

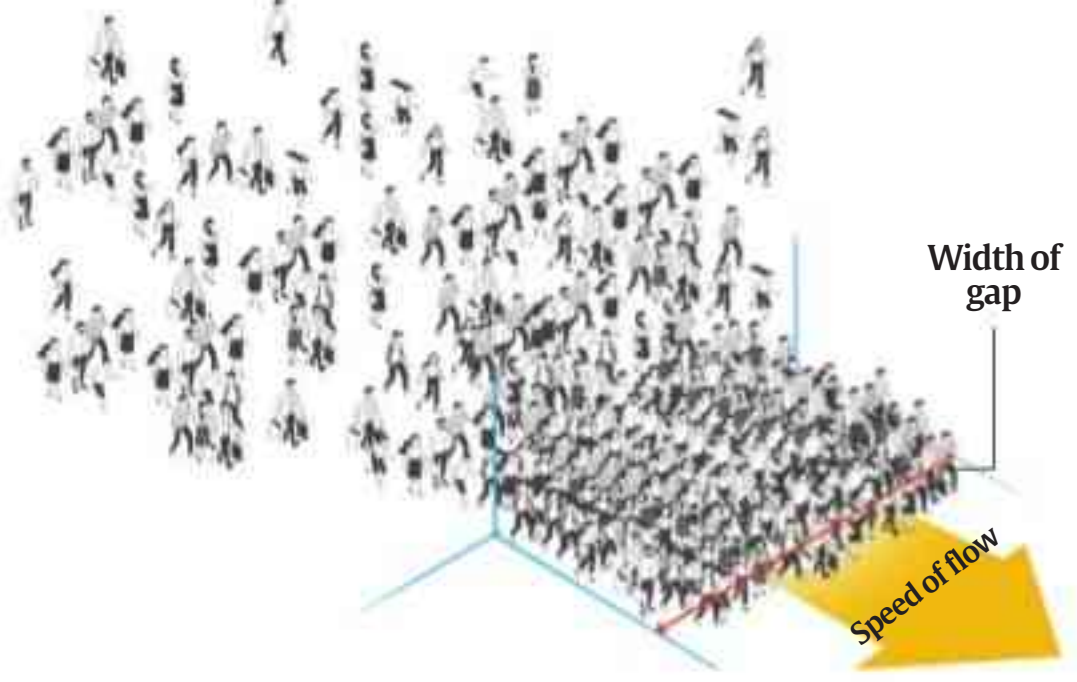


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TELLING NUMBERS

How many marched in HK? The maths of measuring crowds



In flow method, take a narrow stretch, measure the number of people passing through it in a given time, then multiply by total time for crowd to pass. Adapted from a Reuters graphic

ON June 12 and June 16, huge crowds took to the streets in Hong Kong, protesting against an extradition law. How huge is huge? With estimates ranging between 3.8 lakh and 2 million, a look at various methods that are used, or can be used, for assessing the size of a crowd.

2 million

This is the estimate of the Civil Human Rights Front, which organised the June 16 protest, according to Reuters. The news agency quoted a member of the Front as saying that they simply counted everyone.

What does it take to count 2 million — how many people counting other people, and for how long? In a report on crowd measurement, Reuters made its own estimate. If protesters were counted at the rate of 10 people per second, counting 2 million people would take 552 man-hours of work. This protest lasted less than 8 hours, Reuters noted.

3.80 lakh

The Hong Kong Police Force's estimate. They told Reuters they measured how many people were in the designated protest area during the “peak” — the time when the crowds

were most dense.

Jacobs' method

Named after Herbert Jacobs (1903–87), a professor of journalism at the University of California-Berkeley, this method works best for a rally in one place. Take the average number of people per square metre (or square foot), and multiply by the protest area in square metres (or square feet). Jacobs assumed that a loose crowd has one person every 10 sq ft, and a very dense crowd has one person per 2.5 sq ft. However, the method is not always flawless. In a paper on the subject, Penn State University researchers observed that people do not uniformly distribute over a space, but clump together into groups or clusters.

Flow method

For a protest on the move, measure the number of people passing through a given stretch over a short period, and multiply it by the duration of the event. Ideally the narrowest stretch is chosen.

This method assumes that no one is joining the march after the narrowest point. For this reason, using a location close to the end to measure flow is ideal, Reuters explained in a graphic and write-up on the subject.

TIP FOR READING LIST

THE MASS SUICIDES IN 1945 GERMANY

IN 1945, after the Third Reich fell and Soviet troops started marching into Germany, tens of thousands of Germans committed suicide. These included not just Nazi leaders but also ordinary citizens, sometimes entire families. Some shot themselves, others consumed poison and some, in the town of Demmin that saw an estimated 1,000 suicides, drowned themselves in the rivers. An author and documentary filmmaker looks at the reasons why.

Florian Huber's *Promise Me You'll Shoot Yourself: The Downfall of Ordinary Germans* is a best-seller in Germany and has been released in an English-language version.

From diaries, letters, and memoirs, as well as eyewitness accounts, Huber examines how ordinary Germans went from national pride during the Hitler

years to despair from the euphoria during the Hitler years to the despair when the Soviets arrived. Some of the suicides were the result of personal guilt, after many Germans had been swept along with the allure of the Hitler regime. Others were driven by fear of the Soviet troops, or shame — a large number of women committed suicide after being raped by Red Army soldiers.

In its review of the book, *The Guardian* acknowledges the skill with which Huber tells these stories. The review is critical, however, of Huber's portrait of an entire nation seduced by Hitler and overwhelmed at the end of the war by “complicity, culpability, guilt”. The reviewer calls this “seriously inaccurate — millions of Germans were longing for the end of the ruinous regime of the Nazis by the last months of the war”.



AMITABH SINHA
PUNE, JUNE 20

ABOUT A year ago, two scientists from Indian Institute of Science (IISc)-Bangalore reported an extraordinary finding on a public online scientific forum — they had observed superconductivity at room temperature, in a new composite material made of gold and silver.

The claim created huge excitement. Superconductivity is a phenomenon that, so far, has been possible only at extremely low temperatures, in the range of 100°C below zero. The search for a material that exhibits superconductivity at room temperature, or at least manageable low temperatures, has been going on for decades, without success. If the claimed discovery were confirmed, it could be one of the biggest breakthroughs in physics in this century so far.

The claim of Anshu Pandey and his PhD student Dev Kumar Thapa, the two researchers, was met largely with scepticism, criticism, even ridicule. Questions, many of them meaningful, were raised about the authenticity of data produced, the experimental procedures followed, and whether the interpretations they were making from the data were correct.

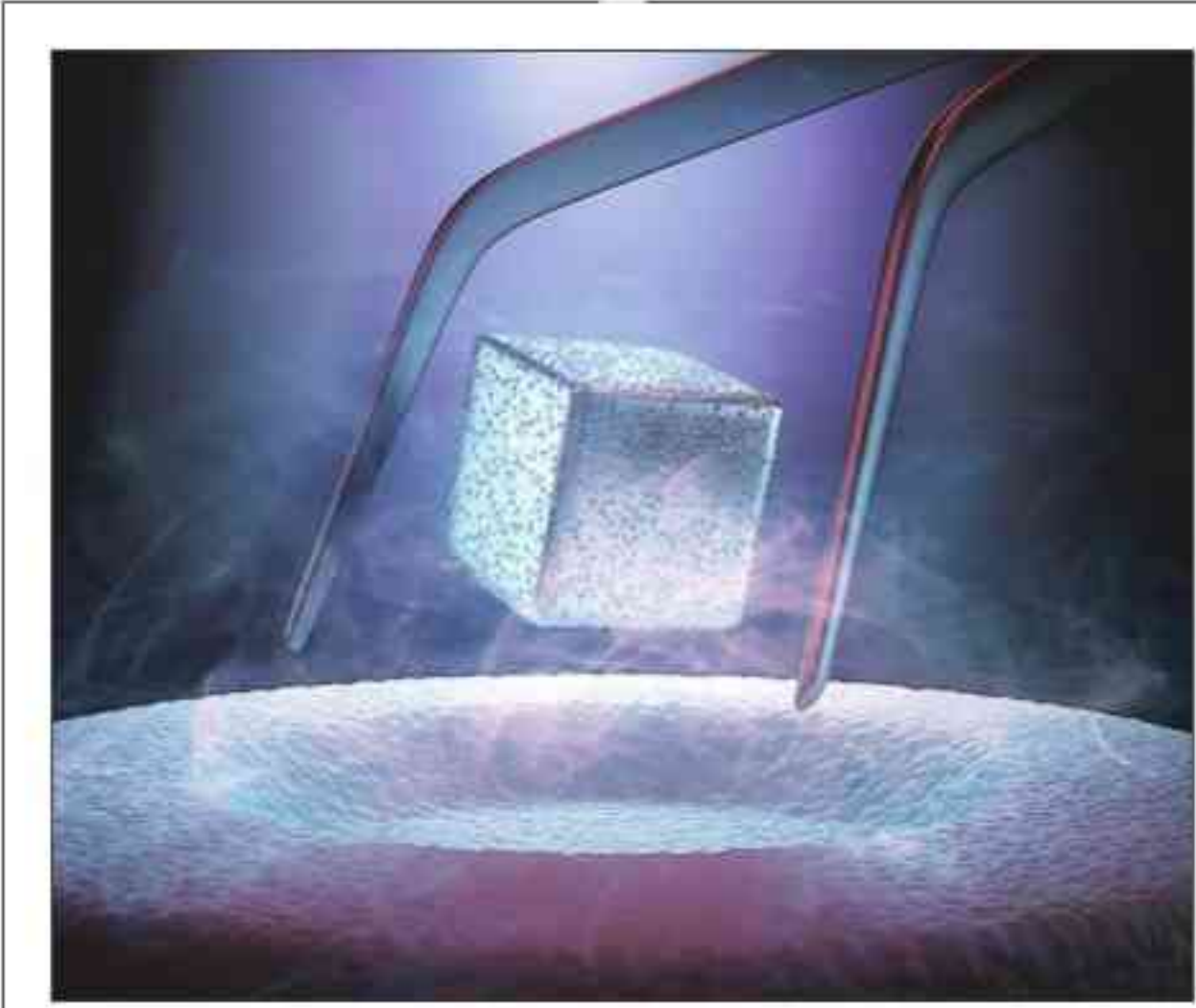
Amid increasing criticism, IISc asked some senior subject specialists to collaborate with the two researchers and reexamine the results. That group, which included the original two researchers, last month reported the results of fresh experiments on new samples of the same material, and reiterated not just the original findings, but much more. The group has also sent a paper for publication in an international journal. Their paper, as of now, is under “technical review”.

A look at what they have reported, and why it is so significant:

First, what is superconductivity?

It is a state in which a material shows absolutely zero electrical resistance. While resistance is a property that restricts the flow of electricity, superconductivity allows unhindered flow.

Electricity is essentially the movement of free electrons in a conducting material like copper. While the movement of electrons is in one particular direction, it is random and haphazard. They frequently collide with one another, and with other particles in the material, thus offering resistance to the flow of current. The picture is similar to one of messy traffic in a congested urban area. In the process, a lot of electrical energy is lost as



Getty Images

1 Superconductivity is a phenomenon that allows electric current to flow through a material without facing electrical resistance. So far, it had been observed only in extreme temperatures.

2 Another identifier of superconductivity is diamagnetism (repelling a magnetic field). The representative photo above shows magnetic levitation in a superconductive material.

heat. Resistance is a measurable quantity, which varies with the material.

In a superconducting state, however, the material offers no resistance at all. All the electrons align themselves in a particular direction, and move without any obstruction in a “coherent” manner. It is akin to vehicles moving in an orderly fashion on a superhighway. Because of zero resistance, superconducting materials can save huge amounts of energy, and be used to make highly efficient electrical appliances.

How rare is this?

The problem is that superconductivity, ever since it was first discovered in 1911, has only been observed at very low temperatures, somewhere close to what is called absolute zero (0°K or –273.15° C). In recent years, scientists have been able to find superconductive materials at temperatures that are higher than absolute zero but, in most cases, these temperatures are still below –100°C and the pressures required are extreme. Creating such extreme conditions

of temperature and pressure is a difficult task. Therefore, the applications of superconducting materials have remained limited as of now.

To what extent do IISc researchers claim to have got around such obstacles?

The IISc scientists have reported that some of their samples of nanoparticles of gold-silver composite material displayed superconductivity at 13°C, and under normal atmospheric pressure. Further, this material had the potential to show superconductivity at even higher temperatures under some special conditions, up to as much as 75°C.

They have provided evidence of these samples displaying two fundamental properties of a superconductor — zero resistance to electrical current, and diamagnetism. The latter is a property opposite to normal magnetism that we are used to. A diamagnetic substance repels an external magnetic field, in sharp contrast to normal magnetism, or ferromagnetism, under which a substance is attracted by an external magnetic field.

“A superconductor shows a range of other complex properties as well, but these two, zero resistance and diamagnetism, are usually taken to be smoking gun proof of superconductivity,” said Professor Arindam Ghosh, one of the scientists who joined the original two researchers for a fresh look at last year’s reported results.

What is more, the scientists have now reported that these two properties were observed simultaneously, in the same sample of the material. These two properties had been observed last year too, but in different samples. “The claim is much stronger this time,” said Ghosh.

How well has the claim been received?

The scientists shared their findings on the same online platform last month, triggering fresh excitement in scientific circles. Scepticism has been subdued this time, they say, and add there is a palpable sense of something big on the horizon. However, by the scientists’ own admission, some legitimate questions about the data and the behaviour of the material remain unaddressed.

“Frankly, we have no reasonable explanation for some of the things that have been pointed out by others in our data. And we are sensitive to that. But, possibly it is because we are talking about a completely new material. Also, we are possibly talking about completely new physics which we are still to fully comprehend,” said Ghosh.

“I think what we have been able to dispel for sure is doubts over a possible scientific fraud,” he said. Similar claims for superconductivity at room temperature have been made in the past, but those experiments could not be reproduced by other scientists. “The fact that we repeated the experiments with new samples of the material and have now reached similar, stronger, conclusions, shows that these results are reproducible. This is of utmost importance because anyone can now verify these results,” he said.

On June 6, the group put out more data and information on the experiments in response to queries that were raised.

When will science be sure?

The matter would be settled only when their paper is finally published. As of now, no one knows how long that is going to take. Considering the scale of the finding, it is likely to undergo several layers of peer review.

If confirmed, this would probably be the biggest discovery to come out of an Indian laboratory “since the Raman effect in the 1920s”, as Ghosh put it.

had headed the 2013 cabinet subcommittee, has said that legal proceedings are pending and the state government has not obtained a legal opinion through proper channels. Patil has written to the CM and Industries Minister KJ George calling for reversal of the decision.

Government stand

The government has said it is only honouring an agreement to which the BJP and Yeddyurappa were also a party. “When an absolute sale deed is implemented as per such agreements the sale price is not fixed according to the prevailing market rate. This is the norm,” Industries Minister George said. Ballari in-charge Minister D K Shivakumar said: “If you want to encourage industries and create jobs then you have to honour agreements.”

Amid the protests, the CM has said the state government is willing to reexamine the decision to sell the land.

In a statement, a JSW spokesperson said: “The said land was leased to JSW Steel for expansion of its steel plant capacity at Vijayanagar and the lease hold land shall become a free hold land as per the terms of original lease on expiry of specific period of lease.”



Zomato operated a hybrid drone, with fixed wings and rotors. www.zomato.com

km per hour, and carrying a payload of 5kg. Inbuilt sensors and a computer on board allow the drone to sense and avoid static and

dynamic objects, Zomato said. Although fully automated, each drone was currently being tested with remote pilot supervision. Zomato

said that over time, as it collects more data, it might do away with pilot supervision.

Why drones for food delivery?

Saving time is the main objective; a motorcycle delivery from Zomato takes an average 30.5 minutes. “The only possible way to reduce the average 30.5 minutes to 15 minutes is to take the aerial route — roads are not efficient for very fast delivery. We have been working towards building sustainable and safe delivery technology and with our first successful test, food delivery by drones is no longer just a pipe dream. While regulatory hurdles are not trivial, and the government’s concerns need to be looked at from various (valid) points of view, the tech is ready to fly and I am confident that drone delivery will be commonplace sooner rather than later,” said Deepinder Goyal, founder & CEO, Zomato.

Food delivery by drones: tech still being tested, rules waiting to evolve

PRANAV MUKUL
NEW DELHI, JUNE 20

AMONG the projected uses for drones, or unmanned aerial vehicles (UAV), a key one is the delivery of items such as food and goods purchased online. Food-tech platform Zomato took a step in that direction earlier this month, when it tested a drone for delivery of food items. Prevalent norms in India, however, prohibit payload carriage on UAVs.

What are the rules that prohibit delivery via drones?

The guidelines were declared by the Directorate General of Civil Aviation (DGCA) in August last year after two years of deliberations. Before working on these rules, the DGCA had put a blanket ban on drone operations following a Mumbai-based pizza

chain using one for food delivery in 2014. Besides restricting payload carriage, the rules also prohibit drone operations outside the visual line of sight.

While announcing the rules last year, the government had said these will be evolved with time as and when companies exhibit newer technologies. Last month, the DGCA invited expressions of interest for experiments with UAVs flying beyond the visual line of sight. Zomato has now said it is forming a consortium for such operations.

What technology did Zomato use?

It flew a hybrid drone with fixed wings as well as rotors. Fixed wings allow forward motion like an aeroplane while rotors allow vertical takeoff and landing. Developed by TechEagle Innovations, which was acquired by Zomato last year, the drone covered 5 km in about 10 minutes with a peak speed of 80



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CHRISTOPHE JAFFRELOT AND SHREYYA RAJAGOPAL

In long run, BJP's dependence on PM Modi can hurt the party, contribute to erosion of federalism

POLLARISING

One country-one election needs rigorous debate. Opposition boycott leaves field open to dominant party to control it

THE CONTROVERSIAL ONE country-one election proposal has resurfaced and the real threat is not that it will spark a prolonged and polarising debate — but that it won't. The genuine danger is that an attempt could be made by the party that has returned to power at the Centre, with a mandate larger than before, to push through a proposal of consequence and magnitude without the scrutiny and discussion it calls for. The idea of simultaneous elections has been around for a long time, it has even been taken up in respected forums like the Law Commission, the parliamentary standing committee and the Election Commission. But the fact is that even as it addresses some valid and resonant concerns — that elections have become too costly, and that the busy election calendar interrupts governance and distracts from long-term planning and policy goals — it will have costs that may be too high for a parliamentary democracy with a strong federal framework.

Synchronising Centre-state elections will, in all probability, benefit the dominant national party or the incumbent at the Centre while disadvantaging the smaller regional party and issue. Fixing the tenure of legislatures would also further weaken accountability in a system where the playing field is already tilting towards a strong political executive and in which the space for autonomous institutions is shrinking. In such a system, elections provide a necessary moment of reckoning for the rulers and an important moment of assertion for the ruled. Moreover, it is also possible to argue that the problems of too many elections are better addressed by other solutions, which do not flatten diversity or entail significant amendments to the Constitution and the Representation of People Act. For instance, the Model Code of Conduct, which is seen as too restrictive, could be reviewed and relaxed to impose fewer curbs on the Central government while a state election is ongoing. And, election funding reform could be more seriously designed and implemented to bring down the prohibitive poll costs.

The all-party meeting in which Prime Minister Narendra Modi made a fresh pitch for one country-one election marked a flawed start to a process of deliberation on this issue in his second term. Wednesday's meeting was attended by only 21 of the 40 parties that were invited — parties like the Congress, TMC, DMK, BSP and SP stayed away. The poor attendance casts a responsibility on the Modi government to reach out across the political fence and ensure that more Opposition voices are heard, and listened to, in the debate. The panel that will be formed to examine the issue and come up with suggestions in a time-bound manner will only carry credibility if it includes members of parties across the political spectrum. The onus is on the Opposition too. It must participate in every meeting and join every forum in order to make its point and influence the outcome. The strategy of boycott only makes it look petulant. More disquietingly, it leaves the floor to the dominant party and its agenda on an issue that affects all.

A BEGINNING

Dissolution of its Karnataka unit could kickstart a wider process of accountability and restructuring within Congress

THE DISSOLUTION OF the Karnataka PCC on Wednesday is the first major step the Congress has initiated after its drubbing in the general election nearly a month ago. The party has been convulsed by Rahul Gandhi's decision to take responsibility for the defeat and quit his post. Hopefully, Karnataka marks a beginning for the Congress leadership towards reorganising itself and facing up to the challenge posed by the BJP. The Congress continues to be the largest Opposition party in the country and its conduct will have a bearing on political institutions and the democratic process itself.

While the KPCC restructuring may shed light on the Congress strategy to rebuild, the party's decline is the result of a process that dates back to the late 1960s. Who or what could hold the Congress together is a question that became prominent in 1969, when the old guard in the party rejected the leadership of Indira Gandhi leading to a split in the organisation. Mrs Gandhi won the battle and tried to steer the Congress to the left. However, the process resulted in the party promoting, and organising itself around, her cult. Post Emergency, the Congress again debated the ideology/leadership question only to regroup again behind Mrs Gandhi. Since the 1980s, the party has turned to the Nehru-Gandhi dynasty each time it faced an existential crisis. The non-dynasts who helmed the party in the 1990s — Narasimha Rao and Sitaram Kesri — could neither rebuild the organisation nor retrieve lost ground. Sonia Gandhi, the undisputed party chief for nearly two decades since the late 1990s, was successful in keeping the party reasonably intact. However, there was no serious attempt to hold organisational polls or restate or rework party ideology. Sonia's managerial instincts helped the party lead two coalition governments, but even she outsourced the task of providing ideological direction of the UPA to a non-party, non-elected National Advisory Council.

Now Rahul Gandhi's attempt to explain his resignation as party chief within the framework of accountability has threatened to disrupt the leadership model the Congress has subscribed to for many years. Karnataka, a state where the Congress is in office, offers an opportunity to institutionalise inner-party democracy and introduce fresh blood in the organisation.

BOHEMIAN ELITE

Boris Johnson's untidy car has sparked a debate in Britain: Is being messy endearing or entitled?

IF CLEANLINESS IS next to godliness, then Boris Johnson, the man vying to be Britain's next prime minister, is indeed an impious man. To begin with, the former journalist and British Foreign Secretary has already made scruffy — from his mop of white-blond hair to the baggy suits — something of a style statement. This week, Britons are locked in a debate about the state of Johnson's car and what it says about the man who could very well lead the United Kingdom's exit from Europe.

Photographs of the inside of Johnson's car — a modest Toyota — reveal old gym bags, used food cartons, discarded books, crumbs and an assortment of what looks like waste paper. The books say much about the Conservative Party leader, often described as a British Donald Trump — one is a book written by a Thatcherite, the other a French edition of *The Blue Lotus*, a captivating Tin Tin story. But the larger question from the messy Toyota is this: Does being slovenly make Boris Johnson a man of the people or just, as one British "cleanliness expert" put it, an entitled "toff"?

Perhaps the reason that Johnson doesn't care about the state of his car isn't bohemian disdain for what people think, but rather, not caring at all, because a life of privilege (Johnson was born into an upper middle-class family and can trace his descent from a British monarch) has made sure he doesn't have to. After all, what is a matter of shame for ordinary people is mere eccentricity for those at the top. At any rate, the PM hopeful could have avoided the debate by emulating Indian politicians and government servants. Here, the issue of the cleanliness of a powerful person's car is very unlikely to come up — there is an army of drivers, helpers and ADCs to make sure it is always spotless.

THE JUST-CONCLUDED LOK Sabha elections were won by Narendra Modi, not the BJP. This is evident from the exit poll conducted by Lokniti-CSDS, which shows that one-third of the BJP voters would have chosen a different party had Modi not been the PM candidate. This state of affairs — typical of the populist scenario spreading across the world — has major implications for the country's institutions. It is resulting, for instance, in a presidentialisation of sorts of the political system at the expense of parliamentarianism.

For the BJP, it means that the party depends on one person more than ever before, like the Congress used to depend on Indira Gandhi in the 1970s-80s. Not only are most of the BJP candidates selected by Modi and Amit Shah, but they depend upon the duo after becoming MPs.

This transformation of a party which took pride in its collegial and democratic decision-making process is probably more damaging at the state-level, where the BJP faces a greater challenge from its opponents. The party has not won any significant state election in a year: In 2018, it could not win in Karnataka, Rajasthan, Madhya Pradesh, Chhattisgarh and Telangana; in 2019, so far, it has not managed to win in Andhra Pradesh and Odisha. It's true that in half of these states, the BJP was affected by the anti-incumbency factor but then, it could also not benefit from anti-incumbency in the other states.

Voters have become sophisticated: On the same polling day, they gave 38.4 per cent votes to the BJP's Lok Sabha candidates but the party's candidates to the Odisha assembly received only 32.5 per cent votes. This made it possible for Naveen Patnaik to get a fifth term. The Karnataka results are even more remarkable. The BJP swept the general elections, winning 25 out of 28 the Lok Sabha seats with 51.5 per cent of the valid votes. But the Congress won comfortably in most of the municipal corporations in cities where the BJP's Lok Sabha candidates had registered remarkable victories. The Congress won 90 out of the 217 seats in the

The centrally-sponsored schemes (CSS) that Narendra Modi used to criticise when he was the Gujarat chief minister have gained momentum under his prime ministership. This trend will continue. For, according to the Lokniti-CSDS survey, the fact that the Swachh Bharat Mission and Ujjwala Yojna are associated with Modi contributed somewhat to his electoral success. The terms of reference of the Finance Commission mention that one of the criteria for the distribution of funds to the states will now be their "achievements in the implementation of flagship schemes of government of India".



YASHODHARA DALMIA

EVER SINCE MAHATMA Gandhi fired the imagination of the world as the protagonist of non-violence, memorials to him have sprung up everywhere. From San Francisco to Yogyakarta in Indonesia, the image of Gandhi is interpreted to avail of his invaluable message for the present times. It is only appropriate, therefore, that as the world congregated at the 58th Venice Biennale this year, the India Pavilion on Gandhi was abuzz with contemporary artists' versions of the Mahatma.

In the exhibition "Our Time for a Future Caring", organised under the aegis of the ministry of culture, we have interpretations of Gandhi's immortal message of truth and non-violence by eminent Indian artists. It is important to remember at this juncture that Gandhi considered himself an artist of non-violence — "I am not a seer, rishi or a philosopher of non-violence: I am only an artist of non-violence in the realm of resistance".

To mark the occasion of Gandhi's arrest for protesting the British tax on salt, Nandalal Bose, for instance, had created a black and white linocut print of a scantily-clad Gandhi walking with a staff which became an iconic image for non-violence. In reinstating the might of the ordinary person, Gandhi could not have been depicted with greater simplicity or strength. The Mahatma — with just his dhoti, shawl, cap

GANDHI AT VENICE

The interpretation of his ideas at the Biennale is relevant to our times

and staff — graced the hallowed sanctuaries of the Raj. Clothed in this costume, he strode past the liveried guards into the Viceroy's House in 1931. He arrived at Buckingham Palace for tea with King George V and Queen Mary wearing a tattered shawl, too.

Gandhi is invoked in a masterly manner by the artist M F Husain, for instance, who painted him striding forward and without any facial features. Gandhi became for him symbolic of the common man and his ability to survive despite the extreme odds faced in everyday life. Husain's Gandhi brings to mind the artful manner in which the leader had knitted together his countrymen into a mass movement.

There is a little known fact that, just weeks before the beginning of World War II, Gandhi was to write to Adolf Hitler in July 1939 — making a fervent appeal for peace anticipating the horrifying bloodshed of the war. The petition from one of the greatest proponents of non-violence to one of the most violent historical figures of the world is created as a fog screen by the artist Jitish Kallat and extends its message onto the adjoining floor. In creating an immersive experience which the viewer can walk through, inhabiting and dissipating the unrolling text, the open letter from the past carries its

message into the turbulent present.

Atul Dodiya's Broken Branches, are wooden cabinets which he had witnessed in Gandhi's ashram in Porbandar where his personal belongings were kept. Dismayed and anguished by the Godhra riots in Gujarat in 2002, these distilled into his work where the cabinets showcase replicas of human bones, prosthetic limbs, hand-painted photographs, spades and hammers, construction tools and other debris of divisive hate. Shakuntala Kulkarni's armour of cane are an evocative barricade for women to protect themselves, but they are also a cage. Rummana Hussain's broken vessels with a vivid flow of colour resound with pain and resurgence. Ashim Purkayastha's stone heaps are a vivid reminder of violence but also a shelter against destructive forces opening the message of Gandhi for contemporary times.

The alchemic transformations of Gandhi's beliefs into objects of hope and despair in today's India make for an impactful translation. Even as some in the country mouth laudatory words for Gandhi's killer, Nathuram Godse, in Venice the world watches bewitched, the messages of non-violence from the famed artist of peace.

The writer is an art historian and an independent curator based in New Delhi



JUNE 21, 1979, FORTY YEARS AGO

UNREST IN ASSAM

WHILE MIZORAM PASSED a tense but trouble-free day today, Assam rushed reinforcements of paramilitary forces to the border outposts in the Hailakandi sub-division of Cachar district on receipt of reports that gangs of the outlawed Mizo National Front (MNF) were seen moving about in the border areas. The armed forces have been alerted by the Assam government to move in to assist the civil administration in meeting any eventualities along its 96-kilometre border with Mizoram. The situation in Silchar was reported quiet and curfew was lifted during the day. The authorities at Aizawl, capital of Mizoram, did not lift the curfew today as ten-

sion continued in some pockets. Curfew was lifted at Lunglei, in southern Mizoram and was relaxed at Saitual till 6 pm. The authorities said that only night curfew would be in force at Saitual.

RUSSIA-CHINA TENSIONS

A SOVIET NAVAL amphibious task force, headed by the 45,000-tonne aircraft-carrier "Minsk", is gathering in the South China sea this weekend in a nerve-rattling show of Russian support of its Vietnam ally. The presence of the "Minsk", Russia's most modern warship, in the sensitive sea bordering China, comes just before the opening of a second round of peace talks between Peking and

Hanoi. A delegation headed by a lesser-known Vietnamese Vice-Foreign Minister, Dinh Nho Lien, is scheduled to arrive in Peking on Monday.

WORLD CUP FINAL

WEST INDIES AND England qualified to meet in the World Cup final at Lord's on Saturday. Both semi-finals ended in exciting victories. West Indies beat Pakistan by 43 runs at the Oval while England defeated New Zealand by nine runs at Manchester. Scores: West Indies made 293 in 60 overs and defeated Pakistan who made 250 in 56.2 overs. On the other hand, England scored 221 for eight in 60 overs to beat New Zealand's 212 for nine in 60 overs.



THE IDEAS PAGE

Let's strike a balance

Around the world, the benefits of yoga for physical and mental health as well as sustainability are being recognised



M VENKAIAH NAIDU

AS OVER 170 COUNTRIES around the world celebrate the fifth International Yoga Day on June 21, it is a good moment to reflect on this treasure of ancient India and a unique part of the world's intangible heritage.

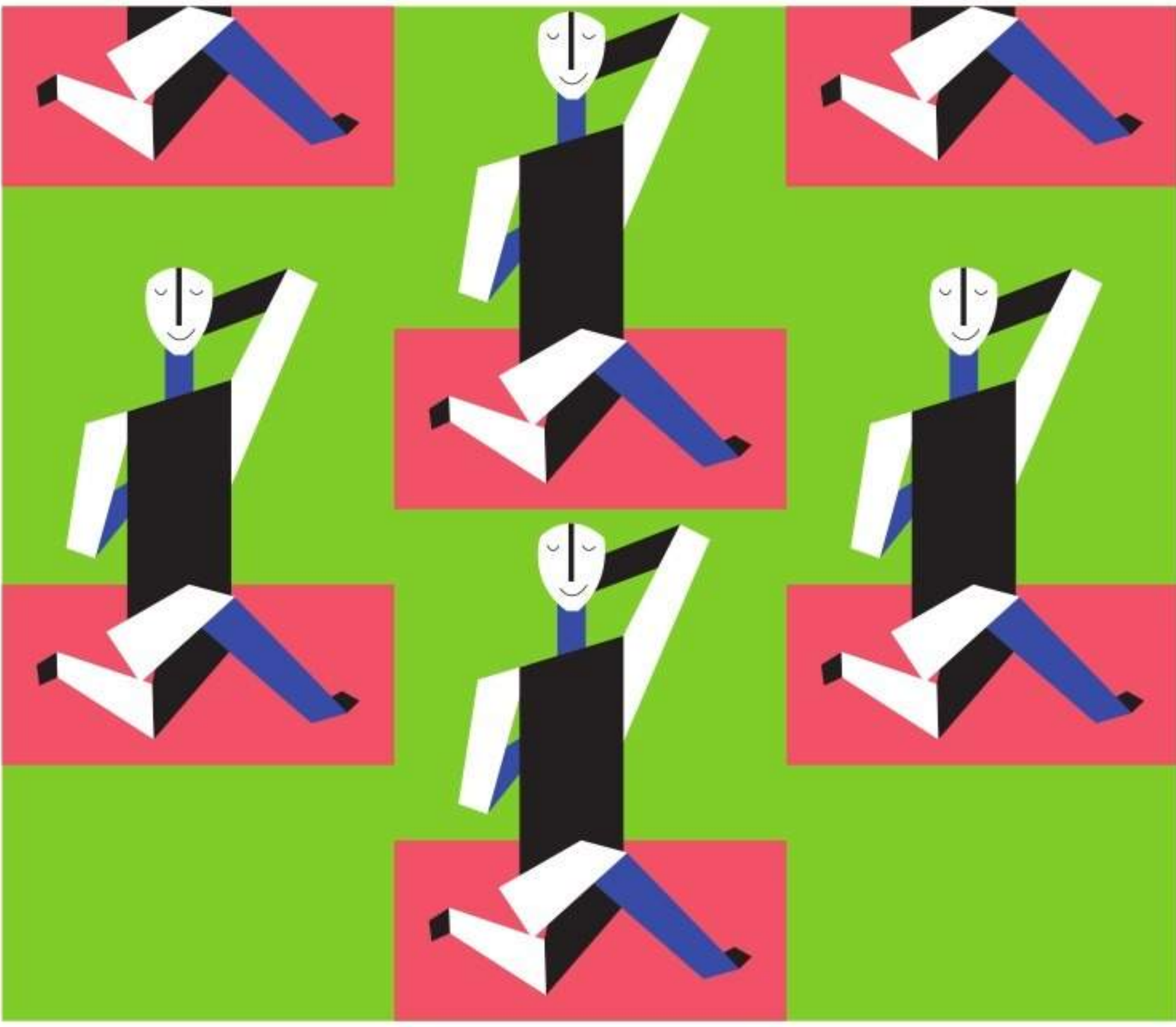
Practised in various forms around the world and continuing to grow in popularity, yoga is essentially an ancient physical, mental and spiritual practice that originated in India possibly around the 5th century BC. It is, of course, an effective workout. But it is much more than that. It is a comprehensive approach to achieve wellness. It recognises the vital connection between the body and the mind. It aims for balance and equanimity, peace, poise and grace. It is a sublime expression of the quest for excellence, for synthesis and harmony. It is an eloquent epitome of the Indian worldview.

The word yoga comes from Sanskrit and means "to join" or "unite". The science of yoga joins different facets of human existence. The Indian seers have unequivocally emphasised physical fitness as the first and the crucial first step towards human progress. "Shareeramadyam khalu dharma saadhanam" (a healthy body is the prerequisite for achieving higher goals). Recognising that "yoga provides a holistic approach to health and well-being" and also that wider dissemination of information about the benefits of practising yoga would be beneficial for the health of people all over the world, the UN proclaimed June 21 as the International Day of Yoga via Resolution 69/131.

We are living in times of great challenges, of unprecedented change in unpredictable directions. The way we live, learn, work and enjoy is changing rapidly. Lifestyles are getting transformed through technology. We are making significant progress in our relentless quest for economic growth and prosperity, in enhancing convenience and comfort, in enriching our knowledge and skills, in enlarging our choices for entertainment and education. However, as the global community started drafting its development agenda in 2015, it realised that we have been missing a big component of "development". There was a need for balance. There was a need for caring for the poor. There was a need for caring for the planet. There was a need to look for gross national happiness in addition to gross national product. There was a need to avoid excesses, avoid reckless exploitation of nature, avoid excessive consumption. Our individual lifestyles and patterns of global governance needed to be rebooted. Sustainability has become the new mantra. "Balance" is at the heart of sustainability. And that "balance" in all spheres starting with physical well-being is what yoga is all about.

The Bhagavad Gita makes two important statements: "yoga-sthah kuru karmaani" (Do your duty with a yoga approach) and "samatvam yoga uchyate" (balance is the essence of yoga). Yoga is an approach to life that focuses on physical balance, mental equilibrium and working towards a harmonious synthesis of diverse elements including the protection of the environment. Quite appropriately, the theme of the 2019 International Yoga Day is "Climate Action".

Yoga's benefits are slowly being realised the world over. As the world makes the epidemiological transition and the contribution of most of the major non-communicable disease groups to the total disease burden is increasing, it is important that individuals make healthier choices and follow lifestyle



CR Sasikumar

patterns that foster good health.

As Harvard Medical School experts have recognised, yoga, a combination of four components — postures, breathing practices, deep relaxation, and meditation — has a significantly positive impact on health. It can alleviate arthritis pain, reduce the risk of heart disease, relieve migraines and fight osteoporosis, multiple sclerosis or fibromyalgia. A study showed how yoga increased blood vessel flexibility by 69 per cent and even helped shrink arterial blockages without medication.

Since yoga works across multiple systems in our body, Harvard researchers have documented that it helps to rev up immunity and decrease the need for diabetes medications by as much as 40 per cent. Yoga, according to these researchers, does so much for one's health and well-being that people who do yoga use 43 per cent fewer medical services and save anywhere from \$640 to more than \$25,000 a year!

It is truly a matter of quiet satisfaction that India is contributing to the health and well-being of millions of people across the globe. Leading from the front, Prime Minister Narendra Modi has been spearheading this massive knowledge-sharing exercise. The fact that the UN resolution moved by the Modi government was co-sponsored by a record 177 countries bears testimony to yoga's universal appeal and India's readiness to support the cause of global health.

Establishment of the first India-China Yoga College at the Yunnan Minzu University in Kunming in China and the India-Turkmenistan Centre for Yoga and Traditional Medicine in Ashgabat, Turkmenistan are a few of the important first steps in the efforts to spread the benefits of yoga.

After assuming office as Vice President of India, I have been visiting various foreign countries as a part of strengthening bilateral ties with those nations. I was pleasantly surprised to find that yoga has become hugely popular all over the globe. I have learnt that quite a few schools in some countries, including the US, have introduced yoga as a part of the curriculum for children.

Establishment of the first India-China Yoga College at the Yunnan Minzu University in Kunming in China and the India-Turkmenistan Centre for Yoga and Traditional Medicine in Ashgabat, Turkmenistan are a few of the important first steps in the efforts to spread the benefits of yoga. After assuming office as Vice President of India, I have been visiting various foreign countries as a part of strengthening bilateral ties with those nations. I was pleasantly surprised to find that yoga has become hugely popular all over the globe. I have learnt that quite a few schools in some countries, including the US, have introduced yoga as a part of the curriculum for children.

ing the US, have introduced yoga as a part of the curriculum for children. I have seen yoga centres in many countries like, for example, Peru. In Costa Rica, a presidential decree was issued declaring all activities and initiatives related to promotion of yoga and meditation to be in the public interest.

Yoga is not just about health and well-being. It is also about "focusing" and "excelling". As the Bhagavad Gita states, "Yogah karmasu kaushalam" (excellence in your work is yoga). This excellence comes as a corollary to "dhyana" (concentration) and "dharana" (retention) along with "yama" (ethical behaviour) and "niyama" (discipline) as a part of the eight-fold approach of yoga as defined by Patanjali, the pioneering exponent of yoga.

Yoga, therefore, is a way of thinking, a way of behaving, a way of learning and a way of problem-solving. It is a unique way of connecting ourselves with the external environment and generating positive synergies of thought and action. It creates stability, enhances ability and promotes conviviality. It can serve as an effective ground for sustainability.

"Yoga is like music. The rhythm of the body, the melody of the mind, and the harmony of the soul creates the symphony of life," remarked the famous yoga guru, the late BKS Iyengar. This symphony is resonating in a million homes today across geographical, national, linguistic and religious boundaries. I do hope the people of the world benefit from these melodies and become free from the maladies that afflict them. On the fifth International Day of Yoga, I can do no better than greet the people of India and the world with the timeless universal prayer of the ancient Indian sages: "Sarve Bhavantu Sukhinah, Sarve Santu Niraamayaah, Sarve Bhadraani Pashyantu, Maa Kashchit Dukkha Bhaag Bhavet (let everyone be happy, healthy and see good everywhere)".

The writer is Vice President of India

WHAT THE OTHERS SAY

"North Korean leader Kim Jong-un has visited China four times since last year. Xi's return visit makes bilateral ties robust at the highest levels."
— GLOBAL TIMES, CHINA

Man on a mission

Like a great batsman, Narendra Modi has begun his second innings on the front foot



GAUTAM GAMBHIR

CRICKET AND PRIME Minister Narendra Modi are the flavours of the season. There is a cricketing analogy that applies to PM Modi. The difference between a good batsman and a truly great batsman is not just about averages but is also about certain aspects on the field. A good batsman gets to a century, but at times, throws it away with a tired or loose shot. A truly great batsman, however, sees the hundred as just another milestone. He goes on to score runs at an even greater pace and makes a decisive impact on the result of the game. This is what one is reminded of, seeing Modi 2.0 in action.

The prime minister's supporters are still under the spell of the work done in Modi 1.0 and the thumping electoral mandate. His opponents are still trying to digest the massive jolt to their political future. Political pundits are still trying to come to terms with the shattering of their conventional wisdom. But Modi has already moved to a higher gear. In just a little more than 20 days, he has taken important strides, not just within the country but also outside.

There were some big ticket promises made in the BJP manifesto. Barely a couple of weeks after the swearing-in, the Modi government has already delivered upon them. After the first Cabinet meeting of the new government, Modi announced the extension of the PM-Kisan scheme to all farmers, as promised. Also fulfilled was the important promise of providing a pension scheme for farmers and small shopkeepers, providing a safety net for the future. These moves benefit a whopping 14 crore plus farmers and over 3 crore small shopkeepers.

Water management and access to safe drinking water has become part of the public discourse, mainly thanks to Modi's continuous focus on it. Significant steps like the formation of the Jal Shakti ministry show a renewed focus on the most important issue regarding the nation's future. Modi also spoke about water management in detail at the Niti Aayog's governing council meet. States also exchanged the best practices in water management at the meeting.

The prime minister has already set his sights on making India a \$5 trillion economy and has urged states to start having GDP targets right from the district level. This is important, especially in the context of raising living conditions in "aspirational districts", another important focus area for Modi.

One of the phrases that wasn't a big part of the pre-Modi political culture of India is "ease of doing business". The Modi government has brought down the salary contribution of industrial workers who are eligible for healthcare benefits under the employees' state insurance act (ESI). This incentivises organisations to report em-

ployment numbers correctly and give workers their due benefits. Both employers and employees benefit.

Earlier, corruption used to be an accepted reality in most government departments, especially at the top. Even Modi's detractors accept Delhi's power corridors are now free of touts and wheeler-dealers. If some thought that Modi would take a break in his fight against corruption, then he just proved them all wrong. In a typically surprising but daring "surgical strike", Modi "compulsorily retired" over two dozen senior officers of the income tax department. A Chinese proverb says "kill the chicken to scare the monkey". It would be a mistake to see this as an action against just some errant officers. It was a show of intent to the entrenched bureaucracy that their shenanigans would not be endured any more. It seems to be a precursor to greater reforms in the bureaucracy, something that only Modi is seen as willing to carry out. Remember, it was he who introduced lateral entry into the top rungs of the administration.

Modi 1.0 disrupted the cosy status quo on Kashmir in many ways. Modi 2.0 has already gone one step further. An important clean-up has been initiated within the Jammu and Kashmir Bank. Those in the know have long alleged that the opaque functioning of this bank had made it a den of funding and transactions for all sorts of unsavoury elements that try to keep the Kashmir Valley on the boil. Modi's action against the bank, enforcing transparency and accountability, has created a new normal in the political dynamics of the state.

On the foreign policy front, the prime minister has already blazed a trail. He left an impact on the Shanghai Cooperation Organisation summit just a few days ago, in which he spoke out against terrorism and built a global consensus around it. Before that, he became the first world leader to travel to Sri Lanka after the horrific Easter terror attacks that left hundreds dead and the world shocked. This was the gesture of a friend who knew the pain of losing people to terrorism.

PM Modi has also managed to convincingly flex India's muscles in the neighbourhood. His visit to Maldives, the grand welcome he got there and the visible camaraderie showed that Modi was undoing the policy blunders that UPA's apathy had caused. Not only did Maldives honour Modi with their highest award but according to media reports, they are also on the verge of scrapping a maritime deal with China, tilting the balance of the region in favour of India — a major foreign policy victory.

When he was newly elected in 2014, the flurry of activity that Modi unleashed made it seem like it was just the new-comer's burst of energy. However, he maintained that energy throughout his first term and surprised everyone. Now, it is clear that Modi is a man on a mission, a man in a hurry to take India to new heights. Just the first 20 days of Modi 2.0 are enough to say that.

The writer is a BJP Member of Parliament

LETTERS TO THE EDITOR

CAMPUS MONITORS

THIS REFERS TO the editorial, 'Campus control' (IE, June 20). The strictures in the Uttar Pradesh Private Universities Ordinance which aims to govern 27 universities should not surprise those familiar with the BJP's version of patriotism and nationalism. It is also sync with the BJP leadership's proclivity to court controversy. For example, the party's leadership is now busy with the "one nation one election" proposal. It must stop the UP CM from monitoring institutes.

Tarsem Singh, Mahilpur

KEEP TRADING

THIS REFERS TO the editorial, 'Skirt trade wars' (IE, June 20). The ongoing trade war between the US and China presents a good opportunity to India to boost exports. But the country's poor infrastructure, archaic labour laws and cumbersome official procedures deter companies from investing in India. The US is India's largest trading partner. The trade deficit is also in favour of India and the US has constantly flagged the unequal access to markets in India. China is India's second-largest trade partner. Procedures such as strengthening and improving the supply-chain network, introducing new labour laws, offering tax concessions, simplifying the GST regime, initiating track-II dialogues with the various trade bodies in both the US and China could help the country to manage the tightrope walk between the two economic superpowers.

Pranay Kumar Shome, Kolkata

LETTER OF THE WEEK AWARD

To encourage quality reader intervention, The Indian Express offers the Letter of the Week award. The letter adjudged the best for the week is published every Saturday. Letters may be e-mailed to editpage@expressindia.com or sent to The Indian Express, B-1/B, Sector 10, Noida-UP 201301. Letter writers should mention their postal address and phone number.

THE WINNER RECEIVES SELECT EXPRESS PUBLICATIONS

NEUTRALITY MATTERS

THIS REFER TO the article, 'Voice of inclusion' (IE, June 19). The privileges given to Parliament's presiding officers are meant to enable their neutrality. The Speaker is exempted from disqualification under the defection law by provisions of the Tenth Schedule of Constitution. The concept of "one nation, one election" can strengthen the speaker's neutrality.

Arshpreet S Eknoor, Fazilka

THE Urdu PRESS

MODI 2.0

THE MUNSIF ON May 31 writes: "In 2014, there were seven countries invited along with thousands of people (for the PM's swearing-in). This time, by doing it more austere, he (PM Modi) could have sent a signal of frugality and simplicity, but that opportunity was not taken." The paper goes onto say that it is "interesting" that Modi chose to go to Rajghat for his ceremony, as there are "MPs who are Godse-worshippers in the House now." It laments the "embarrassment and agony for any respectable citizen that those idolising Godse have entered Parliament".

Etemaad, the party paper of the AIMIM, recollects the deeds of the first Modi 1.0 in an article on May 31. It writes about note-bandi, "which destroyed so many small and medium-scale businesses". It contends that the government's reasoning about terrorists counterfeiting notes has "fallen flat" after "Pulwama". It says: "The NDA had made so many promises of achhe din, but a lot of people are witness to whose achhe din has actually arrived."

The paper refers to the strikes on Pakistan and talks of a "strange emotional environment" being created, which led to victory for the BJP. It ends by arguing, "governments must not discriminate, the PM did say that

minorities will not be discriminated, but despite his saying that, the attacks continued and already concerned and fearful minorities have become further demoralised". The editorial concludes by saying that "India is an example of unity in diversity, and by keeping any one section backward, the full flowering of India is not possible... Sabka Vishwas has been added to the BJP's slogan. But how meaningful will it be?"

POLITY AND POLITICS

"RAJNATH KA SIYAASI qad," (the political stature of Rajnath Singh) is a matter of interesting analysis in Roznama Rashtriya Sahara on June 10. There has been much talk of Amit Shah being the de-facto number two in the Cabinet and speculation over Rajnath's place. The paper speaks of him as being similar to Atal Bihari Vajpayee in several ways: "Never making inflammatory remarks on his own, unless his party explicitly demands that." The editorial terms him quiet, yet powerful, and says that the fact that Singh is now a member of six cabinet committees is testament to his stature. It praises him for his remarks as home minister, in which he described those who count the faithfulness of Muslims are traitors. The editorial concludes, enigmatically, by not-

ing that as Singh has the backing of the RSS and is quiet, we cannot say his "political stature has decreased".

Bihar's political turmoil has got the attention of Mumbai Urdu News on June 4. The paper says that; "it is amazing that just after a day of the swearing-in, politics has heated up and it is the NDA which is responsible for this. In the elections, the BJP has secured a brilliant victory and so the JD(U) should have known better than to expect anything from them," the paper argues. But it notes, the master of the politics of pressure, Nitish Kumar, thought he would be able to persuade the BJP. The paper speaks of how the JD(U) expected two berths in the cabinet but got just one — and so the party refused to be part of the Modi government. It also talks of Nitish's response — expanding his own cabinet and giving no seats to the BJP. The paper mentions that many RJD leaders were present at this function.

Munsif on June 7 says that while victory has many takers, "there is no shoulder willing to bear the burden of defeat". It talks of the split in the BSP-SP alliance in dramatic tones: "The mehndi had barely come off after the wedding when it was time to talk of divorce." The paper calls Mayawati out for blaming the SP for the lack of transfer of votes. It also notes that the SP has been

more circumspect in this experiment — it has termed the coalition a "failed experiment". The paper believes that split will help the BJP. It even goes to the extent of speculating that perhaps "in the forthcoming assembly bypolls, the BJP may try and ensure that the BSP has it good, so it continues in its khushfehmi (misplaced optimism) and "snaps the alliance for good".

NEW EDUCATION POLICY

SIASAT ON JUNE 8 speaks of the New Education Policy and emphasises how it is necessary for private institutions to be regulated. "Private institutions must not be allowed to turn into institutions of profiteering" it says.

Avadhnama on June 5 recalls how 50 years ago attempts to impose Hindi were rebuffed by the South Indian states. It links the language policy to the larger principles of unity within diversity and speaks of India as a "bouquet of many flowers, with each flower having a distinct fragrance". It says India must no longer be content with being a developing country but aspire to becoming a developed one. That is only possible through unity and respecting differences.

Compiled by Seema Chishti