# Current Affairs, 9th to 15th February, 2020

## International

### CIA Spied Through Swiss Encryption Firm

- The Central Intelligence Agency (CIA) read the encrypted messages of several countries, including India, for decades through its secretly-owned Switzerland-based company trusted by governments all over the world to keep the communications of their spies, soldiers and diplomats secret, according to a leading American daily. According to a report by The Washington Post and German public broadcaster ZDF published, the company, Crypto AG, entered into a deal with America's CIA in 1951 and came under its ownership in the 1970s. The joint reporting project, which uncovered the secret operation from CIA classified documents, described how the U.S. and its allies exploited other nations' gullibility for years, taking their money and stealing their secrets. The company specialised in communications and information security and was founded in the 1940s as an independent firm. The CIA and the National Security Agency (NSA) spied on allies and adversaries alike through Crypto AG specialising in making cryptography equipment, the report said. For more than half a century, governments all over the world trusted the Swiss firm to keep the communications of their spies, soldiers and diplomats secret, the Post said. The company had clients such as Iran, military juntas in Latin America, India, Pakistan and even the Vatican, it said. There was no immediate official reaction from New Delhi. However, none of its customers ever knew that the Swiss firm was secretly owned by the CIA in a highly classified partnership with West German intelligence. These spy agencies rigged the company's devices so they could easily break the codes that countries used to send encrypted messages, according to the report. "It was the intelligence coup of the century. Foreign governments were paying good money to the U.S. and West Germany for the privilege of having their most secret communications read by at least two (and possibly as many as five or six) foreign countries," the CIA report reads, according to the Post.

### Trump's March and The Sanders Factor (Sankaran Krishna - Teacher of Politics at The University of Hawaii At Manoa In Honolulu, U.S.)

- For approximately half the U.S. electorate, a nightmare that began with the unlikely election of Donald Trump to the presidency, is beginning to look as if it may continue into a second term. The U.S. President's current approval rating (at 49%, in one poll) is the highest it has been since the day he took office. Initial hopes that his evident venality and incompetence may lead to an early termination of his presidency have gradually given way to a shocked realisation that no matter what he does, says, or tweets, there is no diminution in his support among those who voted for him in the 2016 election or in the Republican party. Indeed, as the abortive attempt to impeach him underlined, his command over the party is stronger than ever today.

## Nothing Stuns

The eruption of each outrageous scandal followed by Mr. Trump's brazen strategy of a scorched-earth counterattack has led the U.S. to a point where it is now impossible to conceive of any scenario that could lead his supporters to rethink their allegiance. A seemingly hyperbolic comment made by Mr. Trump way back in January 2016, when he was a complete outsider among the aspirants for the Republican nomination ("I could stand in the middle of Fifth Avenue and shoot somebody and I wouldn't lose any voters") is reality today. This presidency and the scandals of the last three years, on both domestic and foreign policy fronts, have given new meaning to the term "American exceptionalism". Where it once stood for the idea, at least among the patriotic faithful, that the United States was a beacon for democracy and human rights, a land of opportunity for all comers, and unvested in the social hierarchies of Europe, today it signifies a country that elected, and may re-elect, a bigoted, climate-change-denying carnival barker incapable of distinguishing public office from private pelf.

## Sanders and The Democrats

If Mr. Trump and his supporters present a united bloc impervious to self-doubt, the opposite is true of the Democrats. A crowded field of contenders caught in a seemingly endless series of primaries and caucuses with arcane rules has meant no candidate has really pulled clear of the pack. More importantly, Democrats are deeply divided in terms of a strategy to defeat Mr. Trump. One of the front runners, Bernie Sanders, is running on an explicitly socialist platform that clearly energises racial minorities, youth, poorer sections of society, women, and liberals looking for an alternative to a two-party system bereft of ideas in the face of global warming, endless war, and unprecedented polarisation of wealth. Yet, socialism or anything vaguely associated with the term has long been anathema for many in the U.S. Mr. Sanders's ideas on socialised medical care, free college education for everyone, and a more progressive tax structure evoke incredulity. Similar incredulity, however, is never expressed about the irrationality of a trillion-dollar defence budget year after year; nor is there much recognition that in other industrialised democracies, variants on "socialized" medicine vastly outperform the U.S., or that college education is highly subsidised and incomparably cheaper in such countries. The mainstream media's conviction that the candidacy of Mr. Sanders will ensure Mr. Trump's victory — one evidently shared by many in the Democratic Party leadership — is perplexing. He is the one candidate who seems to genuinely energise those groups that were central to Obama's victories in 2008 and 2012: racial minorities, youth, and first-time voters. The self-confident pundits who prematurely dismiss Mr. Sanders prospects may do well to remember that even as late as the evening of November 9, 2016, as the first results were coming in, none of them gave Donald Trump any chance of defeating Hillary Clinton.

## Carceral State

In a form of slow violence that has escaped the attention of many both domestically and abroad, the U.S., with just 5% of the world's population is now home to about 25% of the world's prison population (2015 data), the overwhelming majority of whom are black or brown minorities. A criminal justice system thoroughly vitiated by racism has interacted with a prison-industrial complex to produce a situation in which a young black man has a higher chance of ending up in prison than he does in college. In deindustrialising States across much

of the U.S., one of the few growth industries is prisons staffed by poor whites guarding poorer blacks and Hispanics. Recent scholarship and quality investigative journalism have established beyond doubt that the emergence of the carceral state in the alleged "land of the free" was a bipartisan effort. Since the early 1980s, first Republicans and then Democrats competed fiercely to be seen as the party of "law and order", of being "tough on crime", and backing the relentless pursuit of the "war on drugs" — all euphemisms for appealing to the worst instincts, fears, and racism of whites seen as key to winning elections. At least three important remaining Democratic aspirants are tainted by their role in the creation and maintenance of this carceral state: Joe Biden, Mike Bloomberg and Pete Buttigieg. Meanwhile conservative whites susceptible to such dog-whistle politics may well stay with Mr. Trump and his unapologetically white supremacist views: why opt for the ersatz when you already have the real thing? (Mr. Trump's faithful often cite the fact that he "says it like it is" as their reason for supporting him.) Besides Mr. Sanders, at this moment the other seemingly strong and viable candidate in terms of appealing to the constituencies that could help the Democrats defeat Mr. Trump is Sen. Elizabeth Warren. Her impressive track record as economic manager (she was part of the committee that oversaw the post-2008 financial crisis recovery programme, and pushed for greater regulations over banking and finance, and for consumer protection) and the calm competence she radiates on matters of public policy could be an ideal complement to Mr. Sanders.

### Trump's Cards

Besides the advantages of incumbency, Mr. Trump has a huge re-election war chest, the largest in U.S. history as a matter of fact; Republicans (like right-wing parties all across the world) have a pronounced advantage over Democrats in manipulating social media in their favour and against opponents; and polls indicate that as much as 63% of the electorate approves of the way Mr. Trump is handling the economy. Those are dispiriting facts. Yet, if the long and unpredictable primary season ends with Mr. Sanders and Ms. Warren (or Ms. Warren and Mr. Sanders) as the Democratic ticket, they are likely to bring energy, the newest voters, and alienated minorities into the Democratic fold in a way that none of the other candidates is likely to do. All that may not be enough to unseat the current occupant — but at this point in time, it would appear to be the Democrats' best bet.

## Ireland Elections

- Ireland's general elections have thrown up many paradoxes, offering few clues about the next government, or the future of the country's three largest parties. Fianna Fáil, which has been out of power since 2011, has topped the tally. However, its 38 seats leaves it far short of the requisite 80 for a clear majority in the 160-strong Irish Parliament. Sinn Féin, the country's Republican party has, perhaps with good reason, proclaimed itself the real winner: 37 seats, up 14 over the 2016 polls, and its best result. Yet, such a performance does not guarantee the party, with past links to the IRA, an automatic path to government in the current electoral arithmetic, notwithstanding the protestations of its leader, Mary Lou McDonald. The obverse is the position of the governing centre-right Fine Gael of Prime Minister Leo Varadkar, now relegated to third place with 35 seats, down 15 from the previous election. To be sure, Mr. Varadkar earned international recognition for steering Dublin's negotiations with London to protect the soft border with Belfast, and in turn the peace on either side of the island's political divide. The country is also forecast to emerge among the

fastest growing economies in the European Union in 2020. But this putative achievement may only have brought into sharp focus voter disenchantment with Fine Gael's domestic record. Ireland has experienced severe shortfalls in affordable housing and health-care delivery, potentially rendering the party's return to government politically more delicate. All the same, it would be premature to rule it out of contention for power in any coalition. Sinn Féin is said to have benefited from the prevailing discontent. In the run-up to the polls, both Fine Gael and Fianna Fáil had ruled out an alliance with the left-wing Sinn Féin. But Micheál Martin, Fianna Fáil leader, has not dismissed working with Ms. McDonald even while emphasising differences over taxation policy and her party's IRA past. She is believed to have sent out feelers to Labour, the Greens and independents to explore forming a coalition. Sinn Féin has in any case already set out its priorities, to work for the country's unification with Northern Ireland. This stance will boost nationalist sentiment across the border, where Sinn Féin has consistently opposed Brexit. Under Britain's EU withdrawal deal, Belfast is de facto member of the bloc's single market. Sinn Féin's participation in a new government would almost inevitably alter Ireland's political configuration. But going by the 70-day stalemate in 2016, negotiations among the main parties could prove protracted. As deliberations commence, the traditional two parties must note that it is a democratic imperative now to engage Sinn Féin with an open mind.

## In IS Recruit Shamima, a Test Case for West

- A woman who has been stripped of British citizenship after having run off in her teens to join the Islamic State in Syria — a story that made international headlines after she resurfaced last year — lost a legal challenge in a British tribunal. A look at the back story of Shamima Begum, whose case has thrown into focus the larger questions about how Western societies will deal with others who joined IS, but who want to return to their home countries now that the terror group has collapsed.

### The Flight to Syria

Shamima, now 20, was just 15 when she and two other London schoolgirls travelled to Syria in 2015. Shamima was discovered in a camp by The Times journalist Anthony Loyd in 2019. Media reports last year said the three girls had initially travelled to Turkey before being smuggled across the Syria border. Three weeks after arriving in Syria, Shamima married an IS fighter called Yago Riedijk, who grew up the Netherlands, and who is since said to have surrendered. Shamima and Riedijk lived in the city of Raqqa, an IS stronghold that collapsed in 2017, and later relocated to Baghuz in eastern Syria. The couple had three children, all of whom have died. When Shamima was found last year, she was pregnant with her third child.

### The Resurfacing

Loyd found Shamima at a refugee camp in Syria last year. She told reporters that she wanted to return home, but came under much criticism in Britain because she apparently felt no remorse for her actions. Even her family in London expressed shock at her lack of repentance. Former Home Secretary Sajid Javid revoked her citizenship. She challenged the decision before the Special Immigration Appeals Commission. This was the first stage of her appeal, which she lost.

### The Statelessness Question

The United Kingdom is a signatory to the 1954 Convention Relating to the Status of Stateless Persons, which seeks to address statelessness, as well as the 1961 Convention on the Reduction of Statelessness under the UN refugee win UNHCR. In 2014, UNHCR launched the Campaign to End Statelessness in 10 Years. In the tribunal, Shamima argued that she is not a citizen of another country and that the decision to strip her of citizenship had left her stateless. The tribunal ruled that she was "a citizen of Bangladesh by descent", and therefore not rendered stateless. Bangladesh's Ministry of Foreign Affairs, however, is reported to have said last year that Shamima was not a Bangladeshi citizen and there was "no question" of her being allowed into the country. Shamima family has long argued that she has never had a Bangladeshi passport.

## Malawi At the Crossroads

- The annulment of last May's presidential elections by Malawi's constitutional court could have far-reaching consequences for the continent's democratic process, often marred by controversy over the political longevity of several leaders. Lilongwe's unanimous verdict has imposed a return to the status quo prior to the polls and a re-run of the vote within 150 days. The decision also means that President Peter Mutharika's former vice-president Saulos Chilima is to be reinstated in that position. Mr. Chilima finished a distant third in the May contest, heading the United Transformation Movement. The sensational ruling in the southern African state comes less than three years since the top court in Nairobi invalidated the re-election of President Uhuru Kenyatta and ordered a repoll within 60 days.

### Many Irregularities

Mr. Mutharika's Democratic Progressive Party (DPP) has been found complicit in widespread and systematic irregularities, which the Justices have opined compromised the integrity of the polls. Directly implicating the electoral commission, they noted that three-fourths of the tally sheets were not audited and correction fluid had been used extensively to tinker with the ballot, dubbed the Tipp-Ex election. Curiously, results were declared last May despite more than a hundred complaints of poll fraud registered with the Malawian electoral commission. The legal reversal is equally an embarrassment for international poll monitors who gave a clean chit to the authorities. The court's other recommendation that parliament replace the electoral commission also has a ring of familiarity with the Kenyan situation following the 2017 polls. On that occasion, the opposition boycotted the October re-run, objecting to the absence of meaningful reforms to the electoral body that left President Kenyata's ruling party to claim victory without a serious challenge. The Lilongwe court was evidently troubled by the meagre proportion of the vote secured by Mr. Mutharika. Under the current first-past-the-post system, Mr. Mutharika was declared winner, with just over 38%

of the vote, against 35% for his rival Lazarus Chakwera of the Malawi Congress Party. The court has therefore proposed a radical reform, requiring the nation's president to be elected in a runoff, if the winning candidate fails to garner more than 50% of the popular vote in the first instance. Such an alteration could potentially render Malawi's multi-party system far more credible and genuinely competitive. The President's narrow margin of victory in a multi-cornered race, as well as the ruling party's poor showing in the National Assembly, winning just 63 out of the 193 seats, encouraged Mr. Chakwera and Mr. Chilima to challenge the results. Mr. Mutharika's 2014 first term election was similarly disputed by his predecessor Joyce Banda, but eventually resolved in his favour. The 79-year-old President's second-term bid last year was also resisted by sections within the DPP, including the widow of former President Bingu wa Mutharika, the incumbent's brother.

### A Crucial Test

The recent legal setback is therefore likely to invigorate the President's detractors. Meanwhile, Mr. Mutharika, a former professor of law, has said that he will appeal the verdict, describing it as "a serious miscarriage of justice". The judgment also seems to have prompted calls for the courts to revisit the results of the National Assembly polls. The coming few weeks will thus prove to be a crucial test of judicial independence and legislative authority over the political executive in Malawi. In the tense atmosphere following the historic 2017 verdict, an official in Kenya's electoral body fled the country, expressing doubts about a free and fair poll. Malawians would be wise to exercise caution and restraint in the circumstances. It is easy to exaggerate the importance of the recent legal landmark, given the widespread prevalence of one-party dominance in Africa. But the Nairobi and Lilongwe rulings inspire optimism about the continent's democratic future.

# Foreign Affairs

## Indo – US Relation

- When he visits India for the first time later this month, U.S. President Donald Trump can expect thronging crowds in Gujarat and perhaps a substantive discussion on trade policy in New Delhi, but more than anything, it is his growing bonhomie with Prime Minister Narendra Modi that is expected to steal the limelight. Indeed, this chemistry was evident during the four times that they met in 2019. The pinnacle of those encounters for Mr. Modi was undoubtedly the public relations victory that he won when Mr. Trump graced the 'Howdy Modi!' event in Houston before some 50,000 Indian-Americans. Now Mr. Modi is returning the favour perhaps, as he has, in Mr. Trump's words, promised an attendance of five to seven million, from the airport to the new Sardar Vallabhbhai Patel cricket stadium, the world's largest; here, they will address the " Kem chho Trump!" event before an expected 1.25 lakh people. While there will always be areas of untapped potential in bilateral cooperation, things could hardly be better between the two nations at this time of global turbulence, in trade and security. On the former issue, despite skirmishes surrounding tariffs in specific sectors, such as medical devices, and counter-tariffs following the U.S.'s termination of its Generalised System of Preferences toward India last year, there is hope for at least a limited trade deal — pegged at $10-billion — that could take a measure of stress out of the protracted closed-door negotiations. Prospects look brighter still on defence cooperation. India is reportedly

moving toward approving a $2.6-billion deal for 24 Lockheed Martin-built MH-60 Seahawk helicopters. An agreement to buy a $1.867-billion integrated air defence weapons system is also on the cards. Notwithstanding this slew of positive, if incremental, cooperative advances, it is the deeper fault lines across the two countries' domestic polities that could, in the longer-term, impact the prospects for smooth cooperation in the bilateral space. For instance, the Indian government's recent policy shifts regarding special status for Kashmir as well as the Citizenship (Amendment) Act, the National Register of Citizens and the National Population Register have spooked some U.S. Democrats, including Senators and lawmakers in the House of Representatives. Some have explicitly voiced concerns about the impact in terms of India's commitment to remaining a tolerant, pluralist democracy. In this context, if the November 2020 presidential election puts a Democrat in the White House, it could potentially impact some of India's plans. Even if Mr. Trump wins a second term, deepening Congressional opposition to India-friendly White House policies could endanger bilateral prospects. In this sense, there are limits to how much India can peg its strategic plans on the personal chemistry between its leader and the U.S. President.

## FATF

➔ The Pakistani government, which for years tried to protect Hafiz Saeed, the alleged mastermind of the 2008 Mumbai attacks, finally got a conviction and a jail term for the cleric in two terror financing cases. The Jamaat-ud-Dawa chief and his close aide Malik Zafar Iqbal have been sentenced to five-and-a-half years by an anti-terrorism court, vindicating India's years-long position that Saeed had been using his organisations to finance terrorist activities. While the conviction is a welcome step, Pakistan has to do more if it wants the international community to take its self-declared resolve to fight terror seriously. This is because Pakistan's actions in the past against terrorist outfits have hardly been convincing. It started cracking down on Saeed's groups in 2018 only after it was threatened to be put on the "grey list" of the Financial Action Task Force (FATF), an inter-governmental body fighting money laundering and terror financing. The government endorsed the UN ban on these organisations in February 2018, just a few days ahead of an FATF meeting. Despite these actions, Pakistan was placed on the grey list. Unsurprisingly, the conviction of Saeed and Iqbal comes a few days ahead of another crucial FATF meeting. In the 2019 October meeting, the organisation had warned Islamabad to take "extra measures" for the "complete" elimination of terror financing and money laundering. And if the FATF is not satisfied with Pakistan's actions, the country faces the risk of being downgraded to the "black list", which could bring tough sanctions on its financial system. So, Pakistan is evidently under international pressure. The question is whether its actions are half-hearted steps aimed at avoiding the wrath of the international community or part of a genuine drive against terror. One can't blame if India, Afghanistan or any other country doubts Pakistan's intentions, given that Islamabad had avoided taking action against Saeed and his groups for years. Saeed was put under house arrest several times, only to be released once the international attention turned away. The fundamental problem is Pakistan's policy of exporting terrorism to its neighbours for geopolitical leverage. Historically, Pakistan has adopted a dual policy towards terrorism — fight it at home but export it through proxies to its neighbours. Unless it changes this policy and joins the regional drive against terrorism, peace and stability would elude the region. This remains a critical issue in Indo-Pak ties as well. So, the international community shouldn't let up its pressure on Pakistan. Islamabad should be asked to take, not

just legal action against terror financing, but also hard measures against terror groups and infrastructure.

## Nation

### The Calumny Against Gandhi (Mohammed Ayoob - University Distinguished Professor Emeritus of International Relations, Michigan State University)

- Of late, there has been a flurry of statements directly or indirectly denigrating Mahatma Gandhi. Pragya Thakur's praise for Nathuram Godse as a 'patriot' stands out, because she is a high-profile Member of Parliament elected on the ruling party's ticket. According to reports, there has been a demand, attributed to the Hindu Mahasabha, that Meerut in Uttar Pradesh be renamed 'Godse Nagar'. Several statues of Godse have been erected, beginning with the one installed at the Hindu Mahasabha office in Meerut on Mahatma Gandhi's birthday on October 2, 2016. It was reported that on the anniversary of the Mahatma's assassination on January 30 this year, members of the Mahasabha garlanded Godse's statue. The most recent incident of calumny against the Mahatma was former Union Minister and current BJP MP Anant Kumar Hegde's statement on February 1 claiming that the freedom movement led by Gandhi was a "drama" that was "staged with the consent and support of the British". He went on to say that it is not that "India got independence because of the fast unto death and satyagraha... Britishers gave independence out of frustration. My blood boils when I read history. Such people become Mahatma in our country." Despite Mr. Hegde's attempt to wriggle out of the controversy caused by his statement, it cannot be denied that his remarks were an attempt to bring Gandhi and his unparalleled contribution to the freedom movement into disrepute.

#### Disagreements with Ambedkar

No political leader, not even the tallest among them, should be immune from criticism. This applies to Gandhi as well. His ideas and actions were open to legitimate criticism even during his lifetime. For example, B.R. Ambedkar criticised Gandhi for letting down Dalits by going on a fast unto death against the separate electorate granted to them in 1932. This led to Ambedkar dropping his demand in exchange for greater representation for Dalits elected by the general Hindu electorate. Ambedkar later came to regret the decision. Similarly, Subhas Chandra Bose was critical of Gandhi's reliance solely on non-violence to gain India's independence and the Mahatma's aversion to industrialisation. Nonetheless, the two respected, even admired, each other. In 1942, after Bose had formed the Indian National Army and despite Gandhi's aversion to violence, he called Bose a "patriot of patriots". Bose referred to Gandhi as the "father of the nation" in a broadcast from Rangoon in 1944. Gandhi's economic ideas were criticised by the left because of his theory of trusteeship by which the wealthy would hold India's wealth in trust for the people. The socialist and communist left argued that this theory was anti-poor because it justified the concentration of wealth among landlords, feudal princes and capitalists. Those, including Jawaharlal Nehru, committed to making India a strong modern state and an industrialised nation, were critical

of Gandhi's aversion to industrialisation and his belief that self-governing villages should constitute the basis of Indian polity.

### Fabrication

These criticisms were based on genuine differences of opinion. Calumny is a different matter, especially since it is based on falsehood. The prime example of such fabrication is that Gandhi was responsible for Partition when the truth is absolutely the opposite. Gandhi remained a firm opponent of Partition until the very end. The Congress Working Committee accepted the Partition plan, knowing that this was the case. This is the main reason why Gandhi disassociated himself from the celebrations accompanying Indian Independence and left Delhi for Bengal to heal the wounds of communal riots. Unfortunately, slander has now become a fine art in India and electronic and social media have become the principal conduits for its propagation.

## Liberty at The Government's Whim (Suhrith Parthasarathy Is an Advocate Practising at The Madras High Court)

- Fundamental rights, we have been repeatedly been told, do not exist in silos. The values inherent in the rights to equality, freedom of expression and association, and to life and personal liberty are deeply intertwined, with each right deriving meaning from the other. Under this conception, our right to be treated with equal concern demands that we are allowed to speak freely, that our movement is unrestrained, and that any limitation placed on our personal liberty is founded on laws that are just, fair, and reasonable. But, despite the theoretical affirmation of this idea, judicial practice is permeated by cases where some laws are seen as special, as untouched by the rigours of due process. Prime among them, as a recent judgment of the Jammu and Kashmir High Court in Mian Abdul Qayoom v. State of J&K shows us, are laws providing for preventive detention — in this case, the Jammu and Kashmir Public Safety Act of 1978 [PSA].

### The Background

The petitioner before the court was the 76-year-old Mian Abdul Qayoom, who is the president of the High Court's Bar Association at Srinagar. He was arrested originally in the lead-up to the Union government's decision on Article 370 of the Constitution and has since been detained for more than six months in a jail at Agra, with a view, the government says, to "preventing him from acting in any manner prejudicial to the maintenance of public order". Mr. Qayoom submitted in court that the grounds for his detention were not only indistinct and arbitrary but that the government's order invoked a brace of first information reports lodged way back in 2008 and 2010, for which he had already faced detention. According to him, the order also made vague references to his purported advocacy of secessionist ideology, without, in fact, specifying clearly whether there was at all any criminal charges placed against him. What is more, the detention, he submitted, did not take into account his rapidly deteriorating health: according to his family, as a report in the Hindustan Times states, Mr. Qayoom not only ails from diabetes and heart problems — with a doctor having advised an open heart surgery just before his detention — but he is also surviving on only one kidney. The High Court, in its judgment, opened with the now customary panegyric on freedom. The right to personal liberty, wrote Justice Tashi Rabstan, is a "most precious right".

It has been held, he added, to be "transcendental, inalienable and available to a person independent of the Constitution". And the right is not to be denied "except in accordance with procedures established under law" and that procedure, as held in Maneka Gandhi v. Union of India, had to be "just and fair".

## A 'Standalone' Law

A person unacquainted with the workings of our judiciary would hardly be mistaken in thinking that the court, having appealed to the powers of liberty, would then render its findings on whether the detention in question was justified as a matter of both law and fact. But the court here, in what has become an increasingly familiar routine, did no such thing. It instead held that preventive detention laws stand alone, that they are compelled by a "primordial" requirement to maintain order in society. In their absence, the court said, the right to personal liberty would lose all its meaning. And the need for such laws, the judgment added, is so intensely felt that the political executive ought to enjoy complete immunity in deciding when to invoke these powers. "The Court cannot substitute its own satisfaction for that of the authority concerned and decide whether its satisfaction was reasonable or proper," wrote Justice Rabstan, "or whether in the circumstances of the matter, the person concerned should have been detained or not." All that judges could do, he said, was to see whether the stated grounds — regardless of whether they are, in fact, credible or not — bear some nexus with the objective of the law.

## Guarantees Reduced to A Trifle

Effectively, therefore, the judgment places liberty at the pleasure of government. It reduces the Constitution's core guarantees to a trifle. Yet, extraordinary as the verdict appears, a study of the history of the law of preventive detention in India, especially as applied in the State of J&K, would show us that we ought to have little to be surprised about. The ruling, in recognising boundless executive pre-eminence, only gives effect to a long-standing jurisprudence. In the litany of precedents that the judgment has cited, pride of place is occupied by India's first big constitutional case, A.K. Gopalan v. State of Madras. There, the Supreme Court of India found that Article 21, which guarantees a right to life and personal liberty, does not require the state to follow due process. It was therefore, in the court's belief, that Article 22 had been incorporated, stipulating a set of procedural parameters for preventive detention laws. And such laws, according to the court, were immunised from the limitations placed on the legislature by other fundamental rights. The verdict in Gopalan has since been overruled. Not only has the Supreme Court held that the fundamental rights chapter comprises a network of mutually dependant promises but it has also ruled that Article 21 implicitly includes within it a guarantee of substantive due process. In other words, the clause demands that any action or law that limits liberty ought to fair, just, and reasonable, untouched by the caprices of the state.

## Executive Knows Best

In overruling Gopalan, the court's rationale was simple: the absence of a substantive promise of due process would mean that the political executive is free to use the most whimsical of motives to restrict freedom. Under such a notion, something as arbitrary as a coin toss can act as a substitute for a trial. But yet the apparent burying of the verdict in Gopalan has had little practical consequence. The PSA, which was introduced by the former Jammu and

Kashmir (J&K) Chief Minister Sheikh Abdullah's government to purportedly keep timber smugglers "out of circulation" allows for detention of up to two years without trial, with extensions made available for the asking. As Haley Duschinski and Shrimoyee Nandini Ghosh have noted, in permitting detentions based on postulations that are protected from review by courts, the law "establishes a broad jurisdiction of suspicion". Even the Supreme Court, in Jaya Mala v. Home Secretary, Government of J&K (1982) described the legislation as a "lawless law" and warned of a looming danger in which normal criminal trials would be replaced by regimes of detention. But ever since its enactment, the PSA has served precisely this purpose. It has been used by successive governments to quell even the slightest hint of dissent. And when review of the orders is sought, courts have invariably followed the model that has now been adopted in Mr. Qayoom's case: an assumption that the executive knows best and that any decision made by it is beyond the scope of judicial enquiry. The only thing transcendental about this approach is the omnipotent supremacy of the executive. In reducing judicial review to an irrelevance, the judgment, therefore, stands as an antithesis of the Constitution's basic function. To understand the dangers inherent in vesting unbridled power of this kind, we do not need to see J&K as exemplifying a state of exception. Nor do we need to apprehend that the model employed will likely be adopted in other States. For, as Gopalan's lawyer, M.K. Nambyar, told the Supreme Court all those years ago: no amount of fine phrasing can disguise the fact that detention without trial is repugnant to the "universal conscience of civilized mankind".

## Review Court Can Refer Questions to Larger Bench

➔ A nine-judge Constitution Bench of the Supreme Court upheld the decision of the Sabarimala Review Bench to refer to a larger Bench questions on the ambit and scope of religious freedom practised by multiple faiths across the country. The nine-judge Bench, led by Chief Justice of India S.A. Bobde, said a Bench engaged in the review of a particular judgment could indeed refer other questions of law to a larger Bench. The Bench also framed seven questions of law which the nine-judge Bench would decide now. These are: What is the scope and ambit of religious freedom under Article 25 of the Constitution? What is the interplay between religious freedom and rights of religious denominations under Article 26 of the Constitution? Whether religious denominations are subject to fundamental rights? What is the definition of 'morality' used in Articles 25 and 26? What is the ambit and scope of judicial review of Article 25? What is the meaning of the phrase "sections of Hindus under Article 25 (2)(b)? Whether a person not belonging to a religious group can question the practices, beliefs of that group in a PIL petition? On the last day of hearing, the Chief Justice had defended the November 14, 2019, reference made by a five-judge Sabarimala Review Bench led by then Chief Justice Ranjan Gogoi. "By making this reference order (on November 14), the Bench (led by Justice Gogoi) has not prejudicially affected anybody's rights. It may be the most innovative idea, but it has not affected any rights," Chief Justice Bobde had said orally. On November 14 last year, the Gogoi Bench, in a majority judgment, did not decide the Sabarimala review cases before it. Instead, it went on to frame "larger issues" concerning essential religious practices of various religions. It further clubbed other pending cases on subjects as varied as female genital mutilation among Dawoodi Bohras to entry of Parsi women who married inter-faith into the fire temple and Muslim women into mosques and referred them all to a larger Bench. The reference order also asks the larger Bench to consider the Rule pertaining to the prohibition of entry to women of menstruating age into the Sabarimala temple. Chief Justice Bobde, who succeeded Justice Gogoi as top judge, set

up a nine-judge Bench to hear the reference. The November 2019 reference had hit a bump when senior advocate Fali Nariman had objected to it. He had argued the court could not declare law in thin air. He had said the Gogoi Bench's sole task was to review the Sabarimala judgment of September 2018. The major ground for seeking a review was the finding in the judgment that Ayyappa devotees did not form a separate religious denomination. On November 14, the Review Bench had recorded no errors apparent or miscarriage of justice in the 2018 verdict. "When Ayyappa devotees was not found to be a separate denomination, then these reference questions on Article 25 (religious freedom) are purely an academic exercise. It was not necessary to raise these hypothetical questions in reference. The President, and not the CJI, consults the Supreme Court under Article 143 of the Constitution on questions of law and facts," Mr. Nariman had argued. Senior advocate Shyam Divan had agreed that review jurisdiction did not include "framing a catalogue of questions randomly".

## A Marriage Story for Everyone (Shraddha Chaudhary - Senior Research Associate, Jindal Global Law School, Sonipat)

- The only thing that is 'special' about the Special Marriage Act of 1954 is that it allows and facilitates the registration of inter-religious marriages. In that sense, it is a legislative tool for social change, an attempt to remove a social barrier to the exercise of individual autonomy. In the last few years, the Supreme Court has championed the cause of individual autonomy in matters of love, sex and marriage, including in Shafin Jahan v. Asokan (2018), Shakti Vahini v. Union of India (2018) and Navtej Johar v. Union of India (2018). In Navtej Johar , not only did the Court hold Section 377 of the IPC to be unconstitutional, it explicitly recognised the rights of the LGBTQ+ community to express their individuality, sexual identity and love on par with heterosexuals, as fundamental to Articles 14 (right to equality), 19 (right to freedom), and 21 (right to life) of the Constitution.

### Discrimination

A petition recently filed in the Kerala High Court by a male same-sex couple challenges the constitutionality of the Special Marriage Act on the ground that it discriminates against same-sex couples who want to formalise their relationship through marriage. At one level it seeks a simple and logical extension of the rights already recognised by the Supreme Court in Navtej Johar — the right of same-sex couples to express their sexual identity, right to privacy and non-interference in the conduct of their personal affairs, and the right to be recognised as full members of society. To refuse their plea would cause them very real, tangible damage, considering that marriage carries a range of legal rights and protections, available during the marriage as well as on its dissolution by divorce (the right to seek maintenance) or death (the right to inherit property). A more esoteric, but no less devastating, deprivation caused would be the inaccessibility of symbols that are germane to how people visualise their identities and envisage their relationships. For better or for worse, marriage continues to be the cornerstone of social legitimacy and family in India. For most people, marriage, commitment and family are not abstract legal concepts, but stages of human development and aspiration which give meaning to their personal lives. They represent the sanctification and extension of the deep emotional and spiritual bonds that may often accompany sexual intimacy. Aside from blatant homophobia, which the law ought not to legitimise, the reasons commonly cited as to why these symbols should be the preserve of opposite-sex couples do not stand scrutiny. Purportedly, the social purpose of marriage is to provide stability;

financial, physical or emotional care and support; sexual intimacy and love to individuals; and to facilitate procreation and child-rearing. Aside from procreation, none of these objectives are dependent on the gender of the parties concerned, so much as on the bond they share and their ability to make the relationship work. And if procreation were quite so central to marriage, opposite-sex couples would be required to prove their fertility and, indeed, commit to having children before being allowed to register their marriage. As we know, that is not the case. The right or the legal ability to marry, it would appear, has little to do with the reasons commonly cited to deny marriage to same-sex couples. Therefore, any consideration of the law of marriage ought to be completely divorced from the mould that marriage is socially expected to fit.

### A Unique Opportunity

The petition before the Kerala High Court represents a unique opportunity — a potential first step towards making marriage, as an institution, as a legal concept, more accessible and egalitarian, less arbitrary and exclusionary. It gives the High Court the chance to prioritise the fundamental and human rights of the petitioners over the abstract heteronormative tendency of the majority to deny legitimacy to relationships that challenge oppressive social structures and established hierarchies. In other words, it's high time love and logic are given a chance to triumph over homophobic tradition.

## Victim Justice Is Two Steps Forward, One Step Back (G.S. Bajpai - Professor And Chairperson Of The Centre For Criminology And Victimology At The National Law University (NLUD), Delhi. Ankit Kaushik - Research Associate at the NLUD.)

- The recent judgment in Rekha Murarka vs The State of West Bengal (November 2019) has held that the victims' private counsel cannot orally examine or cross-examine the witnesses. A deeper examination of the Court's reasoning shows that the judgment is bound to have serious consequences for the victims' right to participation. It is a setback to the developing jurisprudence on victim justice. Under our criminal justice system, victims find themselves removed from the proceedings. Their identities are reduced to being mere witnesses. The harm they suffer is reduced to being aggravating or mitigating factors at the time of sentencing. With the state appropriating their victimisation, the actual victims become mere stage props in a larger scheme. In 1996, the 154th Law Commission Report suggested a paradigm shift in India's criminal justice system towards a victim-centric notion of justice. The Code of Criminal Procedure (Amendment) Act, 2009 partially accepted this suggestion and granted some rights to the victims of crime. The Act introduced victims' right to a private counsel under Section 24(8). The Code of Criminal Procedure already allowed for pleaders engaged by private persons to submit written arguments with the permission of the court under Sections 301(2) and 302 allowed a person to conduct the prosecution with permission of the court. These sections were read together to partially secure the victims' right to participation.

### Some Hits but More Misses

A slow but steady progress has been made towards securing justice for victims in this country. In the case of Delhi Domestic Working Women's Forum v. Union of India (1994), the SC called for the extension of the right to legal assistance to victims of sexual assault at the

pre-trial stages. In Mallikarjun Kodagali (Dead) ... vs The State of Karnataka (2018), the Court accepted that under the criminal justice system, the rights of the accused far outweigh the rights of the victim. The Supreme Court not only called for the introduction of a victim impact statement in order to guarantee participation of the victim in the trial proceedings, but also reinstated the victims' right to appeal against an adverse order. Despite these advances, the scheme of victim participation remains far removed from the ideals embedded in the Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power; India is a signatory. The Declaration requires that the views and concerns of victims should be allowed and considered at all appropriate stages without prejudice to the accused. Presently, the victims' advocate has an extremely limited role to play wherein he "assists" the prosecutor rather than represent the interests of the victim before the court. This is manifest from Section 301(2) under which the advocate can only air his views and concerns, not to the court, but to the prosecutor and must act under his directions thereafter. The only substantial opportunity provided to a private counsel is after the closing of evidence when written arguments may be submitted to the court only after seeking the permission of the court. This stage, after the closing of evidence therefore, is the only stage legislatively recognised as "appropriate". In contrast, the proceedings under the International Criminal Court (ICC) provides for victim participation at the stage of first, a challenge to the jurisdiction of the ICC; second, framing of charges; third, opening and closing statements; fourth, making a written submission wherever the personal interests of the victims are affected; and finally, for presenting witnesses to give evidence on issues relating to the personal interests of the victims.

## A Lost Chance

Effective and meaningful participation still eludes victims of crime. The Supreme Court in Rekha Murarka has missed the opportunity to forward the jurisprudence on victim justice and rectify the lacunae in our laws. Instead, the judgment goes against the jurisprudential current specified above. Indeed, the victim's right to participation cannot be secured by restricting the rights of the accused. The right to participation, however, can be realised at appropriate stages without any such prejudice. Instead of exploring such a normative balance between the rights of the accused and victim, the judgment limits the rights of the victim by proceeding on a flawed understanding of the role and responsibilities of the victim's advocate. According to the judgment, a victim's advocate cannot be allowed the right to participate because, first, insistence by the victim's counsel to examine a witness deliberately left out by the prosecution may weaken the prosecution's case; second, the trial will derogate into a "vindictive battle" between the victim's counsel and the accused; and third, a lack of experience on the part of the victim's counsel may lead to lapses. The success of prosecution is dependent largely upon the victim's participation in the trial. The primary role and responsibility of the victim's advocate therefore, is to represent the personal interests of the victim by cooperating with the prosecution. Instead, the court assumes that unless the victim's advocate is subservient to the prosecutor, either the prosecutor will be rendered ineffectual or the victim's advocate will take over the role of the prosecutor. The judgment further assumes that prosecutions effectively take the victim's needs into account and ignores the fact that the need for a private counsel arises precisely because intentional or unintentional prosecutorial lapses directly lead to injustice to the victims. The press is replete with instances of "failure of prosecution" leading to dismissal of the case or acquittals. *Ingenuously, the court expects the victim's counsel to make the prosecutor aware*

*of any aspects that have not been addressed in the examination of witnesses or the arguments advanced by the public prosecutor. In the process, it assumes that the prosecutor will address such lapses.* In any event, under the role currently envisaged in our criminal justice system, the public prosecutor cannot sufficiently take into account the interests, needs and requirements of the victims. The need instead, is to strengthen victim participation by providing private counsels with a greater say in the conduct of the trial without prejudicing the interests of the accused. The cause of victim justice would be greatly served, if the Supreme Court decide to revisit its reasoning and assumptions to appropriately amend this provision in light of the above.

## Reservation as Right

- It is quite understandable that a recent Supreme Court judgment, that there is no fundamental right to claim reservation in promotions, has caused some political alarm. The received wisdom in affirmative action jurisprudence is that a series of Constitution amendments and judgments have created a sound legal framework for reservation in public employment, subject to the fulfilment of certain constitutional requirements. And that it has solidified into an entitlement for the backward classes, including the SCs and STs. However, the latest judgment is a reminder that affirmative action programmes allowed in the Constitution flow from "enabling provisions" and are not rights as such. This legal position is not new. Major judgments — these include those by Constitution Benches — note that Article 16(4), on reservation in posts, is enabling in nature. In other words, the state is not bound to provide reservations, but if it does so, it must be in favour of sections that are backward and inadequately represented in the services based on quantifiable data. Thus, the Court is not wrong in setting aside an Uttarakhand High Court order directing data collection on the adequacy or inadequacy of representation of SC/ST candidates in the State's services. Its reasoning is that once there is a decision not to extend reservation — in this case, in promotions — to the section, the question whether its representation in the services is inadequate is irrelevant. The root of the current issue lies in the then Congress government's decision to give up SC/ST quotas in promotions in Uttarakhand. The present BJP regime also shares responsibility as it argued in the Court that there is neither a basic right to reservations nor a duty by the State government to provide it. The idea that reservation is not a right may be in consonance with the Constitution allowing it as an option, but a larger question looms: Is there no government obligation to continue with affirmative action if the social situation that keeps some sections backward and at the receiving end of discrimination persists? Reservation is no more seen by the Supreme Court as an exception to the equality rule; rather, it is a facet of equality. The terms "proportionate equality" and "substantive equality" have been used to show that the equality norm acquires completion only when the marginalised are given a legal leg-up. Some may even read into this an inescapable state obligation to extend reservation to those who need it, lest its absence render the entire system unequal. For instance, if no quotas are implemented and no study on backwardness and extent of representation is done, it may result in a perceptible imbalance in social representation in public services. Will the courts still say a direction cannot be given to gather data and provide quotas to those with inadequate representation?

## Long Wait and Many Twists in The Story of Rajiv Case Convict Perarivalan

- The Centre told Madras High Court that the Governor of Tamil Nadu was at liberty to decide on the petition for remission of life sentence filed by A G Perarivalan, one of the convicts in the Rajiv Gandhi assassination case. Over the last several days, demands for the release of Perarivalan have resurfaced strongly in public conversations in Tamil Nadu. The hashtag #ReleasePerarivalan spiked in social media after Perarivalan wrote to Governor Banwarilal Purohit to remind him about the state Cabinet's decision granting him remission, which has been pending with Raj Bhavan for over 16 months. Perarivalan, who is lodged in Chennai's Puzhal Central Prison, wrote to the Governor on January 25, days after the Supreme Court rebuked the CBI for failing to make progress in its investigation of the larger conspiracy behind the assassination 29 years ago. On January 21, a Supreme Court Bench of Justices L Nageswara Rao and Deepak Gupta said the multi-disciplinary monitoring agency (MDMA) "have done nothing, nor do they want to do anything". The CBI-led MDMA was set up in 1998. The Supreme Court is hearing Perarivalan's plea seeking suspension of his life sentence until the MDMA completes its probe into the cross-border aspects of the conspiracy. The Centre's affidavit in the Madras High Court on Friday came in a separate petition filed by Nalini, another convict in the case.

### The Case Against Perarivalan

Perarivalan alias Arivu was 19 when he was arrested in June 1991. He was accused of having bought two battery cells for Sivarasan, the LTTE man who masterminded the conspiracy, and which were used in the bomb that killed Rajiv. Perarivalan remained on death row for 23 years. On February 18, 2014, a Supreme Court Bench of then Chief Justice of India P Sathasivam and Justices Ranjan Gogoi and Shiva Kirti Singh commuted the death sentences of Perarivalan and two other convicts, Murugan and Santhan, into imprisonment for life. What strengthened Perarivalan's claim of innocence was an admission in November 2013 by V Thiagarajan, a retired CBI SP, that he had altered Perarivalan's statement in custody to make it read like a confession, which eventually played a crucial role in getting Perarivalan the maximum punishment.

### The CBI Officer's Admission

Thiagarajan, who had recorded the statements of Perarivalan and other accused in 1991, said that while Perarivalan had accepted that he had supplied the batteries, he had not said that he was aware that those batteries would be used to make the bomb. That second part had been his "interpretation", Thiagarajan said. The statement was recorded as: "…Moreover, I bought two nine-volt battery cells (Golden Power) and gave them to Sivarasan. He used only these to make the bomb explode." However, Perarivalan had not actually said the second sentence — and this, Thiagarajan admitted, put him in a "dilemma". "It (the statement) wouldn't have qualified as a confession statement without his admission of being part of the conspiracy. There I omitted a part of his statement, and added my interpretation. I regret it," Thiagarajan said. What Thiagarajan added to the statement was, in Tamil, "Ithu than Rajiv Gandhiyin kolakku payan paduthappettathu," which translated into English as "He used only these to make the bomb explode." In an affidavit filed before the Supreme Court, Thiagarajan confirmed that Perarivalan had never said that he knew of the conspiracy, or that he had knowingly bought the batteries to be used to make the bomb. In 1999, the Supreme Court

acquitted 19 accused and suspended TADA provisions in the case — but it upheld Perarivalan's TADA confession, observing it was "believable".

### Status of The Legal Battle

While Perarivalan's 'altered' confession has kept him in prison, the CBI has failed to complete the investigation into the larger conspiracy. Perarivalan's lawyers have argued that while he was sentenced to death for buying two battery cells, there is no evidence about the bomb, the bombmaker, where the bomb was tested, and who supplied the RDX, the military-grade explosive that was used. Perarivalan's petition in the Supreme Court questioning the progress of the MDMA's probe over more than two decades brought embarrassment to the CBI last month. The question of remission of his sentence remains stuck in the Tamil Nadu Raj Bhavan. Article 161 gives the Governor the "power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence against any law relating to a matter to which the executive power of the State extends". In an earlier order passed on September 6, 2018, a Supreme Court Bench of Justices Ranjan Gogoi, Navin Sinha and K M Joseph had noted that Perarivalan had filed an application before the Governor under Article 161, and that "the authority concerned will be at liberty to decide the said application as deemed fit". Perarivalan had told the court that he had filed his mercy plea before then Governor K Rosaiah on December 30, 2015. Following the Supreme Court's order, the state Cabinet had decided on September 9, 2018, to recommend to the Governor (Purohit) to remit sentences of all seven convicts serving life terms in the case, including Perarivalan. The government's decision was welcomed by both the Opposition DMK and the AIADMK's TTV Dhinakaran faction. In its affidavit in the Madras High Court on Friday, however, the Centre has underlined that the "Governor is a Constitutional functionary and he has discretion to decide on the petition under the powers conferred upon him by the Constitution". It has said that the Home Ministry has already rejected the Tamil Nadu government's proposal to release the convicts, and that the mercy petition remains pending before the Governor. No time limit is prescribed for a Governor or the President for disposal of a mercy plea.

## Choice and Candidacy

- The idea of removing the taint of criminality from electoral politics has been engaging the country for decades. Yet, whatever progress made in this regard has been through the initiative of the Supreme Court and the Election Commission. Political parties which ought to be cleansing the system with legislation and internal organisational reforms have done precious little, and their reluctance to avoid fielding those with criminal antecedents is quite obvious. The Court, in September 2018, sought to enforce greater disclosure norms about electoral candidates. On noting the "alarming increase" of those with a criminal background in the last four general elections, the top court has now come up with an additional requirement while hearing a contempt of court petition. Now, parties have been asked to explain candidate choice and why those with criminal cases pending against them were preferred over those with no such record. The Court has asked national and regional parties to disclose the reason for their selection "with reference to qualifications, achievements and merit of the candidates concerned", and barred them from merely citing "winnability" as a reason. In addition to full disclosure of the cases pending against them on their official websites and social media accounts, the parties are also required to publish these details in

a local regional language paper and a national newspaper. This is a forward movement from the present situation in which the burden of disclosure is on candidates through mandatory affidavits filed along with their nomination papers. The latest order is in line with a series of judgments aimed at preserving the purity of the election process: directions to ensure the asset disclosure and criminal records of candidates, the incorporation of the 'none of the above' option in the voting machine, and the invalidation of a clause that protected sitting legislators from immediate disqualification after conviction. In addition, the Court has directed the establishment of special courts in all States for the quick disposal of cases involving elected representatives. However, it must be underscored that de-criminalisation of politics cannot be achieved by judicial fiat alone. The political class has to respond to the challenge. Parties would probably justify their choice of candidates by pointing out that the law now bars only those convicted and not those facing charges, however serious they may be. Besides, they are apt to dismiss all pending cases as "politically motivated". A legislative option is to amend the law to bar from contest those against whom charges have been framed. A more meaningful option would be for parties to refrain from giving ticket to such candidates. Beyond this debate, a larger question looms: what good will more information on the background of candidates do, if voters back a particular leader or party without reference to the record of the candidates fielded?

## A Nation for The Persecuted (Harsh Mander - Human Rights Worker, Writer and Teacher)

- In his historic address to the Parliament of the World's Religions in Chicago in 1893, Swami Vivekananda declared, "I am proud to belong to a nation which has sheltered the persecuted and the refugees of all religions and all nations of the earth." It is ironical that a political party which conspicuously proclaims its allegiance to Swami Vivekananda has restricted by law, about 127 years later, citizenship to people on the grounds of both religion and nation. The Citizenship (Amendment) Act 2019, or CAA, 2019, passionately contested by people across the country, by placing these filters of religion and nation, reminds us urgently of the moral imperative of an expansive and humane refugee law. This must conform to what is finest in India's civilizational ethos, and to the morality of India's Constitution. This urgency is underlined further by the decision, in October 2018, of the Indian executive to send back seven Rohingya men — the Supreme Court of India refused to stop their deportation — who had been detained in Assam since 2012, to Myanmar. Looking back, it is pertinent to ask why Jawaharlal Nehru, an international statesperson and a leading moral voice in the community of nations, refused to sign the *1951 Refugee Convention* relating to the Status of Refugees. Scholars suggest that whereas he was committed to the principles enshrined in the Convention, he was unwilling to legally bind the country to its obligations. The Convention first defines refugees as persons fleeing persecution on grounds of race, religion, nationality, social group or political opinion. Refugees get legal rights, most important of which are "non-refoulement", which prevents states from sending back refugees to persecution in their home countries. They also get secondary rights, such as to education, work and property.

### Policy and Discrimination

India has long argued that even without signing the Convention, in practice it is one of the leading refugee-receiving countries. Refugees include Sri Lankan Tamils, Tibetans from China, Chin minorities from Burma/Myanmar, and Hindus from Bangladesh and Pakistan. It

may be legitimately asked that if in practice India has been hospitable to refugees, why does it need a refugee law which conforms to the Refugee Convention? The answer lies in discrimination in the recognition of refugees and the award of citizenship, embedded sometimes in laws and rules, and at other times in official practice. These include the morally indefensible, indeed shameful decision of the Indian government to send back Rohingyas to conditions which the International Court of Justice has recently deemed to be genocidal, and changes in passport rules even prior to the passage of the CAA which in effect discriminated between people on the basis of their religion. There are many problems with Indian law relating to refugees. The first of these is that our law does not distinguish between "foreigners" and "refugees". This means that refugees depend on state discretion, indeed "benevolence" rather than inherent rights. The second is that these assume that the executive will act on principles of humanism and non-discrimination. This may have been true of an India led by Nehru. Governments which followed his have had mixed records. It is certainly not true of a government as we have today which is driven by right-wing ideology, which is hostile to Muslims, and which believes that India should be the natural home of persecuted Hindus, but not Muslims.

## The Rohingya Case

In the absence of explicit recognition in Indian law of the category of refugees, or of their legally binding rights, even the guarantees of fundamental rights to equality and non-discrimination and humanitarian obligations did not prevent India from violating the core principle of non-refoulement, of not sending back a person to situations of persecution, such as those faced by Rohingyas. Let us rewind to the litigation in India's Supreme Court, challenging the government's proposed deportation of seven Rohingya in 2018. When seven repatriated Rohingya men were only hours away from the border with Myanmar, rights activists who has just come to know of this, made a dramatic urgent intervention in the Court, pleading that their being thrown mercilessly into a genocidal situation be stopped immediately. The Supreme Court bench, which included the then Chief Justice of India, Ranjan Gogoi, refused to stay their deportation, basing its ruling primarily on a brief Union government affidavit which claimed that Myanmar had accepted the refugees as "citizens" and the men had orally agreed to be repatriated. The Court unconscionably refused to stop the deportation despite the transparent unreliability of these claims, since the men did not have access to legal counsel nor to the UNHCR to determine whether their consent was freely expressed. Also, that they may have chosen the risks only because the only option they were given to deportation was to indefinitely remain in detention. The media later reported that these men had been detained in Myanmar for "illegal entry" and had been given the controversial National Verification Cards (that does not recognise their religion or ethnicity), not citizenship. We do not know what happened to them since.

## Message from The ICJ Verdict

The moral culpability of these decisions, both of the Union government and the top court, are further illuminated by the recent unanimous judgment of the International Court of Justice on January 23 that concludes that the Rohingya face genocidal intent. The case against Myanmar was brought to the international court by a small west African Muslim nation, The Gambia. It rejected Myanmar's civilian leader Aung San Suu Kyi's testimony on behalf of her government, where she described the allegations brought by The Gambia as "an incomplete

and misleading factual picture" of the prevailing conditions in Rakhine State. The world court warned the Myanmar military against any conspiracy to commit genocide, and directed Myanmar authorities to take steps to protect its minority Rohingya population from genocide. For the Indian government and the Supreme Court, this judgment should be a moment for both introspection and atonement. But this it will not be. The government has never referred to the Rohingya as refugees but as illegal immigrants, security threats and potential terror threats. They have not been included as eligible for citizenship under the 2019 amendment, because of their religion and country of origin. Instead, they are often the subject of communally charged political stigmatisation by the ruling party, amid calls for the expulsion from India of the desperately impoverished tiny population of around 40,000 Rohingyas; they are subsisting by picking rags and lowest-end labour in dismal shanties unsupported by the Indian state.

### For A Framework

India's treatment of the Rohingya, and the discriminatory CAA must compel Indians committed to India as a humane inclusive country to fight not just for the abrogation of the CAA-NRIC-NPR trinity — CAA-National Register of Indian Citizens-National Population Register — but also for India to bring in a refugee law which conforms to international conventions. This would, first, recognise eligible undocumented immigrants as refugees, based on evidence determined by due process of their persecution in their home countries. This would also assure them a set of binding rights. The most important of these is the guarantee that they would not be forced to return to the conditions of persecution, threatening their lives and liberty, which they escaped. The second is that they would be assured lives of dignity within India, with education, health care and livelihoods. Only then would India become the country which Swami Vivekananda was so proud of: a haven to the persecuted of the world, untainted by discrimination based on religion or nation.

## In Assam, The Identities Within Identities

➔ A proposed census of four Muslim groups in Assam, who are recognised as "Assamese Muslims" in society although not formally defined as such, underlines the significance of sub-communities in Assam, beyond the traditional linguistic and religious binaries of the rest of India. Assam's migration history gives additional context to dual identities — Assamese Hindu, Assamese Muslim, Bengali Hindu, Bengali Muslim. These sub-identities drive the narrative about which communities have a longer history in Assam, and which ones migrated later. While the Census of India includes a language census and a religion census, these do not account for these sub-identities. In Census of India data, the Assamese-speaking population fell from 57.81% in 1991 to 48.38% in 2011, while the Bengali-speaking population rose from 21.67% to 28.91% in the same period. Simultaneously, the Hindu population declined from 67.14% to 61.47%, while the Muslim share grew from 28.44% to 34.22%. These trends have been interpreted variously by scholars, organisations campaigning for indigenous rights amid the effects of migration, and politicians playing on the communal divide. While many read these as a sign of continuing migration, there are several factors to consider:

The Muslim population includes groups considered indigenous — including Goriya, Moriya, Deshi and Julha, the groups listed for the proposed census. The Muslim population also

includes Bengali-origin Muslims whose families were already living in Assam before the 1971 cut-off date for legal migration as stipulated in the 1985 Assam Accord.

The Muslim population has grown significantly in districts with a predominant Bengali-origin Muslim population. One theory is that the growth is driven by a higher fertility rate among Bengali-origin Muslims — which would include families who were already living in Assam before 1971.

The other view is that post-1971 migration has largely driven the growth of the Muslim population, which some see as too rapid to be explained by natural factors. The migrant population includes both Bengali Hindus and Bengali Muslims. In the religion-neutral agitation against the Citizenship Amendment Act in the state, Assamese civil society is protesting against citizenship being given to Hindus who migrated from Bangladesh beyond the cut-off date.

A section of Bengali-origin Muslims identifies themselves as Assamese-speaking in the Census of India. The proposed census of specific Muslim groups, on the other hand, will go beyond declared language and look at ethnicity. In effect, it will seek to distinguish these four Muslim groups from Muslims who have a migrant ancestry.

## In Kashmir, Abnormal Is the New Normal

- Three months ago, Home Minister Amit Shah assured the Rajya Sabha that “normalcy” had been restored in Jammu and Kashmir. Yet, the leaders of the two main parties in J&K — Omar Abdullah of the National Conference (NC) and Mehbooba Mufti of the Peoples Democratic Party (PDP) — have not only been under detention for more than 200 days, but have also been slapped with the Jammu and Kashmir Public Safety Act. As Minister of State for External Affairs in Atal Bihari Vajpayee’s government, Mr. Abdullah defended India’s position on Kashmir to the world, hurled diplomatic epithets at Pakistan in international fora, and wore the national flag on his heart as it were. But now, according to the Public Safety Act dossier prepared by the J&K administration, he stands accused of coddling militants and mobilising the people of Kashmir to defy Pakistan-backed militants and vote in elections. Like Mr. Abdullah, Ms. Mufti has also been deemed “anti-national”. Given that she ran J&K as Chief Minister with her party in alliance with the BJP for three years, it is very strange that the same BJP overlooked her leanings then.

### Extending the Shelf of Normalcy

To show the world that the people of J&K participated in elections used to be the Indian government’s primary goal. The government used to go out of its way to obtain diplomatic certification for turnouts in elections as a measure of the genuineness of the exercise. The usually abysmal turnouts made it all the more necessary for such measures to be taken. An election in J&K is not going to take place any time soon, but proving that such an election is genuine, when it is held, will still be the main aim of this government. The steady chaperoning of foreign diplomats into the new Union Territory is an indication of this. With every lot of them that enters the territory, the shelf of “normalcy” in J&K is extended. Since the situation is “normal”, the question then is, when will an election take place? The Public Safety Act dossier states that the capacity of Mr. Abdullah “to influence people for any cause can be gauged from the fact that he was able to convince his electorate to come out and vote in huge numbers even during peak of militancy and poll boycotts”. Does this mean that it is now normal for a District Magistrate to complain that a politician is able to persuade his

constituents to come out and vote? In Kashmir, schools and colleges were open for months after the dilution of Article 370 on August 5, 2019, but nobody attended them. Is that also now normal? Every now and then, U.S. President Donald Trump reminds India that he is ready to mediate between India and Pakistan, even though New Delhi insists that Kashmir is an internal matter. For the American President to repeatedly make that offer was the norm in the worst of times in Kashmir; now it has become a routine in the best of times as well. Is this too the new normal?

## Impressions

The government has been conducting focused, narrowly guided tours in batches for foreign diplomats to assess and make a broad certification of the normalcy that prevails in J&K to their home constituencies. These diplomats go to Srinagar and no doubt send rosy, impressionistic cables back to their capitals: 'Shops are open; there are no barbed wires on the main streets; and no menacing soldiers either. There are upwardly mobile politicians and green shoots of political activity. There is an upward tick in developmental trends. No one is complaining of the absence of the sham that was Article 370. There are myriad plans with timelines and bar charts and plenty of projects in the pipeline. Comparisons with the situation in West Bank are definitely far-fetched. And no one got killed'. On the other hand, Indian politicians who cannot go to Kashmir and determine for themselves just how normal the situation is probably have to request the foreign missions to put out regular updates, in the form of newsletters or health bulletins, to get a better sense of the situation. The promotion of regular diplomatic tourism to Kashmir is apparently very different from the internationalisation of Kashmir, which happens, for example, when China intercedes on behalf of Pakistan at the UN and Indian diplomats exert themselves to temporarily dissolve that crisis.

## The Challenge Ahead

If making "unacceptable statements" can merit invocation of the Public Safety Act, especially when elections are nowhere in view, how much has the crisis in J&K really dissolved? The government can probably take heart that there have been no major instances of violence since August 5, 2019, and no major upheavals or killings. Terrorists have not run rampant. Meanwhile, six months of New Delhi's charm offensive notwithstanding, alienation is omnipresent, as is the keen sense of hurt, betrayal, anger and resignation. To hold an election, the delimitation hurdle first needs to be crossed. With new political map-making in the region, there will be seven more Assembly constituencies in J&K. These have to be artfully identified and demarcated, which will be done on the basis of the 2011 Census. A delimitation commission is yet to be constituted. Even the panchayat polls, which the Prime Minister declared a resounding success, left half the seats empty because of the absence of candidates and boycott calls. The challenge for the government then is how to balance the semblance of peace, which is a result of detentions, deployments and restrictions, and provide a platform of very modest political activity that is sanctified by New Delhi, in a manner that can give the seething resentment controllable political vent over what has been done to J&K. This alone explains the calibrated release of minor political leaders. It is presumable that they have been set free on the implicit understanding that they will not be crossing any red lines drawn by New Delhi. The diplomatic tourists hear and see exactly what New Delhi wants them to hear and see. New Delhi's hope is that the local leaders of the PDP and NC come

forward, give heft to the process, and grow into major politicians. The expulsion of PDP politicians can only be a marker for the inroad's government agencies are making in signing on new political recruits. It is probably easier to alienate PDP politicians given the divisions already extant in that conglomeration, although it is odd that politicians associated with an "anti-national" like Ms. Mufti should escape that taint. The continued detention of Ms. Mufti and Mr. Abdullah is being done with the intention of starving them of the oxygen of a following, forcing upon them political atrophy, and robbing them of the opportunity to queer the normalcy pitch. In Kashmir, it could soon be argued that the more things are normal, the more abnormal they really are.

## Bodo Accord

- New Delhi's third attempt at conflict resolution with Assam's Bodos came out of the blue. The State had been more in the news for the sustained protests against the Citizenship (Amendment) Act, one that pre-dates the pan-India ferment after the Bill's passage in Parliament. The signing of the peace accord on January 27 shifted attention after the Prime Minister had to abort two planned trips to Guwahati for a summit with Japanese Prime Minister Shinzō Abe on December 15 and the inauguration of the Khelo India Games on January 10. The new deal offers more hope than the 1993 and 2003 accords; some of the most potent factions of the National Democratic Front of Boroland that had stayed away from earlier agreements are now on board. More significantly, the stakeholders have agreed that the updated political arrangements would remain confined to the realm of wider autonomy within the State of Assam, giving statehood and Union Territory demands a final burial. The generous terms promise an expanded area to be renamed as Bodoland Territorial Region, a ₹1,500-crore development package, and greater contiguity of Bodo-populated areas. There is also an offer of general amnesty for militants, with heinous crimes likely to be benignly reviewed, and ₹5 lakh each to the families of those killed during the Bodo movement — it claimed nearly 4,000 lives. On a success scale, the agreement falls somewhere between the Naga framework agreement of August 2015, shrouded in secrecy, and the January 16 Bru settlement to permanently settle around 34,000 people displaced from Mizoram in 1997 in Tripura. While it empowers Bodos, the question of an enduring peace remains moot. With newer claimants to a share of spoils, the current bonhomie could be severely tested when the expanded Bodoland Territorial Council goes to the polls soon. It has been dominated since inception in 2003 by the Bodoland Peoples Front, comprising former Bodo Liberation Tigers cadre, but the new batches of surrendered militants as well as the All Bodo Students' Union intend to enter the fray. Of greater concern are inter-tribal and community ties. The Bodos comprise not more than 30% of the population in the BTR region, and the central munificence has deepened the insecurity among Koch Rajbongshis, Adivasis and Muslims. The politics of deferring to such identity-based movements is part of an old playbook of internal security in the Northeast — the Bru solution betrays shades of it, and one can trace it back to the Mizo insurgency and Laldenga becoming the Chief Minister of Mizoram. The Kokrajhar MP, a non-Bodo, has appealed to the government to ensure that a Bodo solution does not engender a non-Bodo problem. The accord's success will lie in the stakeholders working out a power-sharing arrangement in the proposed BTR that privileges equity over hegemony.

## Fine-Tuning the Surrogacy Bill

- In a recent report, a Select Committee of Parliament has recommended that the contentious clause limiting surrogacy only to "close relatives" be removed from the Surrogacy (Regulation) Bill, 2019, to make the benefits of modern technology more easily available to infertile couples.

### What Are the Provisions of The Surrogacy (Regulation) Bill?

The Surrogacy Bill proposes to allow altruistic ethical surrogacy to intending infertile Indian married couples in the age groups 23-50 years (women) and 26-55 years (men). The couple should have been legally married for at least five years and should be Indian citizens. They cannot have a surviving child, either biological or adopted, except when they have a child who is mentally or physically challenged or suffers from a life-threatening disorder with no permanent cure. The Bill has already been scrutinised once earlier by the Standing Committee on Health and Family Welfare. It requires surrogacy clinics to be registered, and national and state surrogacy boards to be formed, and makes commercial surrogacy, and abandoning or disowning a surrogate child punishable by imprisonment up to 10 years and a fine up to ₹10 lakh. It was first mooted in 2016 in the wake of repeated reports of exploitation of women who were confined to hostels, not provided adequate post-pregnancy medical care and paid a pittance for repeatedly becoming surrogate mothers to supplement family income.

### What Changes Has the Select Committee Suggested?

The Select Committee chaired by BJP Rajya Sabha MP Bhupender Yadav recommended that the "close relatives" clause should be removed, and any "willing" woman should be allowed to become a surrogate mother provided all other requirements are met and the appropriate authority has cleared the surrogacy. It has strongly backed the ban on commercial surrogacy. It has also recommended that divorced and widowed women aged between 35 and 45 years should be able to be a single commissioning parent, and the need for a five-year waiting period for childless married couples could be waived if there is a medical certificate that shows that they cannot possibly conceive. It has recommended that persons of Indian origin should be allowed to avail surrogacy services. The committee has not, however, recommended expanding the definition of commissioning parent to include singles, either men or women. This means people like Tusshar Kapoor, Karan Johar and Ekta Kapoor, all from the entertainment industry, would still not qualify for using the surrogacy route for children. All of them have already used that route. The Select Committee also recommended that the ART Bill (which deals with assisted reproductive technologies) should be brought before the Surrogacy (Regulation) Bill, 2019, so that all the highly technical and medical aspects could be properly addressed in the Surrogacy (Regulation) Bill, 2019.

### What is the ART Bill?

The Assisted Reproductive Technology (Regulation) Bill has been in the making since 2008. It aims to regulate the field through registration of all IVF clinics and sperm banks, segregation of ART clinics and gamete banks etc. It also requires national and state boards to be established for the purpose of regulation of the fertility market.

### How Big Is India's Surrogacy Market?

Ballpark estimations by the Indian Council of Medical Research (ICMR) put it around 2,000-odd babies per year through commercial surrogacy — when a woman is paid an agreed sum for renting her womb. CII figures say surrogacy is a $2.3-billion industry fed by a lack of regulations and poverty.

### What Happened the Last Time the Bill Was Scrutinised by A Parliamentary Panel?

The Bill was earlier scrutinised by the Parliamentary Standing Committee on Health and Family Welfare. That committee had recommended that compensation should be the norm and the word "altruistic" should be replaced with "compensated". Couples — including those in live-in relationships — should be allowed to choose surrogates from both within and outside the family. Altruistic surrogacy, it observed, is tantamount to exploitation. The "close relative" condition is open to misuse in a patriarchal setup, the committee had observed. "Given the patriarchal familial structure and power equations within families, not every member of a family has the ability to resist a demand that she be a surrogate for another family member. A close relative of the intending couple may be forced to become a surrogate which might become even more exploitative than commercial surrogacy." Those recommendations were not accepted by the government.

### So, The Select Committee Has Made A Recommendation That The Government Has Rejected Earlier?

As in the case of the Standing Committee, the government is free to accept or reject the recommendations of the Select Committee. Many who have criticised the original Bill as archaic, however, are hopeful that the Bill may finally see some progressive amendments. Bhupender Yadav, who chaired the Select Committee that made these recommendations, has been part of several other crucial Parliamentary Committees, including the Joint Committee on Insolvency and Bankruptcy Code, 2015, Select Committee of Rajya Sabha on the Constitution (One Hundred and Twenty Third Amendment) Bill, 2017, Select Committee of Rajya Sabha on the Enemy Property (Amendment and Validation) Bill, 2016, Select Committee on the GST Bill etc.

## Seeking A More Progressive Abortion Law (Ayushi Agarwal - Teacher at Jindal Global Law School)

- Recent reports have shown that more than 10 women die everyday due to unsafe abortions in India, and backward abortion laws only contribute to women seeking illegal and unsafe options. The Cabinet has recently approved the Medical Termination of Pregnancy (Amendment) Bill, 2020 (MTP Bill, 2020) which will soon be tabled in Parliament. It seeks to amend the Medical Termination of Pregnancy Act, 1971 (MTP Act) and follows the MTP Bills of 2014, 2017 and 2018, all of which previously lapsed in Parliament. The MTP Act divides its regulatory framework for allowing abortions into categories, according to the gestational age of the foetus. Under Section 3, for foetuses that are aged up to 12 weeks, only one medical practitioner's opinion is required to the effect that the continuance of the pregnancy would pose a risk to the life of the mother or cause grave injury to her physical or mental health; or there is a substantial risk that if the child is born, it would suffer from such physical

or mental abnormalities as to be seriously handicapped. But if the foetus is aged between 12 weeks and 20 weeks, at least two medical practitioners' opinions conforming to either of the two conditions are required. The MTP Act also specifies that 'grave injury' may be explained as the anguish caused by a pregnancy arising out of rape, or the anguish caused by an unwanted pregnancy arising out of the failure of a contraceptive used by a married woman or her husband. Beyond 20 weeks, termination may be carried out where it is necessary to save the life of the pregnant woman.

## Issues with The Current Law

Several issues arise from the current framework under the MTP Act. First, at all stages of the pregnancy, the healthcare providers, rather than the women seeking abortion, have the final say on whether the abortion can be carried out. This is unlike the abortion laws in 67 countries, including Iceland, France, Canada, South Africa and Uruguay, where a woman can get an abortion 'on request' with or without a specific gestational limit (which is usually 12 weeks). It is true that factors such as failure of contraceptives or grave injury are not required to be proved under the MTP Act. However, to get a pregnancy terminated solely based on her will, the woman may be compelled to lie or plead with the doctor. Thus, at present, pregnant women lack autonomy in making the decision to terminate their pregnancy, and have to bear additional mental stress, as well as the financial burden of getting a doctor's approval.

## Restrictive Interpretation

Second, the MTP Act embodies a clear prejudice against unmarried women. According to 'Explanation 2' provided under Section 3(2) of the Act, where a pregnancy occurs due to failure of any birth control device or method used by any "*married woman or her husband*", the anguish caused is presumed to constitute a "grave injury" to the mental health of the pregnant woman. While the applicability of this provision to unmarried women is contested, there is always the danger of a more restrictive interpretation, especially when the final decision rests with the doctor and not the woman herself. Third, due to advancements in science, foetal abnormalities can now be detected even after 20 weeks. However, the MTP Act presently allows abortion post 20 weeks only where it is necessary to save the life of the mother. This means that even if a substantial foetal abnormality is detected and the mother doesn't want to bear life-long caregiving responsibilities and the mental agony associated with it, the law gives her no recourse unless there is a prospect of her death. In 2008, the Bombay High Court was petitioned by Haresh and Niketa Mehta to allow them to abort their foetus that had been diagnosed with a heart defect in its 22nd week. While the case got nationwide attention, the Mehtas' plea was turned down, and Niketa Mehta eventually suffered a miscarriage in the 27th week of her pregnancy. Several cases have followed since. Only in some of them has the Supreme Court allowed the termination of a pregnancy beyond 20 weeks, based on the advice by the Medical Board regarding the threat to the mother's life. While the MTP Bill, 2020, is a step in the right direction, it still fails to address most of the problems with the MTP Act. First, it doesn't allow abortion on request at any point after the pregnancy. Second, it doesn't take a step towards removing the prejudice against unmarried women by amending the relevant provision. And finally, it enhances the gestational limit for legal abortion from 20 to 24 weeks only for *specific categories* of women such as *survivors of rape, victims of incest, and minors*. This means that a woman who does not fall into these

categories would not be able to seek an abortion beyond 20 weeks, even if she suffers from grave physical or mental injury due to the pregnancy.

### In Case of Foetal Abnormality

However, the Bill does make the upper gestational limit irrelevant in procuring an abortion if there are substantial foetal abnormalities diagnosed by the Medical Board. This means that even if there is no threat to the mother's life, she would be able to procure an abortion as soon as a substantial foetal abnormality comes to light. While this is an important step and would have in the past helped many women who fought long battles in Court without recourse, it is crucial that it is accompanied by appropriate rules for the Medical Boards that guard against unnecessary delays, which only increase the risks associated with a late abortion. The Supreme Court has recognised women's right to make reproductive choices and their decision to abort as a dimension of their personal liberty (in Mrs. X v. Union of India, 2017) and as falling within the realm of the fundamental right to privacy (in K.S. Puttaswamy v. Union of India, 2017). Yet, current abortion laws fail to allow the exercise of this right. While it is hoped that MTP Bill, 2020 will not lapse in Parliament like its predecessors, it is evident that it does not do enough to secure women's interests, and there is still a long road ahead for progressive abortion laws.

## What Is the Debate Around RO Water?

- The Union Environment Ministry has issued a draft notification that seeks to regulate membrane-based water filtration systems in areas where the source of water meets drinking water norms of the Bureau of Indian Standards. This primarily affects reverse osmosis (RO)-based water filtration systems and the rules, at least in letter, effectively prohibit homes from installing domestic RO systems.

### What Is Reverse Osmosis (RO) Systems?

RO was originally a technology devised to desalinate sea water. The idea exploits the principle of osmosis. RO desalination came about in the late 1950s and primarily in large industrial settings to convert brackish sea water into potable drinking water. However, it is possible to deploy a wide array of membranes and multiple stages of filters to filter a wide variety of solutes — arsenic, fluoride, hexavalent chromium, nitrates, bacteria — that come mixed in water. This has led to an industry of home-RO systems that are installed in a multiplicity of ways to provide potable water. To create external pressure, RO relies on a pump and electric motors. It uses "activated carbon" components, such as charcoal and carbon black that can filter out contaminants as well as organic substances such as bacteria. It all depends on the filtering material and the number of filters that incoming tap water must pass through.

### What Is the Problem With RO?

In making tap water pass through multiple stages of cleaning, RO systems end up wasting a lot of water. Anywhere between three-five times more water is wasted by them than they produce and given the challenges that cities and government face in providing potable water, environmentalist groups have convinced the National Green Tribunal to ban the use of RO systems in Delhi. It is as part of this legal dispute, which began in March 2019 that led

the Environment Ministry to move to regulate RO systems. Another concern with RO is that it filters out calcium, zinc, magnesium, which are essential salts needed by the body; drinking such water over time could be harmful. However, many manufacturers claim to overcome this challenge by "post-treatment". The average RO system only aims to reduce Total Dissolved Solids, ensure water is odourless and has a pH from 6.5-8.5. The National Institute of Virology (NIV) claimed that most filtration methods did not eliminate Hepatitis E virus. A combination of filtration systems can eliminate most contaminants. But opponents of RO systems say this increases costs and reduces the incentive for public-funded water distribution systems to supply clean water to the vast majority of the country who can ill-afford such systems.

### How Is the Quality of Piped Water in The Country?

Under the Jal Jeevan Mission, the Prime Minister has committed to provide tap water to the entire country by 2024. However, studies show that the existing quality of piped water is deficient in much of India. Last year, the Department of Consumer Affairs undertook a study through the Bureau of Indian Standards (BIS) on the quality of piped drinking water being supplied in the country. In Delhi, all samples drawn from various places did not comply with the BIS's requirements. Most from Mumbai were found to comply, the report claimed. In Hyderabad (Telangana), Bhubaneswar (Odisha), Ranchi (Jharkhand), Raipur (Chhattisgarh), Amravati (Maharashtra) and Shimla (Himachal Pradesh), one or more samples did not comply and none of the samples drawn from 13 State or Union Territory capitals, Chandigarh, Thiruvananthapuram, Patna, Bhopal, Guwahati, Bengaluru, Gandhinagar, Lucknow, Jammu, Jaipur, Dehradun, Chennai, Kolkata, complied with the requirements.

### What Is the Quality of Water Globally?

Countries with a high development index tend to have good quality tap water. Finland, Denmark, Switzerland, Germany, United Kingdom have access to freshwater lakes or glacier melt — extremely clean and mineral rich. This water is further filtered. Singapore and Israel rely on extensive recycling and even making sewage water fit for drinking. The limited population pressure, compared to India, as well as public resources allow these countries to ensure clean drinking water. But for much of the world, access to clean piped water from the public supply remains a challenge.

## Reading Medical Device Rules

- The Ministry of Health and Family Welfare notified changes in the Medical Devices Rules, 2017 to regulate medical devices on the same lines as drugs under the Drugs and Cosmetics Act, 1940.

### What Are the Changes in The Rules That Were Notified?

Called the Medical Devices (Amendment) Rules, 2020, these are applicable to devices "intended for internal or external use in the diagnosis, treatment, mitigation or prevention of disease or disorder in human beings or animals" (as notified by the ministry) and require online registration of these devices "with the Central Licensing Authority through an identified online portal established by the Central Drugs Standard Control Organisation for this purpose". Among the information that the manufacturer has to upload are "name &

address of the company or firm or any other entity manufacturing the medical device along with name and address of manufacturing site of medical device (and) certificate of compliance with respect to ISO 13485 standard accredited by National Accreditation Board for Certification Bodies or International Accreditation Forum in respect of such medical device". This would mean that every medical device, either manufactured in India or imported, will have to have quality assurance before they can be sold anywhere in the country. "After furnishing of the above information on the 'Online System for Medical Devices' established by Central Drugs Standard Control Organisation for this purpose by the applicant's, registration number will be generated. Manufacturer shall mention the registration number on the label of the medical device," reads the gazette notification. The notification calls for a voluntary registration within a period of 18 months from April 2020 and obtaining manufacturing/import licence under the Medical Device Rules within 36 months for some devices and 42 months for others.

## What Are the Items Covered Under the Medical Device Rules?

A large number of commonly used items including hypodermic syringes and needles, cardiac stents, perfusion sets, catheters, orthopaedic implants, bone cements, lenses, sutures, internal prosthetic replacements etc are covered under the new rules and will have to comply starting April. For some items such as sphygmomanometers (used to monitor blood pressure), glucometers (to check blood sugar), thermometers, CT scan and MRI equipment, dialysis and X-ray machines, implants etc, different deadlines for compliance have been set. For example, for the first three, it is January 2021, for the others it is April next year. For ultrasound equipment, it is November 2020.

## Is This A Sudden Move?

No. This has been in the offing for some time now. In October last year, the ministry had circulated copies of the then proposed notification for public comments following recommendations of the Drugs Technical Advisory Board (DTAB), which is the highest technical body for these decisions and has experts among its members. In April last year, the DTAB had recommended that all medical devices should be notified as "drugs" under the drug regulation law to ensure they maintain safety and quality standards. The notification makes it clear that the government has issued it in consultation with the DTAB.

## Why Was the Move Required?

For much of the last one year, the health sector has been at the centre of attention following revelations about faulty hip implants marketed by pharma major Johnson & Johnson. This has caused major embarrassment to the government, too, as it exposed the lack of regulatory teeth when it came to medical devices. The matter dragged on, exposing the regulatory loopholes until finally the company agreed in court to pay ₹25 lakh each to the 67 people who had had to undergo revision surgeries because the implants were defective. In fact, even after Johnson & Johnson agreed in a Texas court to shell out $1 billion to settle about 6,000 lawsuits filed by patients in the US who used its "defective" pinnacle hip implants for 10 years from 2003 to 2013 before the product was withdrawn, in India it had for a very long time maintained that it had not received any adverse events report in the product. That is really where the discussion started about regulation of medical devices.

### What Are the Penal Provisions Under Indian Law?

There are various penal provisions under the Drugs and Cosmetics Act, 1940 for various kinds of offences. Manufacture or sale of substandard items is punishable with imprisonment of at least 10 years, which may extend to imprisonment for life. There is also a provision for fine that will "not be less than ₹10 lakh rupees or three times value of the confiscated items".

### How Has the Industry Reacted to The Government Move?

The industry has so far reacted positively, though doubts remain about the ability of the Central Drugs and Standards Control Organisation (CDSCO) to effectively regulate both drugs and medical devices.

## Six Years On, Lokpal Is A Non-Starter (Anjali Bhardwaj And Amrita Johri Are Transparency and Anti-Corruption Activists)

- The massive public campaign in 2011 demanding an independent anti-corruption ombudsman resulted in the passage of the Lokpal law. The political dividend of the agitation was reaped at the national level by the BJP, which vociferously supported the demand for an effective Lokpal and rode to power in 2014 on the plank of anti-corruption. More than six years after the Lokpal law received the President's assent, the institution of the Lokpal is yet to play any significant role in tackling corruption in the country. The manner in which the Lokpal has been emasculated by the current regime closely mirrors the undermining of other institutions of oversight and accountability. The preambular statement of The Lokpal and Lokayuktas Act, 2013 notes that the law has been enacted to ensure prompt and fair investigation and prosecution in cases of corruption against public servants. The Lokpal was envisioned to be independent. It was accorded a high stature and given extensive powers including the power to inquire, investigate and prosecute acts of corruption.

### Delay in Appointments

For more than five years, the chairperson and members of the Lokpal were not appointed. The government claimed that since no one could be recognised as the Leader of the Opposition (LoP) after the 2014 general election, the committee responsible for selecting members of the Lokpal could not be constituted. This malady could have been easily remedied by either recognising the leader of the single largest party in Opposition in the Lok Sabha as the LoP, or by amending the Lokpal law to allow the leader of the largest Opposition party to be a member of the committee in the absence of a recognised LoP (this was done for the selection committee of the CBI Director). However, neither recourse was taken. The chairperson and members of the Lokpal were appointed only in March 2019 after a contempt petition was filed in the Supreme Court following the failure of the government to comply with the 2017 ruling of the court to initiate the process of making appointments. A truncated selection committee, without the LoP, was set up. The Prime Minister, Speaker, and the then Chief Justice of India appointed Mukul Rohatgi, who had earlier served as Attorney General of India during the BJP regime, as the eminent jurist on the selection panel. The leader of the largest Opposition party in the Lok Sabha was invited for meetings of the selection committee as a 'special invitee', which he declined on grounds that it was mere tokenism. The four-member selection committee, having a preponderance of representatives of the ruling party with an inherent bias towards recommending candidates favoured by the

government, selected the Chair and members of the Lokpal. The manner in which the appointments were made raised doubts about the independence of the Lokpal even before it became operational. Despite the fracas over appointments, many had hoped that once constituted, the Lokpal would nevertheless be a significant oversight body to check corruption and the arbitrary use of power by the government. More than 10 months later, however, evidence suggests that the Lokpal is a non-starter. Till date, the government has not made rules prescribing the form for filing complaints to the Lokpal. The Central government has also failed to formulate rules regarding asset disclosure by public servants. In order to ensure independent and credible action on allegations of corruption, the Lokpal was empowered under the law to set up its own inquiry wing headed by a Director of Inquiry and its own prosecution wing headed by a Director of Prosecution. However, information accessed under the Right to Information Act has confirmed that the inquiry and prosecution wings of the anti-corruption ombudsman are yet to be set up. The Lokpal has also not appointed the Director of Inquiry or Prosecution. Further, regulations which the Lokpal was obligated to make under the law are yet to be made, including those specifying the manner and procedure of conducting preliminary inquiry and investigation. The website of the Lokpal states that it scrutinised 1,065 complaints received till September 30, 2019 and disposed of 1,000. Since necessary procedures to operationalise the law are yet to be put in place, the legal veracity of the decisions of the Lokpal could potentially be challenged in a court of law.

### Failure to Meet Expectations

Without the requisite rules, regulations and machinery in place, it is not surprising that the Lokpal has failed to meet expectations. In recent times, the only reason for the Lokpal being in the news has been the resignation of its judicial member, Justice Dilip B. Bhosale, for undisclosed reasons. The failure to operationalise the Lokpal in an effective manner lays bare the lack of political will of the BJP government. It took nearly half a century for the Lokpal law to be enacted from the time the need for the oversight institution was first articulated. It is anybody's guess how much longer it will take before India has an effective, independent and empowered Lokpal.

## Why It's A Good Idea to Have Police Commissioners in The Bigger Cities

- The Uttar Pradesh government recently introduced the Police Commissioner system in Lucknow and Noida, metropolitan cities with populations of about 29 lakh and 16 lakhs respectively (2011 Census). Making the announcement, the Chief Minister said that "in Police Commissioner system, police works as a team, under which the Police Commissioner has some magisterial powers in order to take forward smart and effective policing", while the UP Director General of Police (DGP) cautioned that "with this comes greater responsibility to deliver". These two statements sum up the roles and responsibilities of the police in the Police Commissioner system. Police in India are subject to dual control — although their administration under The Police Act, 1861 is vested in the police hierarchy, the District Magistrate exercises general control within his jurisdiction. All preventive actions initiated by police — from securing bonds of good behaviour from potential troublemakers, including habitual offenders, to using force during any law and order situation — require the executive magistrate's order. The Inspector General of Police (nowadays called DGP) is also entrusted with magisterial powers under the Act, although these are subject to limits imposed by the state government from time to time. Although most states have drawn up their own police

Acts (and repealed The Police Act of 1861) following directions issued by the Supreme Court in Prakash Singh v Union of India in 2006, dual control over police has been retained. The draft Model Police Act prepared by the Soli Sorabjee Committee to have a uniform law for police forces across the country, has not been adopted by any state. Since 'public order' and 'police' are part of the State List in the Seventh Schedule of the Constitution, it is for the states, and not the Centre, to initiate the bulk of police reforms.

## From 1856 to Now

The Police Commissioner system dates back to 1856. Samuel Wauchope was appointed Police Commissioner for the Town of Calcutta, and William Crawford for the Town of Bombay on November 1, 1856, under Act XIII of 1856. This Act provided for regulating police of the Towns of Calcutta, Madras and Bombay, and the Commissioner of Police was appointed as a Justice of the Peace for the preservation of peace and detection of crime. Subsequently, separate Acts (i.e., The Calcutta Police Act, 1866, The Madras City Police Act, 1888, The Bombay Police Act, 1951) were created to regulate these presidency towns. Ahmedabad in Gujarat was the fourth city to get a Police Commissioner vide The Gujarat Adaptation of Laws (of Bombay) Order in 1960. Delhi got its Commissioner of Police following the recommendations of the Khosla Commission, and the enactment of The Delhi Police Act in 1978. Later, the metropolitan cities of Tamil Nadu (Madurai and Coimbatore in April 1990, and Salem, Tiruchirappalli, and Tirunelveli in June 1997); Odisha (Bhubaneswar-Cuttack in January 2008); Haryana (Gurgaon in June 2007, Faridabad in August 2009, and Panchkula-Ambala in August 2011); Punjab (Amritsar, Jalandhar, and Ludhiana in February 2010); Rajasthan (Jaipur and Jodhpur in January 2011); Andhra Pradesh (Cyberabad in December 2003), Gujarat (Surat, Rajkot and Vadodara); West Bengal (Bidhannagar and Barrackpore in January 2012); and Karnataka (Kalaburgi in October 2018) too, got police Commissionerate's. Maharashtra has the most cities — 11 — with the police Commissionerate system; the latest to join the list was Meera-Bhayander late last year. Hyderabad got its Police Commissioner through The Hyderabad City Police Act of 1348F. ('Fasli year', which is 590 years behind the Gregorian calendar)

## Powers of The Police

The most important source of the police's magisterial powers is The Code of Criminal Procedure (CrPC), 1973. Section 20(1) authorises the state government to appoint as many executive magistrates "as it thinks fit", and Section 20(5) provides for conferring the powers of an executive magistrate on a Commissioner of Police in a metropolitan area. Under Section 8, the state can declare any area with a population of more than 1 million, a metropolitan area. The previous CrPC of 1898 too contained similar provisions. Much depends on how much power is entrusted to police to effectively check crime. The Orissa Urban Police Act, 2003 (Orissa Act 8 of 2007) for example, gives ample powers to police to prove their mettle; the Police Commissioner of Gurgaon, on the other hand, had no powers of an executive magistrate to begin with. The powers of an executive magistrate provided under several special Acts (such as The Arms Act and the Excise Act), which are essential to check the mafia and effectively control crime, remain out of reach of police in many states including Rajasthan and UP. Although Salem, Tiruchirappalli and Tirunelveli got Police Commissioners in 1997, powers under certain special Acts were transferred only in November 2006. In June 2019, the posts of Inspector General of Police of Kochi and Thiruvananthapuram were changed to

Commissioners of Police without any transfer of powers of the executive magistrate. Madhya Pradesh, Bihar, Jharkhand, Chhattisgarh, the Northeastern states, Jammu & Kashmir, Uttarakhand and Himachal Pradesh are yet to introduce the Police Commissioner system.

### Where Commissionerate's Score

The idea of entrusting greater powers to police via a police Commissionerate system is often accompanied by apprehensions of a "police raj", alongside questions over the fitness of police to exercise these powers. These apprehensions are baseless. While certain aberrations are indeed seen in some states, the Police Commissioner system in itself has many advantages. It enlarges the role of the police and allows it to work as an agency that promotes the rule of law and renders impartial service to the community. Unified control over the crime prevention and detection mechanism in the hands of the police hierarchy has great potential to improve public order. An integrated command structure enables the police to exhibit its comprehensive responsiveness, and to avoid the game of blame-shifting to other agencies. The National Police Commission set up in the 1970s to suggest police reforms, noted that large urban areas in which crime and law and order situations develop rapidly, require a speedy and effective operational response from police. This can be possible only when the police are organised to perform the twin basic functions of decision-making and implementation. The Commission recommended that in cities with populations of 5 lakh and more, and in places that witness special circumstances like speedy urbanisation, industrialisation, etc., the system of police Commissionerate would provide more effective policing. In fact, the situation in cities changes so quickly that the system of consultations between executive magistrates and police officers before taking preventive measures often leads to delays and confusion in urgent situations, which eventually attracts criticism from the public. An overall strengthening of the police structure and many reforms are needed — the adoption of the Commissionerate system is an effective first step in achieving the objectives of crime-fighting and maintaining the rule of law.

## Safeguarding the Delta

- By announcing that the Cauvery delta region, Tamil Nadu's rice bowl comprising eight districts, will be declared as 'Protected Special Agricultural Zone' (PSAZ), State Chief Minister Edappadi K. Palaniswami has recognised farmer concerns about hydrocarbon exploration and accorded primacy to food security. In political messaging, he also sought to deflect the perception that the AIADMK government, after Jayalalithaa's death, is subservient to the BJP-led central government and is complicit in allowing "anti-people" projects. His decision comes weeks after he protested the Centre's unilateral amendment of the Environment Impact Assessment Notification 2006, exempting prior environmental clearance and public consultations for oil and gas exploration. The delta, which produces 33 lakh tonnes of grains in 28 lakh acres, has seen multiple protests for a decade over methane, hydrocarbon, oil and natural gas projects, which required acquisition of fertile lands and well drilling — proposals which triggered fears of groundwater contamination. In July 2013, in response to sustained protests, then Chief Minister Jayalalithaa ordered suspension on coalbed methane exploration and production in Thanjavur and Tiruvarur and followed it up with a ban in 2015. But in 2017, the Centre signed contracts for hydrocarbon extraction from 31 areas of discovered small fields including from Neduvasal. Two years later it allowed Vedanta Limited to conduct tests for 274 hydrocarbon wells in Tamil Nadu and Puducherry. Mr. Palaniswami

has rightly sensed that the farmers' emotive and intense opposition can be ignored only at a political cost. Agricultural scientists such as M.S. Swaminathan have for long mooted such zones similar to special economic zones; Uttarakhand and Kerala have them. Tamil Nadu now has to enact legislation to protect a vast region, largely in the coastal area, from industries that would affect farming. The State has its challenges. In 2017, a government notification delineated 45 villages covering about 23,000 hectares in Cuddalore and Nagapattinam districts in the delta, as a Petroleum, Chemical and Petrochemical Investment Region, with an eye on over ₹90,000 crore in investments. The proposed PSAZ raises a question mark on this ambitious scheme. The government may have to brave central pressure and litigation from companies which pumped in money for exploration. The latest decision may have implications for the State's investment climate, what with the closure of the Sterlite Copper plant still fresh in memory. But the intent to prioritise farmer interests and food security is beyond reproach.

## Gujarat Hostel Girls Checked for Menstruation

- At least 60 girls in a hostel in Gujarat's Kutch were allegedly asked to remove their undergarments to prove that they were not menstruating, after complaints that girls having periods had entered the temple and kitchen in the premises. The hostel is part of the Shree Sahajanand Girls Institute (SSGI), run by a trust of the Swaminarayan Temple. The hostel rector and college principal are reported to have given instructions for the checking. Shocked and humiliated, some girls complained to local media in Bhuj, Kutch. Girls in the hostel are mostly from villages of Kutch district. "What has happened is condemnable," said the institute's trustee Pravin Pindoria. However, some hostel authorities have defended the sect's norms on keeping away menstruating women from the temple and the kitchen. A student said the incident took place in the hostel located on the campus of the SSGI, which offers graduate and undergraduate courses. The State Women's Commission has ordered an inquiry and a team has been formed by Kutch University, to which the institute is affiliated. The National Commission for Women has also sought a report. "We have sent a police team under a woman inspector to talk to the girls and are in the process of filing an FIR. Though the girls are not ready to come forward, we are confident that at least one girl will come forward to lodge a FIR," Kutch West Superintendent of Police Saurabh Tolumbia said.

## Kerala Imposes ₹13 Price Cap on Bottled Water

- Bottled drinking water has come under a price cap in Kerala, with the State making it an essential commodity and fixing a ceiling of ₹13 per litre. The current retail price is ₹20. The State government on Wednesday announced the price reduction after Chief Minister Pinarayi Vijayan signed the Food Department proposal. Including bottled water in the list of essential commodities enables price control. Food Minister P. Thilothaman told The Hindu that the notification on the new price would be issued soon. He said the government had also decided to make BIS standards mandatory for all brands of bottled water. This would force unauthorised manufacturers to shut shop. In 2018, the government convened a meeting of bottled water manufacturers at which it was decided to bring down the price to ₹12. But the decision was not implemented in the face of opposition from traders and some manufacturers. The Minister said some companies had insisted on a minimum price of ₹15. "We understood that manufacturers could afford to sell bottled water at much less. Traders were also fleecing buyers, extracting a huge margin. The government cannot close its eyes

to such exploitation," he said. The Kerala Bottled Water Manufacturers' Association welcomed the decision to reduce the price. Its president, M. E. Mohamed, said the Association had taken the initiative to cut the retail price after multinational brands hiked their price to ₹20 a litre in 2012. There was, however, some opposition from industry players, over commercial concerns. The State government sells a litre of bottled water at ₹10, through a subsidiary of the Kerala Water Authority, he said. The move by the State government would help the industry in the long run. The public felt that bottled water manufacturers were fleecing customers. There are around 200 bottled water manufacturers in Kerala, as per a rough estimate. But the Association has less than a hundred members. Most manufacturers sell around 300 to 500 cases of bottled water a day, a case consisting of 12 one-litre bottles.

## Riding on Data for Mobility (Dileep Konatham -Director, Digital Media, Telangana Government, And Heads The 'Open Data Initiative'. K. Yeshwanth Reddy - Lead-Urban Mobility at The Ola Mobility Institute)

- The digital revolution has made interactions between humans and machines, and among citizens, governments and businesses, seamless and efficient. Today, e-governance enables and empowers citizens to directly engage with the state, thereby eliminating barriers in the delivery of public services. The next wave of transformation in digital governance is at the intersection of data and public good. The key to this transformation lies in incorporating data as a strategic asset in all aspects of policy, planning, service delivery and operations of the government. Transportation is one such critical area, where data-based governance is expected to provide a solution to the ever-growing threat of congestion to urban economies. Congestion caused an estimated loss of $87 billion to the U.S. economy and $24 billion to the four metro cities in India in 2018. Given the limited land resources available, the key to solving congestion lies in improving the efficiency of existing transportation systems.

### Multiple Sources

An efficient transportation system would help ease congestion, reduce travel time and cost, and provide greater convenience. For this, data from multiple sources such as CCTV cameras, automatic traffic counters, map services, and transportation service providers could be used. A study by Transport for London, the local body responsible for transport in and around the U.K. capital, estimates that its open data initiative on sharing of real-time transit data has helped add £130 million a year to London's economy by improving productivity and efficiency. In China, an artificial intelligence-based traffic management platform developed by Alibaba has helped improve average speeds by 15%. Closer home, the Hyderabad Open Transit Data, launched by Open Data Telangana, is the country's first data portal publishing datasets on bus stops, bus routes, metro routes, metro stations, schedules, fares, and frequency of public transit services. The objective is to empower start-ups and developers to create useful mobility applications. The datasets were built after an intensive exercise carried out by the Open Data Team and Telangana State Road Transport Corporation to collect, verify and digitise the data. Hyderabad has also begun collaborating with the private sector to improve traffic infrastructure. One such partnership followed a Memorandum of Understanding signed between the Telangana government and Ola Mobility Institute. Under this collaboration, Ola has developed a tool, Ola City Sense, to provide data-based insights that can monitor the quality of Hyderabad's roads and identify bad quality patches. The data is provided to city officials on a dashboard, and updated every 2-3 weeks to capture the

nature of potholes/roads. The information thus given is useful not only for carrying out road repairs, it also helps officials take initiatives to improve road safety, monitor quality of construction, and study the role of bad roads in causing congestion.

### Planning Road Repair Work

A pilot was implemented in a municipal zone to gauge the efficacy of the data in supporting road monitoring and prioritisation of repairs. The early results of this pilot project were encouraging. The dashboard helped city officials plan the pre-monsoon repair work and budget for repairs last year. The pilot also demonstrated the willingness of government departments to apply data-based insights for better decision making. This tool is now being adopted across all municipal zones under the Greater Hyderabad Municipal Corporation. This could also serve as a model for other cities to emulate. The Hyderabad example shows that governments can make their departments data-centric by institutionalising data collection, building technology platforms and helping the departments develop capacity to handle the insights generated from the data. Command and control centres under the 'smart cities' initiative can be an ideal starting point. Such interventions, however, also need to address genuine concerns around data security and privacy. The Telangana government has declared that the year 2020 will be the Year of Artificial Intelligence. It aims to run hackathons and masterclasses with AI as the theme. Discussions are on to include AI for Traffic Management. At the core of AI-based algorithms is good data, and partnership with key stakeholders can only help build such algorithms. Insightful data will be the key to transform Hyderabad into a 'world-class city' in terms of mobility.

## The Delhi Model of Education (Shailendra Sharma - Principal Advisor to Director Education at Directorate Of Education, Government Of NCT Delhi)

- In the last five years, the Delhi model of education has caught the attention of people in Delhi and beyond. For too long, there have been two kinds of education models in the country: one for the classes and another for the masses. The AAP government in Delhi sought to bridge this gap. Its approach stems from the belief that quality education is a necessity, not a luxury. Hence, it built a model which essentially has five major components and is supported by nearly 25% of the State Budget. The validation of this model now creates a pathway for the next set of reforms.

### Key Components of The Model

The first component of the education model is the transformation of school infrastructure. Dilapidated school buildings that lack basic facilities not only indicate the apathy of the government, but also significantly lower the motivation of teachers and the enthusiasm of students. The AAP government sought to change this by building new, aesthetically designed classrooms equipped with furniture, smart boards, staff rooms, auditoriums, laboratories, libraries, sports facilities and so on. The second component is the training of teachers and principals. Apart from the fact that a forum was created to encourage peer learning among them, several opportunities were given to teachers for their professional growth. They visited Cambridge University; the National Institute of Education, Singapore; IIM Ahmedabad; and other models of excellence in India. The exposure to new pedagogy and leadership training enabled Delhi to gradually move away from a uniform training model for all to learning from

the best practices in India and abroad. The third component involved engaging with the community by reconstituting school management committees (SMC). The annual budget of each SMC is ₹5-7 lakh. The SMCs can spend this money on any material or activity, such as even hiring teachers on a short-term basis. Regular dialogue between teachers and parents was initiated through mega parent-teacher meetings. Guidelines are provided on how to engage with parents. Invitations for meetings are sent through FM radio, newspaper advertisements, etc. Four, there have been major curricular reforms in teaching learning. In 2016, the AAP government noted that there was a nearly 50% failure rate in Class 9 and admitted that the poor foundational skills of children could be the reason for it. Special initiatives to ensure that all children learn to read, write and do basic mathematics was launched and made part of regular teaching learning activities in schools. Similarly, a 'happiness curriculum' was introduced for all children between nursery and Class 8 for their emotional well-being. Further, an 'entrepreneurship mindset curriculum' was introduced to develop the problem-solving and critical thinking abilities of children in Classes 9 to 12. Apart from these new curricular initiatives, the focus on existing subjects too ensured better performance in Board examinations by Classes 10 and 12. Fifth, there was no fee increase in private schools. While the first four components impacted nearly 34% of children in Delhi's government schools, arbitrary fee hikes earlier impacted about 40% children who go to private schools. In the past, almost all the schools increased their fee 8-15% annually. The AAP government not only ensured the refund of about ₹32 crore to parents which was excessively charged by private schools, it also ensured that any fee hike proposal was examined by authorised chartered accountants. Thus, for two years no school was allowed to raise its fee.

## AAP 2.0: The Challenge Ahead

- The Aam Aadmi Party (AAP) routed its closest rival, the BJP, for the second successive time in Delhi's Assembly elections. Many of AAP's detractors, especially in the BJP, have repeatedly argued that AAP solely relies on offering fiscally-ruinous "freebies" to the voters and luring them to vote for AAP. Its supporters, on the other hand, argue that AAP's policy choices — with stress on improving provisioning of public education and public healthcare — present a new model of governance, and point out that under AAP, Delhi has not only grown faster than the India average but also increased its share to the national GDP. Where does the truth lie? Has the AAP government run its schemes by borrowing money from the market and increasing fiscal deficit? Or has it run one of the most fiscally-prudent governments in India? More importantly, is the AAP model sustainable?

### What Are the Schemes That Are Referred to As The "Freebies"?

The most recent example was the AAP government's decision to allow free bus rides for women in Delhi. But it was not the first time nor the only scheme that involved the government subsidising a section of the society. Since 2015, when it came to power with 67 (out of 70) seats, AAP has provided:

- Subsidy for those using less than 400 units of electricity; moreover, there has been no hikes in power prices over 5 years and Delhi now has the lowest electricity tariffs among the metropolitan cities of the country.
- Free water for families that use less than 20,000 litres a month; the number of such families has almost trebled as a result.

- Private schools have had to return the increased fee they charged "arbitrarily"; these schools now also provide 25% seats for students from marginalised backgrounds.
- The government provides a loan of up to ₹10 lakh to every student so that no student has to leave studies; it has also started a scheme of waiving up to 100 per cent fee for children of extremely poor families.
- The government provides free treatment, medicines and test facilities in nearly 200 Mohalla clinics, apart from free surgeries in empanelled hospitals; the government also bears the expenditure for the treatment of road accident and fire burn victims.
- The minimum wage for every worker has been raised from ₹9,500 to ₹14,000.
- Similar increases have been seen in the salaries of guest teachers in schools, honorariums of Anganwadi and Asha healthcare workers as well as the pensions of senior citizens, Divyangs, and distressed women.

This is not a complete list but the maximum stress of these schemes is towards education and healthcare provisioning by the state government.

## How Does This Affect Delhi Expenditures?

Predictably, in Delhi's budget, the share of expenditure on education and healthcare sectors (as part of the overall expenditure) has zoomed. The spike in Delhi is in stark contrast to the attention these sectors received on an average across all other states.

## Has This Not Ruined Delhi's Fiscal Health?

Yes, and no. That's because this can be answered both ways. The most commonly used parameter is fiscal balance. The fiscal balance contrasts where Delhi stands as against the India average — and it basically maps the level of money (as a percentage of Gross State Domestic Product) that a state government has to borrow from the market in order to fill the gap between its overall expenditures and total revenues. Data show that despite these expenses, the AAP government ran lower fiscal deficits not just when compared to the rest of India's average but also past Delhi governments. Despite the expected slippage in the current financial year, AAP has the lowest fiscal deficit of any state in the country. But what is even more striking is its performance on revenue balance, which maps the gap between revenue expenditure and revenue receipts. Typically, maintaining a revenue surplus is very difficult as subsidies and freebies tend to raise the revenue expenditure; states rarely achieve a revenue surplus. But Delhi continues to have a revenue surplus right through — and makes it charges of fiscal imprudence rather hard to stick, especially when most of the states in the country stay in the negative territory.

## Then, What Is the Reason for Worry?

Delhi's revenue surplus is coming down with each passing year and its fiscal deficit is starting to grow significantly. The revenue surplus, for instance, has come down from 1.6% of GSDP to just 0.6% over the AAP's tenure. Manish Gupta, Assistant Professor at the National Institute of Public Finance and Policy (NIPFP) said: "If we look at the own tax revenues (OTRs) of Delhi, we find that they have fallen from 5.49% of GSDP in 2015-16 to 4.93% in 2018-19. Despite this fall, its overall revenues have stayed roughly the same because of the GST compensation. But declining OTRs is a worry for sustaining expenditures". Apart from this growing weakness in raising its own tax revenues, there was another structural disadvantage of AAP's

policy focus. Capital expenditure — that is investments into making new infrastructure like schools and hospitals — has been falling. So, while spending more money into improving the functioning of existing schools and hospitals is creditable, not investing adequately towards raising the productive capacity of a growing city like Delhi will create bottlenecks in the medium- to long-term.

## Arsenic-Resistant Rice Cultivated In WB

- Researchers have developed and commercialised a rice variety that is resistant to arsenic. Several studies have shown that arsenic from groundwater and the soil can enter the food chain through paddy. West Bengal is among the States with the highest concentration of arsenic in groundwater, with as many as 83 blocks across seven districts having higher arsenic levels than permissible limits. The new rice variety, *Muktoshri* — also called IET 21845 —, was developed jointly by the Rice Research Station at Chinsurah coming under West Bengal's Agriculture Department and the National Botanical Research Institute, Lucknow, over several years. A gazette notification for the commercial use of Muktoshri was made by West Bengal last year. Bijan Adhikari, one of the scientists who worked on developing the variety, said that the State government's decision to make the seeds available for cultivation came after successful trials in both the wet season and dry season in different blocks of the State. The trials were done in areas with arsenic contamination in groundwater, particularly in Nadia, North 24 Parganas, Bardhaman and Murshidabad. Across the State, thousands of farmers have started cultivation, even in areas where arsenic in groundwater is not an issue, because of the aroma and the yield. According to the World Health Organization, long-term exposure to arsenic, mainly through drinking water and food, can lead to poisoning. Skin lesions and skin cancer are the most characteristic effects.

## Benefits of A Post-Lunch Nap at Work Rated Highly by Study

- A paper published recently by the non-profit National Bureau of Economic Research (NBER), based in Cambridge, Massachusetts, U.S., argues that higher quality sleep during a power nap improves economic and psychological outcomes over an increase in the number of hours of sleep. The paper, by Pedro Bessone et al, was based on a project that measured sleep among 452 low income adults in Chennai, and acknowledges "generous funding and support" from the government of Tamil Nadu and the Massachusetts Institute of Technology-based Abdul Latif Jameel Poverty Action Lab, among others. "Adults in Chennai have strikingly low quantity and quality of sleep relative to typical guidelines: despite spending eight hours in bed, they achieve only 5.6 hours per night of sleep, with 32 awakenings per night," the paper states.

### 'Sleep Efficiency'

"Sleep efficiency is calculated by dividing the sleep you are getting by the time spent in bed, expressed as a percentage," explains Dr. N. Ramakrishnan, senior consultant, sleep management, Apollo Hospitals, here. Just over five hours out of eight hours in bed is not good sleep efficiency, he adds. That means sleep efficiency was only 70% in the sample, which, the authors argue, was "much lower than in U.S. populations or even those with disorders such as sleep apnea". As part of the study, the subjects were recruited for a full-time data-entry job for one month. The researchers then cross-randomised the sample into two types of interventions to increase sleep: night sleep treatments, and a nap treatment

that gave them, daily, an opportunity to take a half-hour nap in the afternoon in a quiet space in the office.

### Qualitatively Better

The night-sleep interventions increased sleep by an average of 27 minutes per night, but this increase in time asleep was entirely driven by greater time spent in bed — on average 38 additional minutes per night — rather than improved sleep efficiency. Naps were effective at increasing sleep — 88% of individuals fell asleep at some point during their allotted nap time, yielding an average of 13 minutes of nap sleep per day. This was of a higher quality than night sleep, the NBER records. Increased night sleep did not have any measurable positive impacts on a range of outcomes. Naps, on the other hand, increased work productivity by 2.3%, boosted a measure of attention, and improved psychological well-being. It also emerged that naps increased patience, and actually resulted in 14% higher deposits in a savings account, according to the paper.

### Environments Contribute

"There is no doubt that both quality of sleep and the hours you get are important. But, lying in bed is not equal to sleep," Dr. Ramakrishnan explains. "In this particular study, the environments might have contributed a great deal to the benefits derived from the nap." In a low-income group, he argues, the environments in which people get their night's sleep may not be ideal for a disruption-free sleep. In contrast, when they were allowed to rest in a comfortable disruption-free environment at the workplace, they might have derived greater benefits from it.

## How Wide Is the Gender Gap in Science?

- On February 11 was the International Day of Women and Girls in Science, established by the United Nations to promote equal access to and participation in science for women and girls. While some of the greatest scientists and mathematicians have been women, they remain under-represented in comparison to their male counterparts in higher studies involving science, as well as among the top scientific achievers.

### Researchers and Achievers

According to a 2018 fact sheet prepared by UNESCO on women in science, just 28.8% of researchers are women. It defines researchers as "professionals engaged in the conception or creation of new knowledge". In India, this drops to 13.9%. Between 1901 and 2019, 334 Nobel Prizes have been awarded to 616 Laureates in Physics, Chemistry and Medicine, of which just 20 have been won by 19 women. The double Laureate is Marie Curie, one of just three women who have won in Physics and one of just five in Chemistry, while 12 women have won the Medicine Nobel. In 2019, the American mathematician Karen Uhlenbeck became the first woman to win the Abel Prize, following 16 male mathematicians. The Fields Medal so far has also been awarded to only one-woman mathematician, the late Maryam Mirzakhani of Iran, as opposed to 59 men since 1936.

### Women in Science Courses

UNESCO data from 2014-16 show that only around 30% of female students select STEM (science, technology, engineering and mathematics)-related fields in higher education. Female enrolment is particularly low in information technology (3%), natural science, mathematics and statistics (5%) and engineering and allied streams (8%). In India, a 2016-17 NITI Aayog report compared female enrolment in various disciplines over five years, until 2015-16. In 2015-16, 9.3% of female students in undergraduate courses were enrolled in engineering, compared to 15.6% across genders. Conversely, 4.3% of female students were enrolled in medical science, compared to 3.3% across genders. Then, at master's and doctoral levels, female enrolment remained lower than overall enrolment, and also fell behind for medical science in three of the five years. "This reflects that moving up from UG to higher degree and research programmes, the restricted presence of women in higher studies and research in science becomes evident for broader range of disciplines," the report said. Broadly, women showed a preference for arts; however, female enrolment in science streams rose from 2010-11 to 2015-16. The report found that in over 620 institutes and universities, including IITs, NITs, ISRO, and DRDO, the presence of women was 20.0% among Scientific and Administrative Staff, 28.7% among Post-Doctoral Fellows, and 33.5% among PhD scholars.

### Why the Gender Gap

Various studies have found that girls excel at mathematics and science-oriented subjects in school, but boys often believe they can do better, which shapes their choices in higher studies. In 2015, an analysis of PISA scores by OECD found that the difference in maths scores between high-achieving boys and girls was the equivalent of about half a year at school. But when comparing boys and girls who reported similar levels of self-confidence and anxiety about mathematics, the gender gap in performance disappeared — when girls were more anxious, they tended to perform poorly. The NITI Aayog report said, "The problem of entry of women in science is not uniform across disciplines. Interventions geared to popularising subjects such as Engineering or the Physical sciences or Chemistry among female students at the school level in both urban and rural areas might be helpful in changing mind-set."

## Who Was Kota Rani, Likened to Mehbooba?

- It has been reported that that among several other reasons why the government believed Mehbooba Mufti, the former chief minister of Jammu & Kashmir, should be detained under the controversial Public Safety Act (PSA) last week was a reference to her being likened to Kota Rani. According to reports, the dossier states that people refer to Mehbooba as "Kota Rani" for her "dangerous and insidious machination and usurping nature". The PSA dossier states: "The subject is referred, for her dangerous and insidious machinations and usurping profile and nature, by the masses as 'Daddy's girl' and 'Kota Rani', based on the profile of a medieval queen of Kashmir, who rose to power by virtue of undertaking intrigues ranging from poisoning of her opponents to ponyardings (sic)."

### Who was Kota Rani?

Kota Rani is remembered as the last ruler belonging to the Hindu Lohara dynasty in Kashmir. She died in 1339. According to Mohibbul Hasan's "Kashmir under the sultans," she was the

daughter of Ramchandra, the commander-in-chief of Suhadev, who was the king of Kashmir belonging to the Lohara dynasty. Ramchandra was tricked and defeated by one of his administrators, Rinchan, who was a Ladhaki prince. Rinchan was ambitious and wanted to the throne. To gain the trust of the locals, he married Kota rani and took Ramachandra's son, Rawanchandra, in his confidence by making him his commander-in-chief. Rinchan ascended the throne in 1320 but died after quelling a rebellion by a former minister in 1323. In between, Rinchan converted to Islam after coming in contact with the Sufis of the Suharawardy order. He took the title of Sadr-ud-din. After his death, his minor son from Kota Rani, Hydar, became the king. But since Hydar was a minor, Kota Rani acted as Regent. Later, on the advice of her ministers, Kota Rani invited Suhadev's brother, Udayandeva to be king and married him to be the queen again. Udayandeva was a weak king and Kota Rani was effectively the ruler of Kashmir during Udayandeva's reign between 1323 to 1338 AD. After Udayandeva's death in 1338, she ignored the demand of both her sons – one from Rinchan and the other from Udayandeva – and instead ascended the throne herself. However, one of her key advisers, Shah Mir, who wanted power for himself did not like her rise. He offered to marry her and become the king and when she rejected the proposal, he took over the kingdom and imprisoned her and her two sons. She died in captivity in 1339. Mir Shah, who was called Shams-ud-din, then laid the foundation of his dynasty that ruled Kashmir for the next two and half centuries.

## Museum on Delhi's Art History at Qila Rai Pithora

- The rise and fall of the cities of Delhi will be told through its art at a new museum being set up by the Archaeological Survey of India (ASI) at Qila Rai Pithora, considered to be the first of the seven historical cities. "Just a half a mile from the UNESCO World Heritage Site of Qutub Minar, in the Mehrauli area of Delhi, the exhibition should present itself as an Ode to the Art of Delhi,". The document added that Delhi had seen several cities rise and fall over millennia. Over the years, artists have depicted Delhi's history and imagined its future, it said. The plan includes a curated exhibition in a refurbished building of Qila Rai Pithora, which dates back to the 11th century, and would include paintings, sculptures, prints, photographs, maps, posters, books and installations. A virtual reality lab may also be included. Apart from Qila Rai Pithora, the other historical cities of Delhi are Siri Fort, Tughlaqabad, Jahanpanah, Firozabad, Purana Qila and Shahjahanabad over the years.

## Experts' Meet to Discuss Restoration of Sun Temple

- A plan to restore and preserve the nearly 800-year-old Konark Sun temple in Odisha would be drawn up soon. The 13th century temple, a UNESCO World Heritage Site, had been filled with sand and sealed by the British authorities in 1903 to stabilise the structure, an Archaeological Survey of India (ASI) official said. A scientific study was carried out by the Roorkee-based Central Building Research Institute from 2013 till 2018 to ascertain the temple's structural stability as well as the status of the filled-in sand, the official said. The official said the study found that the sand filled in over 100 years ago had settled, leading to a gap of about 17 feet. The official, however, added that the structure was found to be stable. The ASI was in the process of removing the scaffolding erected for the study, the official said, adding that all the scaffolding would be taken down by the end of the month. Among the potential choices before the government would be to fill in more sand or to remove all the sand and put in place alternate support.

## Business & Economics

### Why Industrial Production Has Contracted, What It Means for The Economy

- Just a day after Finance Minister Nirmala Sitharaman quoted the Index of Industrial Production (IIP) data for November 2019 as one of the evidence of the emerging "green shoots" in the economy, the Ministry of Statistics and Programme Implementation released the December data, which, in turn, shows that the IIP contracted by 0.3 per cent. In November, the IIP had expanded by 1.8% after witnessing three consecutive months — August, September, and October — of contraction. A key reason for positive growth in November was the favourable base effect. The latest contraction would predictably undermine the FM's assertion about the economy turning around. On the whole, between April and December 2019, the IIP has now shown a cumulative growth of a meagre 0.5%. According to the Quick Estimates of IIP, in terms of industries, 16 out of the 23 industry groups in the manufacturing sector have shown negative growth during the month of December 2019 as compared with the corresponding month of the previous year. In other words, the contraction continues to be widespread.

#### What is IIP?

The IIP is an index used to track the performance of the industrial sector in the Indian economy. It does this by mapping the volume of production. But since it is an "index", it targets a basket of industrial products — ranging from the manufacturing sector to mining to energy — and allocates different weights to them. Then, depending on the production of this basket, it throws up an index value. The index value is then compared with the value of the index in the same month a year ago to arrive at a percentage growth or decline figure.

#### How Is IIP Data Read?

There are two ways to understand the IIP data. One can either drill down the IIP data and look at the sectoral performance — where the whole industrial sector is divided into three sub-sectors, namely manufacturing, mining and electricity — or look at the use-based classification.

#### What Is the Sectoral Classification?

In the sectoral classification, manufacturing has the highest weight of 77.6%, mining has 14.4% share and electricity has 8% weight. In December, while production in mining grew by 5.4%, in manufacturing, which is the biggest chunk, production contracted by 1.2%; electricity contracted too, albeit marginally.

#### What Is Use-Based Classification?

Within the use-based classification, data is provided for six categories. These are :-

Primary Goods (consisting of mining, electricity, fuels and fertilisers) — this has a weight of 34%

Capital Goods (e.g. Machinery items) — this has a weight of 8%

Intermediate Goods (e.g. yarns, chemicals, semi-finished steel items, etc) — this has a weight of 17%
Infrastructure Goods (e.g. paints, cement, cables, bricks and tiles, rail materials, etc) — this has a weight of 12%
Consumer Durables (e.g. garments, telephones, passenger vehicles, etc) — this has a weight of 13%
Consumer Non-durables (e.g. food items, medicines, toiletries, etc) — this has a weight of 15%.
In December, while production of primary goods and intermediate goods has picked up, that of capital goods has contracted heavily. This shows there is little demand for new machinery, which in turn shows there is *little enthusiasm in the economy to make new investments.* The other three categories also witnessed contraction.

### What About Green Shoots of The Economy?

*Observers who have tracked IIP for long argue that the key variable from the point of view of sustained growth or decline is the category of "intermediate goods". That's because it tallies with the order books. If intermediate goods are growing at a sustained pace month after month, then the domestic economy cannot continue to flounder for long. Similarly, if this category shows contraction, sustained growth appears far away. In December, this category has grown by 12.5%; in November it grew by over 17%, in October it grew by over 22% and in September by 7%. As such, there is hope that perhaps the economy has seen its worst. However, the weakness across most other categories continues to be a matter of worry.*

## Facing Up to Realities (Praveen Chakravarty - Political Economist and An Office Bearer of The Congress Party)

- As India entered the 21st century, the Net National Income of the average Indian was ₹20,000. While this figure is not the actual earnings of an individual, it is a good proxy for the average Indian's annual income. By 2015, it had grown to ₹90,000. Had it continued on the same trajectory; it should have been ₹1,65,000 today. Instead, as the recent Economic Survey shows, the Net National Income for the average Indian is ₹1,35,000. In other words, the average Indian has potentially lost ₹30,000 in net annual income. For most Indians, ₹30,000 a year is a very big amount. This is the cost of economic under-performance for the average Indian.

### The POW Trinity

It is well accepted by most political economists that India's economic performance is largely shaped by the 'POW' trinity — politics, oil and world economy. Political leadership and stability are critical determinants of domestic and foreign investment in India. Global oil prices play an inordinately large role in shaping India's macroeconomy. World trade and global GDP drive India's exports and industry. In 2014, India gleamed with hope. For the first time in nearly half a century, the 'POW' trinity was perfectly aligned. Indians handed a parliamentary majority to a supposedly strong, decisive leader with a promise of economic development. Beginning in 2014, global crude oil prices dropped precipitously from more

than $100 a barrel to $40. It was estimated then that the steep fall in oil prices alone would add two extra percentage points to India's GDP growth rate, besides taming inflation. The global economy was also on an upward trend from 2014, recovering robustly from the devastation of the 2008 economic crisis. The period from 2014 to 2019 was among the best five years for world economic growth in the 21st century. So, in the summer of 2014, a billion Indians glimmered in hope and excitement at the prospect of rapidly rising income levels and prosperity under a perfectly aligned 'POW'. Six years later, not only has the average Indian's income levels not grown faster than before, it is actually ₹30,000 short of what it should have been. Why did things go so wrong? The ongoing health catastrophe caused by the novel coronavirus in Hubei province of China offers meaningful parallels and lessons for India's economic policy climate.

## The Coronavirus Parallel

In a recent article, The New York Times reconstructed the events leading up to the novel coronavirus crisis. In early December, several shopkeepers in an open meat market in Wuhan started falling ill. Doctors in the hospital treating these patients raised alarms about a mysterious illness. The Mayor of Wuhan, however, did not want any negative news about his city. He issued summons to the doctors who raised alarm about the illness and forced them to sign statements that their warnings were unfounded. Further, Wuhan's healthcare authorities placed restrictions on discussing the illness in public. They assured the public that the disease was "entirely preventable and curable" and issued statements claiming that all was well. Ironically, at this time, the Mayor even held a "Health Expo" event to showcase Wuhan as a top healthcare destination. Within days, there were hundreds of deaths and all hell had broken loose. It was no longer possible for the government to suppress this bad news. Within a span of seven weeks from the doctors raising an alarm about a mysterious disease, the novel coronavirus became a global epidemic. It is both tempting and natural to ponder about the counterfactual. Could China have been saved from the novel coronavirus epidemic had the doctors' alarms not been suppressed? What could the situation have been had the government not stifled factual reporting? Could doctors and scientists have discovered the virus sooner and ring-fenced it, had the Mayor not intimidated the doctors into silence? One will never know. But it is indisputable that drawing a veil over the ugly truth and facts made it much worse and the consequences more dire than what could have been. The parallel with India's unfolding economic crisis is striking. India's government had dismissed, ignored, silenced or shunted all negative data, indicators, views and opinions about the economy. From the initial signs in 2015 of a banking stress to falling private investment to collapsing consumption demand to dormant exports and rising unemployment, there were ample signs and metrics of the rapidly deteriorating state of the economy. But these were either quickly buried or altered. Sure enough, India's economic growth has collapsed to a six-year low. Similar to the Wuhan situation, one is left to wonder about what could have been India's economic situation today had early alarm bells been heard and acted upon, warnings not suppressed and expert advice not dismissed. The average Indian is paying the price for this severe folly – ₹30,000 a year. However, there is now one major difference in the way the Wuhan novel coronavirus crisis is being handled vis-a-vis the Indian economic crisis. The Chinese government has acknowledged the enormity of the Wuhan crisis and is acting at lightening speed to salvage the situation. It built a brand new 1,000-bed hospital in just 10 days to accommodate patients and contain the virus. It is

building two more hospitals. Experts from across the country are being sent to Wuhan. There is an all-out effort by the government to help China recover from this crisis.

### Nonchalant Central Government

On the other hand, India's Finance Minister, in delivering the longest Budget speech in history recently, did not even seem to acknowledge the enormity of the economic crisis, much less outline concrete steps to revive the economy. Beyond the numbers about fiscal deficit, taxation and expenditure, the most worrying and important takeaway from the recent Budget exercise was the government's seeming nonchalance towards the gravity of the crisis the Indian economy is facing. Any amount of analysis of the intricate details of the Budget numbers or schemes is moot unless there is confidence and trust built among economic participants that the government is seized of the gravity of the situation and is taking concrete steps to resolve it. At present, this is conspicuously missing. Health pandemics and economic crises cannot be draped and masked for too long. India's $3 trillion market economy cannot be dictated and bullied into appropriate behaviour. It needs careful treatment by experts. It may be a cliché that desperate times call for desperate measures but worth repeating. While the run-up to India's economic crisis was eerily similar to the way China ignored warning calls on coronavirus, one hopes, for the sake of a billion Indians and the world, that the Indian government emulates the Chinese government in handling its crisis.

## One Asia, Two Perspectives (C.T. Kurien - Formerly, Director, Madras Institute of Development Studies)

- In 1968, Gunnar Myrdal, distinguished Swedish economist and later a Nobel Laureate, published his three-volume Asian Drama. Its subtitle, An Inquiry into the Poverty of Nations, reflecting Adam Smith's An Inquiry into the Nature and Causes of the Wealth of Nations, was meant to convey that it should be seen as a modern epic. That the economies of Asian countries, perhaps mainland Asian countries excluding Japan, were in dire poverty in the early part of the 20th century was widely accepted. But in the middle of the century they became independent countries and UN members that called for necessary changes in diplomatic parlance. The poor countries became "underdeveloped" (and rich countries "developed") and development became the central idea in official and scholarly discourse. And soon the crux of the problem was identified too. The underdeveloped economies were caught in a "low-level equilibrium trap" — low incomes, low savings, low investment — and thus a built-in inability to grow. The remedy, of course, was foreign aid accompanied by labour-intensive technologies. Myrdal refused to fall in line. It is hazardous to summarise what took Myrdal 2,000 pages to analyse Asian countries and then to arrive at his own pessimistic conclusion about the continent's prospect. As an economist, he used the standard concepts of the profession, but what he put forward as the "social system" had additional features: attitude towards life and work and institutions in general. Expounding these special features of Asia took the major part of Asian Drama.

### Value Comparison

Myrdal made a comparison of "Western values" and "Asia Values". Among the latter he included survival mindedness; irresponsiveness to opportunities for betterment; scorn for

manual labour; unwillingness to work for others; superstitious beliefs and irrational outlook; submission to authority and exploitation; low aptitude for cooperation. Combine these with what Myrdal considered to be institutions specific to Asia — underdeveloped institutions for enterprise, employment and credit; imperfections in the authority of government agencies; low standards of efficiency and integrity in public administration. Add to these the caste system and the joint or extended family, and Asia emerges substantially different from western nations. He was willing to concede that radical policy measures could bring about change in Asian countries, but thought that social, cultural and religious attitudes made it virtually impossible to realise changes via that route. Asian countries, therefore, were caught in a poverty trap, he felt. While working on Asian Drama, Myrdal was possibly not aware that another scholar was working on Asian economic development in historical perspective. Angus Maddison in several of his historical studies in the late 1970s and early 1980s, especially The World Economy in the Twentieth Century (1989) pointed out that in 1820, just two centuries ago, Asia accounted for almost two thirds of the world population and three fifths of the world's income. China and India put together accounted for half the world population and world income. That is, Asia (China and India in particular) was not always at the bottom of the pit and poverty was not its characteristic feature. Another recent study on Asia is Resurgent Asia: Diversity in Development by Deepak Nayyar (Oxford, 2019). Some readers may remember that he was one-time Chief Economic Adviser, Government of India as also Vice-Chancellor, Delhi University. In the book, he recalls that when Asian Drama came out in 1968, he was a graduate student in Oxford University and that the pessimistic outlook about Asia was widely prevalent in academic circles. Nearly 50 years later (and after holding academic positions in different parts of globe and authoring many books), he decided to take a closer look at Asia, by now noted for its diversity in development. Nayyar saw that the two Asian giants, China and India, contributed close to 60% of the global manufacturing production and an even larger proportion of manufactured exports until around 1750. However, over the next two centuries, the Industrial Revolution in Britain brought about a radical transformation of the situation that changed the profile completely, except for the outlier, Japan. During the second half of the 20th century, the situation has changed again as is widely known. It began with the East Asian tigers, South Korea, Taiwan, Hong Kong and Singapore. Soon others joined, Malaysia, Thailand and Indonesia; then, of course, China and India. The economic profile of Asia has completely changed.

## A Diverse Asia

These changes indicated too that Asia cannot be and should not be treated as a single unit; social, cultural and economic conditions are significantly different among Asian countries, much more than in other continents, Europe for instance. Initially, the author considers four sub-regions, East Asia, South East Asia, South Asia and West Asia, and then 14 states. The states are China, South Korea and Taiwan in the East; Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam in Southeast, Bangladesh, India, Pakistan, Sri Lanka in the South and Turkey in the West. The colonial era witnessed a precipitous decline in Asia's economic position. By 1962, Asia's share in the world population diminished to 50%, while its share in global income fell sharply to 15%. And by 1965-70, Asia was the poorest continent. For China and India taken together these shares plunged to 35% and 8%, respectively. The share of China and India in world manufacturing production collapsed from 47% in 1830 to 5% in 1963. By the second decade of the present century, things had changed drastically, but also differentially in the subregions and countries. East Asia was the leader and South Asia

was the laggard with South East Asia in the middle. Taking the Asia-14 together, the author describes the economic growth of the past 50 years as "stunning" with China being the star performer. In all instances where growth was impressive, high levels of investment and savings were the main drivers which must have come as a bit of a shock to all who in an earlier period considered the Asian "poor" countries of being incapable of generating high savings. The pattern in many countries including China was rapid investment growth coinciding with increasing exports. Education too contributed towards raising growth rates. Many countries have been experiencing lower levels of growth in the 21st century.

### Moving to Services

Nayyar then turns to the structural transformation of economies which goes with economic growth. What is considered as the standard pattern is for labour force to move from agriculture (A) to manufacturing and industry (M) and then to services (S) and this pattern is seen in the case of South Korea, Taiwan and Singapore. In India and several other countries in South East, there was an exit from A, not much into M, but significantly into S. The move into the S sector was partially into productive activity, but more so into transactions of different kinds, including stock market activities. It also manifests as unemployment and under-employments of various shades. Of equal importance is the fact that the big economies of Asia, notably China and India which began their development strategies as closed economies opened up to international trade and capital movements subsequently, and have become notable players in what since the turn of the 21st century at least has come to be referred to as "the global economy". Nayyar also notes that the growth of the Asia economies has considerably reduced the percentage of their population considered to be below the poverty line. But that has been accompanied by sharp increases in inequalities of income and more so of wealth in democratic India and even communist China which also raises questions about the future. Obviously the transformation of Asia during the past 50 years has been phenomenal, and there can be little doubt that in the next 50 years, Asia's multifaceted economic performance will continue and by the beginning of the next century, if not earlier, China will overtake the United States as the largest economy. Indeed, three other economies to claim top positions will most likely be from Asia — India, Indonesia and Japan and many other Asian countries may also do well, a far cry from the pessimism that was the cardinal note of Myrdal's Asian Drama. And yet there will be problems too. Absolute poverty may be minimal by 2030, but the poverty-inequality-unemployment nexus may continue. There are also the challenges of technology and environmental consequences. But these are global issues and will affect other economies also. Nayyar's concluding words are optimistic. "There can be little doubt that, circa 2050... Asia will account for more than one-half of world income, and will be home for more than one-half the people on earth. It will, thus, have an economic and political significance in the world that would have been difficult to imagine fifty years ago...."

## After SC Rap, Telco's Pay ₹14,697 Crore to Dot

- The Supreme Court ordered the managing directors and directors of companies, including telecom majors Bharti Airtel and Vodafone Idea, to show cause why contempt proceedings should not be initiated against them for failing to pay even a "single penny" to the government in Adjusted Gross Revenue (AGR) dues, worth ₹1.47 lakh crore, despite an October 2019 judgment. A three-judge Bench, led by Justice Arun Mishra, called the non-

compliance with the judgment a “very disturbing scenario”. It also drew contempt proceedings against a Department of Telecom (DoT) officer responsible for issuing an order to the Accountant General, a constitutional authority, on January 23, 2020, to desist from taking any coercive action against the defaulting companies. Following the strictures, the DoT began issuing notices to the telcos to pay the AGR dues as early as midnight of February 14. Failure to comply with the orders would entail company heads appearing in person in court at the next hearing on March 17, the court said.

## LIC Stake Sale

- In the Union Budget speech on February 1, Union Minister of Finance Nirmala Sitharaman announced that the government proposed to sell a part of its holding in Life Insurance Corporation (LIC) by way of an initial public offering (IPO). The state insurer was established in 1956 through an Act of Parliament. Governed by the Life Insurance Corporation Act, 1956, every LIC policy is guaranteed by the government. Explaining the rationale for divesting the government’s stake in LIC, Ms. Sitharaman said that listing would bring discipline while giving retail investors an opportunity to participate in wealth creation.

### What Is the Implication for Policyholders?

Before the government divests a part of its stake through a public issue, it will have to ensure that it amends the LIC Act, which among other things, ensures a sovereign guarantee for all policies under Section 37 of the Act. The Finance Ministry is in talks with the Law Ministry to amend the Act. The top brass of LIC are, however, banking on a government assurance on the issue.

### Will Listing Change LIC’s Operational Approach Or Investment Policies?

LIC is the biggest institutional investor in the Indian equity markets. According to media reports, LIC’s gross investments in equity are set to touch an all-time high of ₹72,000 crore in the financial year 2019-20. In comparison, foreign portfolio investors had invested just over ₹65,000 crore into Indian equity up to February 8, according to data posted on the National Securities Depository Limited website. In FY19, LIC had invested a little less than ₹69,000 crore in equities. The numbers clearly show the clout that LIC enjoys in the equity market. The government has used LIC on many occasions to stabilise the markets. Analysts cite the offer for sale of Oil and Natural Gas Corporation Limited (ONGC) in 2012 as a classic example of an LIC bailout. The insurer was allotted a 4.4% stake in ONGC, part of the 5% sold by the government through the auction route. LIC purchased almost 90% of the shares offered, taking up its holding to 9.48%, just under the permitted ceiling of 10% under insurance laws. Questions were raised in the market at the time about its investment policies but since LIC was completely owned by the government, not much came of it. Analysts say this is the interesting part about the proposed listing. The listing would usher in benefits including increased accountability, transparency and due process. There would be independent directors on board who could question the rationale for investments. Further, shareholders too could question the company on its investments.

### Could Listing Change the Payout Structure At LIC?

Quite likely, according to analysts. Currently, LIC pays 5% of its surplus to the government and the balance 95% to policyholders. This makes it possible for the state-owned insurance company to give a higher bonus on the policies compared to private players, who typically give 10% of their surplus to shareholders and the balance 90% to policyholders. With outside investors becoming shareholders, with a few even gaining seats on the insurer's board, there could be a demand to tweak the mix between shareholders and policyholders. Further, the norms of the Securities and Exchange Board of India (SEBI) on corporate governance would require the insurance company to make timely and quick disclosures about defaults among other things. LIC is a significant player in the debt segment as well and would have to make additional disclosures to retail shareholders.

### Does LIC Have Bad Loans?

At a time when all banks are reeling under the pressure of bad loans there is intense speculation on LIC's non-performing assets (NPAs). While media reports have posited that LIC has about 6% gross NPAs. Mr. Kumar, however, clarified that on an overall basis, it was not even 1%. He said, "For us, most investments are in equity, government securities and a small part in corporate debt. The 6% is possibly in corporate debt. But overall, it is hardly 1% in gross [terms]. Since we made provisions, net [NPAs] is 0.04%." LIC's total assets amounted to ₹32.26 lakh crore as of September 2019.

## Life & Science

### What is SuperCam?

- In its mission to Mars this summer, NASA is sending a new laser-toting robot as one of seven instruments aboard the Mars 2020 rover. Called SuperCam, the robot is used for studying mineralogy and chemistry from up to about 7 metres away. It might help scientists find signs of fossilised microbial life on Mars. SuperCam packs what would typically require several sizable pieces of equipment into something no bigger than a cereal box. It fires a pulsed laser beam out of the rover's mast to vaporise small portions of rock from a distance, providing information that will be essential to the mission's success.

### NASA Lists Five Things to Know

- From more than 7 m away, SuperCam can fire a laser to study rock targets smaller than a pencil point. That lets the rover study spots it can't reach with its arm.
- SuperCam looks at rock textures and chemicals to find those that formed or changed in water on Mars long ago.
- SuperCam looks at different rock and "soil" types to find ones that could preserve signs of past microbial life on Mars — if any ever existed.
- For the benefit of future explorers, SuperCam identifies which elements in the Martian dust may be harmful to humans.
- Scientists can learn about how atmospheric molecules, water ice, and dust absorb or reflect solar radiation. This helps predict Martian weather better.

SuperCam includes a microphone so scientists can listen each time the laser hits a target. The popping sound created by the laser subtly changes depending on a rock's material properties. The Mars 2020 rover marks the third time this particular microphone design will go to the Red Planet. In the late 1990s, the same design rode aboard the Mars Polar Lander, which crashed on the surface. In 2008, the Phoenix mission experienced electronics issues that prevented the microphone from being used.

## Four Indian Pilots Begin Astronaut Training in Russia

- The four Indian pilots chosen as candidate-astronauts began their 12-month training at the Gagarin Research and Test Cosmonaut Training Centre (GCTC) in Moscow, Russian space business company Glavkosmos has announced. Much of the training will take place at the GCTC facilities, a statement issued in Moscow said. The full programme includes basic or generic astronaut training followed by activities specific to the first Indian human space mission, Gaganyaan. The four candidates are fighter pilots from the Indian Air Force and were chosen from among hundreds of applicants over the last few months. At the end of all training modules in India and Russia, one or two of the four will be finally named to circle the earth in the first crewed Gaganyaan, which is planned around 2022. In June 2019, the Human Space Flight Centre of the Indian Space Research Organisation and the Russian government-owned Glavkosmos signed a contract for the training, which includes Russian support in the selection of candidates, their medical examination, and space training. Glavkosmos said, "The 12-month training programme includes comprehensive and biomedical training of the Indian candidates, combined with regular physical practices. They will study in detail the systems of the Soyuz manned spaceship, as well as be trained in short-term weightlessness mode aboard the Il-76MDK aircraft." The Il-76MDK is an Ilyushin-78 military transport plane specially re-designed for parabolic flights of trainee astronauts and space tourists. The candidates will also be trained to take appropriate actions during emergencies — for example should the spacecraft make an abnormal landing in (unplanned) climate and geographic zones.

## What Is the Thanatotheristes, Reaper of Death?

- Scientists at the University of Calgary and Royal Tyrrell Museum have found that a dinosaur fossil, found in Alberta in Canada in 2010, belongs to a new species of tyrannosaur. They have named it Thanatotheristes, which means "reaper of death". Tyrannosaurs were one of the largest meat-eating dinosaurs to have ever lived, with very large and high skulls, and the best known among them is the Tyrannosaurus rex, celebrated in the Jurassic Park series. The 79-million-year-old fossil that the researchers have found is the oldest tyrannosaur known from northern North America. In a statement issued by the University of Calgary, the study's lead author Jared Voris, whose analysis has identified the new species, said the fossil specimen is important to understand the Late Cretaceous period, which is the period when tyrannosaurs roamed the Earth. The scientists named the genus and species Thanatotheristes degrootorum, after John and Sandra de Groot who found the fossil in 2010. They identified it from fragmentary fossil parts of the skull and the upper and lower jaw bones. Until last year, the specimen lay in a drawer at the Royal Tyrrell Museum. Thanatotheristes preyed on large plant-eating dinosaurs such as the horned xenoceratops and the dome-headed colepiochephale. The research suggests that tyrannosaurs did not have one general body

type; rather different tyrannosaur species evolved distinct body sizes, skull forms and other such physical features.

## India Moves to Include Elephant, Bustard in Global Conservation List

- India will be moving to include the Asian Elephant and the Great Indian Bustard in the list of species that merit heightened conservation measures. The list will be debated at the 13th Conference of Parties (COP) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), an environment treaty under the United Nations Environment Programme (UNEP). The COP is scheduled to be organised from February 17 to 22 in Gandhinagar, Gujarat. There are 130 parties to the convention and India has been a member since 1983. India is home to several migratory species of wildlife, including the snow leopard, Amur falcons, bar- headed geese, black-necked cranes, marine turtles, dugongs and hump-backed whales. Having the elephant and the Great Indian Bustard in the list — more formally known as Appendix 1 — would coax countries neighbouring India, where wild animals such as tigers and elephant foray into, to direct more resources and attention to protecting them. There are now 173 species in the Appendix 1. Representatives from across the world, and conservationists and international NGOs working in wildlife conservation, are expected to attend the COP, which will also see Prime Minister Narendra Modi address the gathering via video conference. The Union Environment Ministry reports India as having 29,964 elephants according to the Project Elephant Census in 2017. The pachyderm merits the highest level of protection, or Schedule 1, under the Wildlife Protection Act. India has been designated the President of the COP for the next three years. "The government of India has been taking necessary actions to protect and conserve migratory marine species. Seven species that include Dugong, Whale Shark, Marine Turtle (two species), have been identified for preparation of Conservation and Recovery Action Plan," the Ministry said in a statement.

## Cat Conundrum

- The Supreme Court's order enabling the introduction of exotic cheetahs to an Indian habitat on an experimental basis has naturally led to renewed enthusiasm among wildlife lovers, who see in it a potential bulwark against creeping pressures on habitats. As a graceful animal that was hunted and extirpated in the country in the 20th century, the cat has periodically inspired campaigns for a fresh introduction mainly inspired by the nationalistic sense of loss. Remarkably, the antiquity of the high-speed hunter that formed part of Mughal hunting groups has been a matter of scientific debate, with much literature tracing the origins of the Asiatic cheetah to about 200,000 years ago, and one recent hypothesis arguing, in contrast, that it appears to be a relatively modern alien import to India. With a group surviving in Iran, there is growing interest in preserving the Asian population. Whatever its origins, it is illogical to expect that a new population, whether from Africa or Iran, will fare better today than in the past. It is worth recalling that the same court observed in its 2013 order restraining the Environment Ministry from importing African cheetahs into Kuno, Madhya Pradesh, that there are many seriously threatened Indian species such as the lion, the Great Indian Bustard, Bengal florican, the dugong, and Manipur brow-antlered deer which deserve immediate conservation action. Any move to rewild India's threatened natural spaces with cheetahs, which require large grassland ranges, should consider the viability of such a programme. Man-animal conflicts is an area of concern, as a growing human population lives cheek by jowl with tigers, leopards and long-ranging creatures such as elephants. While the

Court has appointed an expert committee to guide and direct the experiment proposed by the National Tiger Conservation Authority, it needs a broader scientific inquiry into the added pressures that a small group of introduced predators will impose on an ecosystem, crucially on the prey base that currently sustains tigers and leopards. Any attempt at expensive rewilding will be negated by parallel efforts to liberalise environmental clearances for extractive industries in and around forests. Material extraction including minerals is going on close to protected areas, and fresh roads are sought to be built through even tiger territory, making pristine rewilding an incongruous concept. Moreover, cheetahs are genetically fragile and lose cubs in a litter prematurely, affecting the establishment of a viable population. Restoring ecology and diverse species cannot be a serious goal in the absence of iron-clad protections to existing parks, sanctuaries, migratory corridors, and buffer areas. Preserving wild spaces with surviving species should be the first order priority.

## Finding the Elephant's Long-Lost Relatives In Kutch

- It was a pleasant January winter morning last year and Ningthoujam Premjit Singh along with his team was out on their excavation work at Kutch. When he stumbled upon a premolar tooth of about 6 cm width and 7 cm length, little did he know that what he held belonged to an extinct ancient elephant called Deinotherium indicum.

### First Occurrence

Interestingly, this turned out to be the region's first occurrence of the mammal which weighed between eight and 10 tons in weight. Dr. Singh adds that this new find also expands the distribution range of this species, hitherto only known from two or three localities (Tapar of Gujarat, Haritalyangar in Himachal Pradesh, and Piram Island off the coast of Gujarat).
Using a technique called biostratigraphy, it was noted that D. indicum lived roughly between 11 and 7 seven million years ago in India. In biostratigraphy, the presence of certain species from a known time period can be used to estimate the age of a deposit containing the same species in a different locality. "Remains of D. indicum have been found in well-dated Siwalik deposits from Haritalyangar of Himachal Pradesh. Based on the similarity in species, we inferred a similar date for the Kutch's D. indicum," Advait M. Jukar from the Department of Paleobiology, National Museum of Natural History, Smithsonian Institution explains in an email to The Hindu.

### Distant Relative

This species was a fairly distant relative of today's elephants, both evolutionarily and in time. The deinotheriidae, the family that includes D. indicum, was first found in the fossil record approximately 28 million years old in Africa, but the family that includes modern elephants doesn't appear until about eight million years ago. The team plans to continue their studies in the Tapar beds of Kutch as it may be hiding many more fossils.

## Lessons from A Melting Antarctic Glacier

- In the Antarctic floats a massive glacier, roughly the size of Britain, whose melting has been a cause of alarm for scientists over the years. Now, a new study has pinned the cause of the melting to the presence of warm water at a vital point beneath the glacier.

### What Is the Glacier and Why Is It Important?

Called the Thwaites Glacier, it is 120 km wide at its broadest, fast-moving and melting fast over the years. Because of its size (1.9 lakh square km), it contains enough water to raise the world sea level by more than half a metre. Studies have found the amount of ice flowing out of it has nearly doubled over the past 30 years. Today, Thwaites's melting already contributes 4% to global sea level rise each year. It is estimated that it would collapse into the sea in 200-900 years. Thwaites is important for Antarctica as it slows the ice behind it from freely flowing into the ocean. Because of the risk it faces — and poses — Thwaites is often called the Doomsday Glacier.

### What Has the New Study Found?

The New York University study reported water at just two degrees above freezing point at Thwaites's "grounding zone" or "grounding line". The grounding line is the place below a glacier at which the ice transitions between resting fully on bedrock and floating on the ocean as an ice shelf. The location of the line is a pointer to the rate of retreat of a glacier. When glaciers melt and lose weight, they float off the land where they used to be situated. When this happens, the grounding line retreats. That exposes more of a glacier's underside to seawater, increasing the likelihood it will melt faster. This results in the glacier speeding up, stretching out, and thinning, causing the grounding line to retreat ever further.

### How Was the Warming Water Detected?

Scientists dug a 600-m-deep and 35-cm-wide access hole, and deployed an ocean-sensing device called Icefin to measure the waters moving below the glacier's surface. "The fact that such warm water was just now recorded by our team along a section of Thwaites grounding zone where we have known the glacier is melting suggests that it may be undergoing an unstoppable retreat that has huge implications for global sea-level rise," Holland said.

## What Is Fermentophone?

- Fermentation, the chemical breakdown of a substance by microorganisms such as bacteria or yeasts, results in some of the most delicious foods and beverages, including cheese, chocolate and wine. Now, research has shown it can result in music, too. Joshua Rosenstock of the Worcester Polytechnic Institute has shown that the chemical processes of fermentation can be used to create spontaneous tunes. He has built multiple art exhibits called Fermentophone to showcase how fermentation can make music. First, different fruits and veggies are placed in glass jars and fermented. As the fermentation kicks off, the yeast — or bacteria — present in the food chows down on the foods' sugars, which results in the release of carbon dioxide bubbles. The release of these bubbles creates a tiny sound, which is picked up by underwater microphones. A computer processes the sounds and, with the help of algorithms plugged in, electronic music is created. Rosenstock said in a statement that you can eat these fermented foods, too.

## Mapping The 'Indian' Genome

- The Indian Express reported that the government has cleared an ambitious gene-mapping project that is being described by those involved as the "first scratching of the surface of the vast genetic diversity of India".

## What Is A Genome?

Every organism's genetic code is contained in its Deoxyribose Nucleic Acid (DNA), the building blocks of life. The discovery that DNA is structured as a "double helix" by James Watson and Francis Crick in 1953, for which they won a Nobel Prize in 1962, was the spark in the long, continuing quest for understanding how genes dictate life, its traits, and what causes diseases. A genome, simply put, is all the genetic matter in an organism. It is defined as "an organism's complete set of DNAs, including all of its genes. Each genome contains all of the information needed to build and maintain that organism. In humans, a copy of the entire genome — more than 3 billion DNA base pairs — is contained in all cells that have a nucleus".

## Hasn't the Human Genome Been Mapped Before?

The Human Genome Project (HGP) was an international programme that led to the decoding of the entire human genome. It has been described as "one of the great feats of exploration in history. Rather than an outward exploration of the planet or the cosmos, the HGP was an inward voyage of discovery led by an international team of researchers looking to sequence and map all of the genes — together known as the genome — of members of our species". Beginning on October 1, 1990 and completed in April 2003, the HGP gave us the ability, for the first time, to read nature's complete genetic blueprint for building a human being.

## What Then Is The 'Genome India' Project?

This is being spearheaded by the Centre for Brain Research at Bengaluru-based Indian Institute of Science as the nodal point of about 20 institutions, each doing its bit in collecting samples, doing the computations, and then the research. Its aim is to ultimately build a grid of the Indian "reference genome", to understand fully the type and nature of diseases and traits that comprise the diverse Indian population. For example, if the Northeast sees a tendency towards a specific disease, interventions can be made in the region, assisting public health, which make it easier to battle the illness. The other institutes involved are: AIIMS Jodhpur; Centre for Cellular and Molecular Biology, Hyderabad; Centre for DNA Fingerprinting and Diagnostics; Institute of Genomics and Integrative Biology; Gujarat Biotechnology Research Centre; IIIT Allahabad; IISER (Pune); IIT Madras; IIT Delhi; IIT Jodhpur; Institute of Bioresources And Sustainable Development; Institute of Life Sciences; Mizoram University; National Centre for Biological Sciences; National Institute of Biomedical Genomics; National Institute of Mental Health and Neurosciences; Rajiv Gandhi Centre for Biotechnology; and Sher-e-Kashmir Institute of Medical Sciences.

## So, What Will the Project Broadly Do?

The mega project hopes to form a grid after collecting 10,000 samples in the first phase from across India, to arrive at a representative Indian genome. This has been found necessary as over 95% of the genome samples available, which are the basis of new, cutting-edge research in medicine and pharmacology, use the white, Caucasian genome as the base. Most genomes have been sourced from urban middle-class persons and are not really seen as representative. The Indian project will aim to vastly add to the available information on the human species and advance the cause, both because of the scale of the Indian population and the diversity here.

### Who Is an Indian?

The Indian subcontinent has been the site of huge migrations. Scientists associated with the project recognise that while the first migrations were from Africa, later too there were periodic migrations by various populations, making this a very special case of almost all races and types intermingling genetically. This can be seen as "horizontal diversity". Moreover, later, there has been endogamy or inter-marriage practised among distinct groups, resulting in some diseases passed on strictly within some groups and some other traits inherited by just some groups. This is what scientists' term "vertical diversity". Studying and understanding both diversities would provide the bedrock of personalised healthcare for a very large group of persons on the planet.

### What Are the Challenges Involved?

MEDICAL ETHICS: In a project that aims only to create a database of genetic information, gene modification is not among the stated objectives. It is important to note, however, that this has been a very fraught subject globally. The lure to "intervene" may be much more if this kind of knowledge is available, without one being fully aware of the attendant risks. The risk of doctors privately running away with the idea of fixing genetic issues came to light most recently after a Shenzen-based scientist, who helped create the world's first gene-edited babies, was sentenced to three years in prison. He Jiankui stunned the world when he announced in 2018 that twin girls had been born with modified DNA to make them HIV-resistant. He claimed he had managed that using the gene-editing tool CRISPR-Cas9 before their birth.

DATA & STORAGE: After collection of the sample, anonymity of the data and questions of its possible use and misuse would need to be addressed. Keeping the data on a cloud is fraught with problems and would raise questions of ownership of the data. India is yet to pass a Data Privacy Bill with adequate safeguards. Launching a Genome India Project before the privacy question is settled could give rise to another set of problems.

SOCIAL ISSUES: The question of heredity and racial purity has obsessed civilisations, and more scientific studies of genes and classifying them could reinforce stereotypes and allow for politics and history to acquire a racial twist. In India a lot of politics is now on the lines of who are "indigenous" people and who are not. A Genome India Project could add a genetic dimension to the cauldron. "Selective breeding" has been controversial since time immemorial, and well before the DNA was discovered. But eugenics acquired a dangerous context with the Nazis deliberating on the theme at length and its mention came up in the Nuremberg trials. Post World War-2, it has been a very touchy issue.

## Why Cancer Gene Map Matters

- A series of new papers in the journal Nature has revealed the most comprehensive gene map ever of the genes whose departures from normal behaviour — mutations — trigger a cascade of genetic misbehaviours that eventually lead to cancer. Just a handful of "driver" mutations could explain the occurrence of a large number of cancers, the researchers said,

raising hopes of a cancer cure being nearer than ever. A look at how this could change the cancer treatment landscape:

## What Is the New Study That Has Oncologists Around the World Excited?

It is a major international collaboration called the Pan-Cancer Analysis of Whole Genomes (PCAWG), in which researchers has published a series of papers after analysing 2,658 whole-cancer genomes and their matching normal tissues across 38 tumour types. They have come to the conclusion that "On average, cancer genomes contained 4-5 driver mutations when combining coding and non-coding genomic elements; however, in around 5% of cases no drivers were identified, suggesting that cancer driver discovery is not yet complete." This is the largest genome study ever of primary cancer. Various kinds of cancers required to be studied separately because cancers of different parts of the body often behave very differently from one another; so much so that it is often said that cancer is not one disease but many.

## What Is the Breakthrough Have the Studies Achieved?

Previous studies had focused on the 1 per cent of the genome that codes for proteins. The Pan-Cancer Project explored, in considerably greater detail, the remaining 99 per cent of the genome, including key regions that control switching genes on and off. This switching on and off of genes is the most important regulatory mechanism in the body so that it functions normally and diseases are kept at bay. The researchers identified 16 types of structural variation signatures in the genes ultimately leading to cancer. In one paper of the series, the researchers analysed 288,457 somatic structural variations in the genes to understand the distributions and effects. Structural variations mean deletion, amplification or reorganisation of genomic segments that range in size from just a few bases to whole chromosomes. Bases are the structural units of genes. In another paper, the researchers reconstructed the "life history and evolution of mutational processes and driver mutation sequences of 38 types of cancer".

## What Does This Study Mean for Cancer Treatment Around the World?

The PCAWG has discovered causes of previously unexplained cancers, pinpointed cancer-causing events and zeroed in on mechanisms of development, opening new vistas of personalised cancer treatment to strike at the root of the problem. Cancer is known to be a disease of uncontrolled growth. The growth process, like all other physiological processes, has genetic controls so that the growth is self-limiting. When one or more genes malfunction, the growth process can go out of hand. Not just cancer, there are many other diseases with a genetic link in varying degrees. Identification and cataloguing of the genes is a very crucial step and has taken science's understanding of cancer and its genesis ahead by several leaps. When it comes to drug development, however, the gene mapping is but a first step. The process of drug development will have to now kick in with pharmaceutical companies first identifying the compound(s) that target these gene mutations and then it being subjected to the rigours of clinical trials to prove its safety and efficacy. That could take anything from a few decades to a few years to cover all the mutations identified.

### Is the Genetic Link to Cancer Well Established?

Yes, it is. One such association, for example, is of breast cancer with the BRCA 1 and BRCA 2 genes; the actress Angelina Jolie, who discovered that she carried the former gene, chose to undergo a preventive double mastectomy. This is personalised therapeutics where, instead of traditional toxic medications like chemotherapy, drugs that specifically target the delinquent genetic mutation are already being used. Such therapy, however, remains very expensive. In fact, the genetic analysis of tumours is an already practised protocol of cancer therapy. A good laboratory can analyse about 1,000 genes, of which less than 200 are implicated in various kinds of cancer. But the time taken for developing a drug from identifying a genetic mutation causing cancer varies. In case of ALK-1, which was identified as the driver gene for 5-7 per cent of lung cancers in 2006-07, it was exceptionally short. By 2011, doctors had the drug in their hands. However, of the 200 cancer-causing mutations known so far, less than 40 actually have a targeted drug.

### How Big Is the Cancer Burden?

Cancer is the second most-frequent cause of death worldwide, killing more than 8 million people every year; incidence of cancer is expected to increase by more than 50% over the coming decades. One in 10 Indians will develop cancer during their lifetime, and one in 15 Indians will die of cancer, according to a recent World Health Organization (WHO) report. The North-eastern states, Uttar Pradesh, Rajasthan, West Bengal, Haryana, Gujarat, Kerala, Karnataka and Madhya Pradesh account for 44% of the cancer burden in India, says a recent analysis, published in The Lancet Global Health, that looked about 9.7 million deaths that happened in India in 2017 and also investigated the reasons for the 486 million DALYs (disability adjusted life years) in India. DALYs are an international unit of death and disability in terms of the number of life years lost of an average person to death and disability.

## Basmati Rice Genome Sequenced

- Scientists have mapped the complete genome of two basmati rice varieties, including one that is drought-tolerant and resistant to bacterial disease. The findings, published in the journal Genome Biology, also show that basmati rice is a hybrid of two other rice groups. Despite the economic and cultural importance of basmati and related aromatic rice varieties, their evolutionary history is not fully understood, the researchers said. The researchers focused on two basmati rice varieties: Basmati 334 from Pakistan, known to be drought tolerant and resistant to rice-killing bacterial blight, and Dom Sufid from Iran, an aromatic long-grain rice that is one of the most expensive on the market. Most genetic material in basmati comes from *japonica* —a rice group found in East Asia — followed by the rice group *aus* found in Bangladesh. The researchers aim to work with the scientific and rice breeding communities to identify important genes, see what makes the basmati group unique, and even develop molecular markers to help breed new varieties.

## What is Yaravirus?

- In a lake in Brazil, researchers have discovered a virus that they find unusual and intriguing. Called Yaravirus, it has a “puzzling origin and phylogeny”, they report in a study on the pre-print server bioRxiv. The Yaravirus infects amoeba and has genes that have not been

described before, something that could challenge how DNA viruses are classified. The researchers found the Yaravirus while looking in the lake for giant viruses that infect amoeba. Because of the Yaravirus's small size, it was unlike other viruses that infect amoeba and they named it as a tribute to Yara, the "mother of waters" in the mythological stories of the Tupi-Guarani indigenous tribes. Over 90% of the Yaravirus's genome has not been observed before, the researchers have reported, after using standard protocols for genetic analysis and being unable to find any "classical viral genes". In other viruses that affect amoeba, the researchers say that there are some similarities in their characteristics that are missing in the Yaravirus. "The amount of unknown proteins composing the Yaravirus particles reflects the variability existing in the viral world and how much potential of new viral genomes are still to be discovered," they have written. The virus does not infect human cells, according to the researchers. The research paper has been written by multiple authors including virologists from Brazil and France. Although it is only now that the virus has been identified, the researchers believe that it has been present on Earth for ages.

## How Bats Harbour Several Harmful Viruses Without Falling Sick

- Bats serve as natural hosts for numerous viruses including Ebola virus, Nipah virus, coronoviruses such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) and the 2019 novel coronovirus that has infected nearly 10,000 people and killed over 200 others. Even as these viruses cause harm in humans, they rarely if at all cause any harmful effects in bats. This is the case even when the viral load is extremely high in bats. A study carried out last year and published in the journal Nature Microbiology revealed the mechanism responsible for bats to harbour numerous viruses without themselves getting affected and also live long. Compared with terrestrial mammals, bats have longer lifespan.

### How Bats Differ

The reason why bats can harbour these viruses without getting affected is simply because bats can avoid excessive virus-induced inflammation, which often causes severe diseases in animals and people infected with viruses. When pathogens infect humans and mice, the immune system gets activated and typical inflammatory response to fight the microbes is seen. While controlled inflammatory response to fight infection helps keep humans healthy, it can contribute to the damage caused by infectious diseases, and also age-related diseases when the inflammatory response becomes excessive. In complete contrast, the researchers found that the inflammatory response is dampened in bats immaterial of the variety of viruses that are present and the viral load. The researchers from Duke-NUS Medical School, Singapore used three different viruses — Melaka virus, MERS coronavirus and influenza A virus — and tested the responses of immune cell and other cells (peripheral blood mononuclear cells and bone-marrow derived macrophages) of bats, mice and humans to these viruses. While inflammation was high in the case of humans and mice, it was significantly reduced in bats immune cells.

### Disease Tolerance

"This supports an enhanced innate immune tolerance rather than an enhanced antiviral defence in bats," they write. "This may also contribute to our understanding of the role of the inflammation in disease tolerance in bats as reservoir hosts" they say. This is in complete

contrast to what is seen in mice and humans for disease-causing zoonotic viruses. The researchers found that significantly reduced inflammation in bats was because activation of an important protein — NLRP3 — that recognises both cellular stress and viral/bacterial infections was significantly dampened in bat immune cells. Studying further, the researchers found that reduced activation of the NLRP3 protein was in turn due to impaired production of mRNA (transcript). Since mRNA production is impaired the NLRP3 protein production gets compromised leading to less amount of the protein being produced. But this was not the case with mice and humans — there was no impairment to mRNA production so the NLRP3 protein was unaffected.

### Four Variants

The NLRP3 protein is found as four variants in bats. The researchers found that the function of all the four variants was dampened compared with human NLRP3. To test if their finding on NLRP3 hold true in evolutionally distant bats, the researchers studied two very distinct species of bats — Pteropus alecto, which is a large fruit bat known as the Black Flying Fox, and Myotis davadii, a tiny vesper bat from China. The variations have been found to be genetically conserved through evolution. Further analysis comparing 10 bat and 17 non-bat mammalian NLRP3 gene sequences confirmed that these adaptations appear to be bat-specific.

## A Tale of Outbreaks, Both in China (Pallavi Aiyar - Former Beijing Correspondent of The Hindu)

- There are obvious parallels between the epidemics of 2002-2003 and 2019-2020. Both began in winter and featured cover-ups and whistle-blowers. The origins of both were traced to China's unregulated wet markets and the sale of wildlife. Both resulted in quarantines, empty streets and considerable panic. They featured the jaw-dropping feats of entire hospitals being constructed within a few days' time. And both demonstrated the pros and cons of China's authoritarian political system: the ability to implement drastic measures to contain a crisis, but only after the unnecessary escalation of the crisis resulting from a repressive culture of censorship. But there are also differences. SARS was far deadlier, with a mortality rate of about 10%. The mortality rate for the novel coronavirus (COVID-19) is yet to be established, but appears to be about 2%. However, it is much more infectious. More than 1,300 people have died from the new virus, a number that is already greater than SARS' final death toll of 774. It took eight months for SARS to spread to more than 8,000 people. The COVID-19 has infected over 63,000 people in about six weeks.

### More Openness This Time

There are also differences in the government's handling of the epidemics. With SARS, the cover up went on for far longer than it did in the present instance. Although the SARS virus first began appearing in November 2002, China's then Heath Minister, Zhang Wenkang, gave a televised press conference as late as April 3, 2003, assuring the world that Beijing had only a handful of infections. Then suddenly on April 20, it was announced that the capital in fact had 339 confirmed cases, 10 times more than the 37 infections made public until then. With regard to the current epidemic, the first instances of COVID-19 appeared in early December. By the end of the month, China had already alerted the World Health Organization (WHO) to

several cases of A SARS-like pneumonia in the city of Wuhan. By the second week of January, China had genetically sequenced the virus and shared it with WHO. On January 23, Wuhan suspended all public transportation; all outbound trains and flights were halted. In the days that followed, travel restrictions were applied to neighbouring cities as well, eventually affecting well over 50 million people.

### How Other Nations Reacted

But despite these almost-draconian measures and the improved speed with which the Chinese authorities have responded to the ongoing epidemic, the global response has been more fearful and arguably more xenophobic than during SARS. The restrictions on travel to and from China are more punitive, even as there is a resurgence of racist tropes portraying Chinese food habits and other customs as unsafe and unsavoury. The U.S. (with some exceptions) and Australia have banned entry to all foreign nationals who have been to China in recent weeks. Other countries, including India, Malaysia, Russia, Vietnam and Italy, have temporarily stopped issuing certain classes of visas to travellers from Hubei Province, where Wuhan is situated, or China altogether. What accounts for this larger, arguably "excessive" reaction? Social media certainly plays into it. SARS occurred in the pre-Facebook/WhatsApp/Twitter era, although text messaging was already well established then. Also, far greater numbers of Chinese are travelling abroad today. There are certainly genuine concerns about public and personal health, but these have meshed with the discomfiture that many around the world feel towards China, a country that has exponentially grown in economic and military heft. The widespread mistrust of China's political system and anxieties about its geostrategic intentions are mingling with an ugly schadenfreude as China is exposed to censure. It is perhaps unavoidable. China's new status as a major world power means that its handling of crises will inevitably be subject to global scrutiny. And although compared to SARS, this handling has shown improvements, it nonetheless throws the deficiencies, even fragility, of China's political system, into sharp relief. The severity and extent of the disease in Wuhan was underestimated for weeks. Information was not adequately shared. Worse, those like Dr. Li Wenliang (the whistle-blower who subsequently contracted the virus and died) who tried to voice their concerns were muzzled by the police. The egregious consequence of the weeks-long official silence was that it facilitated the movement of some five million people in the days before Wuhan was quarantined. In some way, it would seem that the more things have changed in China, the more they have remained the same. The larger context of the Chinese political system, in particular its overly controlling attitude towards information, has proved persistent. Local government incompetence is hardly confined to China, but in less restrictive societies, whistle-blowers such as Dr. Li would likely have found the means to get their message out. Under China's President Xi Jinping, state control over the media has only deepened, which, together with his unabated emphasis on maintaining social order, means China remains vulnerable to crises despite surface strength.

## COVID-19: How WHO Names New Diseases

- The World Health Organization (WHO) gave an official name to the disease caused by the novel coronavirus. The disease will be called "COVID-19"; the "CO" stands for coronavirus, "VI" for virus and "D" for disease. *The coronavirus itself is called "nCoV-2019".* The death toll

from the virus has now crossed 1,000 and the disease has infected tens of thousands of people, the majority of them in China.

## How WHO Names Diseases

The WHO, in consultation with the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO), has identified best practices for naming new human diseases. These best practices apply to a new disease:
That is an infection, syndrome, or disease of humans;
That has never been recognised before in humans;
That has potential public health impact; and
Where no disease name is yet established in common usage
Names that are assigned by the WHO may or may not be approved by the International Classification of Diseases (ICD) at a later stage. The ICD, which is also managed by the WHO, provides a final standard name for each human disease according to standard guidelines that are aimed at reducing the negative impact from names while balancing science, communication and policy.

## Terms to Avoid

In a statement on, the WHO Director-General said: "Under agreed guidelines… we had to find a name that did not refer to a geographical location, an animal, an individual or group of people, and which is also pronounceable and related to the disease. Having a name matters to prevent the use of other names that can be inaccurate or stigmatizing." The agreed best practices include advice on what the disease names should not include, such as geographic location (Middle East Respiratory Syndrome, Spanish Flu, Japanese encephalitis). Disease names should not include people's names (Creutzfeldt-Jakob disease, Chagas disease), the species or class of animal or food (swine flu, monkeypox etc.), cultural or occupational references (miners, butchers, cooks, nurses etc.) and terms that incite "undue fear" such as death, fatal and epidemic. In a media note issued in May 2015, WHO had said that the use of names such as "swine flu" and "Middle East Respiratory Syndrome" has had "unintended negative impacts" by stigmatising certain communities and economic sectors.

## Terms to Include

The best practices include using generic descriptive terms such as respiratory diseases, hepatitis, neurologic syndrome, watery diarrhoea. They include using specific descriptive terms that may indicate the age group of the patients and the time course of the disease, such as progressive, juvenile or severe. If the causative pathogen is known, it should be used as part of the disease name with additional descriptors such as the year when the disease was first reported or detected. For example, novel coronavirus respiratory syndrome. The names should also be short (rabies, malaria, polio) and should be consistent with the guidelines under the International Classification of Diseases (ICD) Content Model Reference Guide. As per the WHO, "severe" should be used only for those diseases that have a very high initial case fatality rate. "Novel" can be used to indicate a new pathogen of a previously known type. In the case of the novel coronavirus, "recognizing that this term will become obsolete if other new pathogens of that type are identified", the WHO has now changed its name.

DreamIAS