

Failing the forest

Both human rights and wildlife rights groups have not used the Forest Rights Act as a conservation tool



BAHAR DUTT

On February 13, the Supreme Court ordered the eviction of more than 10 lakh Adivasis and other forest dwellers from forestland across 17 States. The petitioners, mainly wildlife NGOs, had demanded that State governments evict those forest dwellers whose claims over traditional forestland under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, known simply as the Forest Rights Act (FRA), had been rejected. On February 28, the court stayed its controversial order and asked the States to submit details on how the claims of the dwellers were decided and the authorities competent to pass final rejection orders.

While the Supreme Court has now made it clear that there will be no forcible eviction, what the order has succeeded in doing is resuscitating a sharp binary between the human rights- and wildlife rights-based groups that have for decades tried to swing public opinion in their favour. The wildlife groups who went to court argue that implementation of the FRA could lead to 'encroachments' and fresh clearance of forestland for human dwellings. The human rights groups have argued that the FRA was passed by Parliament and is aimed at correcting historical injustices to traditional forest dwellers who, since colonial times, have been subject to a cycle of evictions. Since colonial times, as governments asserted their control over forests, India's forest history has become a cycle of evictions from forestland and rebellions by forest dwellers.

A fundamental difference
Now, here's the problem. Both groups have been so locked in ideological debates – whether in the courtroom or on social media – that they have failed to protect what could potentially have been beneficial to their respective interest groups: the forest. The FRA was meant for forest dwellers, but it could have also been a powerful tool



"In 2013, the Supreme Court affirmed the decision-making power of the gram sabhas under the Forest Rights Act when it asked them to take a decision on whether or not they wanted bauxite mining in the Niyamgiri hills of Odisha." The Dongria Kondhs who unanimously voted no. *A. MANIKANTA KUMAR

for conservation. Sadly, both sides have propagated misinformation to garner support for themselves.

The first myth that needs to be busted for the wildlife lobby is that when a right is recognised of a forest dweller/Adivasi on a piece of land, it doesn't mean that he/she will cut down all the trees in that area. This is often the strongest note of dissonance between the two groups – the implication that recognising rights on forestland is the same as clear-felling that forest. Therefore, to argue that the rights of millions of forest dwellers have been recognised through the Act does not mean that the forest is a pie to be divided. On the other hand, when forestland is 'diverted' for big development projects, like mining or highways or roads, it is actually clear felled or submerged. If this fundamental difference

between 'recognition of rights' and 'diversion' were accepted, the groups at loggerheads would in fact find grounds for commonality.

It is in fact the Supreme Court that paved the way for this commonality in 2013 when it asked the gram sabhas to take a decision on whether the Vedanta group's \$1.7 billion bauxite mining project in Odisha's Niyamgiri Hills could go forward or not. It thus affirmed the decision-making power of the village councils of Rayagada and Kalahandi under the FRA. All 12 gram sabhas unanimously rejected mining in the hills.

Again, in 2016, it was the FRA that was invoked by the National Green Tribunal (NGT) when the people of Lippa in Himachal Pradesh were given the powers to decide whether or not they wanted a hydel power project in this area. The project would

have led to submergence of forestland and also caused heavy siltation in the river.

When wildlife groups point towards the thousands of 'bogus claims' that are being filed and that should be rejected, what should not go unnoticed is that the state in fact is not always keen to recognise the rights of people in forest areas (even if it may get them votes) as it becomes tough to 'divert' land for big projects. A case in point is the Mipithel Dam that is under construction in Manipur. Once commissioned, it will submerge 1,215 hectares (ha) of land, 595 ha of which are under forest cover. In 2015, the NGT had asked for the state to seek forest clearance for the project. To obtain forest clearance, the State government would have to prove that the rights of the tribal people and forest dwellers would not be affected. However, the State government refused to recognise the rights of the people living there since it was keen to construct the dam.

There have been hundreds of cases that offered both these divergent groups the opportunity to come together for the cause of the environment and communities. Can the two groups put down their metaphorical swords and use their powers to fight the battle that needs to be fought?

Correcting historical injustice

Likewise, could not the same wildlife NGOs which filed this petition in the Supreme Court have joined hands with the local communities and used the FRA to challenge big development projects coming up on forestland instead? Human rights groups too cannot be absolved of blame. Most of them have been quick to respond when the judiciary steps in, but have been missing when it comes to the tedious groundwork of working with the gram sabhas and ensuring that genuine claims are filed. The same human rights groups did not come forward to fight cases that could have helped conservation as well as the people who live in those areas. Both groups have failed the forest. There is a chance to correct the historical injustice has been inflicted on the people and to India's forests. And it is through the FRA that India can achieve that aim.

Bahar Dutt is an environment journalist

FROM THE READERS' EDITOR

The difference between journalism and propaganda

Journalists should report events rather than become cheerleaders for hate politics and intolerance



A.S. PANNEERSELVAN

Since the terrorist attack in Pulwama that killed 40 CRPF personnel and the subsequent military response, there have been two distinct narratives in the media. On the one hand is an uncritical group of people who constantly whip up patriotism and construct nationalism in a narrow sense. They are keen to reduce journalism to propaganda. On the other is a set of professionals who continue to retain their commitment to the core values of journalism and opt to report events instead of becoming a tool of war.

Reporting war and conflict

The reportage and headlines of *The Hindu* exhibit a commitment to facts as well as a desire to minimise tension between two neighbours. Here journalism is a public good and refuses to become an instrument of deceit. The headline of Feb. 28, "IAF plane shot down, pilot taken captive by Pak. army", was both appreciated and vilified by readers. The people who felt that the headline was not patriotic enough drew their inspiration from many broadcast journalists. I would urge them to watch senior journalist Sashi Kumar's video, "Parasites of prime time", in which he clearly establishes how dominant TV channels have become cheerleaders for hate politics and intolerance.

My friend and the founder of the Ethical Journalism Network, Aidan White, never tires of pointing out a simple fact: that journalists who work in or near a conflict zone see first-hand the brutal and inhumane consequences of war. The act of bearing witness helps them refrain from promoting propaganda based on what he calls "skewed notions of romantic patriotism or tribal allegiance". There is a huge corpus of literature on war and conflict journalism. One fact emerges from such literature and from war reporters – from the time of the World Wars to my colleagues who have covered more recent wars in the neighbourhood: those who bay for blood are far removed from the sites of violence and do not have a sense of the loss and pain experienced by families. In his insightful book, *The First Casualty*, Phillip Knightley gives us an important warning:

"The sad truth is that today government propaganda prepares its citizens for war so skillfully that it is quite likely that they do not want the truthful, objective and balanced reporting that hero war correspondents once did their best to provide."

Fact and fiction

Soon after India's air strikes in Balakot, Pakistan, many TV channels citing anonymous sources claimed that the attack across the LoC killed 300 terrorists. However, when the official version was put out, the government spokesperson refused to speculate on the number. Meanwhile, international media-persons, who have access to Balakot, visited the site. Their findings made a mockery of many of the tall claims that were being made from India's TV studios. In this newspaper, a sober and responsible analysis was made much before Wing Commander Abhinandan Varthaman's capture. For instance, in his comment piece, "India's options after Pulwama" (Feb. 19), Happyymon Jacob examined the option of using strike aircraft to carry out precision strikes in locations across the LoC. He presciently warned: "But such air incursions are likely to be detected and intercepted by Pakistani radars and air defence systems. If an aircraft is shot down or pilots are captured, it could become a bigger headache for the government. Pakistani retaliatory strikes cannot be ruled out either."

Writer Namita Gokhale made an important observation recently: "One of the greatest life learnings of the ever contemporary Mahabharata is the lesson of the Chakravayuh and the consequences of entering it without full foreknowledge." Her tweet doesn't apply only to governance and military affairs, but to journalism too. The very act of verification that differentiates this profession from all other forms of communication tells us not be an Abhimanyu, one who knew the entry strategy but not the exit one.

Indian journalists have made some of the most incisive arguments against the pernicious idea of embedded journalism (the practice of placing journalists under the control of one side's military during an armed conflict). The difference between journalism and propaganda lies in the language that is used in reports. Ethical journalism will report the killing of a soldier as the killing of a soldier and refrain from using loaded propagandist words like martyr.

readerseditor@thehindu.co.in

SINGLE FILE

Equally in the spotlight

Some recent Hindi films show that 'character actors' no longer have a secondary status

KUNAL RAY



'Character actor' is an annoying term that Bollywood taught me early on. Though it owes its origin to the West, it is used in a pejorative way in mainstream Hindi cinema. This coinage with its inherent class distinction sets apart a cohort of actors from the leading men and women of Hindi films. I wonder why, though. After all, the central lead is also playing a character in the film. And what would many of these films be without the so-called character actors?

Characters do not exist in a vacuum. They are created and embellished vis-a-vis their social backgrounds. The milieu of the lead characters or a contrast is created through their association with an array of supporting characters who are uncharitably labelled character actors.

In the larger power hierarchy too, character actors are often relegated to a secondary status. We barely see them at film promotions unless they are yesteryear sensations staging a comeback or if their performance has received rave reviews. For a very long time, Hindi cinema used character actors as comic relief, or they essayed prototypical aunts, uncles, parents or friends. Very few received an independent storyline or back story unless it impacted the hero or the heroine of the film.

A new crop of Hindi films is, however, attempting to change that portrayal. In many recent films, 'character actors' successfully eclipsed the main lead and attracted more attention for their performance. There are perceptible changes at the level of scriptwriting where special attention is being accorded to the character arc of these actors. For instance, I think of films such as *Bareilly Ki Barfi*, *Masaan*, *Newton* and *Badhaai Ho* equally, or perhaps more, for the multiple stories that abound alongside the lead, sometimes to the point where one wonders who the lead really is.

In this context, Zoya Akhtar's *Gully Boy* stands out for many reasons: its nuanced storytelling, superlative performances, luscious camerawork (Jay Oza), extremely measured editing (Nitin Baid) and effort in finding other stories of Dharavi beyond the known and the obvious. It also excels in bringing to the forefront a bunch of 'character actors' who make every bit of their screen time memorable. Vijay Varma as the unscrupulous yet humane Moeen and Siddhant Chaturvedi as rapper MC Sher are the highlights of the film. They are not second fiddles but hold their own in the plot. They are both integral to the narrative while also helping to bring about different facets of Ranveer Singh's Murad. In fact, the film opens with Moeen and then Murad appears from behind. Similarly, Murad is unimagineable without his friend and mentor, MC Sher. The hope is that this will enable new encounters in storytelling in Hindi films.

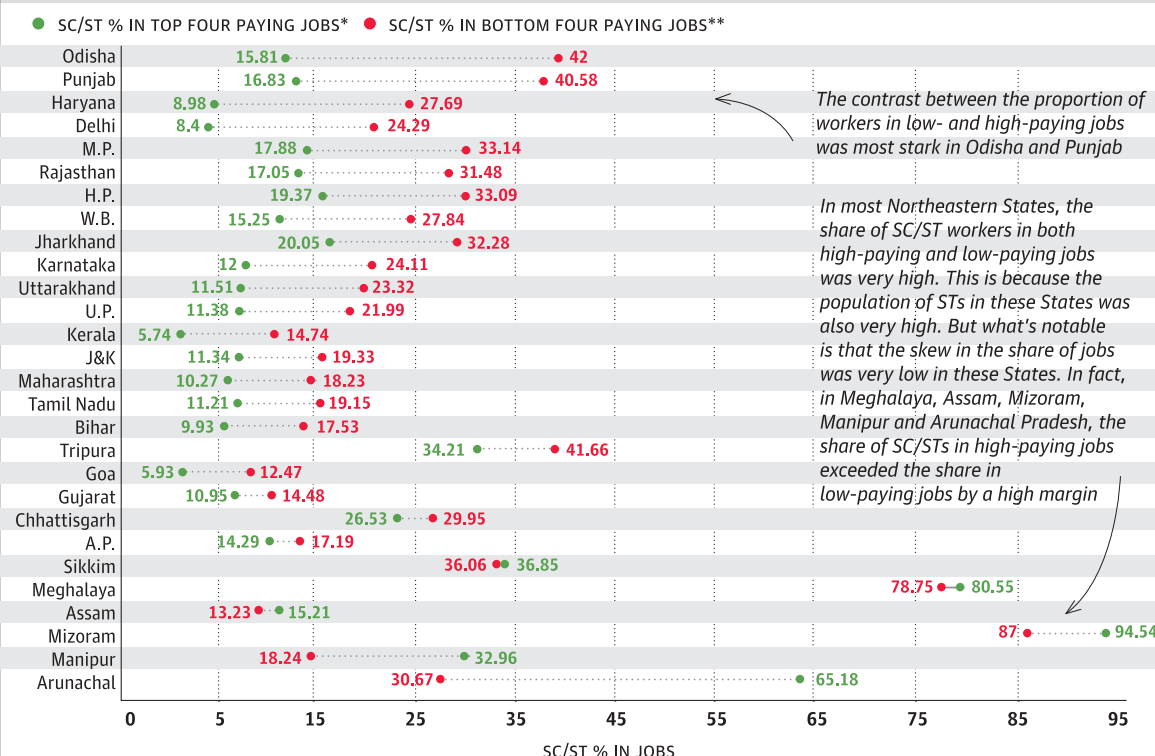
The writer teaches literary & cultural studies at FLAME University, Pune



DATA POINT

Bottom of the job pyramid

Data from the 2011 Census show that the proportion of SC/ST workers in low-paying non-farm jobs was relatively high compared to their share in high-income profiles. A State-wise analysis by Faizi Noor Ahmad and Vignesh Radhakrishnan



The contrast between the proportion of workers in low- and high-paying jobs was most stark in Odisha and Punjab

In most Northeastern States, the share of SC/ST workers in both high-paying and low-paying jobs was very high. This is because the population of STs in these States was also very high. But what's notable is that the skew in the share of jobs was very low in these States. In fact, in Meghalaya, Assam, Mizoram, Manipur and Arunachal Pradesh, the share of SC/STs in high-paying jobs exceeded the share in low-paying jobs by a high margin

* Top four paying jobs include professionals; clerks; technicians and associate professionals; and legislators, senior officials and managers

** Bottom four include plant and machine operators and assemblers; craft and related trade workers; skilled agricultural and fishery workers; and elementary occupations

The job profiles are classified based on the monthly per capita consumption expenditure of workers available in the National Sample Survey Office's reports. For further reading, please see <https://bit.ly/2Gemivk>

FROM THE HINDU ARCHIVES

FIFTY YEARS AGO MARCH 4, 1969

China clash figures in Delhi talks

The Sino-Soviet border clash yesterday [March 3], involving an unspecified number of soldiers killed on both sides, is believed to have figured in the two-hour long talks to-day between the visiting Soviet Defence Minister, Marshal A. A. Grechkov, and the Indian Defence Minister, Mr. Swaran Singh. The clash coinciding with the arrival of the Soviet Defence Minister here [New Delhi] on a week-long goodwill visit naturally came up for reference at the talks. In the absence of detailed official reports, maps were understood to have been consulted on the basis of news agency reports that had come in late last night and this morning. After the Soviet delegation left, the members of the Indian delegation stayed back in conference for about half an hour. The incident and the motivations behind the Chinese provocation which could not be considered in depth in the absence of details are, however, likely to come up at an informal level when the two Defence Ministers meet again.

A HUNDRED YEARS AGO MARCH 4, 1919.

Mechanical Engineering: Lord Ronaldshay's Speech.

Presiding this afternoon at the prize distribution of Sibpore Civil Engineering College [in Calcutta, March 3] His Excellency [Lord Ronaldshay, the Governor of Bengal] said that the Bengalee child hitherto was given no chance of developing any aptitude for mechanics, which he might possess. Something must be done to develop the boys' attitude for manual work in school and institutions. A beginning had already been made in this respect and manual training class had been introduced in about 30 Zilla and high schools and proposals were being made for extending this form of instruction. This was the means of finding out whether the boy had any bent for engineering before he actually came to the college.

CONCEPTUAL

Hygiene hypothesis

MEDICINE

This refers to the hypothesis that certain allergic reactions may simply be the result of the lack of exposure of individuals to germs during childhood. It is believed that exposure to microorganisms during childhood can help in the sufficient development of the body's immune system and also in establishing a beneficial symbiotic relationship with microbes. The hypothesis was first proposed by British epidemiologist David P. Strachan in his 1989 paper "Hay fever, hygiene, and household size". Strachan proposed that children growing up in small families with better amenities may actually be more susceptible to various allergies due to insufficient exposure to germs.

MORE ON THE WEB

World Wildlife Day: Organisations which help India's untamed

<http://bit.ly/WorldWildlifeDayVideo>



The Indian EXPRESS

FOUNDED BY

RAMNATH GOENKA

BECAUSE THE TRUTH INVOLVES US ALL

Lessons from a crisis

We must face up to intelligence failures, lack of civil-military coordination, poor statecraft of the past



ARUN PRAKASH

A NEW CONVERSATION

Diplomatic opening in Abu Dhabi has cleared ground for more intensive and sustained political engagement with Islamic world

BACK IN 1969, India had to endure the diplomatic humiliation of being "disinvited" from the founding session of the Organisation of Islamic Cooperation, thanks to intense Pakistani lobbying. Fifty years later, India had the privilege of addressing the opening session of the OIC foreign ministers' gathering in the UAE, and it was Pakistan's turn to sulk. The foreign minister of Pakistan, Shah Mohammed Qureshi, who objected to the UAE invitation to India, chose to stay out of the room when the external affairs minister, Sushma Swaraj, was speaking. The inability of Pakistan to prevent India from joining the meeting underlines the big change in India's standing in the Muslim world. It also points to the relative decline of Pakistan's influence in the Middle East. While religion remains the organising principle of the OIC, all member states pursue their own national interests with little regard to faith. The growing importance of economic partnership with India and the shared interests in combating the destabilising forces of religious extremism have generated new warmth for Delhi. Pakistan is no longer in a position to veto India's possibilities in the Islamic world.

Swaraj chose not to directly criticise Pakistan by name, but underlined the need to press Islamabad to dismantle the infrastructure of terrorism on its soil. She acknowledged that the challenge of terrorism can't be fought through military means alone and "must be won through the strengths of our values, and the real message of religions" in favour of peace and harmony. She reminded the OIC of India's traditional good relations with most member states. She specially referred to the dramatic transformation in India's relations with the Gulf region during the last few years. "It is an indispensable strategic and security partnership, and a natural economic partnership, of immense value, to our nations, and for our shared region." She specially thanked the United Arab Emirates, the host of the ministerial, for inviting India to address the gathering and Saudi Arabia and Bangladesh for lending support.

India's first ever participation in an OIC gathering does not mean the Islamic countries have decided to discard Pakistan in favour of India. As in other international forums, it's not a zero-sum-game between India and Pakistan. A furious Pakistan appears to have got the OIC to endorse its criticism of India's Kashmir policies. Delhi should not be detained by these routine resolutions that different member states bring to the OIC. What really matters is the political decision by the UAE and Saudi Arabia to press Pakistan to release the Indian Air Force pilot, Abhinandan Varthaman, who was downed in the aerial combat with the Pakistani Air Force last week. Even more important is the fact that the diplomatic opening in Abu Dhabi has cleared the ground for a more intensive and sustained political engagement with the global Islamic collective. The next step for India is to begin a quiet campaign for observer status at the OIC.

TOWARDS DIGNITY

Other states should take a leaf out of Delhi's use of technology to end manual scavenging, instead of living in denial

THE INTRODUCTION OF a fleet of 200 machine-equipped trucks is unlikely to bring the scourge of manual scavenging in Delhi to an immediate end. Even then, Delhi's AAP government deserves to be applauded for deploying technology in an effort to curb this dehumanising practice that has survived three changes in the law in the past 25 years. The sewer-cleaning machines that were launched last week have been designed to meet the demands of the small lanes in the capital's slums and urban villages. Each unit has a tank to spray water and a sludge compartment to collect the silt cleaned up by the machine — this sludge was usually left along the sewer during manual cleaning. The machines will be given to manual scavengers, who will be trained to operate them.

The sanitation workers, who will be given the new machines, were identified by a Delhi government survey last year. But like most parts of the country, Delhi lacks an accurate count of the people engaged in manual scavenging. The Delhi government has acknowledged that its enumeration does not depict the extent of the problem in the capital. Other states, however, have not been that sensitive. For example, during a survey last year by the Centre, the governments of Haryana, Bihar and Telangana did not report even a single manual scavenger. But the task force conducting the survey — it comprised members from the ministries of social justice, rural development, drinking water and sanitation, and housing and urban affairs and the National Safai Karamchari Finance and Development Corporation — found that there were 1,221 manual scavengers in Bihar, Haryana had 846 such workers and 288 people in Telangana were engaged in this dehumanising practice.

The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, allows the use of manual labour to clean sewage if the employer provides safety gear. But, in practice, this provision is more flouted than followed. According to the social justice ministry's records, one person dies every five days while cleaning sewers — unofficial reports indicate that the figure could be much higher. Municipal corporations and local bodies very often outsource the sewer cleaning tasks to private contractors, who do not maintain proper rolls of workers. In case after case of sanitation workers being asphyxiated to death while working toxic sludge pools in different parts of the country, these contractors have denied any association with the deceased. The Delhi government's move to use machines is a first step towards according dignity and respect to sewer workers. It should be emulated in other parts of the country. However, technology's emancipatory powers will be realised at their fullest only when the states stop living in denial about manual scavenging.

FREEZE FRAME

E P UNNY



THE UNTHINKABLE HAS happened. For the first time ever, the air forces of two nuclear-armed neighbours, India and Pakistan, have crossed national boundaries and carried out kinetic attacks on each other's soil. Aerial combat has also resulted in casualties and losses on both sides.

Although an inevitable sequel to the February 14 Pulwama car-bomb attack by the Pakistan-based Jaish-e Mohammad (JeM), India's air-strike inside Pakistan did carry the risk of tit-for-tat hostilities spiralling into a full-scale war with nuclear connotations. This is not an alarmist view because the current environment, on both sides of the India-Pakistan border, remains fraught for two reasons.

Pakistan has been turned into a neurotic theological state by the military and its cohort of jihadi proxies. Pakistan's shadowy "deep state" comprising the army and its Inter-Service Intelligence (ISI) directorate, has also kept alive the myth of an ever-present "existential threat" from "Hindu India". This mythology is vital for the survival of the "deep state" and its jihadi allies. The Pakistan Prime Minister, beholden to the army for his survival, has been blowing hot and cold in the past few days and his "peace overtures" must be treated with caution.

On our side, the Pulwama attack was the last straw for the long-suffering Indian public. The loss of 40 CRPF jawans served to focus the deep anguish and humiliation that Indians have endured over the decades from Pakistan-inspired insurgencies and Pakistan-initiated terror strikes. There was unanimity across India that a strong message needed to be sent to the Pakistani instigators and abettors of jihadi terror.

The Pulwama car-bombing, occurring in the run-up to India's 17th general election, has added a bitter edge of xenophobia and religious bigotry to an already acrimonious election campaign. Extreme caution is called for to ensure that India's vital national interests are not subsumed by politically-motivated and competitive machismo masquerading as patriotism. Hyper-nationalism at the hustings and war-mongering in TV studios could not only damage India's delicate social fabric but also drive the nation into an unwanted

conflict.

Here it must be pointed out that phrases such as "revenge", "retribution" and "martyrdom" are not part of our military's lexicon and must not be foisted on the armed forces. At the same time, there is a dire need for India's national security establishment to learn how to employ India's military as an instrument of state policy by acquiring an understanding of concepts like "deterrence", "compellence" and "coercion" for attaining political aims.

In this context, we must face up to the intelligence failures, lack of civil-military coordination and poor state-craft on India's part that have allowed the ISI to torment this nation for many decades. The litany of assaults on India's sovereignty and citizenry is long but in every case, we have been caught unprepared and wanting in terms of a consistent policy and coherent response. Three instances in our recent past demand introspection because they point to a lack of resolve and even pusillanimity on the part of the Indian state.

In December 1999, Indian Airlines flight IC-814 was hijacked to Kandahar where the hijackers demanded the release of JeM terrorists. Most democracies have a declared policy of "no negotiations with terrorists" for the simple reason that negotiations give legitimacy to terrorists and are perceived as condoning violence. In the absence of such a policy, this hijacking saw the government caving in to public pressure and capitulating abjectly to the hijackers' demands. India has paid a dear price in lives for the release of Masood Azhar in Kandahar.

In December 1999, Indian Airlines flight IC-814 was hijacked to Kandahar where the hijackers demanded the release of JeM terrorists. Most democracies have a declared policy of 'no negotiations with terrorists' for the simple reason that negotiations give legitimacy to terrorists and are perceived as condoning of violence by the state. Absent such a policy, this hijacking saw the government caving in to public pressure and capitulating abjectly to the hijackers' demands. India has paid a dear price in lives for the release of Masood Azhar in Kandahar.

Following the December 2001 JeM attack on India's Parliament, the public was encouraged to see the government ordering an unprecedented general mobilisation, presumably for inflicting suitable punishment on Pakistan. However, when the then army chief sought orders regarding the political objectives for "Operation Parakram", he was told by the then prime minister, "Baad mein batayengey" (we will tell you later). Ten months later, the chief was no wiser as he demobilised a million men after a dangerous but futile face-off with Pakistan resulting in 900 army casualties.

In 2008, within hours of the seaborne

terror assault on Mumbai, the nation was uplifted when a cabinet minister signalled the government's intentions: "All options are open to us." A day later, morale plummeted when after a cabinet meeting, the minister announced, "War is not an option." India had, once again, exercised "strategic restraint" gaining universal applause but allowing the instigators of the 26/11 outrage to go unpunished.

Against this backdrop, we must consider if India's timorous past postures and conduct have served to embolden its adversaries. From our unilateral undertaking of "no first use" of nuclear weapons (post-Pokhran II) to declarations that "war is not an option", have we conveyed an unintentional guarantee of immunity to those contemplating inimical actions against us? However, two resolute actions — the launching of cross-border commando raids in September 2016 and Wednesday's airstrikes on Pakistan-based terror hubs — have, at long last, demolished such delusions. Simultaneously, they have also shattered the myth of a "nuclear overhang", crafted by Pakistan, to deter a robust Indian response to cross-border terrorism.

No sane South Asian wants war and if Kashmir continues to remain a casus belli, we must undertake an agonising policy re-appraisal. While the army continues to guard J&K against external intrusions, India needs to evolve a long-term strategy, "civilian" in nature, to restore peace.

There are also other measures available to discourage neighbours from interfering. At the strategic level, we need to urgently revise and introduce a degree of ambiguity in India's nuclear doctrine. At the operational level, India must convey clarity and resolve by openly declaring: One, a "no negotiations" policy vis-a-vis terrorists and hijackers; two, its right to respond suitably to cross-border terrorist attacks at their source and three, that while the response may not be instant it will be certain.

In order to implement this policy, military units with suitable capabilities should be earmarked and kept in the requisite state of readiness at all times.

The writer is a former chief of the Indian navy



MUZAMIL YAQOOB AND BASIT ABUBAKR

SHADOWS IN THE VALLEY

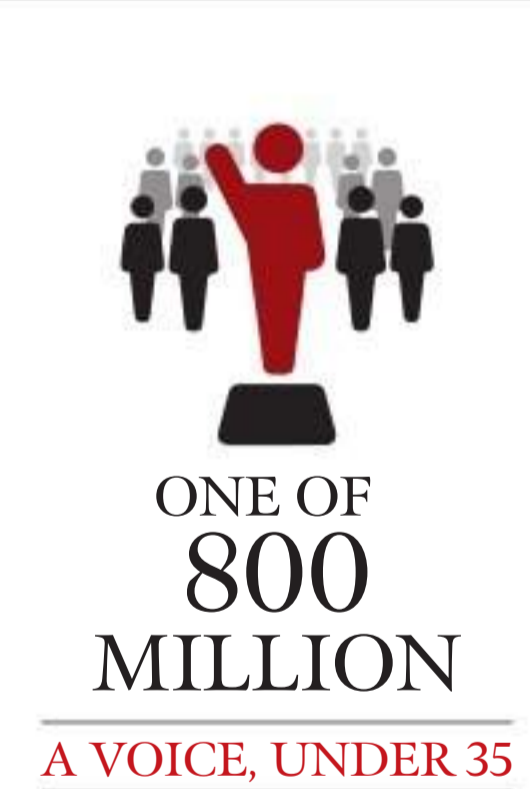
Kashmir needs a robust education system, an honest conversation

AFTER THE gruesome attack on Indian forces on February 14 in Pulwama, everyone came forward to condemn the attack. However, there has been complete denial in influential quarters of another sort: The media and academia seem to gloss over the deeper conflicts and crises that played a role in bringing two nuclear armed neighbours to the brink — and could again.

The media's engagement with Pakistan touched new lows, post-Pulwama. At the same time, civil society exhibited disinterest in condemning the violence against Kashmiris in different parts of India.

The violence is another grim reminder of the othering of the people of Kashmir. The continuous war-mongering and the hate propaganda on TV has created an environment with serious implications for Kashmiris: The advisories for Kashmiri students at different varsities to not venture outside their hostels seem to confirm the climate of fear we are living in. Students were forced to cancel academic tours and conferences, affecting their careers, while traders were forced to shut their business and leave.

The Kashmir conflict has a direct bearing on the education sector in the state as the perilous condition compels thousands of students to leave their homes and study outside the state. The recent episode showcased the precariousness that pervades the life of a Kashmiri scholar, and it should now be enough to make a concerned civil soci-



The recent episode showcased the precariousness that pervades the life of a Kashmiri scholar, and it should now be enough to make a concerned civil society focus on rebuilding the education sector in Kashmir.

ety focus on rebuilding the education sector in Kashmir, so that students aren't forced to cut short their careers if situations like the one we face today arise. All this while the central government failed to provide any measures to ensure safety against the violence that was inflicted on the students, in educational institutions in Dehradun for example. This has not only jeopardised the conditions of those who were evicted but also left the remaining Kashmiris vulnerable.

The ruling dispensation, known for its anti-minority rhetoric, began facing increasing discontent and stiff opposition in the recent past. A need was perhaps felt to divert attention from multiple controversies and disastrous policies of the government, as the general elections are around the corner, by targeting Kashmiris in the wake of Pulwama. A malevolent narrative around Kashmir and Kashmiris being the biggest threat to India's national security, is being promoted.

It is also a fact that in present-day India, bigotry is as rampant as racism is in America: It is a game of "us" versus "them", wherein the bodies of the other are treated as lesser bodies, just as blacks were in America. One can see how prejudices are deepened and disseminated every night on several news channels — the way the media referred to the black male as a "brute" and "thug" in the US, here, the other is re-

ferred to as a "terrorist" and "fundamentalist".

And it is over these lesser bodies that the muscular and jingoist nationalists want to reap electoral dividend while the Indian left-liberal keeps getting pushed on to the backfoot. Even experts on Kashmir can be seen today caving in to the climate of war mongering, as they advocate an armed war against another country, regardless of the terrible consequences.

The Indian government should take note of the fact that this targeting of Kashmiris furthers the alienation of an already disgruntled population, which will take a long time to reverse. It has undone whatever gains had been made in the years when violence had declined in the Valley. Not everything can be blamed on Pakistan and the Indian government should take appropriate steps to resolve the conflict as soon as possible.

The scrapping of Article 370 of the Constitution cannot be an answer to the escalating situation in Kashmir. It will only sharpen the anxieties of an insecure people. Nor can the "de-hyphenation of Ladakh and Jammu from Kashmir Valley" yield any fruitful results. Kashmir deserves a dialogical solution by taking on board all the stakeholders.

Yaqoob, 22, and Abubakr, 27, are students at Jawaharlal Nehru University, Delhi

MARCH 4, 1979, FORTY YEARS AGO



CEASEFIRE IN VIETNAM CHINA IS REPORTED to have decided on a ceasefire in its two-week-old border war with Vietnam after capturing Lang Son and other Vietnamese frontier cities. Thousands of casualties were claimed on both sides. Hanoi Radio said in its latest battle report, however, that Chinese troops reinforced with six infantry divisions and hundreds of tanks and artillery pieces were intercepted by the Vietnamese north of Lang Son and suffered heavy losses. Japan's Kyodo News service said the ceasefire decision was reported by a Chinese government official in Peking. The report said the official did not say when the ceasefire was to take place or when the

Chinese were to pull back their troops to the Chinese side of the 720 km-long border.

UP CABINET EXPANDS UTTAR PRADESH CHIEF minister, Banarsi Das, announced in Lucknow that he would appoint 14 more cabinet ministers. Talking to newsmen on his return from New Delhi where he had consultations with the central leaders, he said he would allocate portfolios to the new ministers soon. Das said the expansion of his ministry would be a "continued process". Asked if the former chief minister, Ram Naresh Yadav and the dissident leader, Raj Mangal Pandey would find berths in the state cabinet, the chief min-

ister replied, "maybe or maybe not. None will be excluded". The chief minister said that those whose primary loyalty to the Janata party was in doubt would be excluded: "Those who attend RSS shakhas would not be included in the team of ministers."

BHUTTO'S PETITION THE HEARING OF Z A Bhutto's review petition was resumed before the Pakistan Supreme Court after a gap of two days, according to Radio Pakistan. Yahya Bakhtiar, counsel for Bhutto, made further submissions seeking a review of the verdict of the court, rejecting Bhutto's appeal against the death sentence in the Kasuri murder case.

and force it to crack down on terror emanating from its soil...

Democracy

Needed, both *hosh* and *josh*

KV PRASAD IN NEW DELHI

THE sudden shift in the nature of India-Pakistan ties on the political plane is something pundits would not like to predict about. During the last three decades, perhaps the most consistent feature of Indo-Pakistan bilateral relations has been its inconsistency. Since late 1990s, when militancy in Jammu and Kashmir began to rise, ties between the two neighbours have seen sharp swings and often become a roller-coaster ride—high once and then sharply sliding down.

A few years back the political leadership in India and Pakistan had sought to adopt a correctional path—at least on the face of it. That was when President Zia-ul-Haq had managed to extract an invitation from India through what was called cricket diplomacy.

This happened at the height of Operation Brasstacks, an exercise mounted in early 1987 by the Indian military leadership that almost took both countries to war. General Zia arrived in Jaipur to watch a cricket match between India and Pakistan in a bid to reduce the simmering tensions. Subsequently, PM Manmohan Singh and his Pakistan counterpart Yousuf Raza Gilani, too, adopted the same measure during a 2011 World Cup fixture. On his part, PM Narendra Modi began his innings on the same diplomatic pitch by inviting all SAARC leaders for his swearing-in.

Years before, there was a verbal duel between New Delhi and Islamabad. On Independence Day in 1994, the then Prime Minister PV Narasimha Rao declared from the ramparts of Red Fort that the only unfinished task that remained of Partition was to reclaim Pakistan-occupied territory of Kashmir and that Kashmir would always remain an integral part of India. PM Rao was responding to Pakistan premier's mention of Kashmir as the unfinished agenda for the country. The wordy duel eventually while relations between the two countries continued to swing like a pendulum. Post-1987, an eyeball-to-eyeball situation for troops on either side of the border came in 2001 when the then Prime Minister Atal Bihari Vajpayee ordered the military to reach the borders as a measure to exert pressure after the audacious LeT/JeM attack on Parliament.



Post-Pulwama, leaders at an all-party meeting expressed the country's resolve to eliminate terrorism

Many questions were raised about the incident, especially how could such an attack occur on India's temple of democracy. However, these queries were more in the nature of introspection and not necessarily finger wagging. In fact, a day after the attack, PM Vajpayee mentioned in Parliament that the first call after the attack enquiring about his well-being was from then Leader of the Opposition, Sonia Gandhi. The gesture, PM Vajpayee remarked, underscored the strength of Indian democracy and its future.

Post 2000, there have been a number of such attacks especially on our military establishments—among them Kaluchak in 2002 and Pathankot in 2016. However, the most grim reminder of how Pak-based terrorists were used to attack India and Indian citizens were the Mumbai attacks in 2008 that went on for three days. Pulwama is the latest in this series of militants killing at will. An indoctrinated youth drove a car packed with explosives in a fideyeen attack to strike at a convoy of CRPF soldiers, killing 40 jawans.

Condemnations poured in across the political lines though there was an initial outburst by the Congress chief spokesperson on February 14. But it did a swift course correction with party president Rahul Gandhi, flanked by former PM Manmohan Singh and former Defence Minister AK Antony, conveying solidarity with the government in this hour of crisis. The party even decided to call off its scheduled meeting of the working committee realising this is not the time to engage in politics.

Yet, with general elections around the corner, can politicians of different hues and

Despite it being an election year, political parties have managed to show remarkable restraint in politicising the strikes across the LoC? But, how long can they sustain this?

grades not eschew from escalating the debate or lowering its levels? It is easy to point fingers at say a BS Yeddyurappa for his remarks that the Balakot operation would translate into rich electoral harvest for the Bharatiya Janata Party in Karnataka or for the ruling party elite to underscore that critical remarks by members in the Opposition were being lapped up by Pakistan.

To examine one of the points raised by the Opposition after the all-party meeting of being taken on board or to be briefed as they, too, had a stake in the country was greeted with derision. Surely, it is not expected that the government of the day would discuss threadbare, leave alone operational details, but even contours of what it could look like.

What needs to be looked at is whether such an outreach by the government to parties across the political spectrum can help in building consensus in the country at a time when a message of being one should be both loud and clear to the world.

For instance, the previous NDA government hammered out consensus when the country was torn between the idea of putting Indian troops on the ground in Iraq, which the USA

wanted or those against it. Amid reports of a battalion being readied, Vajpayee felt the pulse of the country through voices in the Opposition to nix ambitious plans of members of his own Cabinet.

Eventually, a resolution in Parliament conveyed to the world the collective sense of disagreement to send Indian military personnel to Iraq. The country had not forgotten the fate of the brave Indian soldiers fighting a war that was not of India—in Sri Lanka against the Liberation Tigers of Tamil Eelam—and did not want an encore.

In the last few days, the debate has been shrill around the lack of political will of the leadership after the 2008 Mumbai terror attack. It has been compared with the lightening decisions being taken now to respond—be it the surgical strike post Uri or Balakot in response to Pulwama. The Manmohan Singh government was pilloried then, as again now, for its inability to strike back and pursuing a policy of strategic restraint. Recorded conversations of the days leading to a decision lie wrapped in classified documents and would remain so barring a select few who can access it.

Any dispassionate discussion based on information available on record and examined by a community of strategic, security thinkers and policy researchers, cannot happen since unlike some western democracies, India does not have a clear policy of declassification of such documents or at least unhindered access. Strategic planners emphasise that in planning a retribution, essential ingredient is *hosh* (consciousness) while its execution requires *josh* (euphoria).



A lowdown on India's options to further isolate Pakistan and

On the chessboard of diplomacy

SANDEEP DIKSHIT IN NEW DELHI

After giving Pakistan a befitting reply in Balakot for the Pulwama attack, India is actively making diplomatic overtures to pressurise Pakistan to abandon its jihad dependence. Here are some viable options:

A Cut a deal with China for banning Azhar at UNSC: India can offer China its support in its aspiration to head global bodies in order to exhibit its status as a global power. In return, China can agree not to use its veto when the three permanent members of the UN Security Council (UNSC) bring a resolution seeking to name Masood Azhar as an international terrorist.

What will banning achieve: It will slightly damage Masood Azhar because he does not have extensive sources of revenue like the ISIS, Al Qaeda and the Taliban. However, a more permanent source of worry for Azhar after being named by the UNSC could be that India can justify any Special Forces action against him on moral as well as national security grounds.

Past experience: The UNSC's naming of Azhar will be a pyrrhic victory as international terrorists like him have roamed freely all over the world even after being called out by the global community. It has made no difference to the chiefs of ISIS and Al Qaeda whether 15 diplomats in New York name them as terrorists. However, if international pressure also forces Pakistan to implement its anti-money laundering laws, the naming of Azhar as an international terrorist will emasculate his appeal as a bag man.

B The US should ban military trade with Pakistan: India can put pressure on the US to take Pakistan to task for misusing the F-16s given to it for anti-terrorist operations. There are already reports of the US seeking more information on the potential misuse of America-made F-16 fighter jets by Pakistan against India in violation of the end-user agreement (EUM).

What is EUM: The US signs end-user verification agreements with all countries it sells arms to. The EUM allows American inspectors to examine the equipment for misuses and even seize the equipment or deny servicing it and not provide spares.

Past experience: In 2009, Pakistan conducted a mysterious missile test leading to suspicion that it had surreptitiously altered US-supplied Harpoon anti-ship missiles. The Harpoon was supposed to be used as a



WHOSE WIN IS IT ANYWAY? Pakistan tried to score points by releasing Wg Cdr Abhinandan Varthaman, three days after he was captured. VISHAL KUMAR & AGENCIES

defensive weapon but the modification gave it an offensive role, enabling it to hit targets on land.

The US also suspects that Pakistan has modified its P-3C aircraft meant for oceanic surveillance into a weapon capable of launching land-attack missions. The US had protested against both violations but its inspectors were not allowed to enter Pakistan cantonments.

What can India do: It needs to lobby with the US Congress highlighting previous misuses by Pakistan that date back from the time when it was in the South Asia Treaty Organ-

isation in the mid-50s and seek an embargo on all military sales to Pakistan.

C Keep up the pressure on anti-terror financing laws: India played a smart hand in October 2018 when the Financial Action Task Force (FATF) met in Paris to review anti-money laundering and terrorist financing laws of member countries. Pakistan was in the nether zone and could have escaped with a mild rap. But India played on Pakistan's all-weather friend, China's global aspirations by offering to

support it for the post of vice-president of FATFA. China eagerly grabbed the offer because it will automatically head FATFA next year. As a result, it did not move a muscle when FATFA put Pakistan on the Grey List.

What is FATFA?: It began as a construct of the world's most powerful capitalist countries and gradually enrolled other economies such as Russia, China, India and Pakistan. It has set standards for anti-terrorist and money laundering laws. Failure to meet the standards could lead to black-

listing and denial of funds from the IMF and the World Bank.

Past experience: Pakistan has been censured at least 25 times in FATFA's 30 years of existence. It was again censured in February this year and has been given a three-month deadline till June.

What can India do: India was at its lobbying best when FATFA met in Paris just after the Pulwama attacks. China again stayed away from throwing its weight behind Pakistan. As a result, Pakistan remained on the Grey List. India needs to sustain the pressure so that Pakistan is denied IMF loans or it implements its anti-terror and money-laundering laws so that it becomes difficult for the Hafiz Saeeds and Azhar Masoods to operate.

D Make Pakistan feel awkward among Muslim nations: One regional multilateral organisation that has excluded India at the behest of Pakistan is the Organisation of Islamic Countries (OIC). Fakhruddin Ali Ahmed (who later became President of India) could not attend the first OIC summit after Pakistan threatened to walk away. In a delicious irony now, the OIC Ministerial held last week saw Sushma Swaraj's participation as a Guest of Honour while Pakistan sat out in protest.

What is OIC: It has 57 members, but, of them, 17 are not Muslim majority. Having the field to itself, Pakistan has managed to force the OIC to deliver virulently anti-India statements on its handling of the Kashmir situation. Though the OIC takes no further action, the statements embarrass India, which takes pride in its diversity and vibrancy of religions.

What can India do: Bangladesh and Turkey have already proposed 'observer' status at the OIC for India. This is again a sweet revenge against Pakistan for proposing 'observer' status for China at SAARC. India can let the proposal for 'observer' status

A new template that will be tough to recast

AJAY BANERJEE IN NEW DELHI

THE last 15 days of military events between India and Pakistan have left behind multiple lessons, including a new template for Indo-Pak relations, which could leave little space to manoeuvre in this age of ill-informed televised debates and jingoism-infused social media hashtags.

Starting with the Pulwama terror attack on February 14 to the release of Wg Cdr Abhinandan Varthaman on Friday, people on both sides of the acrimonious divide have been swinging from despair to war-mongering and from anger to euphoria. The TV channels have been accused of whipping up hysteria while social media narratives of 'giving a befitting reply' and *aar-paar ki ladaai* have been trending.

It has left the two nuclear-armed neighbours hanging on the edges of 'restraint'. "The fuse has never been shorter," says a senior officer. India's right to punish terrorists has been backed by several countries.

Crossing the LoC: If crossing the LoC to launch punitive strikes at terror camps is the new template, only time will tell what is the threshold for India to launch its next attack. It will be risky to assess what will, or what can, trigger the next skirmish between the two countries.

Lt Gen KJ Singh (retd), a former Western Army Commander, says, "The threshold of

when to launch a strike will be a complicated decision and it has been further complicated as Pakistan launched itself on military targets."

India crossed the LoC twice, Pakistan once, the first such cross LoC or Border skirmish since 1971. During the 1999 Kargil War, there were clear instructions not to cross the LoC. The two fighter pilots who ejected on being hit and landed in Pakistan were due to the reason that the LoC runs zigzag. One peak in the Himalayas could be this side and the one next to it could be in Pakistani territory.

Shortest skirmish: Despite the edge-of-the-seat tension following the Pulwama attack, the core of the skirmish was just 31 hours — the shortest in the 72-year history of the two countries. The 'surgical strikes' of September 2016 were shorter; those cannot be termed as skirmish as Pakistan did not engage. It was on 3.30 am on February 26 this year that Indian Air Force (IAF) jets hit at a Jaish-e-Mohammed (JeM) terror camp at Balakot in Khyber Pakhtunkhwa, some 80 km inside Pakistan. Angry statements from both sides followed before Pakistan retaliated by sending its fighter jets over Nowshera in Jammu & Kashmir around 10 am on February 27. India responded and by 10:30, both countries had lost a jet each. On March 1, after Wing Commander Varthaman crossed over to India, firing across the LoC from both sides ratcheted up. These 31 hours are nowhere near the full-

scale wars we have fought in 1947-48, 1965, 1971 or the Kargil conflict in 1999.

Nuclear bogey called: Both nuclear-powered countries were locked in a conventional skirmish. It did not escalate to see nukes being fired, hence exposing the Pakistan bogey that it could fire a nuke in case of a skirmish. "It shows that there is scope for a sub-conventional conflict and the nuclear bogey has been called," asserts Lt Gen KJ Singh.

Superior technology can be beaten: Downing of a US-made F-16 by a Soviet-origin MiG 21, an old warhorse of the IAF, is like a Maruti outrunning a Mercedes. The 86-second dogfight over Nowshera at 900 km/ph ended with both a MiG 21 and an F-16 fighter getting shot. As old warriors say: The goddess of war is fickle with luck! Downing an F-16 in an aerial combat is very tough. Probably a Sukhoi 30MKI can take it on easily, but it calls for superior training for a MiG 21 to beat it. Vice-Admiral Sekhar Sinha (retd), who headed the Navy's Western fleet and was a naval fighter pilot himself, explains, "MiG 21 has very high acceleration. In case, the F-16 is being chased, the MiG has just to get into the 'cone' (military parlance for getting the right angle) to get a 'lock' (a target acquisition) on the enemy jet and fire." Our pilots have mastered the MiG 21, said the Vice-Admiral, who oversaw the induction of MiG 29k fighter jets into the Navy.

However, the MiG 21s cannot be held back. It has to go as per schedule in 2022-23. "There is no doubt. The MiG 21 has to retire," says Admiral Sinha.

Information warfare the key: Twitter, Facebook and social media played a major role in creating a hysteria. Around 5 am on February 26, Maj-Gen Asif Ghafoor, the Director-General of Inter Services Public Relations (ISPR) of Pakistan, tweeted that the 'IAF crossed the LoC and dropped a payload' and said it was at Balakot. In this age of Twitter, it was literally 'breaking news', and that too by Pakistan. He tweeted with more details again, around 7.40 am. Soon, former J&K Chief Minister Omar Abdullah told the world that 'if its Balakot in KPK, its significant (sic)'. India did not respond till 11.15 am when Foreign Secretary Vijay Gokhale read out that it was pre-emptive strike on a terror camp.

The next day, when the skirmish in the air took place, General Ghafoor used the 'Facebook Live' option around 1.15 pm to tell the world that Pakistan had downed a MiG 21. In this, technology transcended borders and information was live in the handheld phones even as Indian news channels followed the 'protocol' of not airing 'Pakistan propaganda'. Around 3.30 pm, the Indian side said its plane was down. Ghafoor erred in saying that two Indian planes had been shot. It later turned out that the second plane was an F-16.

But did Pakistan win the perception game? The jury is still out.

A 29-YEAR-OLD US Congresswoman, Alexandria Ocasio-Cortez, representing the New York boroughs of Bronx and Queens, has shot into public prominence in the US for a non-binding resolution that she and her Democrat colleague Senator Ed Markey from Massachusetts have tabled in the US Congress.

What is surprising is that there is nothing remarkable about the resolution. It contains a package of oft-discussed ideas on how to decarbonise the US economy. And even the caption “the Green New Deal” has been mentioned before. The *New York Times* columnist, Thomas Friedman, used this phrase in a column that he wrote in 2007 about clean energy. Yet, the young rookie politician is today the cynosure of her seniors in the US Congress; her resolution has won the support of several presidential hopefuls and the “old new ideas” on global warming have acquired traction.

Several questions arise. What is the reason for her success? Why has this resolution struck a chord? What lessons, if any, does the Cortez phenomenon offer Indian politicians who wish to embed climate change more deeply into our policy fabric?

Victor Hugo said, “nothing can hold back an idea whose time has come.” His insight focused on two issues. The idea and the timing. A “good” idea would be no more than just that if introduced at an inopportune time. It could be transformational if supported by context and circumstance. The response to Cortez’s resolution suggests the importance of a third factor: Language and message.

The road to decarbonisation has been well marked over the years. The milestones are known. Electricity must be decarbonised by basing it on solar and wind; industry furnaces should be powered by solar and heat; the internal combustion engine should be replaced by electric vehicles; residential homes and buildings should be redesigned to make them carbon neutral; clean energy technology should be generously funded, etc.

The distance covered so far down this pathway has not however been much. The IPCC “special report on global temperature of 1.5°C”, published in October 2018, made clear that the world has a long way to go before it achieves its objective of containing temperature rise to below-1.5°C, and that this objective will only be achieved if it accelerates the implementation of the ideas that secure “rapid and far reaching transitions in energy, land, urban and infrastructure and industrial systems” and thereby “deep emission reductions”.

The reasons for this slow pace are many, and country-specific. The US, for instance, has stumbled because of the ambivalence of political leaders towards global warming; the varying interpretations of scientific data and the counterfactual physical experience. US president Donald Trump is openly derisory. “Wouldn’t be bad to have that good old fashioned global warming right now” was his tweet from the US Mid West where temperatures had fallen to Arctic levels.

But one reason common to all countries for the disjunct between the idea of decarbonisation and its implementation has been the absence of broad-based public—and, therefore, political—support. The green agenda has all too often been introduced at an inopportune time or through an ineffective medium.

The Cortez phenomenon offers a sense of what is possible if both timing and medium juxtapose to leverage and complement each other. Her resolution was, for instance, well-timed. It was



ILLUSTRATION: ROHNTH PHORE

● OVER THE BARREL

VIKRAM S MEHTA

Chairman & senior fellow, Brookings India. Views are personal



Learning from Ocasio-Cortez on climate

US Congresswoman Alexandria Ocasio-Cortez was able to generate a lot of buzz over her climate resolution because she got the timing, the language, and the message right. Recent climate-change-related disasters were fresh in the mind of Americans and the resolution avoided complex climate terminology and, instead, intended to mobilise action

introduced at a time the US public was still unsettled by the spate of natural disasters that had hit the US. The fires in California last year were the worst ever, leading to considerable loss of life and livelihood. Moreover, it was no longer possible to ignore the mounting scientific evidence of global warming and the forewarning of scientists that the window of opportunity for managing the consequences was fast closing. But beyond timing, Cortez leveraged the power of language. Instead of complicating the understanding of the public by discussing arcane and the still somewhat controversial issues of carbon pricing, sequestration technology, nuclear energy and financing structures, it called for a “10-year national mobilisation” plan for reducing carbon emissions. The medium was a simple war cry.

The Cortez resolution may eventually end up in the archives like so many other resolutions on the same subject, but today, at least, it has to be credited for bringing global warming into the US national conversation.

What is the takeaway, if anything, for India from the Cortez resolution? I ask this question only because I believe our public has still not fully appreciated the implications for India of global warming. And that is a worry. For, India will be amongst the worst affected countries in the world if sea levels rise, glaciers melt and temperatures fluctuate between extremes. There is, therefore, an urgency in raising public awareness about this issue.

All governments for the past two decades have made an effort to tackle the challenge of climate change. The UPA government set up the National Action Plan on climate change in 2008,

The UPA government set up the National Action Plan on climate change in 2008, and established a number of climate change missions. The current government made a comparable, if not, larger effort. But neither has been able to elevate this issue to a national priority and bring it into the public and, therefore, political discourse

and established a number of climate change missions. The present government made a comparable, if not, larger effort. They set ambitious targets for solar and wind power; they provided incentives for EVs; they set a timeline for the cutting of emissions by utilities and also benchmarks for energy efficiency; and they replenished the “clean energy fund” for financing clean energy through an increase in the coal cess. But no government has been able to elevate this issue to a national priority and to bring it into the public and, therefore, political discourse.

The Cortez resolution offers a clue on how this could be done. The subject must be brought onto the legislative agenda. The new governments should introduce a bill—call it “the climate change and clean energy Bill”—that sets out a time-bound objective for decarbonisation. The language of the bill must be exhortatory. Its purpose should be to educate and mobilise. It should be to bring climate change into the national conversation and create the opportune time for implementation of the ideas already on the agenda.

Blockchain gains for food industry

KUSHANKUR DEY

Assistant professor, Indian Institute of Management, Bodh Gaya. Views are personal



It will help farmers/producers realise a larger share in the consumer’s spend

APLICATION OF BLOCKCHAIN in agri food industries is gaining ground as consumer awareness of food safety has been increased. On one hand, credible information increases the search costs for consumers, and on the other, demand for more food information reflects transparency and lack of trust. Related information and compliance issues for agri food industries are emanating from costly and inefficient paper-based transactions, fraud, corruption and error on physical and technology-driven systems, integrity of digital repository, and double-spend of certificates.

So, is blockchain a timely solution for agri food industries in terms of efficiency gains through improved coordination? It is clear that blockchain is becoming a tool for greater transparency on food for the consumer. Will consumers be ready to pay a price for it? If the industry raises the price, then the marginal gains are to be distributed to the downstream actors such as producers and aggregators. These issues are to be resolved at the regulatory and policy level.

A 2018 policy paper by FAO which pointed out blockchain technologies can enable an immutable contract between the various supply-chain actors and instil transparency. Further, the contract can reduce the density of supply chain network by removing the “not so complementing” intermediaries. As a result, this can reduce transaction costs, improve quality, and induce efficiency and eventually deliver a larger share of the consumer’s spend to the farmer/producer.

In India, a consortium of food companies has tied up with tech giants to make food supply-chains transparent and traceable. Blockchain is seen to be critical on assaying quality and can help businesses comply with regulatory standards. A number of grape-exporting businesses from western India have evinced interest in blockchain to improve quality checks of containers and comply with sanitary and phytosanitary standards to realise export potential.

Triplicati & Schmidhuber (2018) in the FAO’s policy paper illustrated key features of blockchain technologies.

■ Blockchain disintermediates processing and storage of data entries and verifies transactions by using peer-to-peer consensus mechanism to facilitate agreement between participants on the status of data in the decentralised network. The mechanism uses validators (participating nodes), incentives and consensus algorithms to validate transactions or data entries in the shared ledger. The method of validating data entries offers greater cost-efficiency, lower fees and faster transaction—payment-cost structure (Cant et al., 2015).

■ Blockchain technologies use cryptography (crypto anchors) to ensure immutability and security for data entries. Each data entry is recorded with a timestamp and a cryptographic fingerprint of that record that links each record to one another, and is then stored securely across the distributed network of computers.

■ The immutability of records and disintermediation of data storage, through a shared ledger, make every transaction or record in a distributed ledger time stamped, traceable, transparent. In theory, all participants of the distributed ledger should have access to the full transaction history registered on the database. The information stored on the ledger is protected by encryption and managed with private and public keys. These distributed ledger technologies can be of permissioned and permissionless.

The *Wageningen Economic Research* report, in 2017, presented findings of a pilot on the application of blockchain by Dutch agri-food industries. It presented a roadmap on the adoption of blockchain. Food producers can add value to their produce due to increased transparency and attributes of product credence. Through an enhanced traceability of their produce, producers can access institutional credit and enter smart contract with processors and consumers. They can realise a fair price due to less interference of traders or middlemen. Other stakeholders in the blockchain ecosystem are certification agencies, government organisations, retailers/traders, producers of digital equipment, knowledge institutions, agro-ICT companies and blockchain start-ups.

Blockchain start-ups need to create new business opportunities; they have to find compatible and competent partners for co-creation and funding agencies that can help implement a minimum viable ecosystem for blockchain.

But blockchain implementation should address myriad challenges, such as scalability of technological throughput in number of transactions, interoperability between digital and physical, etc. We need to bear in mind changes in hard and soft infrastructure needed to implement blockchain and devise a way for blockchain to equitably distribute gains.

RECENTLY, INDIA OUTPACED Japan as the world’s second-largest steel producing country clocking 4.9% growth over 2017, while China retained its position as the largest producer of crude steel, clocking 6.6% growth and accounting for more than 51% of the global production, according to data released by the World Steel Association. The latest report highlights that China’s crude steel output jumped to 928.3 million tonnes (MT) in 2018 from 870.9 MT in 2017, while India’s crude steel production was at 106.5 MT in 2018 from 101.5 MT in 2017.

The measure of India’s ranking is based on the actual output of steel produced in the country. What is not evident in this fact is that the conversion costs of India’s output are still highly non-competitive when compared to some of the large Japanese and Chinese players in steel making. India has achieved a capacity utilization rate of 77.2% in crude steel production in 2018 in comparison to the current global capacity utilisation ratio of 80.4%, according to OECD data.

There are several factors contributing to this situation such as the relatively smaller size and scale of modularised manufacturing assets of Indian firms and a lack of availability of high grade yet low-cost utilities and raw materials in India. The inherent lower levels of advanced automation of some key manufacturing

Reimagining the future of steel in India

Indian firms can become more competitive by adopting advanced analytics through digital platforms and technologies

SAURABH BHATNAGAR

Managing Director (Resources), Accenture in India

processes of Indian plants and the slow rate of adoption of advanced analytics and digital to drive improvements in yield, energy consumption and quality are some of the other factors.

Needless to say, the continuous improvement programmes at some of the Indian firms have made them increasingly competitive, but the rate of improvement has been slow while some of the Chinese and Japanese firms have been quick to mesh the manufacturing supply chains with highly adaptive and complex advanced analytics solutions driven through digital technologies.

Digital transformation represents a substantial opportunity for the mining and

metals sector. Across value migration and value addition to industry, and value shifts to customers, society and the environment, Accenture and World Economic Forum’s estimates of cumulative economic value for the period 2016 to 2025 range from \$428 billion to \$784 billion. Digital technologies have tremendous potential to move beyond stagnant growth and deliver exceptional shareholder, customer and environmental value to the steel industry in the face of disruption.

Seizing the data opportunity

Think of steel plants and what comes to mind are massive structures, heavy



machinery, heat, fumes, sound and, of course, piles of steel. However, steel plants also generate voluminous data throughout the value chain—from raw material procurement, inventory and regulations to safety measures and more. While they have analytics integrated into the systems, most steel plants fail to leverage the full potential of the Goliath-like power that advanced analytics offers.

To crunch large data sets and derive meaningful insights, most steel plants in India apply conventional methods using legacy system architecture, a traditional mindset and a deep-rooted improvement culture. These traditional methods have limitations, but they could be overcome by

using advanced analytics to take a quantum leap toward more efficient business operations, mitigating data-related risks and gaining a competitive edge.

To embark on a digital transformation journey, the first step is to collaborate with all the stakeholders to define the business requirements. It is important to instill an advanced analytics culture within the plants to solve industrial problems using the following action points:

■ **Gaining momentum through capability building:** Help the workforce develop core analytical skills through a continuous, comprehensive and integrated learning journey.

■ **Defining standards through an**

analytics center of excellence (CoE): Build a comprehensive CoE to help the workforce gain a thorough understanding of advanced analytics.

■ **Programming a change in mindset:** Provide a supporting infrastructure that would mobilise the plant employees to become exemplars of analytics. For example, a cross-functional team across the IT, digital, research and development, and process manufacturing departments can enable a seamless flow of information and capabilities to deliver value through various on-the-job training programmes.

■ **Building a sturdy foundation through a digital architecture:** Formulate a set of customised guiding design principles to factor in the three Vs of big data—volume, velocity and variety.

In summary, while India’s move to the second position in terms of steel production news is great, there is more to be achieved before reaching the number one position. There is a bigger opportunity for Indian firms to become more competitive cost-efficient steel makers in the global steel making market by adopting advanced analytics through digital platforms and technologies. With improved efficiencies, cost effectiveness and better management of resources and infrastructure through analytics, steel companies will not only gain competitive advantage but also progress significantly on the path to building an analytics-ready workforce.

