilling programme. Under BGRL, the aim is to drill the earth's crust to a depth of 6 km and conduct studies to help expand the understanding of reservoir-triggered earthquakes in the Koyna-Warna region of Maharashtra.

This region has been experiencing frequent earthquakes since the Shivaji Sagar Lake, or the Koyna Dam, was impounded in 1962. BGRL's 3-km-deep pilot borehole in Koyna is complete; the Ministry of Earth Sciences is committed to reaching a depth of 6 km.

Benefits of a deep-drilling mission

Earthquakes are challenging to study. Surface-level observations can't make complete sense of them. The recurrent earthquakes in Koyna are synchronous with the dam's loading and unloading during the monsoon and post-monsoon periods, offering an opportunity to widen our understanding of earthquakes.

However, making observations inside the earth is a different ball game. Scientifically drilled boreholes can be a hub of direct, unique in situ experiments and observations and monitor a region's fault lines and seismic behaviour. They also provide exact and fundamental knowledge of the composition of the earth's crust, structure, and processes, and help validate models based on surface studies. Thus, it can inform a range of societal problems related to geohazards and geo-resources.

INTERNATIONAL RELATIONS

Russia, India agrees to go ahead with trade in national currency: diplomat

India and Russia have decided to establish a system for national currency settlement. Prime Minister Narendra Modi ended his two-day visit to Russia describing the visit as "historic and game-changing", and slammed the Western powers for supporting Ukraine.

Russia is the fourth largest trading partner of India, and we have a very optimistic scenario that we will continue our successful and mutually beneficial partnership with India. The most important point of the Joint Statement was that we have decided to go ahead with the establishment of the national currencies settlement system, presenting an overview of the discussion between the Indian and Russian delegations in Moscow during the visit of Mr. Modi.

Mr. Modi visited Moscow on July 8 and 9 and held both delegation-level talks as well as one-on-one discussions with President Vladimir Putin. Mr. Babushkin said the discussions were focused on economic aspects as Russia's trade with India has grown many times in the past two years especially because of the trade in energy that rapidly expanded after Western sanctions were imposed on Russia following the launch of the "special military operation" against Ukraine in February 2022.


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Investing in scientific deep-drilling can also help expand scientific know-how and technological innovation, especially in seismology (the study of earthquakes). It can also spur the development of tools and equipment for drilling, observation, data analysis, sensors, etc.

Challenges of scientific deep drilling

Scientific deep drilling is the best tool to study the earth's interior. Other ways include geophysical measurements of seismic wave speed, gravitational and magnetic fields, and electrical conductivity from the near surface. Scientists can also examine crust fragments brought from deep underground to the surface.

But scientific deep-drilling remains the most reliable method because it helps get direct (in situ) and near-source measurements. Researchers can also capture rock and sediment cores aligned with the earth's timeline from within the borehole. It is also labour- and capital-intensive. The earth's interior is a hot, dark, high-pressure region that hinders long and continuous operations.

Even with these challenges, however, scientific pursuits are important. Expanding earth-science research, especially of solid earth, is crucial. Aside from earthquakes, this is because many surface phenomena — the composition of water and air, their availability, and the resulting interactions with climate-affected phenomena — are linked to what happens inside the earth's crust.

What is the drilling technique?

The Koyna pilot borehole is about 0.45 m wide (at the surface) and roughly 3 km deep. It employs a unique drilling strategy — a hybrid of mud rotary drilling and air hammering. In rotary drilling, a rotating drilling rod made of steel is attached to a diamond-embedded drill bit at the bottom. As it penetrates the crust, it generates considerable heat due to friction, so drilling mud is flushed through the rod into the borehole to cool the drill bit. In addition to being a coolant and a lubricant, the drilling mud helps bring rock cuttings up from the borehole.

A ring-shaped space separates the drilling rod and borehole wall. The debris moves out from the space due to the pressure of the drilling mud pumped from the top through the drilling rod. The deeper the borehole, the more pressure is required to bring up the debris from this space.

Air hammering pushes highly compressed air through the drilling rod to deepen the borehole and flush the cuttings out. Deep-drilling operations at Koyna use a rig capable of both techniques. The decision to use each technique at a particular point is based on the rock type, presence of highly fractured rock, water inflow zones, and the need to collect core samples, among others.

Decisions of this kind are dynamic. Operators used the mud rotary technique to acquire cores because it allowed us to capture long, intact cylindrical sections. Where operators used air-hammering, the team collected rock chips for studies of rock properties.

The operators also have to circulate the drilling mud while making downhole measurements of physical and chemical properties of the borehole environment using temperature, density, electrical conductivity, sonic velocity, rock porosity, and radioactivity probes — while installing steel pipes to secure the borehole's sides.

When the borehole depth increases beyond 3 km and strikes for 6 km, the entire rig will have to be updated with exponentially enhanced capacity. In addition, increasing the depth to 6 km heightens the complexities of drilling through fractured rocks in the Koyna seismic zone and the possibility of drill rods and sensors getting stuck.

Troubleshooting also becomes more complicated because of limited access to equipment deeper down the hole. Rocks at these depths are softer so drilling mud is lost. Further, a 4-in-wide and 9-metre-long granite core can weigh up to 200 kg, and lifting it up by more than 3 km is technically exacting. Operators will also encounter fault lines and fracture zones more often, through which water could enter the borehole and stall drilling.

If any of the above situations arise and troubleshooting fails, we may have to abandon the borehole. Another challenge is to steer the borehole at the desired inclination from the top, using vertically controlled actions. This requires drill motors, imaging tools, and monitoring devices that can be 'tuned' every minute. The planning and execution of deep-drilling are thus dynamic and must be fool proof. Human resources are also a challenge. The process needs highly skilled technical personnel for continuous on-site engagement for 6-8 months at a time in harsh weather; this was the case for the 3 km pilot borehole. For a 6 km borehole, continuous drilling will last at least 12-14 months.

What have scientists found?

The pilot drilling mission was a success and has yielded significant new information about the subsurface geological environment. For one, it revealed 1.2-km thick, 65-million-year-old Deccan trap lava flows, and below them 2,500-2,700-million-year-old granitic basement rocks. Downhole measurements of core samples and conditions from a depth of 3 km have also provided new information about the physical and mechanical properties of rocks, the chemical and isotopic composition of formation fluids and gases, temperature and stress regimes, and fracture orientations.

We also captured high-resolution images of the borehole wall using acoustic and micro-resistivity techniques. They can be used to validate data extracted from other cores worldwide. The team at Koyna also conducted hydraulic fracturing experiments to directly measure the rocks' stress regimes. By integrating various datasets and using advanced analysis, the team could also detect buried fault zones and study their properties. One significant finding was the presence of water down to 3 km. It was found to be meteoric or rain-fed, implying deep percolation and circulation are possible. Another key finding was that the Koyna region is critically stressed: even small stress perturbations could cause the rock to fail and potentially trigger frequent, small-magnitude earthquakes in the region.

What next?

The pilot data will inform future drilling. Modelling experiments suggest the temperature at 6 km could be 1100 - 1300 C. Drilling equipment, downhole data acquisition systems, and sensors for long-term placement at depth need to be designed accordingly. The Koyna data and samples will also facilitate new experiments. More than 20 research groups nationwide are already studying the Koyna samples. One is examining the gouge from fault zones to understand the frictional properties of rocks in quake-prone regions. Another is characterising microbes on these rocks to understand life forms that thrive in hot, dark, nutrient-poor

environments. Their findings could potentially yield new molecules and clues to improve industrial processes.

Members of the international geological research community have also sought access to core samples for projects in emerging fields such as carbon capture and storage in the deep Deccan traps. In sum, the Koyna exercise is establishing a firm footing in scientific deep-drilling for India. Its lessons will inform future deep-drilling experiments and expand academic knowledge in multiple ways.

POLITY & GOVERNANCE

Locked in conflict

In calling for a report from the State government on the action taken against two police officers, West Bengal Governor C.V. Ananda Bose has escalated the conflict between Raj Bhavan and the State government. He has written to the Union government and to the Chief Minister, Mamata Banerjee, about what he perceives as impropriety by Vineet Goyal, Kolkata City Police Commissioner, and Indira Mukherjee, a Deputy Commissioner of Police. The Governor is aggrieved that they made remarks pertaining to an investigation into a complaint of alleged sexual harassment that a Raj Bhavan employee had made against him. While the complaint has not been acted upon — as Mr. Bose enjoys immunity from proceedings under Article 361 of the Constitution — it has become a thorny issue, with the Governor believing that the police officers had flouted the rules of conduct in speaking about an investigation that cannot be instituted or continued. His consternation is also because he believes the Commissioner had stopped a group of people with grievances about post-election violence from meeting him, even though he had agreed to meet them. The Governor has also demanded a report on the action taken with regard to a woman being disrobed in public, a couple being flogged and other incidents of mob violence, undoubtedly a legitimate request.

The Governor is indeed authorised to seek information from the State government under Article 167. Whether disciplinary action involving central service officers, normally within the domain of the State governments when they are serving the State, can be initiated at the instance of the Governor or the Union government is a separate question altogether. Mr. Bose has cited circumstances surrounding the harassment complaint against him to argue that it is a “concocted allegation”, “induced and facilitated” by the police. However, it may not be in anyone’s interest to escalate such issues by asking for punitive action against officers. At a time when personal squabbles and institutional conflicts between Governors and Chief Ministers are on the rise, the development is likely to be seen as one more stand-off involving the politicisation of Raj Bhavan by incumbents seeking to undermine elected regimes. The two sides appear locked in perennial conflict, mirroring the antagonism between the Centre and the State. There is the usual one over grant of assent to Bills, and a recent one involves the question who should administer the oath of office to newly elected legislators. And there is a defamation suit the Governor has filed against the Chief Minister. Constitutional functionaries should pull back from the brink before they are sucked into a political rabbit hole.

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ECONOMICS & DEVELOPMENT

Even the odd jobs

For India’s gig workers, who are increasing in numbers but are perched precariously on the edge of the unregulated labour pool, the Karnataka Platform-based Gig Workers (Social Security and Welfare) Bill, 2024, offers a welcome reprieve, but still stops short of providing them with the security of being employees. When app-based gig work was introduced a decade ago, courtesy ride-sharing and food delivery apps, the absence of the word ‘employee’ was actually seen as a positive; it supposedly offered a chance for ‘partners’ to retain their autonomy and earn good money without being locked into a contract with rigid timings. That illusion soon dissolved as incomes crashed and working hours lengthened, and the lack of a formal ‘employee’ status left workers at the mercy of the aggregator and all-powerful algorithms, in the absence of safety nets or governmental regulation. Despite this, the gig economy is growing. According to a NITI Aayog report, India had 77 lakh gig workers at the beginning of the decade, and by 2029-30, they are projected to account for 4.1% of income, and 6.7% of the non-agricultural workforce.

A rights-based legislation, the draft Bill aims to prevent arbitrary dismissals, provide human grievance redress mechanisms, and to bring more transparency into the opaque tangle of automated monitoring and algorithm-based payments. It is a step up from the Union government’s Code on Social Security, 2020. Karnataka’s law also offers social security through a welfare board and fund, with contributions from the government and the aggregator, either through a cut from every transaction on the app, or as a percentage of the platform’s turnover in the State. Noting that many of the firms that own these platforms report minimal profits, workers’ unions have rightly demanded that the welfare fee is charged as a cess on each transaction. Sceptics note the moribund nature of other unorganised sector welfare boards, but one advantage of mandatory registration with such a board is that it will make gig workers visible in the eyes of the law. Karnataka’s Congress government aims to enact the Bill in the monsoon session of the Assembly, and it must quickly formulate rules and establish the welfare board to ensure that the law is in force before the end of the year. A similar legislation in Rajasthan, enacted by the predecessor Congress government, has been effectively put into cold storage by the BJP government. At the national level, comprehensive legislation is needed not just to set minimum wages, reasonable working hours and conditions and robust social security but also to provide gig workers with the coveted status of ‘employees’.



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POLITY & GOVERNANCE

India's demographic journey of hits and misses

As we observe World Population Day on July 11, there is much to look at in India's demographic journey over the decades. It was in 1989 that the United Nations established the day after Dr. K.C. Zachariah, a renowned demographer, had proposed the concept of a 'World Population Day'. The world population had touched five billion in 1987 and challenges such as poverty, health and gender inequality were plaguing the world, developing countries in particular.

The decades of the 1960s and 1970s were scary as the global population was growing at a yearly rate of 2%. For India, there was a prediction of doom. This meant that widespread poverty, hunger and deaths were soon to follow in the next decades. However, despite the predictions, the next decades told a different story altogether. Global fertility rates declined rapidly. Due to improvements in living conditions and medical infrastructure, life expectancy increased. In India too, fertility rates began to fall since the 1970s and at present is below the replacement level. India's progress in many health parameters has been outstanding. There have been significant reductions in maternal and child mortality.

In 2015, the UN adopted the Sustainable Development Goals (SDGs) which were soon recognised as important metrics in assessing the progress of nations. With 2030, the target year, drawing closer, India's progress in the SDGs should be understood particularly in light of its population dynamics.

India's population dynamics

Three components, namely fertility, mortality, and migration, play a pivotal role in shaping India's demographic landscape. India has made significant strides in reducing its fertility. According to the National Family Health Survey (NFHS)-5, India's total fertility rate (TFR) decreased from 3.4 to 2 between 1992 and 2021, dropping below the replacement level of 2.1. There has been a significant drop in the mortality rate as well. The average life expectancy of Indians has also increased over time. With this, India is experiencing a demographic shift, towards an ageing population. According to the 2011 Census, individuals aged 60 years and above constituted 8.6% of the total population.

India's population dynamics is intertwined with its 'development' scenario. The reduction in fertility signifies a transition toward smaller family norms. This can reduce the proportion of the dependent population and result in a demographic dividend — a period where the working-age population is larger than the dependent population. India can harness the potential of its young workforce by creating employment. The decline in mortality and increase in life expectancy are reflections of a robust health-care system and increased living standards. The issue of population ageing, however, requires a long-term plan — focusing on geriatric care and providing social security benefits. Migration and urbanisation are also critical issues. Rapid rural to urban migration is posing a threat to the existing urban infrastructure.

Among all these, gender equality also finds an important place. Women labour force participation, which is straggling, their notable absence from political representation and their unending plight within society are the silent issues which can sabotage India's path to 2030.

With six years in hand to meet the targets, India's road to 2030 crosses the path with its population dynamics. Population issues such as gender equality and socio-cultural divides cannot be ignored in the journey to achieve SDGs. It is only with a thorough understanding that India will be able to achieve a 'development' which is sustainable in its truest sense.

The country's SDG journey

'Development' in the simplest way means ensuring the basic requirements of food, shelter and health for all. 'No Poverty, Zero Hunger and Good Health' are the three most important SDGs which form the core of 'development'. India's journey from the brink of a demographic disaster to striving towards the 2030 goal of 'leaving no one behind' has seen a couple of hits and misses.

India made great leaps towards the goal of eradicating poverty. The proportion of the population living below the poverty line reduced from 48% to 10% between 1990 and 2019. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) that came into effect in 2006 played a critical role in addressing rural poverty. The Janani Suraksha Yojana of 2005 — it provides cash benefits to pregnant women — not only accentuated institutional deliveries but also saved poor families from hefty health expenditures.

In his controversial book, *The Population Bomb* (1968), Paul R. Ehrlich raised serious questions about India's ability to feed its population in the years to come. With the Green Revolution, India became self-sufficient in crop production and averted a catastrophe. The proportion of the population suffering from hunger reduced from 18.3% in 2001 to 16.6% in 2021. However, India's nutrition picture is not completely rosy. India contributes a third of the global burden of malnutrition. Though the Indian government launched the Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyaan in 2018, it will still require a miracle to fulfil the target of 'Zero Hunger' by 2030.

Health is one sector in India where progress made has been remarkable. All the critical mortality indicators have seen steady declines. The Maternal Mortality Rate (MMR) decreased from 384.4 in 2000 to 102.7 in 2020. The mortality rate for children under five reduced significantly post 2000s. The infant mortality rate also reduced from 66.7 deaths per 1,000 live births in 2000 to 25.5 deaths per 1,000 live births in 2021. Although India is still not near reaching the targets, it seems to be on the right track. These achievements show that there has been a significant improvement in the quality and coverage of health care.

Despite these achievements, India's road towards 2030 is not easy. According to Oxfam, the top 10% of India's population holds 77% of the national wealth. If the fruits of development are not equitably distributed and if development does not percolate to the poorest of the poor and the wealth scenario remains so skewed as it is now, 'sustainable development' can never be achieved in its truest sense. Absolute growth in GDP numbers has limited importance for a country where the top 1% holds 40% of the total wealth. Hunger and nutrition is another sector in crisis. In the Global Hunger Index (2023), India's rank was 111 out of 125 countries. In terms of nutrition, stunting, wasting and underweight among children below five years and anaemia among women pose serious challenges. India's epidemiological trajectory shows that the country has a double burden of communicable and non-communicable diseases (NCD). This is a serious challenge for India which also combats the early onset of NCDs and the rising

health needs of the elderly.

What needs looking into

For India to achieve the SDGs, the changing population dynamics has to be acknowledged while forming policies. India needs to address income inequality, harness its demographic dividend by creating job opportunities for the youth of India and address changing health needs. NCDs, which incur high out-of-pocket expenditures, are catastrophic for some families. India needs a stronger safety net to save these families from slipping into utter poverty. The nutrition scenario should be set right by strengthening programmes. This will require an increase in budgetary allocation for the health and nutrition sectors. Another, but often missed, paradigm of this entire development discussion is gender equality. A gender equal approach and empowerment of vulnerable women can solve most issues and propel India's progress in the SDGs.

India still has a long journey to cover in order to meet all the targets of the SDGs. This will require multi-sectoral collaboration and political will. India's progress in SDGs is directly proportional to the well-being of its population and the route to progress lies in a better understanding of its population dynamics and addressing the issues.

POLITY & GOVERNANCE

A case of people versus population

July 11 has been observed as World Population Day since 1989 after the global population crossed the five billion mark. The population is now estimated to be 8.1 billion, with India as the most populous nation (1.44 billion), which is slightly more than China's

This writer wrote the article, "Myths about Population Growth", which was published in this daily on World Population Day ('World Population Day' page, July 11, 1997) — when India crossed the 100 crore mark. The article showed how the doomsday predictions of Malthus, 200 years ago, or that of his present-day followers in the West, that population growth would overtake food production, never came true and never will in the future. The aim of this article is to analyse what has changed in 27 years.

Changes in India

Let us look at some of the major socio-economic changes in India over 27 years.

First, the population has grown 44% from 100 crore to 144 crore, but the annual growth rate of the population has fallen sharply — from nearly 2% to below 1%. This is because the number of births per woman (total fertility rate or TFR) has fallen from 3.4 to 2, just below the "replacement level" of 2.1.

Second, the per capita GDP of Indians grew six times, from \$400 to \$2,400. The average life span of an Indian has increased from 61 years to 70 years.

Third, Indians living below the multi-dimensional poverty line decreased from 43% to 11%. However, 11% of 144 crore is still a very large number of 16 crore people.

The 16 crore people below the poverty line are not distributed evenly across the country. Just four States, namely, Uttar Pradesh: (5.4 crore out of 23.6 crore), Bihar (4.2 crore out of 12.7 crore), Madhya Pradesh (2.52 crore out of 8.7 crore) and Jharkhand (1.1 crore out of 4 crore) account for 83% of the national

total of people below the poverty line, while accounting for only 34 % of India's total population. How to address this persisting disparity in socio-economic growth and poverty reduction among Indian States is among the top priorities of the central and State governments and beyond the scope of this article.

Impact of climate change

But a far more serious issue facing the people of India is the adverse effects of climate change which do not recognise national boundaries. This is where the population versus people dichotomy becomes apparent. The debate on historical emissions (advanced by developing countries) versus current emissions (advanced by the developed world) is closely linked to the population versus people divergence. This is because the per capita consumption of both natural resources and manufactured products directly correlates with the per capita income of the people.

The Organisation for Economic Co-operation and Development (OECD) countries with a per capita income of \$40,000 and a total population of 1.39 billion, together produce and consume \$55.6 trillion worth of natural resources and manufactured goods. In comparison, India, with a per capita GDP of \$2,400 and a population of 1.44 billion, produces and consumes just \$3.5 trillion worth of natural resources and manufactured goods. In other words, the OECD countries with a population slightly less than that of India consume nearly 16 times of what the whole of India consumes. This has been the major cause of global warming over the past few decades, resulting in unpredictable weather changes. In turn this has adversely affected the poor in developing nations more severely than people in developed nations with much better housing and civic infrastructure.

With 11% of its people still below the poverty line, India will continue to accord priority to economic growth over climate change mitigation measures, and rightly so. That responsibility lies majorly with the OECD countries, and now increasingly with China. Successive Indian governments have negotiated hard at global forums on India's right to grow economically to alleviate poverty as early as possible.

Global South and growth

The Narendra Modi government has articulated this even more forcefully by expanding the definition of the Circular Economy framework in the G-20 New Delhi Declaration of September 2023: "In order to endeavour to decouple our economic growth from environmental degradation and enhance sustainable consumption and production, including primary resource consumption while supporting economic growth, we acknowledge the critical role played by circular economy, extended producer responsibility and resource efficiency in achieving sustainable development".

This is an explicit statement of intent to maintain the economic growth of the Global South nations, a term used for all developing nations as a group. India is looked upon by the nations of the Global South in their efforts to maintain economic growth in their respective nations as the first priority, followed by measures to achieve net zero. India has fixed the year 2070 to achieve this, compared to the European Union's target of reaching net zero by 2050. But India would strive for zero poverty within the next decade.

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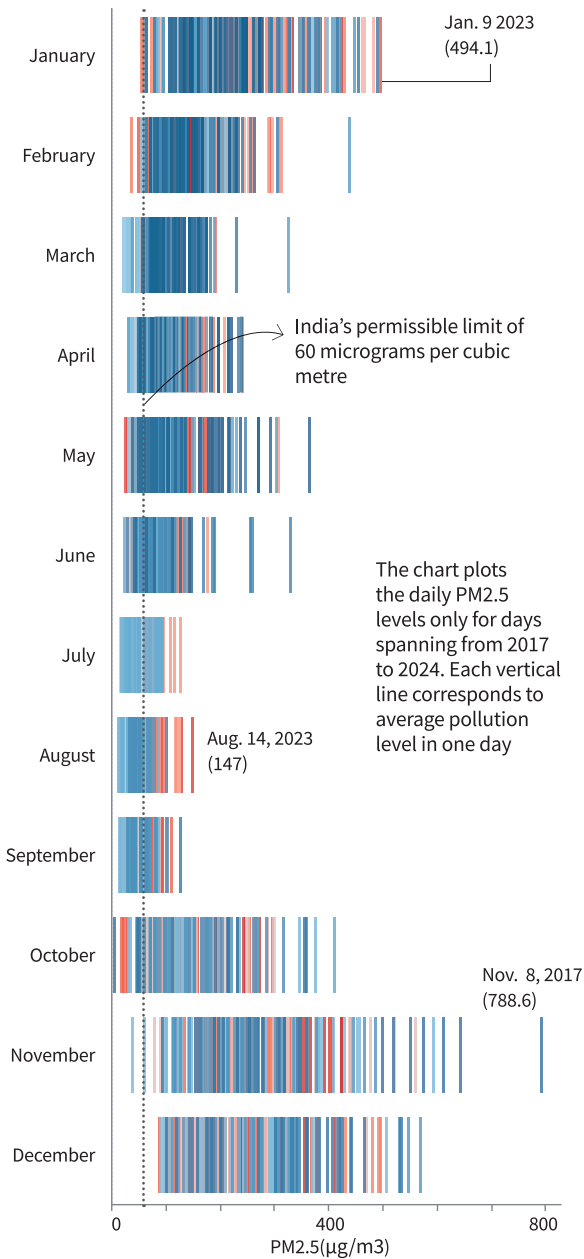
DISASTER MANAGEMENT

Extreme events in the capital

Sweltering heat, torrential rains

The charts are based on data sourced from the India Meteorological Department's gridded data. Data for PM 2.5 levels was sourced from the Central Pollution Control Board

Chart 4: The chart shows average daily PM2.5 levels recorded in Anand Vihar station. The grey dotted line indicates India's permissible limit of 60 micrograms per cubic metre



Almost all the days in November, December and January have PM2.5 levels above the Indian standard of 60 µg/m3

Chart 1: The chart shows the daily rainfall received by Delhi on every June day since 1951. Each dot corresponds to rainfall recorded in each June day between 1951 and 2024

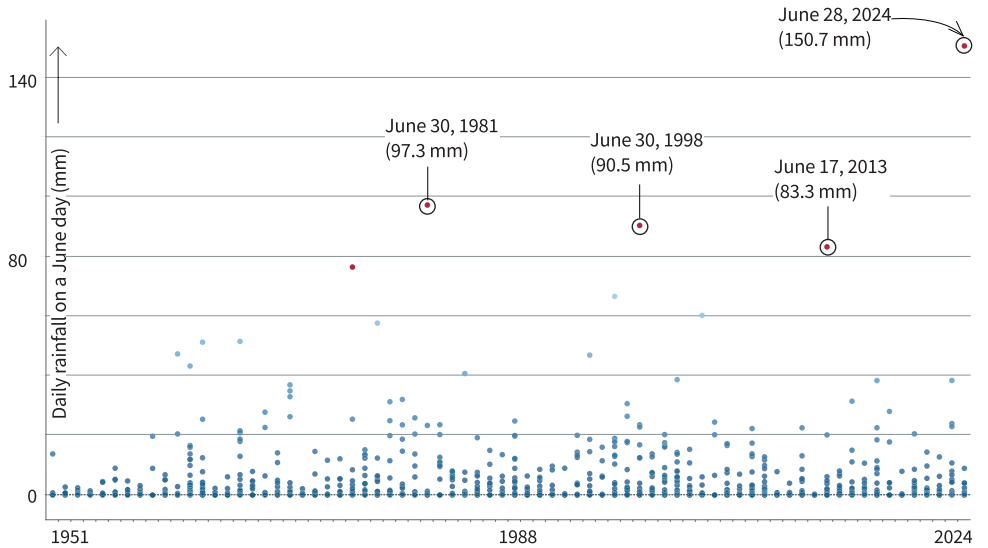


Chart 2: The chart shows the daily maximum temperature in Delhi on every May day since 1951. Each dot corresponds to maximum temperature recorded in each May day between 1951 and 2024

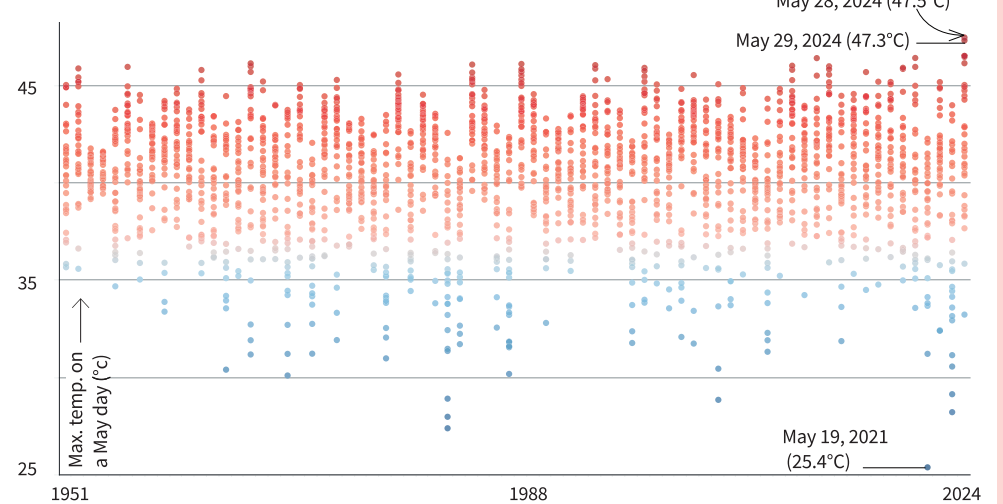
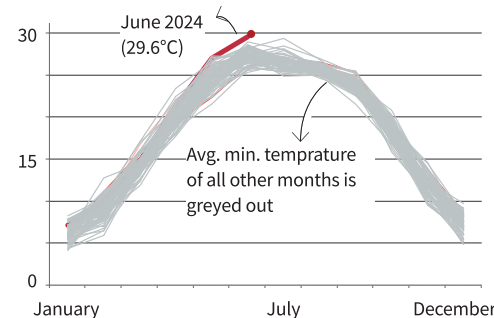


Chart 3: The chart shows the average minimum temperature for all months since 1951



ECONOMICS & DEVELOPMENT

Pricey potato, onion add to seasonal vegetable inflation; rains disrupt supply chain

Soaring prices of onions and potatoes are fuelling the seasonal inflation of vegetables. While the mandi price of potato is up by 91% year-on-year, that of onion has more than doubled. Unlike last year, the government is yet to announce a market intervention scheme to ease prices for consumers.

According to mandi (agriculture market yard) data maintained by Agmarknet, the weighted average pan-India price of potato was ₹2,194/quintal this month against ₹1,146/ a year ago and that of onion was ₹2,659/quintal against ₹1,230/. But tomato prices were lower by 53% at ₹3,507/quintal from ₹7,39.

Consumer Affairs Ministry data show that as on July 9, the average retail prices of potato at ₹36/kg and onion at ₹44/kg, higher by were 52% and 65%, respectively, over a year earlier. Though tomato was 41% lower at ₹62/kg on July 9, the rate is nearly double from ₹33/kg two months ago.

Among key States, the average retail price of tomato was the highest, at ₹72/kg, in Madhya Pradesh and the lowest, ₹43/kg, in Tamil Nadu. Onion at ₹46/kg was the highest in Tamil Nadu and the lowest at ₹39/kg in Rajasthan. Potato was the costliest in Tamil Nadu and Kerala at ₹50/kg and cheapest at ₹30/kg in Rajasthan and Punjab on July 9, data showed.

Seasonal pattern

However, prices of other vegetables have been mixed, which experts attribute to their seasonal characteristic. "July normally sees good rainfall and that disrupts the supply chain. Slightest disruption of transportation of vegetables, being a daily requirement, can inflate their prices.

The first week of July saw 40% surplus rains after the monsoon gathered momentum in all regions from the last week of June. Heavy rainfall continues in many parts, leading to a disruption in supplies.

Prices of pumpkin and capsicum are higher this month than the year-ago period. But prices of vegetables such as cabbage, brinjal, cauliflower, bottle gourd and okra have declined.

Concerned over the sharp spike in prices, West Bengal Chief Minister Mamata Banerjee on July 9 issued a 10-day deadline to officials to bring down the prices. Noting that there should be a steady supply of potatoes, she wondered how 30 lakh tonnes (lt) of potatoes were lying in cold storage when prices were rising.

Last year, the government's intervention was quick and proactive in tomato because the price rise was sudden and very high. A similar intervention was seen when onion prices surged as the government sold at ₹25/kg to consumers from mid-August in select places where prices were relatively higher.

The government started selling tomatoes at ₹90/kg in Delhi and adjoining areas from the second week of July 2023 and gradually brought down its retail price as market rates cooled down. The retail market rates touched ₹200/kg in Delhi last year.

ECONOMICS & DEVELOPMENT

'MSMEs need outlays for technology upgrades, to aid in green transition'

Recently, Union Minister for MSMEs Jitan Ram Manjhi said six pillars were identified as focus areas for the growth of the MSME sector — formalisation and access to credit, increased access to market and e-commerce adoption, higher productivity through modern technology, enhanced skill levels and digitalisation in the service sector, support to Khadi, Village and Coir industry to globalise them, and empowerment of women and artisans through enterprise creation.

While the interim Union Budget presented in February this year-maintained stability, the upcoming Budget must strike a balance to fuel growth, curb inflation, generate employment, promote MSMEs, support ease of doing business, and promote the manufacturing sector.

The other important area that must be prioritised is infrastructure development for sustainable economic growth, especially in industrial clusters.

Raising employment

The Government did well for the economy with exports clocking a Compounded Annual Growth Rate (CAGR) of 8.5% in the last six years moving from \$478 billion in FY18 to \$778 billion in FY24.

We are now aiming to reach \$2 trillion by FY30, which requires a CAGR of 14.4%. This is a challenge in the current geopolitical situation but within the realm of reach. It requires supporting exporters and the MSME sector by providing an enabling and supportive ecosystem.

The importance of bolstering MSMEs is more important in the current situation as the sector is the backbone of the Indian economy and a key employment generator. For this sector to sustain and grow in the current challenging situation, one strong demand by the MSMEs is that the non-performing asset (NPA) timeline be extended to 180 days from 90 days. It will provide relief to the sector as many MSMEs are struggling because of this. The Credit Guarantee Scheme for micro and small enterprises in the manufacturing sector must also be revamped.

The Interest Equalisation Scheme emphatically supports exports. This scheme may be extended for a period of five years. Coming to the rise in interest rates consequent to the increase in repo rate from 4.4% to 6.5% in the last two years, the subvention rates may be restored from 3% to 5% for manufacturers in MSMEs and from 2% to 3% for all in respect of 410 tariff lines.

For the textile and garment sector, which is dominated by MSMEs, and the Remission of Duties and Taxes on Exported Products [RoDTEP] and Rebate of State and Central Taxes and Levies [ROSCOTL] schemes should be extended for another five years for the sector.

The Budget must consider reintroducing the Emergency Credit Line Guarantee Scheme for MSME exporters for another two years. This supported most MSME units with their exports.

The timeline for payments to MSME job work must be extended to 120 days from the current 45 days as the RBI permits a time limit of 180 days for the realisation of export proceeds.

Unless the payment from buyers are realised by exporters, it will be difficult to pay MSME workers, which will create fund flow issues for exporters.

Another flagship scheme of the government is the PLI Scheme, which is working well for large-scale industries. For the textile and garment sector, the investment limit under the PLI scheme must be pared to ₹25 crore and the turnover limit must be reduced to ₹70 crore. This will help MSME exporters to upgrade their technologies and compete in the international market.

Green transition, R&D

Another significant area of concern is climate change. This has impacted MSMEs severely. Hence more soft funds must be made available for MSMEs to attempt a green transition and to fuel growth with green resources. MSME clusters like Tiruppur can tap into significant export potential with this support.

Research development and innovation are key to sustaining exports. R&D globally is incentivised and 35 out of 38 OECD countries provide either lower taxes or higher deductions on R&D expenditure.

We expect that the weighted tax deduction under Section 35(2AB) may be increased to 300% and the benefit under Section 35(2AB) also be extended to limited liability partnerships (LLP), partnership firms and proprietary firms, as MSME units largely fall in these categories.

With schemes that provide funds for infrastructure creation, technology upgradation and climate change adaptation, the MSME sector will be able to contribute even more for the economy

ECONOMICS & DEVELOPMENT

Goyal asks industry to offer ideas to simplify compliance

In a bid to ease investment inflows, the government is pursuing a second iteration of the Jan Vishwas law to reduce businesses' compliance burden and decriminalise laws, but is grappling with a lack of industry inputs about the pain points that need addressing, pleading with businesses to come forward and share ideas. Net inward Foreign Direct Investment (FDI) inflows slid to \$26.5 billion in 2023-24, from \$42 billion in 2022-23, the RBI reported in its Annual Report.

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ECONOMICS & DEVELOPMENT

Rate cut hopes may bolster U.S. stocks as investors await earnings, elections

The prospect of near-term interest rate cuts is bolstering the case for investors to remain bullish after a run in U.S. stocks that may soon be tested by upcoming corporate earnings reports and growing political uncertainty. Expectations that the Federal Reserve will kick off its long-awaited rate-cutting cycle in September remained firm on Tuesday after Fed Chair Jerome Powell told Congress that the U.S. is “no longer an overheated economy,” suggesting that the case for easing monetary policy is growing stronger.

Rate-cut bets have fluctuated sharply throughout the year and have been only one of several factors—along with strong earnings and excitement over artificial intelligence—that have helped the S&P 500 rise about 17% year-to-date. Still, many investors believe increased clarity on when the Fed will begin easing monetary policy and how much it might lower rates in 2024 could provide a buffer to stocks if markets grow turbulent in coming months.

The beginning of rate cuts will signal that “the Fed has the market’s back. He expects the central bank to cut rates about six times over the next year. “We think that’s definitely a positive factor both for the markets and the economy.

Investors late on Tuesday were factoring in an over 70% chance that the Fed will cut rates in September, compared with roughly 50% a month ago, according to CME FedWatch. Fund funds futures are pricing in about 50 basis points of easing in 2024. The Fed is getting closer to a rate cut.

Challenges ahead

Mr. Powell told the Senate Banking Committee that inflation had been improving in recent months and that “more good data would strengthen” the case for looser monetary policy. One early test comes on Thursday, with the release of U.S. consumer price data for June. While the last several reports have shown that inflation is starting to cool, a stronger-than-expected number could undermine the case for easing in coming months.

On the other hand, expectations of coming monetary easing combined with easing inflation and still-resilient growth could buoy investor confidence in the face of several potential risks in coming weeks. Corporate earnings kick off in earnest on Friday with reports from major banks and could weigh on the richly valued

U.S. equity market if companies fail to deliver on lofty expectations. S&P 500 companies are expected to increase earnings 10.6% this year and 14.5% in 2025, according to LSEG IBES.

Investors are also bracing for the twists and turns in the U.S. presidential election race, after President Joe Biden’s shaky debate performance late last month against former President Donald Trump prompted calls for the incumbent to step aside.

Keith Lerner, co-chief investment officer at Truist Advisory Services, wrote in a recent midyear outlook that he remains positive on U.S. stocks, although he expects markets to trade “in a choppy fashion” following a strong first half.

“U.S. economic growth is now cooling from the post-pandemic stimulus boom, but not weak,” he said. Stocks have typically risen in the six- to 12-month period following the Fed’s first rate cut, as long as the economy avoids recession.

Lower interest rates could also help broaden the equity rally, which has been led by a handful of megacap companies like Nvidia. Only 24% of stocks in the S&P 500 outperformed the index in the first half, the third-narrowest six-month period since 1986.

Matt Miskin, co-chief investment strategist at John Hancock Investment Management, said lower rates could help areas of the markets that have suffered under higher rates as big tech has soared. That includes small-cap companies, which tend to be more sensitive to interest rates because of their greater reliance on financing. The small cap-focused Russell 2000 is up just 0.1% year-to-date.

Smaller-cap companies need capital to survive in a lot of instances and this higher cost of capital makes their business really challenged,” he said. “A lower cost of capital would certainly help those companies.

Of course, rate cuts are not always a signal of smooth sailing ahead and have often come when the Fed is forced to rapidly ease monetary policy due to a deteriorating economy. A study by the Wells Fargo Investment Institute released last month found that the S&P 500 has fallen by an average of 20% in the 250 days following the first cut of a cycle.

Stocks will likely perform well over the next six to 18 months if the Fed cuts rates due to falling inflation, the firm’s strategists wrote. However, “if the Fed is forced to cut aggressively in response to a macro or market disruption, we would expect stock performance to suffer,” the strategists wrote.

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