

WhatsApp's case vs spyware firm, and how attack happened

NANDAGOPAL RAJAN
 NEW DELHI, NOVEMBER 3

WHATSAPP, which prides itself on its encrypted messaging capabilities, has filed a complaint in a California court accusing spyware company NSO Group and its parent company Q Cyber Technologies of targeting at least 1,400 users across the world.

What WhatsApp has claimed

WhatsApp claims it detected the attack in May 2019 and found that NSO exploited a "buffer overflow vulnerability in WhatsApp VOIP stack" to send its Pegasus malware to the target devices, even without the users answering the calls they received.

In an article in *The Washington Post*, WhatsApp head Will Cathcart claimed they can link the attack to NSO because the "attackers used servers and Internet-hosting services that were previously associated with NSO" and they "tied certain WhatsApp accounts used during the attacks back to NSO". "While their attack was highly sophisticated, their attempts to cover their tracks were not entirely successful," he wrote in the October 30 opinion piece.


WhatsApp has roped in cyber security experts at the Citizen Lab, an academic research group based at the University of Toronto's Munk School, to learn more about the attack. "As part of our investigation into the incident, Citizen Lab has identified over 100 cases of abusive targeting of human rights defenders and journalists in at least 20 countries across the globe, ranging from Africa, Asia, Europe, the Middle East, and North America that took place after Novalpina Capital acquired NSO Group and began an ongoing public relations campaign to promote the narrative that the new ownership would curb abuses," a post on their site said.

What's in the lawsuit

The WhatsApp lawsuit gives insight on how NSO allegedly seeded the Pegasus spyware in the target devices.

The lawsuit claims the "Defendants (NSO) set up various computer infrastructure, including WhatsApp accounts and remote servers" and then "used WhatsApp accounts to initiate calls through Plaintiffs' servers that were designed to secretly inject malicious code onto Target Devices". It then "caused the malicious code to execute on some of the Target Devices, creating a con-

AS IT UNFOLDED



- MAY 13, 2019:** Facebook publicly announces a WhatsApp vulnerability, blocks NSO spyware attacks
- MAY 17:** Vulnerability is listed on Cert-In (CIVN-2019-0080)
- SEPTEMBER:** WhatsApp writes to Indian government about 121 Indian targets
- OCTOBER 29:** WhatsApp Files a complaint in California court against NSO

nection between those Target Devices and computers controlled by Defendants (the remote servers)".

The lawsuit claims that between January 2018 and May 2019, NSO created WhatsApp accounts "using telephone numbers registered in different countries, including Cyprus, Israel, Brazil, Indonesia, Sweden, and the Netherlands". They also "leased servers and internet hosting services in different countries, including the United States, in order to connect the Target Devices to a network of remote servers intended to distribute malware and relay commands to the Target Devices".

WhatsApp claimed these servers were owned by Choopa, Quadranet and Amazon Web Services, among others. "The IP address of one of the malicious servers was previously associated with subdomains used by Defendants."

It claimed NSO routed and caused to be "routed malicious code through the Plaintiffs' servers - including Signaling Servers and Relay Servers - concealed within part of the normal network protocol". WhatsApp's Signaling Servers facilitate initiation of calls between different devices while the Relay Servers help with "certain data transmis-

sions" over the service. This, WhatsApp claims, was unauthorised and illegal as the servers were deemed "protected computers" under US laws.

As per WhatsApp, NSO also "reverse-engineered the WhatsApp app and developed a program to enable them to emulate legitimate WhatsApp network traffic in order to transmit malicious code - undetected - to Target Devices over WhatsApp servers". "To avoid the technical restrictions built into WhatsApp Signaling Servers," the lawsuit claimed, "Defendants formatted call initiation messages containing malicious code to appear like a legitimate call and concealed the code within call settings. Once Defendants' calls were delivered to the Target Device, they injected the malicious code into the memory of the Target Device - even when the Target User did not answer the call."

Arguing that NSO violated the US Computer Fraud and Abuse Act, California Comprehensive Computer Data Access and Fraud Act, breached their contracts with WhatsApp, wrongfully trespassed, WhatsApp has sought relief including a permanent injunction from accessing "WhatsApp's and Facebook's service, platform, and computer systems", creating or maintaining any

WhatsApp or Facebook account and engaging in any activity that disrupts, diminishes the quality of, interferes with the systems. The messaging platform has also sought damages.

How the spyware worked

The Citizen Lab says "NSO Group / Q Cyber Technologies' flagship spyware" has many names and Pegasus is just one of the commonly used one. It is also called Q Suite and can infiltrate both iOS and Android devices. To spy on a target, operators use multiple vectors to penetrate security features in operating systems and silently install Pegasus without the user's knowledge or permission. While in this case the vector was a missed WhatsApp Call, Citizen Lab claims its has identified other cases, which include "tricking targets into clicking on a link using social engineering". Once installed, Pegasus can start contacting the operator's command and control (C&C) servers to receive and execute commands as well as send back critical information including passwords and text messages. It can also help the operator turn on the camera or microphone of the device and even track location in real time. It has been designed to avoid leaving footprints and also use minimum bandwidth.

THIS WORD MEANS

GLYPHOSATE

Herbicide at the centre of lawsuit against pharma giant. What are the concerns around it?

GERMAN PHARMA company Bayer is facing thousands of lawsuits over one of its products. A Reuters report said 42,700 plaintiffs in the US are blaming Bayer's herbicides for their cancer, up from 18,400 plaintiffs in July this year. In August, a jury in California said that Monsanto (the company which Bayer acquired in 2018), should have warned of the alleged cancer risks. Reuters quoted Bayer as claiming, however, that it has strong support from US farmers who want the company to keep the product.



Monsanto's Roundup weedkiller spray, which contains glyphosate, being used in a garden in Bordeaux, France, in June this year. Reuters

What are these herbicides

The products are based on a broad-spectrum herbicide called glyphosate. First developed in 1970, glyphosate is scientifically N-(phosphonomethyl) glycine under the IUPAC system of nomenclature. It is applied to the leaves of plants to kill weeds. It is widely used in India, too. According to a 2016 bulletin published by the Indian Council of Agricultural Research (ICAR), the weedkiller in India goes by various brand names, including Roundup, Glycel, and Brake. Describing the herbicide's reach in the country, it says, "Glyphosate was highly accepted by the tea planters in the past two decades. It has a very good market size in the tea sector of West Bengal and Assam. Presently, the consumption of glyphosate is highest in Maharastra as it is becoming a key herbicide in sugarcane, maize and many fruit crops including mango, banana, grapes, pomegranate and citrus."

Express quoted an official source as saying, "Although it will be a political decision whether to ban it or not, the official position is that the herbicide is needed for agriculture and is used in many countries, including the US, China, Brazil and Canada. The harmful effects of Glyphosate on human health is yet to be established as the World Health Organization has not issued any advisory."

France, Italy, and Vietnam banned the herbicide's use after the IARC finding.

The case in the US

In August 2018, a jury in California said that Monsanto (the company which Bayer acquired in 2018), should have warned of the alleged cancer risks. Since then, litigation against the company gathered pace. Reuters reported that analysts were predicting a future settlement in the \$8-12 billion range (approximately between Rs 57,000 and Rs 85,000 crore).

Why it's a worry

In 2015, the World Health Organization's International Agency for Research on Cancer published a study that found glyphosate is "probably carcinogenic to humans". Activists have been campaigning against glyphosate-based products. In August this year, *The Financial*

SIMPLY PUT

What Azadi March in Pak signals

When in opposition, Prime Minister Imran Khan had led a long march to try and topple the then government. Now he faces a similar protest. What is different then and now for Imran and Pak Army?

NIRUPAMA SUBRAMANIAN
 MUMBAI, NOVEMBER 3

IN PAKISTAN'S hybrid military-civilian politics, the 'long march', in which an opposition party attempts a non-electoral power grab through street protests, is now a permanent feature. The government manages to continue in office, but is shaken and weakened. In every such episode so far, the Pakistan Army has had some role to play.

This year's long march, or Azadi March, comes courtesy Maulana Fazlur Rehman, leader of a faction of the Jamiat-e-Ulema Islami, an Islamist political party, whose main base is in the Pashtun-dominated Khyber Pakhtunkhwa province. His target is PM Imran Khan, who himself had tried to topple the Nawaz Sharif government the same way.

Fazlur, a veteran politician who has played on both the military and civilian sides and done deals with both religious and "secular" parties, does not accept Imran Khan's election, has named him as the cause of the country's economic woes, and has demanded that he resign by Monday.

Fazlur himself was defeated in 2018 for the first time since 1988, though he contested from two seats. However, his party, along with other religious parties in a coalition, won 14 seats in the National Assembly, all from KP and Balochistan, where two Pashtuns live in large numbers. Since the rise of Pakistan Tehreek-e-Insaf, the JUI has been marginalised in its home base of KP.

The march began on October 27 in Karachi, and passed through Sindh and Punjab. The massive gathering is now camping for the third night just outside Islamabad. Fazlur has been threatening to lead it into the heart of the Federal capital's high security zone, to a place called D Chowk, directly opposite the National Assembly and the Presidential Palace. He has been denied permission for this. Amid apprehensions that he may defy authorities, containers are in position to lock the place down if necessary.

Imran Khan, then & now

Khan has insinuated that those who want him out actually want a deal giving them immunity from corruption cases. He has alleged the march is a conspiracy by "RAW and India". However, Khan, who was quite the king of long march politics as an opposition politician, may



Supporters of Fazlur Rehman's party at the Azadi March in Islamabad. Reuters

know there is no room for complacency.

In 2014, a year after Nawaz Sharif was voted in with a majority, Khan had rattled his government with a long march-cum-dharna, with the shadow of the military looming large behind the Tehreek-e-Insaf leader. Then, Khan, who made strident speeches from atop a container at D chowk, had openly appealed to the military to unseat Sharif. He was joined by a Canada-based cleric Tahir ul Qadri, and his followers, who had some years before, demanded the resignation of the PPP government by laying siege to Islamabad in similar fashion. Khan's four month dharna ended in violence as the protesters tried to storm the Prime Minister's official residence and other government and media offices nearby.

In 2016, faced with Khan's threats to lay siege to the capital once again unless his allegations of corruption against Sharif were not investigated, the Supreme Court stepped in and set up a panel, which eventually led to the judicial ouster of Sharif less than a year later.

Even after Sharif's mid-2017 conviction, the PML(N) government was shaken by another siege, this time by Barelvi extremists called Tehreek-e-Labbaik Pakistan, in protest against changes to the Constitution that would purportedly water down Pakistan's blasphemy laws. When the government asked the Army to help it disperse the dharna, Army chief General Qamar Javed Bajwa refused, and instead counselled PM Shahid Khaqan Abbasi that "both sides" must avoid

violence "as it is not in national interest", urging the government to handle the matter "peacefully". Imran Khan came out on the side of the protesters, who dispersed only after the Army brokered a surrender by the government to all their demands. The present ISI chief, Lt Gen Faiz Hameed, who was then a major general, was the main negotiator.

Within 14 months of his own election, Khan is now getting a dose of his own medicine. There are some key differences between Fazlur Rehman's march and the one Khan led. For one, the composition: this march is entirely comprised of male students and clerics mobilised from madrasas; women have been disallowed. While PML(N) middle-class supporters, both men and women, came in SUVs, sporting chic clothes and accessories, the only kind of vehicle in this march is the humble Suzuki Mehran. But perhaps the most important difference is this: while tensions between Sharif and the Army backgrounded the Imran Khan march and other marches when PML(N) was in office, this time, the Army and Khan, as the PM has often declared, are on the "same page".

Why Fazlur can matter

Nonetheless, Islamabad is rife with questions about Fazlur Rehman's march. The Maulana belongs to a political-religious family from Dera Islamil Khan, in KP. In his long political career, inherited from his father, he has been a supporter and facilitator of the

Afghan Taliban, led large protests against the US bombing of Afghanistan after 9/11, and against Pakistan's support to the US in the war. He also tried to broker peace deals between the Army and the Pakistani Tehreek-e-Taliban groups in northwest Pakistan. He headed the National Assembly's Kashmir committee at least three times, most recently between 2013 and 2018. In his youth, he was in the anti-Zia Movement for the Restoration of Democracy, but by 2004, he was helping General Pervez Musharraf legalise his coup by backing changes to the Constitution.

In his latest avatar, Fazlur has been openly critical, even more than the PPP and PML(N), of the Pakistan Army and ISI for "selecting" Khan in the last election, and on Friday, challenged it to declare its neutrality. The Army, which in previous such episodes seemed to be on the side of the protesters, has this time been swift to warn that "attempts to destabilise the country will not be tolerated".

It could be that Fazlur is signalling to the Army that he still remains relevant to the politics of the country and its north west regions. It is telling that while he invited the PPP and PML(N) to join his protest - an offer not accepted by the two parties, although the PPP's Bilawal Bhutto and the PML(N)'s Shehbaz Sharif made speeches at the gathering - he did extend such an invitation to the openly anti-establishment Pashtun Tahaffuz movement, a huge opposition movement in KP.

The other question about the march is its timing. It is taking place when speculation is rife about General Bajwa's extension. The Army chief is due to retire at the end of November, and although Imran Khan announced a three year extension, the matter has not yet been sealed and signed officially. There are murmurs that the march could be a pressure tactic by Gen Bajwa, or the manifestation of an internal war in the military establishment between those who back Imran Khan, and those who do not, including those who are against an extension to Bajwa.

The Azadi march has also shown how the nature of the Pakistani opposition has changed dramatically. Earlier, it was the PPP or PML(N) who would have the street power to organise a show like this. Now a religious party has taken the opposition stage, which is welcome from the Pakistan Army's point of view. Irrespective of how this ends, Pakistan's political landscape seems poised for another turn of the screw.

How long is a day on each planet? Venus and Saturn still tease scientists

KABIR FIRAQUE
 NEW DELHI, NOVEMBER 3

CENTURIES AGO, the ancients divided the day into 24 equal parts, or hours. Today, we look at this from the other point of view: the Earth takes approximately 24 hours to rotate once. Among other planets, Mars spins once in a little under 25 Earth-hours, while Jupiter spins so fast that its day is less than 10 hours long.

It is a measure so central to our understanding of the planets that it might appear scientists would have got the rotation periods of the Solar System planets figured out by now. The fact is, they have not. Astronomers are still looking for an accurate assessment of the length of a day on Venus, while Saturn continues to deceive us. Two new studies underline how much there is still left to learn.

Venus: hide & seek

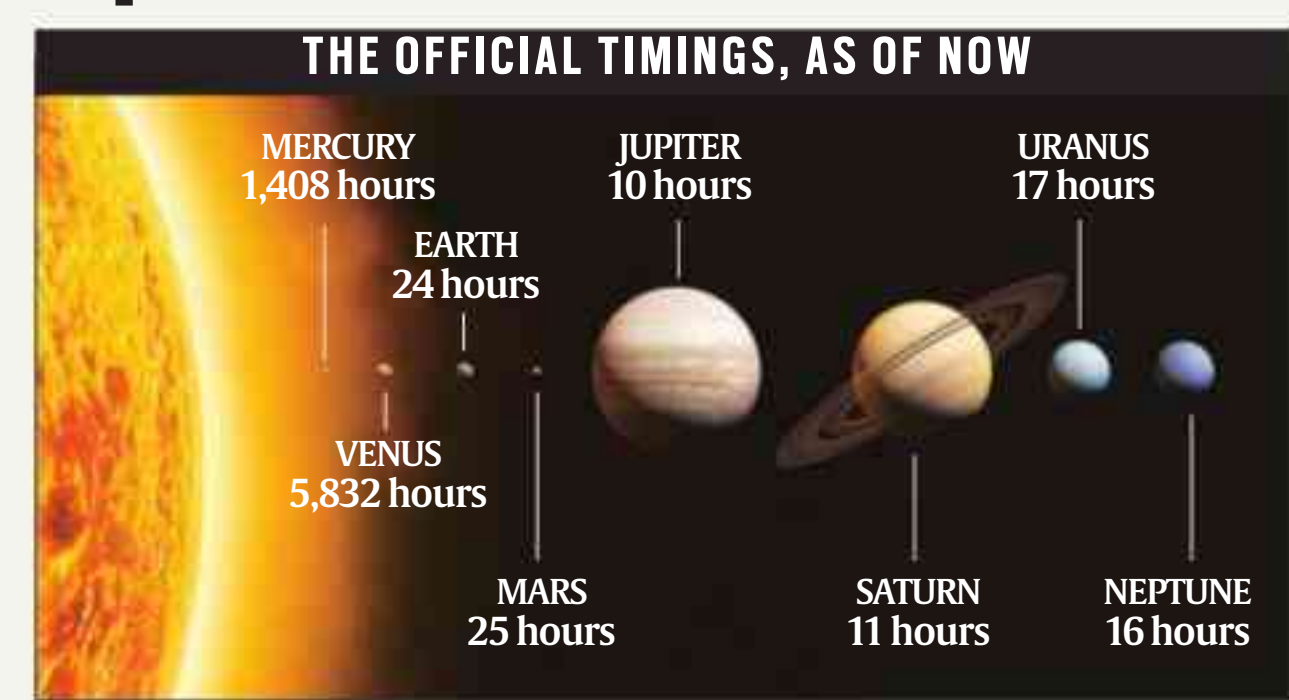
Venus is something of an oddball. Obscured by clouds, it does not present a readily

visible surface feature, such as a crater, which could have been a reference point for measuring its rotation period. In 1963, when radar observations broke through the cloud cover, Venus revealed that it rotates in a direction opposite to that for most planets.

These observations showed the length of a Venusian day is 243 days, or 5,832 hours. Subsequent measurements have, however, given inconsistent values, differing by about six minutes. In 1991, studies based on the Magellan spacecraft's observations concluded that the correct rotation period is 243.0185 days, with an uncertainty of about 9 seconds.

Present uncertainties, researchers note in a study in the journal *Icarus*, correspond to a distance of about 13 miles on the surface. For lander missions, including one planned in the next decade, that distance is more than enough to miss a targeted landing site.

From Earth-based radar observations between 1988 and 2017, the researchers, led by John Chandler of the Harvard-Smithsonian Center for Astrophysics, measured the loca-



tion of features on the Venusian surface at specific times. "Those feature locations allow us to solve for the longitude of the point on Venus that is closest to the Earth during each observation. Once you know the longitude change over time, that provides the rotation

rate," co-author Bruce Campbell, chair of the Smithsonian Institution's Center for Earth and Planetary Studies, said by email.

The authors conclude the mean Venusian day is 243.0212 days, with the smallest uncertainty yet - just 00006 days. They expect

further improvements over the next decade.

Saturn: seasonal tricks

As gas giant, by definition, has no solid surface features for scientists to track. For Jupiter, scientists figured out the rotation period by observing patterns in radio signals from there.

Saturn has defied such attempts. It emits only low-frequency radio patterns that are blocked by Earth's atmosphere. Only after Voyagers 1 and 2 sent home data, in 1980 and 1981, could scientists analyse patterns that suggested a day on Saturn is about 10:40 hours long. But just 23 years later, the Cassini spacecraft sent data that showed the period had changed by 6 minutes, about 1% - which should take hundreds of millions of years.

To find answers for Saturn, a new study led by Duane Pontius of Birmingham-Southern College, US, looked at Jupiter. A key difference is that unlike Jupiter, Saturn has a tilted axis and, therefore, seasons like Earth. Depending on the season, the northern and southern hemispheres receive different

amounts of ultraviolet radiation from the Sun. This affects the plasma at the edge of Saturn's atmosphere. In turn, this creates more or less drag at different altitudes, according to the model suggested in the study, published in the American Geophysical Union's *Journal of Geophysical Research: Space Physics*.

"Left to itself, the upper atmosphere would move at the same speed as the lower atmosphere, but the drag makes the upper atmosphere take longer than the lower atmosphere to make a full rotation around the planet," Pontius explained by email.

This suggests that the observed periods are not the rotation period of Saturn's core. That remains unmeasured. "One of the conclusions of our work is that the rotation period cannot be determined from the radio signals..." Pontius said, in reply to a question. "As for when how and when the core period can be measured, I really don't know! However, the physics of Saturn's magnetosphere is now known to be governed by the rotation rate that governs of its upper atmosphere."



The Indian EXPRESS

FOUNDED BY
RAMNATH GOENKA

BECAUSE THE TRUTH INVOLVES US ALL

ENGAGING GERMANY

As Europe looks towards India in a changing world, Delhi must address concerns about economic reform, regional stability

CHANCELLOR ANGELA MERKEL'S visit last week highlights expanding European interest in partnering Delhi as well as emerging concerns about India's economic and political trajectory. Germany, as the natural leader of Europe, is struggling to cope with deepening uncertainties - economic, political and security - in its own neighbourhood and the world. Berlin is under pressure to take larger responsibilities for regional stability and contribute more to the maintenance of the global order. Amidst the current unpredictability of the US security policies, President Donald Trump's attack on the world trading system, the rapid economic expansion of China into Europe, the increasing assertiveness of the Sino-Russian political axis, Berlin is looking to diversify its global partnerships beyond the Euro-Atlantic space. Delhi is inevitably at the top of its list of potential strategic partners.

Reflecting the new interest, the German Parliament passed a resolution on boosting ties with India days before Merkel arrived in Delhi. Addressing the Bundestag, the German foreign minister, Heiko Maas, said Germany must end its neglect of India. He warned that amidst the unfolding great power rivalry between the US, China and Russia, it would be unwise for Europe to put all its eggs in the China basket. Maas also called India a pillar of Asian stability and a country that shares European political values. As Germany seeks to bring India into its larger geopolitical calculus, Delhi too is ending its prolonged indifference to Europe as a strategic actor. The recent elevation of India's engagement with France is now being followed by a fresh look at strengthening ties with Germany. Engaging Germany is not just about bilateral relations with Berlin. It is about collaboration with the Germany-led European Union as a whole. The expansive range of agreements signed during Merkel's visit include trade and investment, mitigating climate change, the digital revolution, urban development, agriculture and human resource development. Unlike in the past, defence and security have acquired a prominent place in Indo-German discussions.

As Germany and Europe look to India, there are real concerns in Berlin and Brussels about India's economic slowdown and its discomfort with trade liberalisation. Both are rooted in Delhi's inability to undertake comprehensive economic reform. Europe, like the US and Japan, wants India to move purposefully on the economic front when its commercial ties with the US and China are under stress. Meanwhile, India's mounting tensions with Pakistan test the proposition that India is a source of regional stability. Delhi's lockdown of Kashmir and the concerns about the rights of minorities in India have begun to cast a shadow over the "shared political values" with India. Merkel's cautious public comment on the unsustainability of the current situation in Kashmir is a timely reminder that India's friends will find it hard to keep quiet if matters don't improve soon. Delhi's failure to calm things at home and in the region and show some decisive forward movement on the economic front could have serious consequences for India's near term prospects.

REASSESS AND RESET

India can appeal the WTO ruling against it. But it should also look at addressing issues of competitiveness

THE WORLD TRADE Organisation (WTO) has ruled against India in a critical trade dispute, ordering it to stop all export promotion schemes as, under the WTO rules, these are reserved only for the poorest countries - those with a per capita income of less than \$1,000. The ruling covers, among others, the Export Promotion Capital Goods (EPCG) scheme, the Special Economic Zones (SEZ) scheme, as well as the withdrawal of benefits extended under the Merchandise Exports from India Scheme (MEIS).

Anticipating this development, perhaps, the Indian government had earlier announced another scheme, compliant with WTO rules, the Remission of Duties or Taxes on Export Product (RoDTEP) to replace the MEIS. While the MEIS was meant to incentivise merchandise exports by compensating them for various kinds of cost inefficiencies faced by them such as high transportation costs, high electricity rates, delays at customs, the new scheme is based on the notion that whatever taxes are levied on products that are exported or on inputs that go into products that are exported, should not be passed on. Reportedly, the costs of this scheme are similar to those under the MEIS which suggests little impact on exporters, apart from transitional issues. But, there is a reasonable argument to be made that as indirect taxes should not be "exported" in any case, exporters should be separately compensated for the loss of benefits extended under MEIS.

On its part, India could prevent the adoption and implementation of the WTO panel's decision by going to its appellate body by the end of this month. With two of the current three members of the body retiring by December 11, the body would be rendered dysfunctional as the WTO rules require the presence of at least three members to hear an appeal on a dispute panel's ruling. This could keep the WTO from enforcing its ruling against India's export promotion schemes. It is difficult to predict the fallout of this move. Though it would be a tactical decision, aimed at ensuring a short-term reprieve, the situation calls for a comprehensive analysis of India's export strategy. While schemes for the promotion of exports have been in place for years, India's export performance has been languishing. In fact, the country's merchandise exports have barely grown in the past five years. This calls for urgently addressing the underlying issues that afflict the competitiveness of India's exports, especially when the country is in the final stages of negotiating its entry into the Regional Comprehensive Economic Partnership (RCEP) trade agreement.

FREEZE FRAME

E P UNNY



The trouble with business

It needs to change. It is regarded as a contributor to the unjust social order



VIKRAM MEHTA

INDIAN BUSINESS IS in trouble. Its markets have shrunk, credit flows have choked, competition has squeezed margins and technology has disrupted conventional business processes. *Jugaad* has limited upside potential.

What should business do? There is no catch-all answer. Every company will have to craft its own specific road map. But to progress down these pathways, all companies will have to pass common milestones. For, despite the changes that have been wrought in the business landscape over the past 150 years or so, these milestones are the markers confirming that the company is headed in the right direction. The answer lies, therefore, in keeping sight of these milestones even as the company twists and turns to meet specific challenges.

What are these markers that have remained constant even as the business context has changed? Let me answer this question by engaging in a historical flight of fancy.

Imagine a gathering of business titans of the western world in the Alpine village of Davos in January 1914. A gathering that includes people like John D Rockefeller, the richest man in the world who built the Standard Oil conglomerate by leveraging railroads and Morse code to integrate discrete economic activities into a seamless and cost-efficient supply chain and to secure economies of scale; Andrew Carnegie who built a steel empire by innovating to produce the best quality steel at the lowest cost; Henry Ford who positioned workers along the assembly line for mass production and quality control; the CEOs of the German companies, Bayer and BASF, who between them controlled almost 80 per cent of global trade in chemical and pharmaceutical products. Imagine these successful men leading panel discussions to discuss the reasons for their success. They would all emphasise the fundamentals of quality, cost control, economies of scale, innovation, leadership and principled governance.

The gathering is, of course, a flight of fancy. But the messages are not. These were the factors that allowed businessmen to master the paradigmatic changes of the first

(steam power and telegraph) and second (electricity, mass production and mobility) industrial revolutions. And that too, notwithstanding the drumbeats of conflict that resounded across Europe.

There is a French saying which translated into English reads, "the more things change, the more they remain the same". The saying can be variously interpreted but for business it means that whilst the contours of the business landscape may change, the fundamentals for corporate success will remain constant. The business models will, however, have to be adapted to reflect this altered reality.

A look back on the response of Indian business to the Third Industrial Revolution (computers and IT) suggests that many Indian businessmen lost sight of this fundamental verity. They did not appreciate the full extent of the impact of the forces of globalisation, liberalisation and IT on the business landscape and they did not alter, therefore, their "licence raj" business models of relationship governance and *jugaad*. They were unable, in consequence, to counter the intensified competitive pressures and lost their market ranking. A list of the top 20 Indian companies by market capitalisation in 1990 compared to a similar list in 2019 is revealing. There are few companies on both lists. The first list is dominated by family-promoted companies; the second by IT, finance and MNCs. Many on the first list no longer even exist. This mistake should not be repeated.

The current market environment of the "Fourth Industrial revolution" (so termed by Klaus Schwab, the founder of the WEF) is very different from that of the first three industrial revolutions. It prefaces a world of "ubiquitous mobility, internet of things, artificial intelligence, gene sequencing and nano technology". It also prefaces a world of deepening distrust towards the established systems and processes of governance in politics and business. This sentiment is evident from the spate of protest movements across the world.

Thus, the NGO Extinction Rebellion issued a call to the public to compel governments to act more forcefully to contain carbon emissions. Six million people, mostly

young, and from across the world responded and blockaded roads and airports. Thus, the protests in Hong Kong against the extradition orders issued by the Chinese government continue despite the strong arm tactics of the Chinese police.

Thus, the unprecedentedly large demonstrations in Santiago, Chile against the policy to hike the prices of metro tickets; the violent protests in Lebanon against the tax on WhatsApp messaging and last year, the yellow vest movement in France protesting the rise in fuel prices and the cost of living.

These are just a few of the examples of social convulsion. One could cite many more. But the point is that there is a strong undercurrent of dissatisfaction and public outbursts of anger are being triggered by the slightest spark. This dissatisfaction is directed not just against the government. It is also targeted against business. They, too, are regarded as contributors to the existing unjust social order.

The challenge for Indian business is, therefore, to create a business model that responds to not only the emergent challenges of "digital, biological and physical" breakthroughs, but also the challenge of societal anger. It is to create a model that narrows, if not bridges, the social trust deficit. This is a difficult challenge, but one step toward meeting it would be to redesign the CSR strategy. Currently, the bulk of CSR funds are directed towards time-bound, measurable projects like schools, health clinics and toilets. These are important and impactful initiatives. They do not, however, address the root causes of social disaffection (social injustice, illiberalism, corruption, pollution). To do so, businesses may have to allocate a higher proportion of their CSR budget towards longer term, hard to measure, livelihood and sustainability "programmes". This will push businesses beyond their remit and competence, but that is the point. Companies can only succeed if they keep their eye on the fundamentals, but also adapt, unhesitatingly, their business models to the changing business landscape.

The writer is the chairman of Brookings India and senior fellow, Brookings Institution

The challenge for Indian business is therefore to create a business model that responds to not only the emergent challenges of "digital, biological and physical" breakthroughs, but also the challenge of societal anger. It is to create a model that narrows, if not bridges, the social trust deficit. This is a difficult challenge, but one step toward meeting it would be to redesign the CSR strategy.

BECAUSE THE NAME IS SHAKIB

Fans' reaction to ICC ban on Bangladesh's cricket icon speaks of both game and nation



DAKSH PANWAR

SOON AFTER Bangladesh's Test and T20I captain Shakib Al Hasan was banned for two years by the International Cricket Committee for failing to report multiple approaches by a bookie, Mashrafe Mortaza, their ODI skipper, took to social media to throw his weight behind his beleaguered team-mate. "Definitely I will spend some sleepless nights in the light of the recent incidents surrounding my comrade of 13 years," Mortaza, who is also a Member of Parliament, posted on Twitter. "But I can also sleep in peace soon knowing fully well that he will lead us to the 2023 World Cup because the name is Shakib Al Hasan."

"Karon naamta Shakib Al Hasan" - "because the name is Shakib Al Hasan" - is a common refrain in Bangladesh, employed in a variety of contexts. Non-locals may find it difficult to wrap their heads around it, but Bangladeshis consider it self-explanatory, often using it as the clinching argument.

This refrain helps explain what Shakib means to Bangladesh. A few years ago, while covering the Indian team's tour of the country, I witnessed the kind of raw emotion the Bangladeshi cricket team inspired in its fans. I asked a local journalist why it was so, and he replied: "Look, there aren't too many things that you can be happy about in this country. It's only cricket that makes it easy."

To be sure, it isn't all doom and gloom in Bangladesh. Its economy is doing very well. In fact, with a GDP growth hovering above 8 per cent, it's outperforming India by a considerable margin. Still, rapid growth brings

its own pangs. There's overpopulation and pollution in the cities, while millions still live in abject poverty in the countryside. For the well-off and the poor alike, everyday is a struggle: A five-minute journey from Dhanmondi to Farmgate in Dhaka takes half-an-hour. There aren't too many distractions to lift the mood of the masses. The entertainment industry isn't thriving. Cricket is their only opium. It gives this young, 47-year-old nation what it desperately seeks: Validation.

And in cricket, Shakib has been their first truly world-class player. Since his debut in 2007, he has consistently been rated as the best all-rounder in the world, often carrying the team on his shoulders. It's not unlike India in the 1990s, when Sachin Tendulkar used to wage heroic, lonely battles. Only Shakib, arguably, has a far greater impact on Bangladeshis than Tendulkar had on Indians. In terms of popularity, he is their Sachin Tendulkar, Virat Kohli, Shah Rukh Khan and Rajinikanth rolled into one. He is their lodestar, commanding their undivided attention - the first perhaps to do so after the great liberator Sheikh Mujib Ur Rahman. And hence, the phrase "Because the name is...", that seems straight out of a Rajini blockbuster.

But one suspects Bangladeshis had to invent this response not to explain Shakib to others but to themselves. They don't understand him much. He's the most inscrutable cricketer in the team, always keeping to himself, rarely indulging fans, or the media - of-

ten not even his teammates. It, therefore, came as a welcome surprise to the country when Shakib led the players' protest against the Bangladesh Cricket Board for better wages and reforms days before the ICC punished him.

So far, in the aftermath of the ban, Bangladesh has been overwhelmingly sympathetic to its fallen superstar. It's strange, but perhaps not entirely unexpected. While the Pakistani fans are disillusioned, often trolling their own players; the Bangladeshi are the most committed supporters in world cricket, often to the point of being delusional. And so, hundreds have taken to the streets to protest not Shakib's indiscretion, but the ban itself. They suspect it's a conspiracy of the Bangladesh board who have, in collusion with the ICC and the BCCI, framed Shakib because he led the players' rebellion. The fact that Shakib himself admitted to not reporting the bookie's approach has been conveniently ignored.

In today's game where cricketers from a young age are sensitised by their boards and the ICC about suspicious approaches, to not report three such overtures is a grave offence just short of match-fixing. That it was Shakib who did it and let down a passionate and unsuspecting country makes the whole affair all the more tragic.

In this one case, "because the name is Shakib Al Hasan..." is not the answer, but the vexing question.

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NOVEMBER 4, 1979, FORTY YEARS AGO

HARIJANS LOSE LAND

WHILE THE PRESS and certain groups have been focussing attention on Khanjawala village in Nagloi block, where there is a long-standing dispute between Harijans and some landlords over cultivation of grazing land, an equally explosive situation in Mandi village in Mehrauli has been ignored. The 80 Harijan families of Mandi were allotted 80 acres of land by the village gram sabha in 1974, but till today they have not been able to take physical possession of the land. In July, matters came to a head when a crowd of Gujjar landlords drove their cattle into the acres titled by Harijans and ploughed up the bajra standing in the field. A reported investment of around Rs 20,000 made by the Harijans

was thus destroyed. The CRP and Delhi police descended on the village "to contain the situation" and a police post was set up.

PRESIDENT'S RULE

ARUNACHAL PRADESH WAS placed under President's rule for three months and the territorial assembly dissolved to pave the way for a fresh poll. A Presidential order to this effect came three days after the resignation of the Tomo Riba ministry owing to defections. The Union Cabinet met and accepted the Lt Governor, R N Haldipur's recommendation that the union territory be brought under President's rule. Arunachal Pradesh is the third union territory now under President's rule, after Pondicherry and Goa.

AFGHAN OFFENSIVE

AFGHANISTAN'S MARXIST REGIME has launched what observers think is a "winter offensive" against the Muslim rebels who have been fighting the Soviet-backed rulers for over a year now. Reports reaching in Islamabad from the embattled country say that in recent coordinated operations, the Afghanistan army and air force regained large areas which were being held by insurgent tribesmen known widely as "Mujahideen" - Muslims fighting holy war. Afghan air force bombings in areas bordering Pakistan killed nearly 200 tribesmen, according to the local paper *Jang*, causing a new influx of refugees into Pakistan's North West Frontier Province.

Let's clear the air

Amending and updating the 1981 Air Act will help in the battle against pollution



AS DELHI'S Air Quality Index crosses 500, the national capital has officially entered the public health emergency category. Schools have been shut, children are complaining of breathing problems, but the state and Central governments are simply indulging in blame-games. When something as fundamental as the health of our children is at risk, we should devise a more robust, permanent solution to the problem of pollution. This forms the basis of the need for amending the 1981 Air Act and making it more compatible with contemporary India.

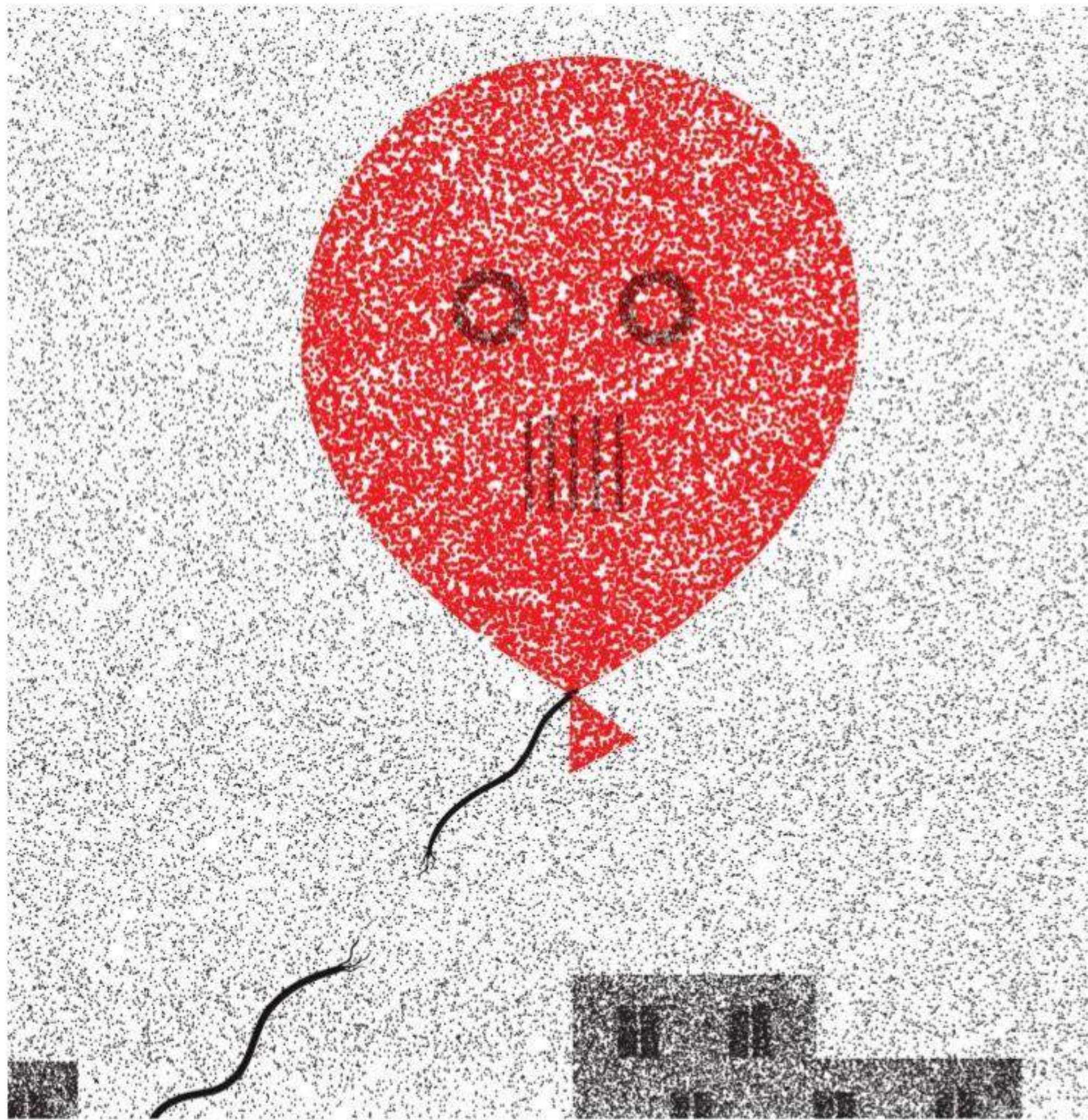
Air pollution in India is not simply an environmental problem, but a major public health concern. It impacts all those breathing in the polluted air — children, the elderly, women and men alike. As its concentration worsens in India and statistics grow more grim, so do our policymakers' reactions. As a father of a three-year-old, my concern for my child's health is shared by numerous other families. Recently, the Centre for Science and Environment reported that air pollution kills an average 8.5 out of every 10,000 children in India before they turn five. Similarly, the WHO in 2016 reported that pollution has led to the deaths of over 1 lakh children in India. Overall, several internationally acclaimed studies have affirmed that life expectancy in India has declined anywhere between two to three years.

Statistics show that India is in a worse situation compared to its global counterparts. According to Greenpeace, 22 of the world's 30 most polluted cities are in India and Delhi has yet again bagged the position of the world's most polluted capital. These are grim figures, especially when compared to India's neighbours: Five in China, two in Pakistan and one in Bangladesh. In 2018, India was placed in the bottom five countries on the Environmental Performance Index, ranking 177th out of 180 countries, along with Bangladesh, Burundi, Democratic Republic of Congo, and Nepal.

Because of the toxic air and the lax liability system, young children's health and quality of life are being significantly affected. Currently, breathing in Delhi's air is similar to smoking 22 cigarettes in a day. One can only imagine the impact on the lungs of our children. And yet, there is a deafening silence at the helm of policymaking because it has not become an electoral priority for political leaders. Besides a few underfunded programmes, the government shows no willingness to bring a bill or law compelling central and state governments to ensure that its citizens are breathing clean air.

The Indian government needs to identify the tangible benefits that concrete legislation on air pollution has brought across the world. In the United States, the Clean Air Act has proven that public health and economic progress can go together. For instance, the aggregate national emissions of the six common pollutants in the USA dropped an average of 73 per cent from 1970 to 2017. Through one piece of legislation, the US has challenged multiple sources of pollution, airborne or motor vehicle-led. Similarly, after declaring a war on pollution, Chinese cities reduced particulate concentration by 32 per cent in 2018. In a country with a human power and technical know-how like India, achieving a better feat is not impossible.

However, in India, we are ignoring the change that progressive legislation can bring. In recent times, the government has worked on a much hyped "mission-mode" — drafting policies and programmes to alleviate pollution. But with little to no legal mandate or a budgetary allocation of as little as Rs 300 crore under programmes such as the National Clean Air Programme, no true enforcement of targets and goals is guaranteed. In such dire circumstances with high stakes,



C R Sasikumar

higher targets need to be set, penalties need to be stricter, and the mandate needs to be stronger.

It is therefore essential to retrace our steps back to the Air Act of 1981 that governs our pollution control system. There is unanimous consensus amongst many court rulings, Parliament Committee reports, media investigations, and several environmentalists that under the 1981 Air Act, the Pollution Control Boards are presently unable to fulfil their mandate as watchdogs against polluting industries. A new bill will plug many loopholes in the 1981 Act and would align the functions and priorities of the Pollution Boards towards reducing the adverse impact of pollution on human health in India.

India's pollution liability regime has never prioritised the adverse impact of pollution on health. In its present form, India's Air Act does not mention or prioritise the importance of reducing the health impact of rising pollution. This is the first change that a new law on air pollution should bring, protecting health needs to become the central mission that the boards work towards. For instance, at any point that the State Boards find evidence of excess air pollution, they should take all measures possible to actively disseminate this information to the masses. When the air quality goes from normal to toxic and hazardous, the boards must be empowered to declare public health emergencies, with the power to temporarily shut down all polluting activities. While these changes might introduce an additional burden on industries to proactively check their emissions, the additional burden is worth the lives that will be saved as a result.

Accountability and deterrence are essential in making sure industries comply with emission standards. While the boards cannot levy penalties, in the new law they should be empowered to encash environmental compensations from polluting industries to make up for the cost of mitigating the damage the violating industry has caused. This possibility of paying compensation

Accountability and deterrence are essential in making sure industries comply with emission standards. While the boards cannot levy penalties, in the new law they should be empowered to encash environmental compensations from polluting industries to make up for the cost of mitigating the damage the violating industry has caused. This possibility of paying compensation would be a strong reinforcement for industries to adopt cleaner technologies and comply with standards.

would be a strong reinforcement for industries to adopt cleaner technologies and comply with standards. Finally, in a federal set-up, the Centre and states must work in synergy to ensure that targets set for the country and states are fulfilled. Therefore, the new law must push Central and state boards to convene joint sittings with a multi-sectoral participation from ministries such as housing, urban development, agriculture and road transport. Air pollution is not, and has never been, a problem with a single solution. It is caused by emissions from vehicles, industries and agriculture, construction dust, and other factors related to household consumption and municipal planning.

Because multiple ministries and government departments are involved, without appropriate political leadership, public commitment will remain on paper only. Therefore, the new law on air pollution must give an additional mandate to either a senior minister, such as the minister of environment, forest and climate or the prime minister's office needs to be involved directly. Greater public transparency is essential to the success of winning the war on air pollution. There is no better watchdog than active citizens, which is why the pollution targets must be made public every year for their perusal and to be evaluated at the end of the year. To incentivise the industries to better themselves through environmental compensations, the industries and their respective state boards must be ranked in order of their efficiency and programme delivery.

Breathing clean air is the fundamental right of every Indian citizen. Human health must become a priority when it comes to legislating on air pollution. As 2019 nears its end, and the season of smog begins, there is an urgent need for India to be a pollution free nation. Pollution control boards must be empowered sufficiently to ensure that pollution does not take more lives or hinders the overall progress of India.

The writer is a Congress MP in Lok Sabha

WHAT THE OTHERS SAY

"Democrats will need to make a clear, convincing case — not that Donald Trump is a bad person, but that he has failed the country." — THE NEW YORK TIMES

Philosopher of the far right

Rediscovery of Heidegger must be read in context of new global nationalist movements



WHENEVER THE INFAMOUS German philosopher Martin Heidegger appears in the headlines, it is worth pausing to ask what current events have put him there. Although a devoted Nazi and anti-Semite who worked energetically to reform the German university according to Nazi principles, Heidegger remains one of the most influential philosophers of the 20th century. In the wake of World War II, academics globally devoted an immense amount of energy to rehabilitating Heidegger even though he was declared a "fellow traveller" by the Denazification Commission — a hasty entity of post-war justice notorious for overlooking forms of complicity both large and small. In the meantime, scholars have produced many different cleansed versions of Heidegger to serve particular political needs. There is Heidegger the mystic, the naive professor incapable of navigating Nazi party politics, the pseudo-Buddhist thinker of tranquility and letting-be, the man of the soil and province, etc. As Ramin Jahanbegloo has brought Heidegger back ("Philosopher of the future", IE, September 23), it is worth asking which Heidegger might be mobilised to serve the political needs of today's India. A brief glance at an event last week can help answer this question.

Last week witnessed a curious, yet ominous blip in the German news cycle. An unofficial delegation consisting of 27 members of the European Parliament toured Kashmir and posed for a photo-op in Delhi with Prime Minister Narendra Modi. Among the parliamentarians were two members of Germany's radical right party Alternative for Germany (AfD), a self-declared "party of the people" founded upon a violent anti-Muslim and anti-immigrant platform. Bernhard Zimmnick, one of the AfD representatives invited to India, tweeted proudly that "[t]he shift in the political landscape in Germany is being followed with interest." Days before, the AfD captured its strongest electoral victory yet, gaining 23.4 per cent of the votes in the state elections in Thuringia. Whether or not the AfD deserves to be labelled a neo-Nazi party may be a matter of debate and may even distract from what makes the AfD a useful ally for the BJP. The AfD is a völkisch party — a party that seeks to restore a positive meaning to a term (Volk) that was until very recently a taboo in Germany.

Any resurgence of Heidegger's thinking in India must be read in the context of the global alliance of ethno-nationalist movements. For far too long, the dominant readings of Heidegger have misunderstood his political commitments by measuring them only in relation to National Socialism and not

in relation to the longer continuities in ethno-nationalist, conservative, and anti-Semitic movements in German intellectual history. Many of these strains of thinking predated Nazism and lived beyond the fall of Nazism. Heidegger's ongoing rehabilitation must be read as part of a continuous history of ethno-nationalist thinking which did not disappear with the end of Nazism.

While I document the ethno-nationalist strains of Heidegger's thinking in my book Heidegger's Fascist Affinities: A Politics of Silence, the most effective way to introduce Heidegger's ethno-nationalist fidelities is found in the German Federal Archives in Berlin, in the files of an organisation bearing the cumbersome title The Cultural-Political Working Community of German University Professors. In March 1933, Heidegger served as a founding member of the group, which consisted primarily of professors from the prestigious universities of Freiburg and Heidelberg. The organisation's aim was to begin the process of "nazifying" the faculty and curriculum. The organisation limited its membership to "ethnically German university professors," while its platform called for "German universities to wear a German face," "for the renewal of an ethnic consciousness," and for the German university to become a "site of national-political education". The platform disavowed affiliation with any particular political party, relying instead on a diffuse rhetoric of the "people" and the "ethnic limits of all genuine culture." The fact that the organisation distinguished itself from Nazism is significant, for it is precisely this distinction which survived the process of denazification. Heidegger became an important symbol for a conservatism that could distance itself from Nazism, while still perpetuating many of the forms of ethno-nationalism that fed into Nazism and still undergirds the AfD.

The rise of the AfD is causing a very serious public debate in Germany as to whether denazification has failed. In his valorisation of the destiny of the Germans as a unique historical people, the German language, and the German landscape, Heidegger has long provided an intellectually palatable version of ethno-nationalism. If denazification failed within the discipline of philosophy, then that is because the larger body of ethno-nationalist thinking was not addressed, while the breadth of what counted as "Nazism" was limited to a very narrow range of thinking.

As the Indian consulate sponsors public events in Germany called "Let's do it like Gandhi!", promoting Gandhi as a prophet of peace and self-determination, we should also be wary of attempts to rehabilitate Heidegger as a purportedly apolitical and timeless figure. As universities like JNU face the onslaught of ethno-nationalist pressures, we should remember Heidegger's own ethno-nationalist ambitions for the German university system as a site for political radicalisation. If Heidegger is a thinker of the moment, it is because he is symptomatic of some of the worst elements of this moment.

Knowles teaches philosophy at Drexel University, Germany and is the author of Heidegger's Fascist Affinities: A Politics of Silence

LETTERS TO THE EDITOR

CAMPUS VIOLENCE

THIS REFERS TO the report, 'Visva-Bharati VC wants CISF: Campus Security loyal to Trinamool' (IE, October 30). While the posting of paramilitary forces on university campuses is perceived to be a means to crush campus dissent, it becomes necessary when the law and order situation within the campus goes out of control. The HRD ministry should look into the request of the universities for central police protection and provide them with the same as soon as possible.

Sauro Dasgupta, via e-mail

FIRM ON CHINA

THIS REFERS TO the report 'China says J&K split unlawful, India responds' (IE, November 1). China has described the bifurcation of Jammu and Kashmir into two union territories as unlawful and void. It seems that China has no misgivings about the area of India that it already occupies and, instead of a sense of remorse, China seems inclined to meddle in India's internal affairs. India should display a firmer resolve than it has displayed in the past to deal effectively with China on this issue.

Devendra Khurana, Bhopal

VALLEY SECURITY

THIS REFERS TO the article, 'Warning in the Valley' (IE, November 1). The article correctly analyses the security situation in Jammu & Kashmir, but sadly restricts its scope to neutralising terrorists, dismantling their financial networks and

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.

VIEW FROM THE NEIGHBOURHOOD



A weekly look at the public conversations shaping ideas beyond borders — in the Subcontinent. Curated by Aakash Joshi

A FACE-OFF, A TEST

MAULANA FAZLUR REHMAN is in Islamabad and how his protest unfolds will likely define the contours of Pakistan's politics in the short term. Rehman is the head of the Jamiat Ulema-e-Islam (Fazlur), a Deobandi sect. He is firmly against the PTI-led government in Pakistan, and on Saturday, gave Imran Khan a two-day ultimatum to resign. Both the prime opposition parties in Pakistan — the PPP and PML-N are reportedly to share a dharna stage with Rehman, supporting his "azadi" march. Dawn's editorial on October 31 notes that "These next few days will, however, feel like eternity for the government. It is vital that decision-makers hold their nerve even if faced with grave provocations."

The editorial welcomes the government's decision to give permission to the march to enter the capital. It also hints that for the opposition parties that are supporting the religious leader, this could either be a precursor to

genuine unity — both the PML-N and PPP have been beleaguered by the arrest of their leaders, Nawaz Sharif and Asif Ali Zardari respectively.

In an article on November 2, Fahid Hussain, Dawn's resident editor in Islamabad writes that the politics of dharna, of delegitimising the government, was given credence by Imran Khan himself. Rehman's march is reminiscent of when Imran Khan descended on Islamabad in 2014 against the then government and prime minister.

Now, the Maulana and government have both taken extreme positions, making a compromise difficult. Hussain writes: "The days for PTI's inflexible posturing appear to be shrinking fast. If this situation needs to be defused, the good maulana will need something which he can claim as victory and walk away."

THE MARTYR COMPLEX

THE NEWS IN Bangladesh is being dominated

by one man — Shakib Al Hasan. Shakib is a national hero. And he has fallen. He faces a two-year ban from the ICC for not reporting being approached by a bookie multiple times.

Tanvir Haider Chaudhury, writing in the Dhaka Tribune on October 31, attempts to put the ban into perspective: "If Shakib Al Hasan follows the required protocols, he will have to serve one year. There will doubtlessly be an appeal made by BCB on behalf of their star player — who are not his biggest fans right now but are not such fools that they want their golden egg-laying goose to be sacrificed just yet. This may bring the ban down to a six-month period."

He then talks of the tendency among Bangladeshis to be "a nation of binary thinkers, victims of our own martyr complex. Dark forces are always conspiring against us, whether they be homegrown or international. Nothing is ever our own fault." He adds: "Our heroes are impeccable, with nothing to besmirch them. Everyone else is envious of their

success, hatching plots to drag them down from the lofty heights they've scaled. There is black and there is white, with no grey area to separate them."

He asks his countrymen to stand by "their fallen hero", hoping he rises from the ashes like a phoenix.

PM'S HEALTH WOES

THE KATHMANDU POST has taken umbrage at the lack of clarity and communication regarding Prime Minister KP Oli's health issues. Oli is reportedly hospitalised and going through a complete series of dialysis. The November 1 editorial also recounts that the PM had a kidney transplant 11 years ago.

It justifies the demand for the PM's health problems being made public: "While every person should be accorded some level of privacy, repeated health-related incidents bring forth questions about whether someone is fit enough to continue in a role."

over-ground worker's network. It gives no hint towards finding a political solution to the problem. However, it correctly observes that the security situation has not improved since abrogation of Article 370. It fails to observe that with no concrete plan of action for much touted "development" of Jammu & Kashmir, abrogation of Article 370 has only accentuated the sense of alienation of Kashmiris. The Central Government will do well to restore full statehood (minus article 370) to J&K and pave the way for the installation of a democratically elected government. It will be best if such an elected government fights the terrorists with the support of the central government, rather than the central government trying to do that job directly.

Anoop Kumar Srivastava, Greater Noida