

## THIS WORD MEANS

### DAVOS IN THE DESERT

The event the Prime Minister is attending in Riyadh. What is on the table, and why is it compared to Davos?



Prime Minister Narendra Modi with King Salman bin Abdulaziz. Twitter/PFI

PRIME MINISTER Narendra Modi is on a visit to Riyadh to attend an international event from October 29 to 31. Formally the Future Investment Initiative (FII), it is widely being described as "Davos in the desert". The informal name derives from the World Economic Forum's annual meeting that is held in Davos, Switzerland, where world leaders discuss and shape agendas for pressing international issues. FII, too, brings together policymakers, investors and global experts, who discuss the role of investment in driving global prosperity and development. FII is an initiative that was first undertaken by the Saudi Crown Prince Mohammad bin Salman in 2017 to diversify the kingdom's economy and reduce its dependence on petroleum products.

This year, Modi delivered the keynote address "What's next for India?" and engaged in bilateral talks with the Mohammad bin Salman and King Salman bin Abdulaziz. Saudi Arabia has already announced agreements worth \$15 billion. Other world leaders attending the event include Brazilian President Jair Bolsonaro, Kenyan President Uhuru Kenyatta and Nigerian President Muhammadu Buhari.

In 2018, the FII was boycotted by over 40 participants due to allegations about Saudi Arabia's involvement in the murder of journalist Jamal Khashoggi.

UDIT MISRA  
NEW DELHI, OCTOBER 29

EVER SINCE the results of the Periodic Labour Force Survey (PLFS) 2017-18 became public — they showed that unemployment in India was at a 45-year high — there has been vigorous public debate about the true state of unemployment in the country.

What has fueled this debate — and allowed different people to arrive at differing conclusions about the state of unemployment — has been the long delays in the availability of past employment data, even though PLFS tracks employment annually.

Now, a new study, commissioned by the Economic Advisory Council to the Prime Minister (EAC-PM), and undertaken by Laveesh Bhandari of Indicus Foundation and Amaresh Dubey of Jawaharlal Nehru University, has highlighted the broad trends for employment in India between 2004 and 2018. (*The Indian Express*, October 26)

A key feature of this study is that instead of focusing on unemployment, it focuses only on the "employment" data. It does so by looking at three comparable surveys conducted by the National Sample Survey Organisation (NSSO) — the Employment-Unemployment Surveys (EUS) of 2004-05 and 2011-12, and the PLFS of 2017-18.

#### So how is mapping employment different from mapping unemployment?

The NSSO surveys divide the entire population into three categories. Broadly speaking, Category 1 consists of people who were involved in economic activity (or work) during the reference period of the survey. These individuals are labelled as "Employed" — and Category 1 can be subdivided into categories such as self-employed, salaried employees, and casual labourers.

Category 2 consists of people who were not engaged in any economic activity during the reference period of the survey, but were looking for work if work was available. These individuals are labelled as "Unemployed".

Taken together, categories 1 and 2 form the country's "labour force".

Category 3 constitutes people who are neither engaged in work nor available for it. This category — labelled as "Not in the labour force" — would have a large number of people, including those who have retired, those studying, those unable to work due to disability, and those attending "only" to domestic duties.

The new study focused on the level and trends of the "Employed" — that is, Category 1.

#### What are the main findings of the study?

On the whole, the study found that the

## SIMPLY PUT QUESTION & ANSWER

# Tracking employment in India

A new study uses NSSO data to show that between 2004 and 2017, employment grew at less than half the rate of population growth; number of women and young people in jobs fell; rural employment stagnated



#### ORGANISED SECTOR INCREASINGLY PREFERS NON-CONTRACTUAL LABOUR

(ALL NUMBERS IN CRORE)

Sector	Without Contract	With Contract
<b>2004</b>		
Unorganised	6.33	0.4
Organised	1.31	2.28
<b>2011</b>		
Unorganised	8.9	0.46
Organised	2.44	2.65
<b>2017</b>		
Unorganised	10.9	0.48
Organised	3.61	2.8

#### STATES THAT SAW STAGNANT EMPLOYMENT IN 15-59 AGE BRACKET

(ALL NUMBERS IN LAKH)

State	2004	2011	2017
Rajasthan	204	222	225
Gujarat	213	227	225
Uttarakhand	30	30	33
Jharkhand	99	94	95
Odisha	135	139	135
Andhra Pradesh	351	352	354
Karnataka	244	239	238
Tamil Nadu	284	276	283
Himachal Pradesh	25	30	29

2004 and 2011 numbers from the Employment-Unemployment Surveys of 2004-05 and 2011-12 respectively; 2017 numbers from the Periodic Labour Force Survey (PLFS) 2017-18.

#### And employment by education level?

The emerging economy appears to be leaving behind the illiterates and those with incomplete primary education. Employment in this category has gone down from 20.08 crore in 2004 to 14.2 crore in 2017, and their share in those employed has gone down from 48.77 per cent in 2004 to 31.09 per cent in 2017.

Employment has risen for all other categories of education from primary, secondary, to postgraduate and above.

#### Has the organised sector grown?

Yes, the rate of employment growth in the organised sector — that is, in firms that are registered with regulatory authorities and are bound by a variety of labour laws — has been the fastest, and its share in the total employed has risen from 8.9 per cent in 2004 to 14 per cent in 2017.

The unorganised sector, too, has grown. In fact, while its rate of growth has been slower, its overall share in the economy has gone up from 37.1 per cent in 2004 to 47.7 per cent in 2017. However, the pace of growth of the unorganised sector has moderated since 2011.

Both these sectors have grown at the expense of the agri-cropping sector, where employment has fallen from 21.9 per cent in 2004 to 17.4 per cent in 2017. In essence, the results show that those who are poor, illiterate, and unskilled are increasingly losing out on jobs.

#### Has the rise of the organised sector led to an increase in contractual employment?

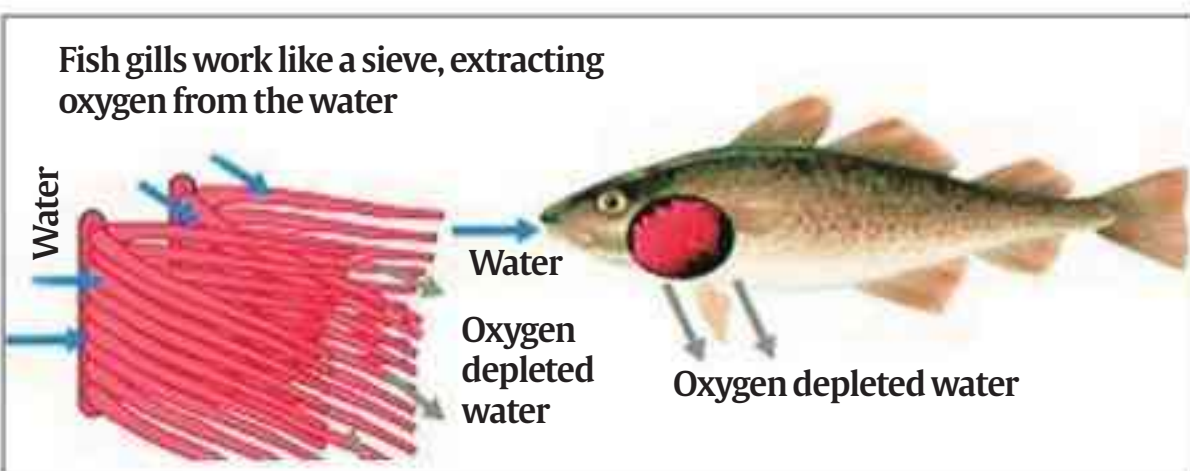
Typically, it is expected that those who work in the organised sector would be employed on some formal contract. The presence of a contract makes all the difference when it comes to job security, minimum wages, equal pay for equal work, safe working conditions, etc. Without a contract, even a worker employed in the organised sector would not have any means of seeking recourse for any injustice. Non-contractual labour also earns less in general than contractual labour. That is why the unorganised sector almost entirely employs workers on a non-contractual basis.

However, the NSSO data show a sustained trend of even the organised sector in India preferring to employ workers without a contract. Indeed, between 2011 and 2017, this resulted in the organised sector coming to employ more people without a contract.

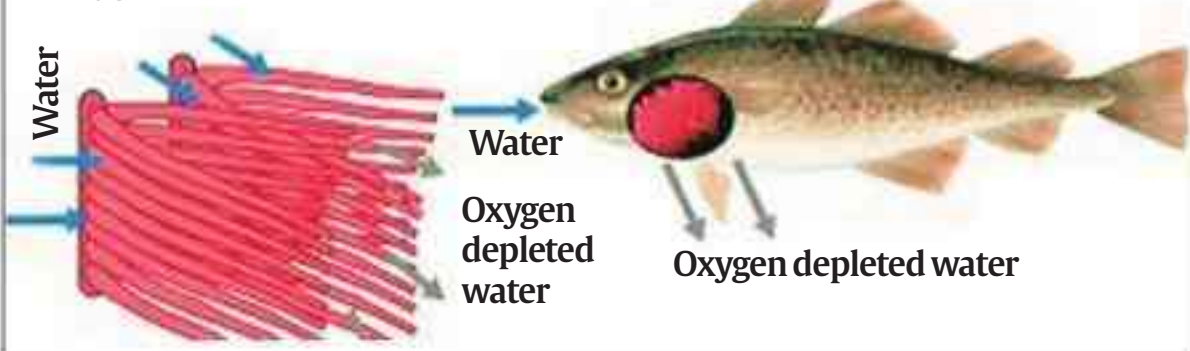
That firms — whether organised or unorganised — prefer non-contractual employment is bad news for India's bid to make the economy more formal. In all likelihood, firms are doing so to cut the extra costs that come with complying with inflexible and stringent labour laws. This is more likely to be the case when firms are stressed for money and struggling to grow.

## TIP FOR READING LIST

### WHAT FISH DO AMID CLIMATE CHANGE



Fish gills work like a sieve, extracting oxygen from the water



AMONG VARIOUS ways in which climate change is impacting life on Earth, one has been to change the distribution of fish species in the oceans. Scientists have predicted that the shift will be towards the poles. In a new research paper, they have explained the biological reasons why fish species will follow that direction.

It stems from the way fish breathe. Scientists describe this with the Gill-Oxygen Limitation Theory, or GOLT. Daniel Pauly, the author of the theory, is the principal investigator of the 'Sea Around Us' initiative at the University of British Columbia's Institute for the Oceans and Fisheries. His new paper is published in *Mediterranean Marine Science* ([ejournals.epublishing.ekt.gr/index.php/hcmr-med-mar-sc/article/view/19285/18618](http://ejournals.epublishing.ekt.gr/index.php/hcmr-med-mar-sc/article/view/19285/18618)). A statement on the 'Sea Around Us' website explains the theory. Warming waters have less oxygen. Therefore, fish have difficulties breathing in such environments.

Additionally, such warming, low-oxygen waters also increase fish's oxygen demands because their metabolism speeds up. This is because, as fish grow, their demand for oxygen increases. However, the surface area of the gills (two-dimensional) does not grow at the same pace as the rest of the body (three-dimensional). The larger the fish, the smaller its surface area relative to the volume of its body. So, the fish move to waters whose temperatures resemble those of their original habitats and that satisfy their oxygen needs. As the global sea surface temperature has increased by approximately 0.13°C per decade over the past 100 years, "suitable" waters are more and more found towards the poles and at greater depths.

Previous studies by Pauly and his colleagues have already predicted that climate change will cause some fish species to shift their distribution by more than 50 km per decade, the statement said.

ANUJ BHATIA  
NEW DELHI, OCTOBER 29

CLOUD COMPUTING — by which remote servers hosted on the Internet store and process data, rather than local servers or personal computers — is ready to move to the next level. Amazon, Microsoft, and Alphabet, the parent company of Google — the technology giants that provide cloud computing infrastructure to major corporates and governments — want to leverage 5G wireless technology and artificial intelligence to enable faster response times, lower latency (ability to process very high volumes of data with minimal delay), and simplified maintenance in computing.

This is where Edge Computing comes in

— which many see as an extension to the cloud, but which is, in fact, different in several basic ways. By 2025, says the global research and advisory firm Gartner, companies will generate and process more than 75% of their data outside of traditional centralised data centres — that is, at the "edge" of the cloud.

#### So, what is edge computing?

Simply put, edge computing enables data to be analysed, processed, and transferred at the edge of a network. The idea is to analyse data locally, closer to where it is stored, in real-time without latency, rather than send it far away to a centralised data centre. So whether you are streaming a video on Netflix or accessing a library of video games in the cloud, edge computing allows for quicker

data processing and content delivery.

#### How is edge computing different from cloud computing?

The basic difference between edge computing and cloud computing lies in where the data processing takes place.

At the moment, the existing Internet of Things (IoT) systems perform all of their computations in the cloud using data centres. Edge computing, on the other hand, essentially manages the massive amounts of data generated by IoT devices by storing and processing data locally. That data doesn't need to be sent over a network as soon as it is processed; only important data is sent — therefore, an edge computing network reduces the amount of data that travels over the network.

#### And how soon can edge computing become part of our lives?

Experts believe the true potential of edge computing will become apparent when 5G networks go mainstream in a year from now. Users will be able to enjoy consistent connectivity without even realising it.

Nvidia, one of the biggest players in the design and manufacture of graphics and AI acceleration hardware, has just announced its EGX edge computing platform to help telecom operators adopt 5G networks capable of supporting edge workloads. The new Nvidia Aerial software developer kit will help telecom companies build virtualised radio access networks that will let them support smart factories, AR/VR and cloud gaming.

# Why did monsoon end with so much rain? Hunt for clues in Indian Ocean

AMITABH SINHA  
PUNE, OCTOBER 29

THE RECORD-breaking rainfall this monsoon season, particularly during August and September, has left weather scientists confounded. After a more than 30% shortfall in June, the season ended with 10% excess rainfall, the first time such a thing has happened since 1931. The September rainfall (152% of long period average, or LPA) was the highest since 1917, the August rainfall (115% of LPA) was the highest since 1996, and the overall seasonal rainfall (110% of LPA) was the highest since 1994.

#### Search for answers

As late as the first week of September, the India Meteorological Department maintained that the seasonal rainfall was going to be normal (in the 96-104% range). With an influencer like El Niño Southern Oscillation (ENSO) in the Pacific remaining largely neutral this year, scientists are trying to pin down the exact reason for the unusual rainfall.

In the search for answers, one phenom-

enon attracting some attention is the Indian Ocean Dipole or IOD, an ocean-atmosphere interaction similar to El Niño, but in the Indian Ocean. IOD is a measure of the difference in the sea-surface temperatures of the western Indian Ocean (Arabian Sea) and the eastern Indian Ocean, south of the Indonesian coast. When the western waters are warmer than the eastern, IOD is said to be positive; in the opposite state, IOD is negative.

Like ENSO in the equatorial Pacific Ocean, IOD too influences weather and climate events, though its impact is weaker because the Indian Ocean is considerably smaller, and shallower, than the Pacific. The IOD has an impact on the Indian monsoon: a positive IOD is understood to aid monsoon rainfall while negative IOD is known to suppress it.

#### Strongest ever

This year's IOD, which began developing around June and grew strong after August, has been one of the strongest on record. IOD records are not very old. Accurate measurements are available only since 1960, according to the Australian Bureau of Meteorology (ACB). "The current positive Indian Ocean



Rainfall 30% short in June, 10% excess for overall monsoon. Pradeep Kumar

Dipole event has strengthened significantly over the past month. The latest weekly value of +2.15°C is the strongest positive weekly value since at least 2001 (when the Bureau's weekly dataset commenced), and possibly since 1997, when strong monthly values were recorded," the ACB said in its latest bul-

letin on October 15.

This has led to scientists looking at IOD for possible clues to this year's bumper rainfall, especially since such strong IOD events in previous years, too, were associated with high monsoon rainfall.

"In previous years, we have had very strong IOD events in 1997 and 2006. In both those years, the southwest monsoon rainfall over India was around 100% of normal. 1997 also happened to be a strong El Niño year (El Niño suppresses monsoon rainfall), but thanks to the positive IOD, the monsoon rainfall was normal that year," said Sridhar Balasubramanian, associate professor of mechanical engineering and an adjunct faculty member at IDP Climate Studies at IIT Bombay. "This year the positive IOD started strengthening from July, and by September it evolved into the strongest positive IOD ever recorded in the history of Indian summer monsoon."

#### Tenuous link

Beyond the correlation, scientists are careful not to directly blame the IOD for this year's rains. That is because IOD's link with the Indian summer monsoon is tenuous at best.

It is only one of several factors that impact the monsoon, and not the most dominant.

In fact, the IOD's influence on the monsoon is not fully understood. It is known to have a much weaker influence than ENSO, though. IOD's relationship with the Indian summer monsoon is also much less studied compared to that of ENSO, said J Srinivasan, distinguished scientist with the Divecha Centre for Climate Change at IISc, Bengaluru.

Besides, it is not clear if the IOD influences the monsoon or if it is the other way round. The IOD generally takes shape towards the latter half of the summer monsoon, in August and September, and scientists do not rule out the possibility that the monsoon could play some role in its emergence.

"It is critical to remember that IOD usually peaks in September-October-November, and its impacts on monsoon are not very robust. It is unclear if monsoon itself plays a critical role in forcing the IOD," said Raghu Murtugudde of the University of Maryland, US. "The problem with using IOD as an explanation is that its definition is not really solid. It is defined as a gradient of east-west SST (sea surface temperature) changes, but

the action is all in the east," Murtugudde said.

#### This year, earlier years

This absence of 'action' in the western Indian Ocean was evident this year too, Srinivasan pointed out. "This year there was strong cooling south of Sumatra (in the east Indian Ocean) but the western Indian Ocean did not show a large warming," Srinivasan said.

Data from the Australian Bureau of Meteorology show that since 1960, there have been only 10 strongly positive IOD events before this year. Summer monsoon rainfall was deficient on four of those occasions, more 100% on four others, and normal on the remaining two.

The fact that IOD could have played a role in bringing excess rains in August and September can not be ruled out, but the extent of its influence is something that still needs to be studied.

"The high rainfall in August and September this year was a record, and as of now, it would not be wrong to say that we do not understand the reasons for it," Srinivasan said.





## The Indian EXPRESS

FOUNDED BY

RAMNATH GOENKA

BECAUSE THE TRUTH INVOLVES US ALL

# Journey to a beginning

Opening of Kartarpur corridor will show us that it is possible to leave behind the past, walk to the future



AMARINDER SINGH

## A VISIT, A DIVERSION

Trip to Valley by members of EU Parliament renews questions about continuing restrictions on India's MPs and leaders

THE VISIT OF 27 members of the European Parliament to J&K, sponsored by a think tank in Delhi and blessed by the government, raises several questions. For a start, the government does not allow the same privilege to Indian parliamentarians and veteran political leaders, many of whom have been prevented from visiting the Valley ever since the August 5 decision to abrogate Kashmir's special status. Rahul Gandhi, MP, was turned back from Srinagar airport. Ghulam Nabi Azad, leader of the Opposition in the Rajya Sabha, who also belongs to J&K, was sent back from the Srinagar airport three times, and was finally permitted by the Supreme Court. CPI(M) leader Sitaram Yechury also went with the permission of the court, while Yashwant Sinha, a former finance minister of the country, was sent back from Srinagar airport. Another member of Parliament, and former chief minister, Farooq Abdullah, has been under house arrest in Kashmir since August 5.

What is also problematic is that these MEPs are not an official delegation. On this visit, they are not representing Europe or their own countries, or even their constituencies. They are in this delegation in their "personal capacity". What exactly, then, is their business in Kashmir? It can also be said with certainty that an official European parliamentary delegation would not have been comprised of a majority from the right wing political parties that now dot Europe, whose politics ranges from admiration for Nazism to anti-immigration to Islamophobia. When Prime Minister Narendra Modi welcomed them with the hope that their visit to J&K "should give the delegation a better understanding of the cultural and religious diversity of the region of Jammu, Kashmir and Ladakh", the only thing missing was a sense of irony.

If the idea was to impress upon the world that the government is not blocking foreign dignitaries from visiting Kashmir, as was pointed out at the US Congressional hearing, this delegation is not going to serve the purpose. As if to underline that, on the same day as the MEPs' visit, the United Nations expressed concern for the people of J&K, and asked India to restore their rights. Certificates from an apparently handpicked European delegation will do nothing to paper over the fact that the government first pushed through its decisions by imposing a communications blockade, and has then been slow to lift the curbs and restrictions on the people's right to free speech and freedom of association, or that it continues to detain a large number of political representatives in the Valley. The true test for the government's August 5 decision lies in how the people of Kashmir view it.

## NO STRESS RELIEF

On telecom, rather than being driven by short-term considerations, government must act to restore sector's health

EVENTS OF THE past week do not augur well for the long-term viability of the beleaguered telecom sector. On Thursday, the Supreme Court upheld the government's view that all revenue accruing to telcos, including from non-core activities, constitutes adjusted gross revenue (AGR). This is a blow to an industry struggling under a mountain of debt. By some estimates, telcos will now have to fork out around Rs 1.3 lakh crore, once spectrum usage charges linked to AGR are factored in, worsening their already precarious financial position. A day before this verdict, the Centre approved a revival package for public sector telcos BSNL and MTNL. By continuing to prop up these loss-making entities, at terms which can be construed as unfair to private operators, it may have ended up further distorting the market.

On the issue of what constitutes revenues, it is unfortunate the government chooses to continue with its line of argument, especially in light of the stress in the sector. The notion that income from non-core activities such as return on investments needs to be shared with the Centre is akin to killing the proverbial goose that lays the golden eggs. While a cash-strapped government may welcome this outcome — it could help offset some of the shortfall in its tax revenues — this additional levy will come at the expense of the health of an already strained sector. Highly indebted telcos will find it difficult to fulfill these obligations, especially with their profitability still under threat from the ongoing price wars. It will also have a bearing on their ability to take part in the 5G auctions. On the issue of reviving BSNL and MTNL, it is questionable whether these entities can compete effectively with the private sector. The assumptions that have been factored in the turnaround plans are optimistic to say the least. And while the logic of continuing with a sovereign-backed loss-making entity in a hyper competitive sector is itself questionable, an unequivocal backing by the sovereign, as this revival package suggests, could distort the market.

Rather than being guided by short-term revenue considerations, the government should consider the wider implications of these developments and take corrective measures for the sake of the sector. As there was ambiguity over what constitutes revenues, it should waive the interest and penalties it has levied on telcos. It should also drop its demand for license fees, reconsider the contribution to the universal service obligation fund, and rethink its stance on spectrum pricing.

## CHANGE THE CHANNEL

Pakistan's media regulator wants TV anchors to be unbiased. It might as well ask them to shut shop

THE HOPE THAT abides vis a vis the India-Pakistan relationship is based on a simple assumption, a cliché almost: There's more that unites us than divide us. Historically, of course, the northern parts of India and eastern parts of Pakistan were a cultural unit. But even in contemporary times, the parallels between the pillars of the state in the two countries — the government and the media — are remarkable. Earlier this week, reports confirmed that the Pakistan Electronic Media Regulatory Authority (Pemra) has barred television anchors from giving their "opinions" during talk shows and limited their role to "moderator". For those Indians not familiar with how TV anchors in Pakistan go about their business, suffice it to say that apart from the odd Urdu phrase, they are mostly a mirror image of their Indian counterparts. Pemra's directive bars anchors from appearing as "experts", and says they should not provide "personal opinion", "bias" or "judgements" on any issue. Pemra might as well outlaw prime time TV debates, as they are conducted in this part of the world.

There was a time when television actually provided news, and attempted to inform its viewers. But prime time is now, on both sides of the border, a space where anchors attempt to echo government views and stand up for an imagined idea of nationalism. The "debate" is set in a gladiatorial arena, or to be more accurate, it is like American professional wrestling — the outcome is decided, and the referee is in on it. In fact, on one memorable day on Indian TV, a popular party spokesperson donned the mantle of an anchor, pretending to reserve his "judgements", albeit quite poorly.

None of this, however, is by way of providing justification for Pemra's diktat. In Pakistan, as in India, the government seems to believe that it is best suited to interfere in matters that are none of its business. The fact is, most news channels do what they do because that's what they believe the audience wants. The best way to "regulate" a free press is for people to just change the channel.

MY CONNECT WITH Kartarpur Sahib goes back to my childhood. I still remember how the gurdwara, just about 235 km from my hometown of Patiala (that's less than the Chandigarh-Delhi distance), was always spoken of with great reverence in our family. Of course, that was majorly because of the historic importance of the site, where Sri Guru Nanak Dev ji died on September 22, 1539. But part of it was also because of the personal connection my family had with the gurdwara, whose present building was built in 1925 at a cost of Rs 1,35,600, donated by Maharaja Bhupindar Singh, the then ruler of Patiala and my grandfather, after the existing structure was ravaged by floods.

The desire to visit the revered gurdwara has always been strong within me. Today, just days before I see the cherished aspiration transform into enviable reality, I bow before the Great Guru for granting me this experience, and that too during his 550th Prakash Purb celebration.

I recall my personal meetings, in my previous term as chief minister, with former Pakistan President, General Pervez Musharraf, during which I had spoken extensively about the deep-rooted urge in every Sikh to visit the historic Kartarpur Sahib Gurdwara. Though he had responded positively to my request, which our former Prime Minister, Dr Manmohan Singh, had also subsequently pursued actively, things did not really move forward till November 2018, when the Government of India conveyed its decision to build the Kartarpur Sahib Corridor from Dera Baba Nanak in Gurdaspur district to the International Border (with Pakistan), in coordination with the Government of Punjab.

It was a momentous day for all of us here in Punjab, and we wasted no time in initiating the process of getting things in place for the construction of the corridor and the infrastructure around it. It took us less than two months to make the land required for the project available to the central government. The work on the corridor (4,190 km) was started on December 13, 2018. In addition, a Passenger Terminal Building

Integrated Check Post (ICP) is also being constructed at the International Border in an area of about 50 acres by the Land Port Authority of India (LPAI), which will become operational before the corridor opens for pilgrims.

Working closely with the Centre, my government, I am pleased to state, has ensured that the corridor is ready to be inaugurated by the prime minister on November 9, and to receive the first jatha of pilgrims to Sri Kartarpur Sahib on the same day. That, with the blessings of Wahe Guru, I will have the honour of being a member of this jatha gives me a deep sense of joy and satisfaction.

What makes this achievement truly remarkable is that both India and Pakistan stuck to their deadlines against all odds, in the face of many disturbing and disruptive developments in the last one year, to fulfill their ends of the bargain. This gives me, and I am sure it gives the people of both countries, a powerful sense of optimism about the future. However, the fructification of this optimism would depend, to a great extent, on how soon, and how effectively, Pakistan leverages the opportunity it has got in the shape of the Kartarpur Corridor. From where I see it, the corridor has the potential to stand out as a historic symbol of peace and hope of a better tomorrow for Indo-Pak relations.

The recent decision of the Union Ministry of Road Transport & Highways to name the stretch from the Indo/Pak Border-Dera Baba Nanak-Amritsar-Tarn Taran-Goindwal Sahib-Kapurthala Sultanpur Lodhi National Highway as "Sri Guru Nanak Dev Ji Marg" in the state of Punjab has further added to the aura of the corridor, which in many ways is a bridge of faith between India and Pakistan.

But the opening of the corridor next month will be just a small step forward on a long and difficult road, which our two nations can only traverse together if Islamabad gives up its negative posturing vis-a-vis India. As long as the Pakistan Army contin-

ues to support and sponsor cross-border terrorism, as long as our soldiers are killed by the men from across the border, and as long as the climate of mistrust and fear remains, there can be no real progress in easing the perpetual tension between our countries.

However, with my unwavering faith in the ideology of universal love and tolerance propagated by our revered first Guru, I am strongly of the view that the corridor will eventually pave the way for harmony between our two nations, whose people share common roots and a common aspiration for the future. It is my dream to see India and Pakistan connect with each other at an even deeper level, to walk beyond the 4.5 km of the Kartarpur Corridor and find new ways of burying the past, in my lifetime.

One small way of building on the trust that the corridor promises to nurture between the two countries is for Islamabad to waive the \$20 fee it has imposed on pilgrims visiting the revered gurdwara. A gesture like that would really prove that Pakistan respects the sentiments of India's people, and wants to strengthen people-to-people relations between the two nations.

The corridor, I believe, has shown us that it is more than possible to bridge the differences that have assumed unnaturally grave proportions in these seven decades. All that is needed is the will to do so. Let this corridor, then, become an icon of our collective future, and a beacon to show us the way to do it. Let it be the burial ground for hatred and mistrust, and for all those inimical forces that have obstructed peace between the two nations all these years. Terror and violence have no place in this Corridor of Peace — a truth that I am sure Islamabad realises, and hope it is ready to acknowledge.

What is needed now is the intent to bury the hatchet, which, in the given circumstances, is more the responsibility of Pakistan than of India. And now is the best time for the Imran Khan government to make the next move.

The writer is chief minister of Punjab



PARAMESWARAN IYER

## THE RUNNING AIR MARSHAL

PV Iyer, an unlikely soldier, continues to inspire

OCTOBER IS THE month Air Force Day is celebrated in India and this is also a good occasion to celebrate the birthday of an Air Force veteran — Air Marshal P V Iyer — who turned ninety today. Known as the Running Air Marshal in the Indian Air Force, having logged in about 1,20,000 kms in his over 50-year running career, he has turned running and fitness into a passion and inspired countless others, including his family, to make this a lifestyle. One person he could not inspire to undertake extreme running, however, was his son, the author of this piece.

In 1985, when I was general manager of the Uttar Pradesh Road Transport Corporation, based in Lucknow, my dad was planning to lead a contingent of about 200 Air Force and civilian runners on an Agra-Delhi 210 km ultra-marathon in just three days. I could, or at least was trying to, run buses in UP, and did my daily four-five km run, but definitely did not plan to embark on an ultramarathon with my father and his merry band of athletes. So, we amicably agreed that I would take one of my buses from Agra to Delhi while the Air Marshal and his team ran the distance. With night halts at Mathura, Palwal and Faridabad, they completed the run in style, being received by then Air Chief Marshal LaFontaine at Air Force Station Palam on Air Force Day, October 8, 1985. The gruelling run had a dropout rate of about 50 per cent, but the then 56-year-old

Air Marshal and his co-runners, finished in fine fettle, and celebrated with a "burra khana" lunch at Palam.

Young P V Iyer was always an unlikely candidate to join the military. Born in Kozhikode to a family of traditional temple priests, who had never done more exercise beyond throwing petals in the sacred fire while performing marriage rituals, he was destined to be an academic or a lawyer, like his father. He completed a Master's in mathematics from Presidency College, Madras, and was heading towards a teaching career, but fate willed otherwise — he got selected as a commissioned officer in the Indian Air Force. In 1952, he met Kalyani, a tennis star and veterinary doctor from Queen Mary's College, and after a short courtship, they got married.

The Air Marshal only accidentally got into fitness in 1976 when the Indian Air Force introduced a mandatory annual fitness test for its officers. He soon took to running, like a duck to water, and regularly ran 10-15 milers early morning from the Curzon Road Apartments near India Gate to Palam airport and back. Once, in the dark of an early Delhi winter morning, he collided with a buffalo on Janpath road. Luckily, the buffalo was more startled than my father and galloped away.

In between his running career, the then Air commodore Iyer took a little time off to

help his son prepare for the 1980 civil services exam. As the Commanding Officer of the Air Force station at Chakeri, Kanpur, he realised that his son, having never studied the subject before, was struggling a bit in preparing for the philosophy paper in the main exam. The Commanding Officer took a week's leave and prepared some notes on philosophy to assist the aspiring civil servant. One of the notes was on phenomenology, the philosophical study of the structures of experience and consciousness — something which did not make any sense to me. But my father had it figured out and his notes came in handy in my responses to the questions in the exam. I managed to get selected for the IAS.

Last year, again on Air Force Day, the Air Marshal was thrilled to meet the prime minister during the evening reception at the residence of the Air Chief in Delhi. In a face to face interaction, they discussed his Air Force career. Today is another important occasion: His 90th birthday. While all of us will sorely miss Kalyani, we will enjoy and celebrate the remarkable life and career of the Running Air Marshal, with the clear intention of having many more such celebrations in the years to come.

The writer is Secretary, Department of Drinking Water and Sanitation, Ministry of Jal Shakti. Views are personal



## OCTOBER 30, 1979, FORTY YEARS AGO

**CFD MINISTERS RESIGN**  
ALL THE EIGHT CFD ministers, seven of cabinet rank and one minister of state, have handed over their resignations to their party leader, H N Bahuguna. One of the CFD ministers said this had been done to assure Bahuguna that "all of us are with him and follow his direction whatever it may be." The CFD ministers are in the Banarasi Das ministry so long as Bahuguna desires and they will quit en bloc the moment he takes a decision on new power equations. According to CFD sources, Bahuguna is expected to announce his decision within the next 24 hours and possibly the CFD would be joining hands with the Congress (I).

**No CPM-CPI TIES**  
THE LEFT FRONT'S talks with the CPI for an electoral understanding for the ensuing Lok Sabha election have failed over seats distribution. At talks between leaders of the CPI and the front, the latter stuck to its offer of only two seats to the CPI whereas the CPI desired at least four seats, though it had earlier presented a list of seven seats. Soon thereafter, the front chairman, Promode Das Gupta, announced the list of candidates for all the 42 seats in West Bengal for the Lok Sabha. However, he said if the CPI accepted two seats before the front's election rally on November 4, the party would be welcomed into its fold.

**INDIA'S N-POLICY**  
THE DEFENCE MINISTER, C Subramaniam, virtually underscored Charan Singh's stand that India would have to reconsider its policy if Pakistan were to go nuclear. Singh had utilised his Independence Day speech to make his position known on the issue. Subramaniam was speaking on "India's defence strategy for the Eighties" at the National Defence College. The defence minister told senior officers who constituted his audience that India had already had a situation of asymmetry vis-a-vis China and if Pakistan were to develop a nuclear arsenal then a second situation of asymmetry to India's disadvantage would develop.



# In a plastic world

Use of single-use plastic needs to be minimised, but the larger problem also needs to be attended to



CITIES AT CROSSROADS

BY ISHER JUDGE AHLUWALIA AND ALMITRA PATEL

PRIME MINISTER NARENDRA Modi made a dramatic announcement on August 15, 2019, that India would eliminate single-use plastics by 2022. This generated a lot of speculation on whether a ban on single-use plastics was in the offing. Then came another statement on October 2, Gandhi Jayanti, by the PM that single-use plastics (SUPs) will be phased out by 2022, and officials indicated that states will play a major role in ensuring this happens.

SUPs refers to plastics which are used just once, as in disposable packaging and also in items such as plates, cutlery, straws etc. A FICCI study estimates that 43 per cent of India's plastics are used in packaging and much of it is single-use plastic. We also have completely unnecessary single-use plastic entering our homes in the form of covers for invitation cards, magazines, bread wrappers and advertisements.

Single-use plastic is only part of what is truly a massive challenge, and that is the management of all kinds of plastic waste. But it is good to begin with SUPs because its large and growing volume adds enormously to the total plastic waste. The growing volume is, to a great extent, because of rising e-commerce in India with people buying from companies like Amazon and Flipkart that use single-use plastic for disposable packaging. Both companies have made commitments to phase out their use of single-use plastic, but this is unlikely to happen anytime soon.

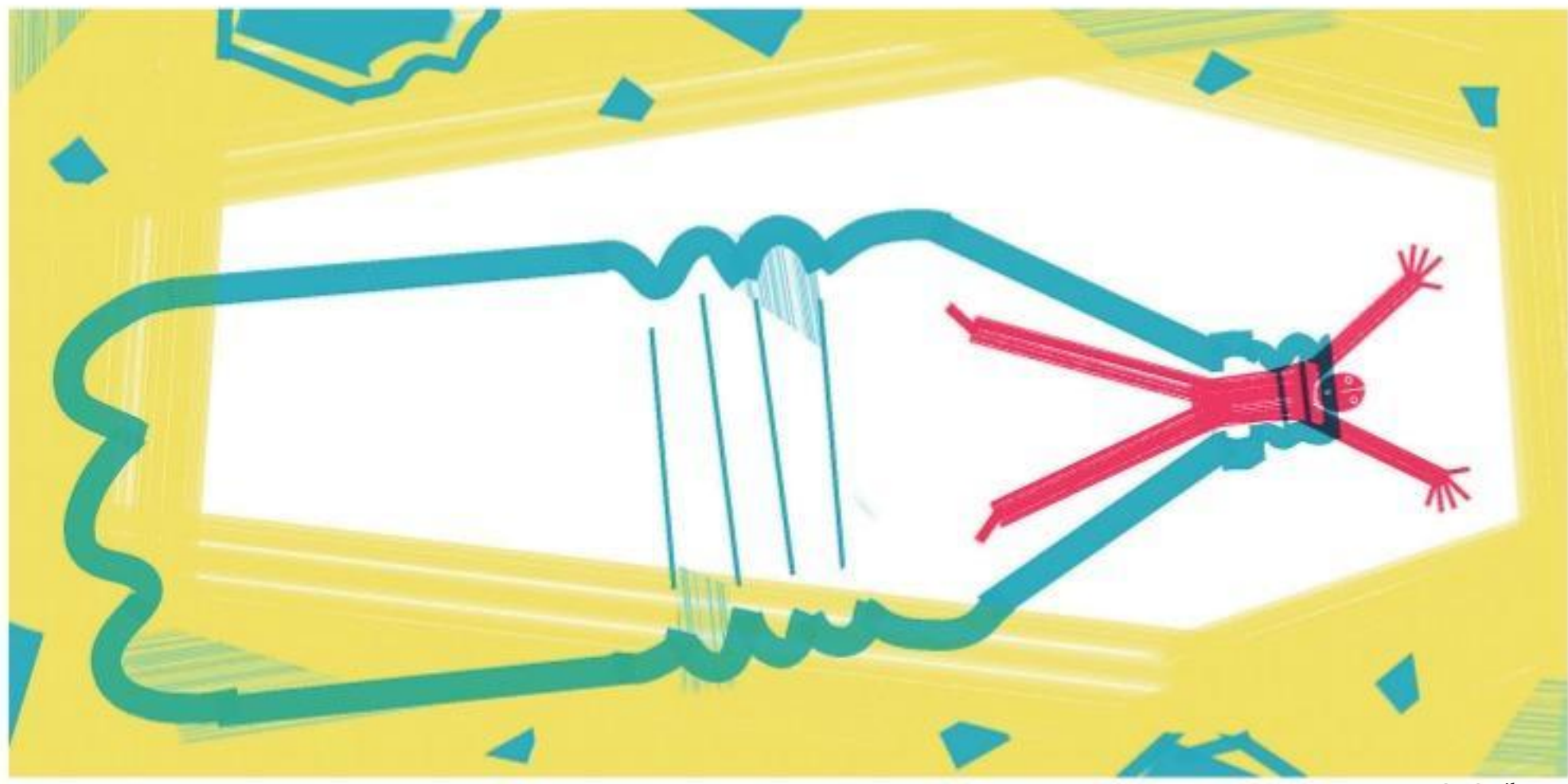
Ever since plastic was invented by John W Hyatt in 1869, it has been an integral part of our lives, contributing much to the convenience of modern living because of the flexibility, durability and lightness of this material. Plastics are used not only in airplanes, computers, cars, trucks and other vehicles, but also in our everyday-use items such as refrigerators, air-conditioners, furniture, and casings for electric wires, to name a few.

The problem is that plastic does not decompose naturally and sticks around in the environment for thousands of years. Safe disposal of plastic waste is, therefore, a huge challenge worldwide. For an excellent short introduction to plastics, one can see [sciencehistory.org/the-history-and-future-of-plastics](http://sciencehistory.org/the-history-and-future-of-plastics).

Close to 20 states in India have imposed a partial or total ban on single-use plastics at one time or another. Maharashtra, Tamil Nadu, Telangana and Himachal Pradesh opted for complete bans, while others including Madhya Pradesh, Bihar and Odisha have tried partial bans. The bans have, by and large, not been successful because of poor state capacity to enforce.

Plastic carry-bags pose a special problem. Although they are strong, lightweight and useful — and can be saved, cleaned and reused many times — this is mostly not done because they are available very cheap and are, therefore, not valued (often shops give plastic carry bags for free). They become, effectively, single-use plastics.

A compulsory charge by retail stores on carry-bags has proven most effective in reducing their use without a ban. In Ireland, a minor charge added to every bill saw a 95 per



CR Sasikumar

cent reduction in demand for such carry-bags, as most shoppers began bringing in their own reusable grocery-bags.

In India, the Plastics Waste Management Rules 2016 included a clause in Rule 15 which called for explicit pricing of carry-bags. This required vendors to register and pay an annual fee to the urban local bodies. But lobbying by the producers of plastics ensured that this clause was removed by an amendment in 2018 — and that was never put up for public debate, as is mandatory.

In India, plastic producers have been advocating thicker and thicker micron sizes for carry-bags. Also, when there is a ban on carry-bags, it leads to the use of non-woven polypropylene (PP) bags which feel like cloth and are now even being printed to look like cloth: These are actually more dangerous for the environment as their fine fibres rub off and enter global waters as micro-plastics.

Discarded plastic bags create the greatest problems in waste management. Blown by wind into drains, they cause flooding of urban areas. Used as waste-bin liners to dispose of daily food scraps, they find their way into the stomachs of roaming livestock because the animals ingest them to get at the food inside, which ultimately causes their death. All plastic waste is eventually carried by rain, streams and rivers into the oceans.

A Texas-sized great garbage patch of floating plastics swirling in the Pacific first attracted attention in the 1960s. A similar or even greater quantity of sunken plastic, especially discarded fishing gear, called ghost nets, blankets our ocean floors. Both floating and sunken plastics kill riverine and marine life.

We need to build awareness of the damage caused by SUPs and develop consumer consciousness to minimise their use. For example, at airports, we could replace meters of cling-film, used to wrap luggage, with a pretty cloth bag temporarily sealed by machine stitching that can later find alternative uses. In our parties, we could use paper plates and bamboo straws. In our pantries, we could use butter-paper, as in olden times, replacing the millions of bread wrappers needlessly used for a product with a shelf life of one to three days. We should also write to those sending us magazines or invitations or advertising in plastic sleeves to switch to tear-proof paper instead. Finally, plastic throw-aways at parties should be replaced with washable, reusable tableware.

SUPs can potentially be converted by thermo-mechanical recycling into plastic granules for blending into other plastic products, usually irrigation piping for agriculture.

But collection of post-consumer waste and recycling poses a major challenge. Especially when packaging comprises layers of different types of polymer. The multi-layer flexible packaging, which is used for chips and other snacks, cannot be made into granules because it contains layers of plastic with different melting points. The Plastic Waste Management Rules of 2016 require creators of such packaging waste to take it back at their cost or pay cities for its management under Extended Manufacturer Responsibility. But there is little compliance.

While it is true that India recycles much more than the industrialised countries through an informal network of waste collectors and segregators (a lot of this is downcycling), a study by FICCI points out that fast-growing consumption has brought us to a point where consumption has clearly outstripped India's current capacity to recycle plastics.

In a 2017 column (IE, October 25, 'Don't waste the possibilities'), we had pointed out how recycled plastic can be used to strengthen roads. Use of plastics more than doubles or triples road life — it has been approved by the Indian Road Congress and mandated by the National Highway Authority in November 2015 for upto 50 km around every city with a population of over 5,00,000. To date, over 14,000 km of so-called plastic roads have been built which are long-lasting and free of pot-holes. It is only corruption in road contracts that restricts their wider use, as longer-lasting roads means fewer contracts for building and rebuilding poor quality roads.

Another ingenious idea is to replace the use of thermocol with totally biodegradable pith from the shola/sola plant (*Aeschynomene aspera*) — this was used in huge quantities till the 1950s for making sola-toppes or pith helmets for colonials and their armies. Today, it is used in Bengali weddings and for Durga Puja decorations. Imagine the rural income generation from steady commercial use of this wild marsh-land reed.

We need many more such innovative ideas and a fundamental change in mindsets to minimise the use of single-use plastic. It is high time we also turn to the larger challenge of plastic waste management if we want to continue to avail of the many advantages offered by plastics in our modern lifestyle.

Ahluwalia is chairperson, Indian Council for Research on International Economic Relations (ICRIER), and Patel is member, Supreme Court committee on solid waste management

# His corner of the foreign field

As scholar, mentor and institution-builder, Stephen P Cohen laid the foundation for South Asian studies



KANTI BAJPAI

STEPHEN PHILIP Cohen, Emeritus Professor of History and Political Science at the University of Illinois, and Senior Fellow Emeritus of the Brookings Institution, died on Sunday. In his passing, South Asian security studies has lost a foundational scholar, teacher-mentor, and institution-builder. For nearly 50 years, from the publication of his classic on the Indian Army, he was an inescapable reference point.

South Asian studies covers a wide range of subjects: Anyone who has attended the eponymously-named annual conference in the American Midwest, which Steve supported from its inception in 1971, can testify to its breadth. In this "corner of a foreign field", to borrow Ramchandra Guha's cricket reference, Steve cultivated and curated South Asian security studies.

Amongst the first generation of South Asianists in the US, W Norman Brown and Richard L Park had written on Indian foreign policy. A bit later, Lloyd and Susanne Rudolph would publish on India's civil-military affairs and external relations. However, it was Steve who recognised the need for a long-term and systematic engagement with civil-military issues and national security, first with respect to India and later Pakistan. And from here, beginning in the 1970s, he built South Asian security studies.

How did he almost single-handedly do this?

First, Steve's scholarly writings framed and populated the incipient field. From 1971 to 2016, he wrote voluminously, deftly, and illuminatingly on South Asian armies, nuclear proliferation and arms control, India-Pakistan crises and the causes and possible resolution of the India-Pakistan conflict, India as an emerging power, the idea of Pakistan, India's military modernisation and the US and South Asian security.

At the core of Steve's concerns was the problem of violence, particularly organised violence — its causes, uses, limitations and management. One of his favourite studies was a little-known book he wrote on the Andhra cyclone of 1978, with his former student, CV Raghavulu. The subtitle of the book was "Individual and Institutional Responses to Mass Death". This was violence on a large scale but traceable to human neglect and ineptitude.

Second, when no one else saw fit to do so, Steve encouraged his doctoral students to specialise in South Asian security. When I arrived in Illinois in 1982, Sumit Ganguly was finishing his PhD on the causes of war in South Asia. I soon decided to study the emergence of regional cooperation in South Asia, nudged in this direction by Steve's urging me to think of the then-nascent SAARC in security terms.

Before Sumit and me, Shivaji Ganguly

had written a thesis on US policy towards South Asia. Following us, Kavita Khory, Amit Gupta, Chetan Kumar, Dinshaw Mistry, and Sunil Dasgupta, among others, would write on security-related subjects.

Steve also generously mentored students other than his own, who would blaze a trail in regional security studies including S Rashid Naim, Itty Abraham, Dhruva Jaishankar, Gaurav Kampani, Tanvi Madan, Constantino Xavier, and Moeed Yusuf. Scores of his "grand students" — his term for his students' students — can attest to his generosity as well.

Third, Steve built South Asian security studies institutionally. He was brilliant at attracting funding from US foundations — Ford, MacArthur, Rockefeller, Alton Jones. The funds were deployed for specific projects but also to make the Office of Arms Control, Disarmament, and International Security (ACDIS) at the University of Illinois into a centre for doctoral students, visiting fellows, and workshops and conferences.

Virtually anyone of note in South Asian security studies, scholar or scholar-practitioner, eventually found his or her way to ACDIS and later to the South Asia/India programme that Steve built at Brookings. Beyond ACDIS and the Brookings programme, in collaboration with South Asian colleagues, Steve helped establish the Regional Centre for Strategic Studies (RCSS) in Colombo, which has gone on to encourage the study of traditional and non-traditional security.

Steve inspired not just by being a driven scholar, mentor, and institution builder. He inspired by his many sterling human qualities that became apparent as you got to know him. For one, he was unfailingly respectful and had a deep affection for all South Asians. He rarely criticised colleagues and certainly not before students. I cannot remember his holding a grudge or being ill-tempered. All his students were his favourite and best students! And they all got household bits and pieces upon arriving so that they could quickly set up home. Steve was also boyishly in love with technology, especially Apple devices. Into his sixties, if memory serves, he was an avid tennis and basketball player.

Above all, Steve was a consummate American family man. It always seemed to me that he was happiest when he was with his lovely wife Bobby and around his children. In fact, he was relaxed and affable around other people's families as well: My children still recall a wonderful day out in Baltimore with Steve and Bobby.

I am sure Steve was stoical to the end. The last time I saw him was in 2013. I knew he had been seriously ill and had dealt with a number of painful injuries. We met for lunch. He was animated and solicitous, but as always, he would not be drawn on his health. He unsentimentally but warmly said goodbye. I hoped I would see him again, but I pulled my coat around me and didn't look back. I imagined him doing the same, and this brought a smile.

RIP Steve.

The writer is Wilmar Professor of Asian Studies, Lee Kuan Yew School of Public Policy, National University of Singapore

## LETTER TO THE EDITOR

### GANDHI'S ABSENCE

THIS REFERS TO the article 'Abandoning Gandhi' (IE, October 29). Gandhi's philosophy of non-violence won us our freedom. Of all the Mahatma's ideas, non-violence holds good in the present-day political field. The concept of ahimsa has a long history in Indian religious thought. In his autobiography, *The Story of My Experiments with Truth*, he was quoted as saying: "When I despair, I remember that all through history the way of truth and love has always won. There have been tyrants and murderers and for a time they seem invincible, but in the end, they always fall — think of it, always".

Sanjay Chopra, Mohali

### PDS CHALLENGE

THIS REFERS TO the article 'National dishonour', (IE, October 29). India's Public Distribution System (PDS) is at the heart of all our efforts to address challenges like hunger and malnutrition. It is the inability of the most vulnerable sections of society to access the PDS that contributes to food insecurity among a sizable section of the population. As per the Economic Survey of India, 2017, the country's annual average internal migration was close to nine million people. The exercise to ensure inter-state mobility of PDS benefits that could tackle the food security issues of the migrant workers needs to be expedited. Accountability at the local level is also imperative.

Sudip Kumar Dey, Kolkata

### LETTER OF THE WEEK AWARD

To encourage quality reader intervention, The Indian Express offers the Letter of the Week award. The letter adjudged the best for the week is published every Saturday. Letters may be e-mailed to [editpage@expressindia.com](mailto:editpage@expressindia.com) or sent to The Indian Express, B-1/B, Sector 10, Noida-UP 201301.

### NO MORE WAVES

THIS REFERS TO the editorial, 'Dented at the top' (IE, October 25). While the BJP-led National Democratic Alliance has swept the elections in both Haryana and Maharashtra, it has a reduced majority and also requires the support of some Independents. The BJP can no longer rely on just the Narendra Modi factor to ensure that it has a commanding victory in each poll. The promises of a five-trillion dollar economy, and of making India a very strong nation in the future, must be kept by the government. Development must be undertaken in the different sectors as promised. If it does not deliver on these, it may well lose.

Sauro Dasgupta, Kolkata

# A certificate for the owner

We need a timebound mechanism to transition to a clearer land titling system



BORNALI BHANDARI AND PAWAN KADYAN

THE INDIAN macroeconomic slowdown is perceived as being structural in nature. One of the key suggestions being made is that India needs to carry out factor market reforms, including those of land markets.

In this article, we make a specific policy recommendation about land titling reforms. This lies at the heart of the quagmire that has stalled the progress of land reforms in India.

The Indian land titling system is currently based on presumptive titles. It is well-recognised now that we need to move towards conclusive titles. Conclusive titling works on three underlying principles of Torrens land title registration system — mirror, curtain and insurance. In short, the map/survey should mirror the true picture of the land including its ownership, extent and value; the land record should automatically mutate after registration to curtain the past and depict the correct title holder's name thereby obviating any requirement of producing complicated documents to prove ownership; and lastly, the title holder would be insured against any loss on account of any defect in the records.

To move towards conclusive titling, reforms are required at two levels — the legal framework and government process reengineering. The efforts towards conclusive titling began in 2008 with the National Land

Records Modernisation Programme (DILRMP). Over the last decade, DILRMP has been fairly successful in its objective of computerisation of land and registration records.

The central government had proposed a Model Land Titling Bill, 2011. However, that has not yet been taken up by most states. Only two states, Rajasthan and Maharashtra, have made some progress. Along with states, the Centre also needs to enact law/amend the Registration Act 1908, one of the central laws governing land.

Despite all efforts, progress towards a legal framework for conclusive titling has been limited. Therefore, we are proposing an alternate model. Instead of moving from one titling system to another directly, India may take an intermediate step of enacting a law for Certificate of Possessory Title (CoPT). It would essentially mean issuance of a CoPT to the owner upon registration of a possessory estate and after a few years thereafter, the land would become eligible to enter the conclusive land titling system. We recommend a period of five years in this regard. To add further flexibility in operationalising CoPT, along with the law around CoPT, state governments may also consider passing state specific "stamp acts", like has already been done by in some states. Also, registration of

land needs to be made time bound.

This proposal has clear advantages. One, it would continue to indicate the vision to move towards conclusive titling and such clarity would quash any misapprehensions. As people register their land records under CoPT, they would get five years and at the end, if there have not been any competing claims on the land, this could be converted into a conclusive land title. Two, it would help formalise the on-ground reality where sometimes possession is used as a criterion to decide presumptive titles in India. Three, this would also automatically clear the pendency of civil suits in many cases.

Also, the DILRMP needs to be revamped and as part of DILRMP 2.0, we recommend that the Centre undertakes a drone and satellite imagery-based GIS tagged fresh survey of the entire territory of India. The existing cadastral survey maps could be geo-referenced in this exercise to harmonise data between the current and the proposed system. Together, these would create new survey maps of the land records system that would govern land administration.

The operations of land administration also may adopt the state-wide enterprise architecture approach and all institutional operators such as the departments of regis-

tration, land and surveys, urban and municipal affairs may use the same architecture and an integrated land database for smooth operations. Andhra Pradesh has already taken a lead in this regard. This may be adopted by others. Further, unique land parcel IDs having inbuilt identifiers of type of land and location may be issued for all parcels of land. This has already been done in Uttar Pradesh.

The computerised land and registration records of the past decades, which have been created as part of DILRMP may be used to establish a clear chain of presumptive title holders for all parcels of land. The unique IDs may also be mapped with the current title holders. This would assist in the issuance of CoPT later.

To move towards automatic mutation of land, the registration and land departments could develop integrated business process flows with systems-based smart contract-like checks for automatic mutation. In sum, if states enact CoPT and the Centre introduces DILRMP 2.0 and makes necessary amendments to the Registration Act, it will unlock land's true potential, paving the way for a new paradigm.

Bhandari is senior fellow at NCAER, Kadyan is an IAS officer. Views are personal