



## Current Affairs, 3rd November to 9th November, 2019

### International

#### What's Happening in Chile?

- The “difficult circumstances” — fiery street protests, mob violence, arson, and looting — cited by Chile’s President Sebastián Piñera to back out of hosting the COP25 and APEC Summit have surprised the world, which has long regarded the country as a remarkable example of prosperity and political stability in generally turbulent Latin America.

#### How Did the Chile Protests Start and Spread?

The trigger was a modest 4% increase in subway fares announced on October 1. On October 7, the day after the new fares came into effect, school students launched a campaign to dodge them, jumping turnstiles on the Santiago Metro in civil disobedience, and trended #EvasionMasiva, or ‘Mass Evasion’ on social media. As the campaign spread, there were violent incidents, and several Metro stations were shut on October 15. Three days later, the entire grid was shut down, and Piñera announced a 15-day curfew. However, the rioting continued, and spread from Santiago to Concepción, San Antonio, and Valparaíso. The government cancelled the fare hike on October 19, but the protests did not cease. On October 26, over a million people marched in the streets of Santiago. At least 20 people have died in the demonstrations and violence so far. **The protests have been described as the most tumultuous of the last 30 years, since the country returned to democracy at the end of General Augusto Pinochet’s dictatorship.** Interior Minister Andrés Chadwick has called the situation “more violent and barbaric than anything in (his) memory”. Thousands of protesters wearing Halloween masks and alien costumes swarmed Santiago’s Plaza Baquedano in response to a leaked recording of First Lady Cecilia Morel saying it seemed as though aliens had invaded Chile, while other groups clashed with police at the presidential palace.

#### But Why Are Chileans So Angry?

The protesters represent the voices of those left out of the economic growth and prosperity that most non-Chileans have come to identify the country with. Discontent against broad income inequality is the key provocation. People are angry about low incomes from salaries and pensions, and are unsatisfied with public healthcare and education. A major driver of the protests has been the fear of poverty in old age, which has seen many elderly Chileans marching alongside the youth. Chile has a defined contribution pension scheme in which workers pay at least 10% of their wages each month to for-profit funds, called AFPs. Over the years, these AFPs have come to hold an enormous corpus — \$216 billion, or about 80% of the nation’s GDP at present — and have huge investments in Chile and overseas. However, not all Chileans benefit from the pension scheme. Many can’t contribute enough regularly, and end up with small pay-outs. A third of Chileans who work in informal jobs, as well as those who don’t have jobs, and women who quit to raise children, lose out too. In essence, critics



say, the AFPs have helped fuel an economic boom that has been visible in impressive skylines and apparent prosperity, but has really benefitted only a relatively small elite.

### What Is the Government Doing?

Piñera has acknowledged most of the protesters' demands. He has offered a reform package that includes higher taxes for the rich, and multiple policies of redistribution of wealth. This week, he fired several ministers against whom the public has expressed anger. He has said he would increase the state's contribution to basic pensions by 20% for the poorest Chileans, and would raise employer contributions. "We have listened with humility to the powerful voice of the people and their legitimate demands for urgent solutions to problems which we all know have dragged on for many decades," he said last week. However, the protesters remain unmoved, and want Piñera, one of the richest people in the country who has been President since 2018, to go. Opposition parties too, have indicated that they would not simply rubber-stamp the government's attempts to fast-track pension reform.

### Is There A Counter-Argument?

The AFPs argue that the problem does not lie with the pension scheme, but rather with low wages, a weak job market, and the country's ageing population. There are many in the country who do not sympathise with the protesters, or who disagree with their violent methods. The Santiago-based Spanish language daily La Tercera said in an editorial on October 24 that it was "essential to be clear on the origin of these happenings and those who are responsible... This violence must be very clearly distinguished from peaceful protests... (The violence) only seeks the destabilisation of the country, and has nothing to do with the demands of the marches." In its editorial of the previous day, La Tercera had praised Piñera's reforms package as "effectively taking care of the needs most felt by the people, particularly the most vulnerable sections, and allowing for a new political and social dialogue". A letter to the editor in La Nación said: "Chile has 9% poverty, 2.3% destitution. Since the return of democracy, the GDP has multiplied 5 times. Inflation is below 5%. There is a high level of employment. There is access to credit, and interest rates are around 2%. Although there exists the problem of distribution, the country continues to be rich and orderly. The complaints of the middle classes do not justify the setting ablaze and destroying of a nation that is a model of development for the region."

- Chile, the designated host for this year's UN climate change conference, has said it would not be able to organise the December event because of political unrest at home. Spain has stepped in and offered to host it on the same dates, December 2-13. Spain's offer was accepted, and Madrid now faces the herculean task of making arrangements for the two-week event, which has over 20,000 delegates and attendees every year. The year-end conference, called COP (Conference of Parties to the UN Framework Convention on Climate Change), have been held since 1995, and never been postponed.

### COP25: The Event

The signatories to the 1992 UNFCCC (UN Framework Convention on Climate Change) meet to discuss and decide on steps that countries need to take to fight climate change. This will be the 25<sup>th</sup> edition of the meeting, hence COP25. It is the same meeting that, at COP3, delivered the 1997 Kyoto Protocol, the first international agreement to fight climate change. The Kyoto



Protocol was later deemed to be inadequate, and after several years of negotiations, **COP21 in 2015 delivered the Paris Agreement**. In subsequent years, countries have been trying to finalise the rules and procedures that will govern the implementation of the Paris Agreement. One of the most important tasks at the upcoming COP is to complete the negotiations over the rulebook.

### Hosts by Rotation

The venue for the COP meeting is rotated among the five UN-identified regions — Africa, Asia-Pacific, Eastern Europe, Latin America and Caribbean, and Western Europe and Others. The countries in the region have to propose a candidate, and a host is usually decided at least two years in advance. If no one else agrees to do it, Bonn in Germany, as headquarters of the UNFCCC secretariat, has to step in and host the event. The rotation cycle has not been followed very strictly. The first and second COPs were both held in western Europe (Berlin and Geneva), and so were the fifth and sixth (Bonn and the Hague). After the 2012 COP in Doha, the event has not returned to Asia. That is because Fiji, the host in 2017, lacked the resources to organise an event of this scale; as a compromise, the event had to be held in Bonn under the Fijian presidency.

### Reluctant Hosts

Even before the ongoing unrest, Chile had been a reluctant host. It had agreed to host the event after much persuasion, and **Santiago could be named the COP25 venue only towards the end of COP24 in Katowice, Poland, last year**. Chile had been arguing that as hosts of the Asia Pacific Economic Conference this year, it had to organise year-round meetings, including leaders' summit in November, and that it would be difficult to organise another big event in December. Those APEC meetings too have been put off now. **The only other contender from the region to host COP25 was Costa Rica, but it lacked the resources**. And UNFCCC was not very enthusiastic about another event at its headquarters. The host city incurs huge expenditure on the event, not all of which is reimbursed. Apart from the over 20,000 participants, the city has to make arrangements for visits by heads of states and governments, and other personalities. Side events and demonstrations invariably come with the conference, and the host city has to brace for such disruptions for more than two weeks. The event does help local economy, and tourism, but many countries do not see that as adequate incentive.

### Climate Leadership

There is another reason why some countries do not seem very enthusiastic about hosting the event. **The host country presides over the conference, and as such is expected to demonstrate leadership in taking individual steps to combat climate change**. For countries with smaller greenhouse gas emissions, this is not much of a problem, but such expectations explain why the US, China or Russia have not shown much interest in hosting the event. Neither have countries like Japan, Australia or Canada, generally considered climate laggards. Japan hosted the 1997 event that produced the Kyoto Protocol, but it also happened to be the first country to walk out of it in 2011. Canada hosted it in 2005. Australia, which too withdrew from Kyoto Protocol, has never hosted it. Spain will now host it for the first time, and so will the UK, in Glasgow next year. India, the third largest emitter, hosted the



2002 COP in New Delhi, much before climate change became this big. The European Union, which has a relatively strong climate change action plan, has hosted the most COP editions — 11 of 24 COPs, with Madrid now the 12<sup>th</sup> of 25. Germany and Poland have been hosts three times each.

## The Theory of The Islamic State

- The U.S. President's announcement last week of the death of the Iraqi-born Islamic State (IS) leader Abu Bakr al-Baghdadi in the Idlib Province of northwest Syria has drawn worldwide attention. Baghdadi is said to have blown himself up using his ammunition-laden vest when pursued into a tunnel by U.S. special forces. This dramatic incident reminds us of the elimination in 2011 — and as a U.S. operation again— of the Saudi-born Osama bin Laden. This perpetrator of violence and hatred was also hunted down in Abbottabad, Pakistan and liquidated by the Americans.
- Abu Bakr al-Baghdadi is dead. But the Islamic State (IS) is not. The death of its "Caliph" is certainly a blow to the terrorist group. But the IS is ideologically stronger to survive the fall of its leader, and the geopolitical conditions that led to the rise of the group remain more or less intact. Much has been discussed about these conditions. Geopolitical tensions, civil conflicts and foreign interventions have been a source of power for jihadist groups such as the al-Qaeda and the IS. Remember, Osama bin Laden was a nobody before the Americans and their allies started bankrolling and training the Afghan mujahideen against the Soviet Red Army. The Taliban, which rose to power from the civil war-stricken Afghanistan was hosting the al-Qaeda when it carried out the September 11, 2001 terrorist attacks in New York and Virginia. **The al-Qaeda in Iraq (AQI) rose from the ruins of the Iraq that was destroyed by the American invasion.** And the AQI morphed into today's IS, exploiting the chaos Syria fell into in the wake of the civil war. While these are the objective conditions behind the rise of terrorist-jihadism, what is its subjectivity? Do these groups have an agency?

## Brothers with Arms

Though the al-Qaeda and the IS are cut from the same cloth, there are tactical and strategic differences in their operations. **The al-Qaeda was basically a hit-and-run organisation** until the IS changed the landscape of terrorism. The group would carry out attacks and then retreat to the deserts, caves or mountains where it was hiding. It did not expose itself to the conventional military might of its enemies. Barring certain pockets that al-Qaeda-affiliated groups now control, such as Syria's Idlib, the group largely remains a hit-and-run organisation. The IS, however, took insurgency a step further. It started holding on to territories it captured, established a proto-state in those territories and called it the Islamic State. While the al-Qaeda also wants to create a global emirate, the IS took steps to implement its world-view. It declared a Caliphate, trying to revive an Islamic institution that ceased to exist following the disintegration of the Ottoman Empire at the end of the First World War. And by doing so, Baghdadi tried to place himself in the long list of Islamic Caliphs, the rightful leaders of the ummah (the global Muslim community). **Violent jihadism is inherently anti-modern and very unpopular among Muslims across the world. It is because of their unpopularity that these groups are involved in extreme violence. With their asymmetrical barbarity, jihadist groups have sought to overcome not just the shortcomings in their military capabilities but also the lack of their political capital.** For Baghdadi's group, violence was both a means and an end in itself. The puritanical interpretation of Islam by the



IS has echoes from **Salafi Islam**. The Salafis follow the “pious forefathers” of Islam. For them, man cannot interpret the holy book or the Hadith. But Salafism itself is not a monolith. It can be a spiritual way of life. There are Salafi organisations whose members dedicate themselves to a “pure” Islamic way of life and have nothing to do with violence. But for groups such as the al-Qaeda and the IS, Salafism is a political ideology to attain power. And since they cannot attain power through mass movements, popular elections or revolutions, they turn to violent jihadism as a vehicle to reach that goal, which makes them Salafi-jihadists.

### ‘Pure’ Islamic State

Unlike the al-Qaeda, the IS’s operations were not confined to carrying out suicide attacks in the West or West-backed countries. It wanted to create a “pure” Islamic State where the “true” believers can come and live. **These “true believers”, for the IS, were Sunni Muslims alone and who followed the IS’s diktats.** The Shias are in this worldview, considered “rafidha” (rejectionists, who “reject” the first three Caliphs of the Sunni Islam), and therefore merit **second class status**. In areas under their control, the **minority communities had to pay minority tax** to the state for protection. They could not publicly practise their religion. **In the IS worldview, homosexuals were to be thrown off high-rises, the fingers of smokers had to be chopped off, slavery permitted and music and films forbidden.** The concept of “nation-states” is also alien to the IS world-view, for whom the world is the Caliphate and where the ummah should be living under the leadership of their rightful Caliph. In effect, the IS has stood **opposed to everything modern liberalism offers — individual freedom, equality, liberty are all completely denied by the group.** The IS also **frowns upon and denies critical thinking, demanding only loyalty to its cause.** At the same time, where the IS succeeded is in exploiting the contradictions within modern societies — the contradictions that were swept under the carpet by the road roller of nationalism. **The identity crisis of Muslims, especially young Muslims, in liberal societies, is what the IS tapped into using modern communication technologies.** It offered a violent, alternative, vengeful vision to trap these people, while in Muslim-majority societies, western aggression was used as propaganda for recruitment. The IS managed to do this while holding on to territories that it captured within Iraq and Syria. It was for the first time in decades that a group claimed to have established a caliphate by erasing the borders of modern states (Iraq and Syria in this case) and by calling upon followers to migrate. **The IS succeeded in attracting tens of thousands of people to its “Caliphate” — from Tunisia to India and the U.S.** It was also **opposed to the diversity of Islam** **terming Shias, Ismailis, Ahmediyas and Alawites as non-Muslims.** Syncretic traditions of Islam such as **Sufism** were branded anti-Islam by the IS. **Even if Sunni Muslims did not buy into the IS version of Islam, they could be excommunicated (takfir) and killed** according to its worldview. It is no surprise that **most of the IS’s victims in the Arab world were Muslims.**

### Problems in the Anti-IS Fight

The IS’ Caliphate has now been destroyed and its leader gone. But there are two problems in the fight against the IS. One, the objective conditions that led to the rise of the IS remain intact in West Asia and the larger Arab world. The group still has affiliates and arms in several parts of the world such as Afghanistan, Egypt and Nigeria. The recent Turkish incursion into north-eastern Syria is threatening even the limited advances made in the fight against the IS. The Shia-Sunni sectarianism that the IS tried to exploit is still burning across West Asia. Two, the IS will be defeated only when its ideology will be defeated, which is a tall ask. The IS is not an organisation that was created by “western imperialism”, but an organisation that



used the chaos created by “imperialism”. It will continue to do so even after all these setbacks — this includes even the rump of the IS. The group does not need a standing army of thousands of soldiers to attack civilians through suicide blasts. For them, violence is linked to their survival. If the IS goes silent, it becomes irrelevant in the global jihadist landscape and all its talk of the expansionary Caliphate will come to an end. It is like Macbeth. The group will retain its need to kill in order to survive. To stop the group, its organisational and ideological apparatus has to be taken down in a region that is free of foreign interventions and repressions. For now, this looks a distant possibility.

The specific question that has been raised is about who would lead the IS from this point onwards. Particularly engaging has been the news within days of Baghdadi’s death, of another death — of his potential successor, Abu Hassan al-Muhajir, having died in a security force operation. But experts are equally impressed by the swift appointment of one Abu Ibrahim Hashimi al-Quraishi as the new replacement; there is practically nothing known about him. The question that remains unsatisfactorily answered is whether the quality of leadership makes such a lot of difference to a movement that thrives solely on an individual’s spirit of vengeance and does not call for any extraordinary organising capacity. The short audio clipping that was released announcing the appointment warned the U.S. of severe reprisal for Baghdadi’s killing. It is therefore reasonable to believe that Iraq and Syria are in for a turbulent time. The partial withdrawal of U.S. troops from northern Syria has already complicated the situation, leading to the escape from custody of a number of IS prisoners and their families. The IS’s new leadership may be expected to make an intense appeal to its cadres not to become demoralised after the elimination of Baghdadi and remind them of the immediate task of scaled up revenge against the remaining American forces. One may not expect any immediate attrition in the IS’s ranks which are spread over a wide area encompassing most of West Asia and parts of Asia and Africa. The basic structure would comprise what are known as Wilayats headquartered in a number of provinces in each country.

### Closer Home

India has enough reason to be apprehensive about the developments in West Asia. The alert by the Home Ministry to the States of the possibility of ‘lone wolf’ IS attacks across the nation is worrying. The MHA is especially apprehensive about attacks on high dignitaries. In this context, the raids by the National Investigation Agency in Tamil Nadu and elsewhere suggest an IS presence in the country. This is not fearmongering if one considers how a few misguided Indian youth crossed into Iraq in the early days of the IS to fight for jihad. Most were disillusioned in quick time and a few returned homes with horror stories of the state of IS camps. But there is reason to believe that others have stayed back and could be the dangerous part of IS’s core. The tasks before security agencies are two-fold: to keep a close eye on the returnees so that they do not lapse into mischief and allow themselves to be used as ‘**sleeper cells**’; and to assist the authorities in deradicalization as well as checking new recruitment to the IS. Both are difficult tasks that require enormous community alertness and swift communication with security agencies.

### Iran Resumes Uranium Enrichment at Fordow Plant

- ➔ Iran resumed uranium enrichment at its underground Fordow plant south of Tehran in a new step back from its commitments under a landmark 2015 nuclear deal, raising alarm from Western powers. Engineers began feeding **uranium hexafluoride gas** into the plant’s

**Shatabdi Tower, Sakchi, Jamshedpur**



mothballed enrichment **centrifuges** in “the first minutes of Thursday”, the Iranian Atomic Energy Organisation said. The suspension of uranium enrichment at the long-secret plant was one of the restrictions on its nuclear programme Iran had agreed to in return for the lifting of sanctions. Iran’s announcement that it would resume enrichment at the Fordow plant from midnight (2030 GMT on 6<sup>th</sup> November) had drawn a chorus of concern from the remaining parties to the troubled agreement. The resumption of enrichment at Fordow is Iran’s fourth step away from the agreement. The United States called for “serious steps” to be taken in response to the move. “Iran’s expansion of proliferation-sensitive activities raises concerns that Iran is positioning itself to have the option of a rapid nuclear breakout,” U.S. Secretary of State Mike Pompeo said in a statement. **Uranium enrichment is the sensitive process that produces fuel for nuclear power plants but also, in highly extended form, the fissile core for a warhead. Iran is now enriching uranium to 4.5%, exceeding the 3.67% limit set by the 2015 deal but less than the 20% level it had previously operated to and far less than the 90% level required for a warhead.** Iran has always denied any military dimension to its nuclear programme. It has been at pains to emphasise that all of the steps it has taken are transparent and swiftly reversible if the remaining parties to the agreement find a way to get around U.S. sanctions. “All these activities have been carried out under the supervision of the International Atomic Energy Agency,” the Iranian nuclear organisation said. A source close to the United Nations watchdog said that it has inspectors on the ground in Fordow and would report “very rapidly” on the steps taken by Iran. Iran revealed on Thursday that it had withdrawn the credentials of one IAEA inspector last week after she triggered an alarm at the gate to Iran’s other enrichment plant at Natanz, raising suspicion she was carrying a “suspect product”. It did not specify what the product was or whether it had actually been found in the inspector’s possession. But it promised that its representative to the IAEA would deliver a detailed report on the incident at a special meeting on Iran held at the **agency’s headquarters in Vienna.**

## Maulana’s March

- Maulana Fazlur Rehman’s ‘Azadi March’ to Islamabad, demanding the resignation of Pakistan Prime Minister Imran Khan, is perhaps the biggest political crisis the cricketer-turned politician is facing since he came to power in August 2018. Mr. Rehman, leader of the Islamist party Jamiat Ulema-e-Islam (F), has said that his supporters, tens of thousands of whom have camped at the capital, will continue their dharna (sit-in) till their demands, which include fresh elections and an end to the military’s intervention in politics, are met. The main Opposition parties, the Pakistan Muslim League-Nawaz (PML-N) and the Pakistan People’s Party (PPP), have offered half-hearted support. The Khan government was earlier dismissive of the march. The JUI (F) is not a major legislative force and its leader was not expected to mount a serious political challenge to Mr. Khan, who, over the past one year, has outwitted the Opposition on many occasions. But Mr. Rehman mobilised an army of supporters and entered the capital peacefully. With the backing of the Opposition and a very loyal crowd, Mr. Rehman has suddenly emerged as a national figure who put Mr. Khan in a bind. The protests forced the government to come to the negotiation table. The deadlock, however, continues as both sides failed to reach any agreement. For Mr. Khan, this is a déjà vu moment. In 2014, he launched an indefinite dharna in Islamabad, demanding the resignation of the then Prime Minister, Nawaz Sharif. His supporters brought the capital city to a standstill for weeks. Mr. Khan didn’t succeed then. And Mr. Rehman is unlikely to force Prime Minister Khan out today. The Pakistan Tehreek-e-Insaf (PTI) government is still a favourite of the establishment. The



main political Opposition remains weak. And there are different voices even within the Maulana's movement. Sections within the PML-N and the PPP were opposed to joining hands with Mr. Rehman as they do not approve of the dharna politics and the cleric playing the religious card for mobilisation. So Mr. Khan's position as the Prime Minister appears to be stable, for now. But it does not mean that he can ignore the challenges rising from the Opposition any more. Mr. Khan came to power on promises of overhauling the economy and eliminating corruption. A year into power, the economy still remains on the brink. Critics call him the "selected Prime Minister", not an elected one, referring to his close connection with the military establishment. His government's "fight against corruption" is largely seen as a campaign to silence most of his political opponents. The government is also facing criticism for cracking down on dissent, free speech and independent media. Maulana Fazlur Rehman's rally is an unlikely answer to all these problems Pakistan is facing. But he is tapping into the growing public resentment against Mr. Khan's government. Unless he realises it and takes actions to address the actual challenges, he will only be setting the stage for more Maulanas to rise.

→ In Pakistan's hybrid military-civilian politics, the 'long march', in which an opposition party attempts a non-electoral power grab through street protests, is now a permanent feature. The government manages to continue in office, but is shaken and weakened. In every such episode so far, the Pakistan Army has had some role to play. This year's long march, or Azadi March, comes courtesy Maulana Fazlur Rehman, leader of a faction of the Jamiat-e-Ulema Islami, an Islamist political party, whose main base is in the Pashtun-dominated Khyber Pakhtunkhwa province. His target is PM Imran Khan, who himself had tried to topple the Nawaz Sharif government the same way. Fazlur, a veteran politician who has played on both the military and civilian sides and done deals with both religious and "secular" parties, does not accept Imran Khan's election, has named him as the cause of the country's economic woes, and has demanded that he resign by Monday. Fazlur himself was defeated in 2018 for the first time since 1988, though he contested from two seats. However, his party, along with other religious parties in a coalition, won 14 seats in the National Assembly, all from KP and Baluchistan, where too Pashtuns live in large numbers. Since the rise of Pakistan Tehreek-i-Insaf, the JUI has been marginalised in its home base of KP. The march began on October 27 in Karachi, and passed through Sindh and Punjab. The massive gathering is now camping for the third night just outside Islamabad. Fazlur has been threatening to lead it into the heart of the Federal capital's high security zone, to a place called D Chowk, directly opposite the National Assembly and the Presidential Palace. He has been denied permission for this. Amid apprehensions that he may defy authorities, containers are in position to lock the place down if necessary.

### Imran Khan, Then & Now

Khan has insinuated that those who want him out actually want a deal giving them immunity from corruption cases. He has alleged the march is a conspiracy by "RAW and India". However, Khan, who was quite the king of long march politics as an opposition politician, may know there is no room for complacency. In 2014, a year after Nawaz Sharif was voted in with a majority, Khan had rattled his government with a long march-cum-dharna, with the shadow of the military looming large behind the Tehreek-i-Insaf leader. Then, Khan, who made strident speeches from atop a container at D chowk, had openly appealed to the military to unseat Sharif. He was joined by a Canada-based cleric Tahir ul Qadri, and his followers, who had some years before, demanded the resignation of the PPP government by





laying siege to Islamabad in similar fashion. Khan's four-month dharna ended in violence as the protesters tried to storm the Prime Minister's official residence and other government and media offices nearby. In 2016, faced with Khan's threats to lay siege to the capital once again unless his allegations of corruption against Sharif were not investigated, the Supreme Court stepped in and set up a panel, which eventually led to the judicial ouster of Sharif less than a year later. Even after Sharif's mid-2017 conviction, the PML(N) government was shaken by another siege, this time by Barelvi extremists called Tehreek-e-Labbaik Pakistan, in protest against changes to the Constitution that would purportedly water down Pakistan's blasphemy laws. When the government asked the Army to help it disperse the dharna, Army chief General Qamar Javed Bajwa refused, and instead counselled PM Shahid Khaqan Abbasi that "both sides" must avoid violence "as it is not in national interest", urging the government to handle the matter "peacefully". Imran Khan came out on the side of the protesters, who dispersed only after the Army brokered a surrender by the government to all their demands. The present ISI chief, Lt Gen Faiz Hameed, who was then a major general, was the main negotiator. Within 14 months of his own election, Khan is now getting a dose of his own medicine. There are some key differences between Fazlur Rehman's march and the one Khan led. For one, the composition: this march is entirely comprised of male students and clerics mobilised from madrasas; women have been disallowed. While PTI's middle-class supporters, both men and women, came in SUVs, sporting chic clothes and accessories, the only kind of vehicle in this march is the humble Suzuki Mehran. But perhaps the most important difference is this: while tensions between Sharif and the Army backgrounded the Imran Khan march and other marches when PML(N) was in office, this time, the Army and Khan, as the PM has often declared, are on the "same page".

### Why Fazlur Can Matter

Nonetheless, Islamabad is rife with questions about Fazlur Rehman's march. The Maulana belongs to a political-religious family from Dera Islamil Khan, in KP. In his long political career, inherited from his father, he has been a supporter and facilitator of the Afghan Taliban, led large protests against the US bombing of Afghanistan after 9/11, and against Pakistan's support to the US in the war. He also tried to broker peace deals between the Army and the Pakistani Tehreek-e-Taliban groups in northwest Pakistan. He headed the National Assembly's Kashmir committee at least three times, most recently between 2013 and 2018. In his youth, he was in the anti-Zia Movement for the Restoration of Democracy, but by 2004, he was helping General Pervez Musharraf legalise his coup by backing changes to the Constitution. In his latest avatar, Fazlur has been openly critical, even more than the PPP and PML(N), of the Pakistan Army and ISI for "selecting" Khan in the last election, and on Friday, challenged it to declare its neutrality. The Army, which in previous such episodes seemed to be on the side of the protesters, has this time been swift to warn that "attempts to destabilise the country will not be tolerated". It could be that Fazlur is signalling to the Army that he still remains relevant to the politics of the country and its north west regions. It is telling that while he invited the PPP and PML(N) to join his protest — an offer not accepted by the two parties, although the PPP's Bilawal Bhutto and the PML(N)'s Shehbaz Sharif made speeches at the gathering — he did not extend such an invitation to the openly anti-establishment Pashtun Tahaffuz movement, a huge opposition movement in KP. The other question about the march is its timing. It is taking place when speculation is rife about General Bajwa's extension. The Army chief is due to retire at the end of November, and although Imran Khan announced a three year extension, the matter has not yet been sealed and signed officially.



There are murmurs that the march could be a pressure tactic by Gen Bajwa, or the manifestation of an internal war in the military establishment between those who back Imran Khan, and those who do not, including those who are against an extension to Bajwa. The Azadi march has also shown how the nature of the Pakistani opposition has changed dramatically. Earlier, it was the PPP or PML(N) who would have the street power to organise a show like this. Now a religious party has taken the opposition stage, which is welcome from the Pakistan Army's point of view. Irrespective of how this ends, Pakistan's political landscape seems poised for another turn of the screw.

### A Dismal Record of Divide and Quit (Mohammed Ayooob)

- The controversy over Brexit has had groups and militias in Northern Ireland traditionally loyal to Britain up in arms. Protestant unionists vehemently reject any Brexit arrangement like the one proposed by Prime Minister Boris Johnson that would take Britain out of the European Union but leave Northern Ireland in the bloc's single market in order not to disrupt its economic links with the Republic of Ireland. This disagreement brings to mind the centuries of chequered history of **British colonialism in Ireland that ended with the establishment of the Irish Free State in 1922 as a Dominion that eventually became the Irish Republic in 1949.**

#### Dividing the Island

While terminating its colonial rule over most of Ireland, London divided the island into two on the basis of religious majorities. **Six Protestant-majority northern counties remained part of the U.K. The division of Ireland on the basis of religion foreshadowed the division of British India later based on the same logic.** However, just as the partition of India did not bring peace to the Indian subcontinent, the partition of Ireland did not resolve the problem of religious and political animosity between Catholics and Protestants. This is because over 40% of Northern Ireland's population is Catholic with most Catholics preferring integration with the Republic of Ireland. The partition of India transformed inter-communal tension into inter-state conflict between India and Pakistan. In the case of Ireland, Northern Ireland descended into a combination of civil war between Protestant and Catholic militias as well as a state of rebellion by Catholics against British rule. **The Irish Republican Army, the armed wing of the Catholic insurgency, engaged in acts of terror both in Northern Ireland and the British mainland to force Britain to leave Northern Ireland.** It was not until the **Good Friday agreement of 1998** that assured the large Catholic minority a share in power that the insurgency ended. However, relations between the two communities, with their contradictory political objectives, continue to be tense with periodic outbursts of violence between them and the threat of resurgent terrorism on the part of extremist Catholic militias. A variant of the same story was repeated in **Palestine, which became a British colony in the guise of a League of Nations Mandate after the end of World War I. Conflict between Arabs, who had inhabited Palestine for centuries, and Jews, overwhelmingly recent migrants from Europe, was primarily a creation of British policies.** London's **Balfour Declaration of 1917** and **Britain's unceremonious departure from Palestine in 1948** form the two bookends of the Palestine tragedy. The Balfour Declaration, which stated that it was Britain's policy to create a Jewish "homeland" in Palestine by facilitating the migration of European Jews to the area, set the stage for the partition of Palestine. This policy was consummated in May 1948 with Britain's undignified withdrawal without designating a successor authority and its decision to dump the problem in the UN's lap. It paved the way for the **partition of Palestine by a UN**



General Assembly resolution, the first Arab-Israeli war, and the Zionist control of 77% of Mandated Palestine that became the state of Israel.

### Again, No Peace

However, as in the case of Ireland and India, the partition of Palestine did not resolve the conflict between Jews and Palestinian Arabs. It merely internationalised the problem and led to the **eventual occupation of all of Mandated Palestine by Israel in 1967**. The partition of Palestine did not bring peace to the region but perpetual conflict instead. The British policy of partitioning colonised countries on the basis of religious and/or ethnic grounds at the time of decolonisation has left records of war and misery in all three cases. It demonstrates London's lack of concern about the impact of its divide and quit policy on its former colonies.

## Foreign Affairs

### The Extra Mile

→ For millions of Sikhs worldwide, the inauguration of the Kartarpur corridor was a dream seven decades in the making. Ever since India and Pakistan were partitioned with an arbitrary line drawn through Punjab, the placement of Kartarpur, where Guru Nanak spent his last years, meant that while a majority of his devotees were left on one side of the border, his last resting place was left just four kilometres on the other side. Unlike the other major Sikh shrine at Guru Nanak's birthplace Nankana Sahib, Kartarpur Sahib was off Pakistan's highways and therefore fell into disuse. Those keen to see it were restricted to peering through binoculars at a border check post. Saturday's inauguration of the renovated shrine in Kartarpur by Prime Minister Imran Khan, and the access to the corridor from Sultanpur Lodhi on the Indian side by Prime Minister Narendra Modi, saw the fervent hopes of all those people being granted, timed with the 550th birth anniversary of Guru Nanak. The corridor, which will allow 5,000 Indian pilgrims a day to walk visa-free into Pakistan, pay obeisance and then return to India, is unique. If both governments are willing, it could lend itself to other cross-border connections for Hindus and Sikhs to visit shrines in Pakistan, and for Muslims and Sufism followers to visit shrines just across the border in Gujarat and Rajasthan. That it was completed from start to finish in a year that saw relations between the two countries plumb new depths, is also nothing short of a miracle: from the Pulwama terror attack and the Balakot strikes; the slugfest over the government's moves on Kashmir; the recall of High Commissioners; and even Pakistan's repeated denial of overflight rights to Prime Minister Narendra Modi's aircraft on foreign visits, it was a downward spiral. Each event was accompanied by sharp rhetoric and recriminations, yet the Kartarpur process was not derailed. In that sense, the Kartarpur shrine has fulfilled the promise it held out to the devout, but hasn't lived up to its potential for diplomacy. It had been hoped, when Pakistan's Army Chief General Qamar Javed Bajwa first conveyed Islamabad's acceptance of India's long-pending demand for the corridor, that this would lead to a new sense of understanding between the two governments as well. Instead, Pakistan's encouragement of Khalistani separatist groups to use Kartarpur as a platform has been a constant cause for suspicion for India. On the other side, India's misgivings have been seen as a churlish response to Pakistan's efforts on building the corridor. The fact is that neither side has been able to build on the goodwill for the project in both countries to create an atmosphere for talks on other issues. This failure was most evident when both Mr. Modi and Mr. Khan carried out separate

[Shatabdi Tower, Sakchi, Jamshedpur](#)



inauguration ceremonies, but failed to come together at the border for the launch of the project, though both leaders likened it to the “coming down of the Berlin wall”. For that promise to be realised, leaders will need to walk the extra mile, both literally and figuratively.

## Nation

### Security Compromised (Trisha Ray - Junior Fellow at ORF's Cyber Initiative)

- On October 28, a user on [VirusTotal](#) identified a [DTrack data dump linked with the Kudankulam Nuclear Power Plant](#) — indicating that a system (or more) in the plant had been breached by malware. The Nuclear Power Corporation of India Ltd (NPCIL) confirmed the breach, doing a volte-face after an initial denial. Separately, WhatsApp sued the Israel-based NSO Group for the use of its ‘Pegasus’ spyware on thousands of WhatsApp users in the lead-up to the general elections. These two incidents cast serious doubts on the Indian state’s claims to being a legitimate power in cyberspace, both due to the [vulnerability of its critical information infrastructure and blatant disregard for the fundamental rights of its citizens online](#). In essence, the government has signalled that it has no qualms about weakening the security of civilian digital platforms, even as it fails to secure its strategic infrastructure from [sophisticated cyberattacks](#). On September 4, an independent cybersecurity expert informed the National Security Council secretariat about a [potential malware attack on the Kudankulam Plant](#). The malware used was identified as [DTrack, a signature of the North Korean hacker group, Lazarus](#). The NPCIL claimed that the malware hit a non-critical “administrative computer” that was connected to the Internet, but not to the Nuclear Power Plant Control System. However, there is no clear indication what the said system contained, and whether valuable information stored in it could be harvested for more complex spear-phishing attacks against the NPCIL in the future.

### The Pegasus Attack

As for Pegasus, it appears that over a two-week period in May 2019, an as-yet unknown number of Indian journalists, academics and activists were among those targeted by a government agency using Israeli spyware bought off the shelf. Following a lawsuit, the NSO Group, the Israeli company that created the spyware, released a statement claiming that it licenses its product “only to vetted and legitimate government agencies”. There are but a handful of agencies that are authorised under the [Information Technology Act, 2000](#) to intercept, monitor and decrypt data. Should the fingers point to the [National Technical Research Organisation, the country’s foremost TECHINT](#) gathering agency? There are three glaring issues highlighted by these cases. First, contrary to what the NPCIL may claim, air-gapped systems are not invulnerable. Stuxnet crossed an air gap, crippled Iran’s nuclear centrifuges and even spread across the world to computers in India’s critical infrastructure facilities. It is also not enough to suggest that some systems are less important or critical than others — a distributed and closed network is only as strong as its weakest link. Second, with the Indian military announcing that it will modernise its nuclear forces, which may include the incorporation of Artificial Intelligence and other cybercapabilities, the apparent absence of robust cybersecurity capability is a serious cause for concern. If it cannot secure even the outer layer of networks linking its nuclear plants, what hope does the government



have of inducting advanced technologies into managing their security? Third, the surveillance of Indian citizens through WhatsApp spyware in the lead-up to the general elections highlights once again the government's disregard for cybersecurity. It is in line with the government's ceaseless attempts at enforcing the "traceability" of end-to-end encrypted messages on WhatsApp. A backdoor, once opened, is available to any actor — good or bad. To use it without oversight belies reckless disregard for the integrity of electronic information. Ironically, these instances point out to a weakening of India's cybersovereignty: the government comes across as incapable of protecting its most critical installations and, by rendering digital platforms susceptible to spyware, limiting its own agency to prosecute and investigate cybercrime. These incidents also fly in the face of the country's claims to being a responsible power as a member of export control regimes such as the Wassenaar Arrangement. **The possibility of such misuse of intrusion technologies is a frequent argument deployed by advanced economies to keep developing countries out of elite clubs.** If the Indian state plans to leverage offensive and defensive cybercapabilities, which are of course its right as a sovereign power, it needs to get serious about cybersecurity, both for its own narrow, political interests as well as those of its citizenry. There cannot be piecemeal, horses-for-courses approach: "security by obscurity" for India's nuclear power plants and cutting-edge malware reserved for spying on citizens. The security of a billion hand-held devices are of equal strategic value to the country's nuclear assets. Only in this case, the government has been found wanting on the security of both.

### What Whatsapp Has Claimed

WhatsApp claims it detected the attack in May 2019 and found that NSO exploited a **"buffer overflow vulnerability in WhatsApp VOIP stack"** to send its Pegasus malware to the target devices, even without the users answering the calls they received. In an article in The Washington Post, WhatsApp head Will Cathcart claimed they can link the attack to NSO because the "attackers used servers and Internet-hosting services that were previously associated with NSO" and they "tied certain WhatsApp accounts used during the attacks back to NSO". "While their attack was highly sophisticated, their attempts to cover their tracks were not entirely successful," he wrote in the October 30 opinion piece. WhatsApp has roped in cyber security experts at the Citizen Lab, an academic research group based at the University of Toronto's Munk School, to learn more about the attack. "As part of our investigation into the incident, Citizen Lab has identified over 100 cases of abusive targeting of human rights defenders and journalists in at least 20 countries across the globe, ranging from Africa, Asia, Europe, the Middle East, and North America that took place after Novalpina Capital acquired NSO Group and began an ongoing public relations campaign to promote the narrative that the new ownership would curb abuses," a post on their site said.

### What's in The Lawsuit

The WhatsApp lawsuit gives insight on how NSO allegedly seeded the Pegasus spyware in the target devices. The lawsuit claims the "Defendants (NSO) set up various computer infrastructure, including WhatsApp accounts and remote servers" and then "used WhatsApp accounts to initiate calls through Plaintiffs' servers that were designed to secretly inject malicious code onto Target Devices". It then "caused the malicious code to execute on some of the Target Devices, creating a connection between those Target Devices and computers controlled by Defendants (the 'remote servers')". The lawsuit claims that between January



2018 and May 2019, NSO created WhatsApp accounts “using telephone numbers registered in different countries, including Cyprus, Israel, Brazil, Indonesia, Sweden, and the Netherlands”. They also “leased servers and internet hosting services in different countries, including the United States, in order to connect the Target Devices to a network of remote servers intended to distribute malware and relay commands to the Target Devices”. WhatsApp claimed these servers were owned by Choopa, Quadranet and Amazon Web Services, among others. “The IP address of one of the malicious servers was previously associated with subdomains used by Defendants.” It claimed NSO routed and caused to be “routed malicious code through the Plaintiffs’ servers – including Signalling Servers and Relay Servers – concealed within part of the normal network protocol”. WhatsApp’s Signalling Servers facilitate initiation of calls between different devices while the Relay Servers help with “certain data transmissions” over the service. This, WhatsApp claims, was unauthorised and illegal as the servers were deemed “protected computers” under US laws. As per WhatsApp, NSO also “reverse-engineered the WhatsApp app and developed a program to enable them to emulate legitimate WhatsApp network traffic in order to transmit malicious code — undetected — to Target Devices over WhatsApp servers”. “To avoid the technical restrictions built into WhatsApp Signalling Servers,” the lawsuit claimed, “Defendants formatted call initiation messages containing malicious code to appear like a legitimate call and concealed the code within call settings. Once Defendants’ calls were delivered to the Target Device, they injected the malicious code into the memory of the Target Device — even when the Target User did not answer the call. Arguing that NSO violated the US Computer Fraud and Abuse Act, California Comprehensive Computer Data Access and Fraud Act, breached their contracts with WhatsApp, wrongfully trespassed, WhatsApp has sought relief including a permanent injunction from accessing “WhatsApp’s and Facebook’s service, platform, and computer systems”, creating or maintaining any WhatsApp or Facebook account and engaging in any activity that disrupts, diminishes the quality of, interferes with the systems. The messaging platform has also sought damages.

### How the Spyware Pegasus Worked?

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

- The Government’s reaction to messaging platform WhatsApp’s revelation that Indian journalists and human rights activists were among some 1,400 people globally spied upon using a surveillance technology developed by Israel-based NSO Group is inadequate and, more unfortunately, far from reassuring. Thursday’s disclosure by Facebook-owned WhatsApp, which is suing the Israeli company in a California federal court for the hack, is a chilling reminder that nothing is private in the digital world, given the right tools. In this case, a malicious code, named Pegasus, exploited a bug in the call function of WhatsApp to make



its way into the phones of those select users, where it would potentially have had access to every bit of information. But the disclosure raises a more worrying question: on whose directions were the Indian journalists and human rights activists spied upon? There are a few reasons why this question is important. One, this was not done with money in mind. Two, as the NSO says on its website, “NSO products are used exclusively by government intelligence and law enforcement agencies to fight crime and terror.” The NSO, by its own admission, sells its service only to government agencies. Three, those targeted include civil rights activists, lawyers, and journalists. **Notably, some of them have legally represented activists arrested in the case related to the violence in Bhima Koregaon in 2018. Lawyer Nihalsing Rathod, academic Anand Teltumbde, Dalit activist Vivek Sundara, and human rights lawyer Jagdish Meshram are some of those who have been targeted by Pegasus. Who would have wanted to snoop on them?** It is, therefore, extremely important for the Government to clear the air on this issue in no uncertain terms especially when WhatsApp had given information to CERT-IN, a government agency, in May, even if without any mention of Pegasus or the extent of breach. It is all right to ask WhatsApp, as the Government has done, as to why the breach happened and what it is doing to safeguard the privacy of its users in India, estimated to be around 400 million. In separate statements, Information Technology Minister Ravi Shankar Prasad and the Ministry of Home Affairs have expressed concern about privacy breaches while at the same time hinting that this issue is being politicised and an attempt is being made to malign the Government. This is hardly a trivial issue, as it concerns the digital well-being of citizens, the very thing this Government says it wants to promote. In a country where data protection and privacy laws are still in a nascent stage, incidents such as this highlight the big dangers to privacy and freedom in an increasingly digital society. It is thus imperative that the Government sends a strong message on privacy, something that the Supreme Court in 2017 declared to be intrinsic to life and liberty and therefore an inherent part of the fundamental rights. The first thing it could do is to answer categorically if any of the governmental agencies used NSO’s services.

### [At the Altar of National Security \(Nissim Mannathukkaren Is with Dalhousie University, Canada\)](#)

- If there is one feature that unites regimes based on right-wing ideology across the world, it is their relentless and near-daily focus on emotive issues like **nationalism, religious identity, terrorism, national security**, and so on. While the effect of this in terms of heightened hate and violence against “anti-national” minorities is by now well-documented, what is less commented upon is **how this discourse of nationalism and national security catastrophically pushes under the carpet the most vital issues of development: health, education and the environment**. The 2019 general elections were the most apt illustration of this. According to the ruling party, **Pulwama, Balakot and Pakistan (and not unemployment, farmers’ distress, or economic slowdown)** were to be the election priorities of the world’s largest democracy, and its supporters and large sections of the media duly propagated the same. **Contrast this with the federal elections in Australia and Canada in 2019. According to a survey of 1.4 million voters in each country, the top election issue was climate change, and the second was the economy**. The other top issues were **inequality, pensions, health care, taxes and employment**. **Immigration, which could be a potentially divisive issue, and a hot topic for the far right in both the nations, was not in the top five**. Even after the Lok Sabha elections, the discourse on national security has only hardened with the **National Register of Citizens (NRC), Kashmir**



(note: not the plight of Kashmiris), Article 370, and Pakistan (still) dominating the news space. Otherwise, how can one explain the fact that the Bharatiya Janata Party (BJP)'s campaign in Haryana, a State with among the highest unemployment rates in the country, and Maharashtra, a State that is facing severe farmers' distress, was on issues like Kashmir and Bharat Ratna for Savarkar?

### The Pakistan Obsession

An analysis done by political satirist Ramit Verma showed that of the 202 popular prime-time news debates across four major Hindi channels till October 19, at least 79 were about attacking Pakistan; 66 about attacking the Opposition; 36 about praising the Prime Minister and the ruling party; and 14 about Ram Mandir. There was not a single debate on economy, unemployment, education, health, gender, farmers or the environment. This is simply staggering by any measure. Therefore, unsurprisingly, the annual Global Hunger Index (GHI) reports come and go without any debate or outrage. But for a ruling establishment obsessed with Pakistan, the latest report should have rung the bells. If in 2015, India was ranked 80<sup>th</sup> (out of 104 countries) and well ahead of Pakistan, every year since then, the gap has closed, with Pakistan finally overtaking India in 2019, and being eight ranks ahead. The costs of obsessing with and competing with Pakistan, an economy eight-and-half times smaller than India, are also that you begin to mimic its politics and Human Development Indicators. The GHI 2019 notes that India's child wasting rate is at 20.8%, "the highest wasting rate of any country" for which data is available. Its child stunting rate, at 37.9%, is also categorised as "very high". The government, rather than taking up these issues on a war footing, dismissed the GHI as an inadequate representation of India's data in 2017. True, hunger, and its manifold dimensions, are not a creation of the present regime. But the brazen and wilful negation, or deflection of human development issues by national security is its unique contribution. The contrast within the neighbouring nations is itself telling. The GHI report talks about the "significant advances" in nutrition and "remarkable reduction" in child stunting made by Bangladesh and Nepal. Unsurprisingly, they are 14 and 29 ranks ahead of India respectively.

### Misplaced Emphasis on Terror

But the national security paradigm will persist, with prime-time television news almost every day warning us of the impending setting up of base by the Islamic State in India. This is not atypical — the U.S. under President Donald Trump is a classic example of scaremongering and blanket travel bans on entire (Muslim) nations to eliminate terror threats. Such vastly disproportionate response to terrorism has been exposed by research as misplaced. Between 1970 and 2007, the chances of being killed by a terrorist in the U.S. were 1 in 3.5 million (that is including on 9/11). During the 2008-2015 period, the risk of being killed by a foreign-born terrorist on U.S. soil was one in 104 million. Compare this with the chances of dying from choking on food: 1 in 4,404, or in a car accident, 1 in 272. Against the conventional wisdom that it is because of the huge amount of resources spent on counterterrorism that the risk is so minimal, scholars John Mueller and Mark Stewart argued earlier in this decade that cumbersome security protocols in airports had led to more people travelling by road, leading to around 500 extra road fatalities every year. They also contended that if the money spent on saving people from terrorism attacks had been diverted to countering other dangers with extremely high risks, that could have "saved 1,000 times more lives." Despite





the severe challenges that India faces in terms of terrorism, the numbers have to be similarly seen with perspective. In 2018, terrorism/militancy killed 400 civilians and security personnel. Compare this to the fact that 1,02,677 children (under five) died from easily preventable diarrhoeal diseases in 2017, or that 8,75,659 children (under five) were killed by communicable, neonatal and nutritional diseases. Or consider that while the number of terrorism/militancy-related deaths have come down substantially to around 500 from 2011 onwards, the burden of deaths from diseases like cardiovascular ones has drastically increased from about 13 lakhs in 1990 to 26.32 lakh in 2017. An IndiaSpend report based on a global study showed that Indians work for just six-and-a-half years at peak productivity. This compared poorly to the corresponding figures for the Chinese and the Brazilians — 20 years and 16 years. The report also said that India has the unhealthiest work force in South Asia, and its human capital rank was 158<sup>th</sup> out of 195 countries (with only a marginal improvement from 162 in 1990). India's public spending on health and education has been abysmal (despite superficial programmes with meagre actual funding e.g. Ayushman Bharat and Beti Bachao, Beti Padhao), the prime cause for its poor human capital. While the national security paradigm will talk about economics in terms of GDP or ease of doing business, it curiously refuses to see the link between human capital and economic productivity. The current dystopian visions emanating from New Delhi's unprecedented climate emergency are the singular example of the apathy fostered, ironically, by the ruling party's brute, hyper-nationalist parliamentary majority. This is when latest studies indicate that life expectancy in North India will likely reduce by seven years because of air pollution. Even if prime-time nationalist television is forced to come out of its perpetual "state of high alert" on terror and acknowledge "mundane" issues like air pollution, it will be back to normal soon. Human development and ecology have always been given the short shrift in India. But what has changed under the nationalist conjuncture is that these issues are not even talked about. A nation that is in a state of suspended animation looking out for both external and internal enemies cannot afford to talk about the state of its citizens.

### What Is The Project To Redevelop Lutyens' Delhi All About?

- The Central government has kick-started its ambitious plan of redeveloping the three-km-long Central Vista and Parliament, and constructing a common Central secretariat for all ministries that are currently spread over many buildings across Delhi. This follows calls from Members of Parliament to have their own offices at Parliament House, which only Ministers get as of now, and it is in keeping with Prime Minister Narendra Modi's "vision", according to Union Minister of State (independent charge) for Housing and Urban Affairs Hardeep Singh Puri.

### Why Did the Government Feel the Need for Redeveloping the Area?

The British built Parliament House and the North and South Blocks, which contain the offices of the Ministries of Finance, Home, Defence and External Affairs, between 1911 and 1931. Post-1947, the government of independent India added office buildings such as Shastri Bhavan, Krishi Bhavan and Nirman Bhavan. According to Mr. Puri and Housing and Urban Affairs Ministry officials, these buildings do not have the facilities and space required today. While the British-built buildings are not earthquake-proof, the buildings that came up after 1947 are prone to fires. The new buildings that come up would have a lifespan of 150 to 200 years and would be energy-efficient and modern workspaces.



Mr. Puri said while Parliament House and North and South Blocks will not be demolished, their usage may change. For example, they may be used as museums. The rest of the buildings that came up post-Independence, including Shastri Bhavan, Krishi Bhavan, etc, are likely to be demolished. HCP Design, which carried out the development of the Sabarmati riverfront in 2002 and is currently working on the redevelopment of the temple complex in Varanasi, will now prepare detailed designs for each of the buildings as well as a plan for the common Central secretariat.

### How Much Will It Cost?

As on October 31, the government is yet to say how much the revamp of New Delhi's seat of power will cost. When announcing the project on October 25, Mr. Puri said usually consultancy fees are 3-5% of the total project cost. However, CPWD officials said that the norm may not apply to a massive project of this size. One senior CPWD official said the amount could be around ₹12,450 crore, while another top official said it could be higher. The Minister also said the exact cost of the project would be determined by the tender process, which will take place next year. He added that the government will also save about ₹1,000 crore a year, which it spends currently on renting office premises for its ministries outside of Lutyens' Delhi in the Capital. What is known for sure is that HCP Design will be paid ₹229.75 crore for its work.

### What Lies Ahead?

According to the government's deadlines, the new Parliament (either as a completely new building or a renovation of the existing one) has to be ready by March 2022, the 75<sup>th</sup> year of India's Independence. The revamped Central Vista, complete with public amenities and parking, has to be ready by November 2021 and the new common Central secretariat by March 2024. Before the tenders are floated for each construction or renovation project, the CPWD will carry out public consultations. Since the government's plan became public in September, it has faced some criticism. Concerns about conservation of heritage and the environment have come up, though Mr. Puri has said the green cover and the history of New Delhi will not be damaged in the process of the revamp. The CPWD and Mr. Puri have said these will be addressed during the consultation phase, that architects, environmentalists, historians and Delhi-ites are waiting for.

### Electoral Bonds: Rs 6,128 Crore Sold So Far, Highest in Mumbai

- The State Bank of India has sold electoral bonds worth ₹6,128 crore since their introduction in March 2018, according to the Association of Democratic Reforms (ADR). **Announced in the 2017 Union Budget, electoral bonds are interest-free bearer bonds that are used to donate money anonymously to political parties.** The bonds are issued in multiples of ₹1,000, ₹10,000, ₹1 lakh, ₹10 lakh and ₹1 crore; SBI is the only bank authorised to sell them. Buyers can donate the bonds to a party of their choice and these can then be cashed by the party through its verified account within 15 days. At the time of its announcement in 2017, then Finance Minister Arun Jaitley said the scheme was aimed at protecting the identity of donors who fear adverse consequences for contributing to one political party. However, the Election Commission and civil society have opposed the scheme and the opacity it has brought into political funding. A petition challenging the scheme is pending with the Supreme Court. According to ADR figures, the largest value of electoral bonds (₹4,444 crore) was sold during

[Shatabdi Tower, Sakchi, Jamshedpur](#)



the quarter coinciding with the Lok Sabha elections. The highest sale (₹2,256 crore) happened in the month of May. Among the cities, Mumbai topped the list with a sale of bonds worth ₹1,880 crore, followed by Kolkata (₹1,440 crore) and New Delhi (₹919 crore).

## Naga Flag: What Is Its History?

- The deadline for a final Naga peace accord passed, amid assertions from both sides that peace talks would continue. Among the issues that have been contentious are the demand for a **separate Naga constitution and use of the Naga flag**, for decades a symbol of Naga nationalism.

### The Nagas & the Indian Union

In a memorandum to the Simon Commission in 1929, representatives of Naga tribes demanded that Nagas be left free after Independence and not be included in the Indian Union. Ahead of Independence, a nine-point agreement was signed between the Government of India and the Naga National Council which included “an experimental coexistence with India for a period of 10 years” to be reviewed at the end of that period. While the Nagas saw this provision as temporary, with a right to self-determination after 10 years, Naga historians say the Indian government has interpreted the “trial period” as accession to the Indian Union. **The tallest leader of the Naga struggle, Dr A Z Phizo, met M K Gandhi in Delhi on July 19, 1947. According to Naga historians, Gandhi agreed that the Nagas would celebrate their independence a day ahead of India, on August 14, 1947. To this day, Nagas across Nagaland, Manipur, Assam and Arunachal Pradesh celebrate August 14 as Independence Day.**

### The Naga Flag's History

On August 14, it is not just the National Socialist Council of Nagalim (Isak-Muivah), or NSCN(I-M), that hoists the now contentious Naga flag. It is also hoisted in camps of various insurgent Naga groups, and even at homes of civilians who are often chased away by police who take the flag down. This year, in the backdrop of the Naga peace talks, a fresh burst of Naga nationalism saw large gatherings of Nagas hoisting the flag and taking it out in processions, especially in the Naga-inhabited Ukhrul district of Manipur, where NSCN(I-M) chief Th Muivah's village is located. **In the Naga narrative, passed down generations by word of mouth, the Naga flag was not designed by a mortal but is of divine origin.** As Naga groups battled the Indian armed forces, the legend goes, Phizo and his closest colleagues had a vision — a rainbow, in a startlingly blue sky that had appeared after a storm. **A woman of the Rengma tribe, one of the tribes under the Naga umbrella, was commissioned to weave the flag. It was hoisted for the first time in Parashen in Rengma on March 22, 1956. The flag has a blue background, representing the sky. A red, yellow and green rainbow arches across the centre. The Star of Bethlehem adorns the top left corner of the flag; Nagas are predominantly Christian.**

### The Naga Flag Today

The flag remains a symbol of the Nagas' “struggle” for over 60 years, of their religious faith, of the aspirations of the Naga people, and of their identity. It helps bind all the different Naga tribes together. Outside Nagaland state, in particular, the flag continues to elucidate strong emotions of identity from Nagas. Inside the state, common citizens are today divided on its

[Shatabdi Tower, Sakchi, Jamshedpur](#)



importance. Certain sections believe that with secession from the Indian Union no longer possible, the Naga flag has lost some of its relevance. The moderates have supported a complete inclusion in the Indian state, for access to the latter's development project, infrastructure, and its education and health facilities. But a large section of the Nagas still hold dear the idea of the Naga identity and of their tribal roots. The Naga struggle claimed thousands of lives over decades and devastated countless homes, all over the idea of a sovereign Naga nation. If the NSCN(I-M) accedes to economic and political packages alone, without a separate flag and constitution, it remains to be seen whether it will be seen as a solution, or as a defeat.

### Who Are the Brus In Tripura Camps?

- Since October 1, six members of the Reang or Bru community have reportedly died in relief camps in Tripura, after the Centre decided to stop food supplies and cash dole. They were among 32,000 Brus living in these camps since 1997, when they fled their homes in Mizoram. The Tripura government announced that it would restore food supplies, leading to the Brus withdrawing a road blockade they had set up for eight days. The restoration of supplies, however, is only until a deadline of November 30, within which the Brus have to decide whether they will accept a package for repatriation to Mizoram.

#### Who Are the Brus?

Bru or Reang is a community **indigenous to Northeast India, living mostly in Tripura, Mizoram and Assam. In Tripura, they are recognised as a Particularly Vulnerable Tribal Group.** In Mizoram, they have been targeted by groups that do not consider them indigenous to the state. In 1997, following ethnic clashes, nearly 37,000 Brus fled Mamit, Kolasib and Lunglei districts of Mizoram and were accommodated in relief camps in Tripura. Since then, 5,000 have returned to Mizoram in eight phases of repatriation, while 32,000 still live in six relief camps in North Tripura.

#### What Have They Been Surviving On?

Under a relief package announced by the Centre, a daily ration of 600 grams rice was provided to every adult Bru person and 300 grams to every minor. Some salt too was given to each family. The package also provided for a daily cash dole of ₹5 per adult and ₹2.5 for every minor, besides essentials like soap, slippers and mosquito nets over various periods. Most of the migrants would sell a part of their rice and use this money, along with the cash dole, to buy various supplies including medicines. Most of their vegetable supplies would come from wild growth nearby, where some of them have been practising slash and burn cultivation. They live in makeshift bamboo thatched huts, without permanent power supply, a safe drinking water supply system, health centres, or schools.

#### Why Are They Still Here?

In June 2018, community leaders from the Bru camps signed an agreement in Delhi with the Centre and the two state governments, providing for repatriation in Mizoram. But most camp residents rejected the terms of the agreement and "insufficient". Only 5,000 have gone back and the ongoing ninth phase has succeeded in sending back only about 700 of the remaining 32,000. The camp residents say the package does not guarantee their safety in Mizoram. They



have demanded resettlement in cluster villages, among other things. In Tripura, scion of the erstwhile royal family Pradyot Deb Barman and others have called for resettling the Brus in the state. No government organisation, however, has taken up such a discourse.

### Why Did the Centre Stop Supply?

After a series of meetings over repatriation failed to make headway, the government suspended food supplies. It offered a final package, which expires on November 30: ₹25,000 for each family which accepts the package and gets ready to be repatriated within two days. This did not find any takers either. Rations were stopped twice in the past, including in October 2018. These decisions came right before a phase of repatriation was about to start.

### What Happened After the Move?

Six persons including four infants reportedly died in the camps, which were claimed to be starvation casualties. The local administration has confirmed only four deaths and have not confirmed these were caused by starvation. A huge group of Brus blockaded the streets in protest, which ended after the state government has stepped in with its assurance.

### Did They Get Medical Care, And What Caused the Deaths?

At least three Primary Health Centres — Dasda, Gachirampara and Ananda bazaar — are close to the camps. Only one of them was treated at Dasda PHC, but it was only too late. Bru leader Apeto Sawibunga said the families could not afford to go to the hospital after the dole was stopped. The local administration initially claimed two persons died due to 'unknown disease'. Since then, officials have conceded four have died. Amid an outcry, authorities have exhumed the body of a 65-year-old woman for a postmortem. Medical officers at Kanchanpur Sub-Divisional Hospital, where postmortem was done on two deceased Brus, refused to speak anything on their findings.

### What Happens Now?

The Brus plan to lobby with the government in Delhi. A four-member Bru delegation headed by Apeto Sawibunga were scheduled to fly to Delhi and hoped to meet Home Minister Amit Shah. Asked if they have an appointment, Sawibunga conceded that they do not.

## W.B. Heritage Commission Proposes Partition Museum

- The West Bengal Heritage Commission has drawn up a proposal to set up a museum dedicated to the Partition of Bengal during the bifurcation of the country, that led to migration of millions of refugees. Headed by noted painter Suvaprasanna, the commission has recently submitted a proposal to the state government to create a "compact museum" that will focus on the historical facts and the consequences of the Partition of Bengal. The museum is proposed to be housed in the Alipore Jail, which has now been converted into a heritage building. The Partition of India in 1947, that led to creation of Pakistan, involved the division of Bengal and Punjab provinces based on district-wise Hindu or Muslim majorities. **One of the most defining events in the history of the subcontinent, the Partition not only led to violence but also recorded one of the largest mass migrations in human history.** After the Partition, Bengal was bifurcated into East Bengal and West Bengal. East Bengal became a part of Pakistan. It was rechristened East Pakistan in 1956 and later became an independent



nation of Bangladesh after the Bangladesh Liberation War of 1971. "In the proposed museum, we will have documents, articles, documentaries and films on the Partition which will elaborate the reasons and the after effects of one of the darkest chapters of the Indian subcontinent,". When asked whether the idea of the Partition Museum had anything to do with the clamour for NRC in West Bengal, as voiced by the BJP, Suvapasanna replied in the negative. "The National Register of Citizens (NRC) is a proposal of a particular party which is in power at the Centre. Parties will come to power and go, and so proposals will also keep changing. But this museum is about documenting the history for our future generations," he said.

### Changing The Status Quo (M.P. Nathanael - Inspector General of Police (Retd), CRPF)

- The Ministry of Home Affairs has proposed that the Assam Rifles should be merged with the Indo-Tibetan Border Police (ITBP) and serve under the operational control of the MHA. At present, the Assam Rifles, a Central paramilitary force, is under the administrative control of the MHA and operational control of the Army, i.e. the Ministry of Defence. The Army is opposed to this proposal.

#### History of Assam Rifles

Formed as Cachar Levy in 1835 to assist the British rulers in maintaining peace in the Northeast, the Assam Rifles, which had just about 750 men, proved its capability and efficiency. This necessitated its expansion. The unit was converted into the Assam Military Police Battalion with two additional battalions in 1870. They were known as the Lushai Hills Battalion, Lakhimpur Battalion and Naga Hills Battalion. Just before World War I, another battalion, the Darrang Battalion, was added. They all rendered great service by assisting the British in Europe and West Asia during the war. These battalions were then renamed Assam Rifles. They continued to be regular armed police battalions, but with the 'Rifles' tag, which was a matter of honour for their competence, on par with any regular Army battalion. **It was after the Chinese aggression in 1962 in Arunachal Pradesh that the Assam Rifles battalions were placed under the operational control of the Army.** Assam Rifles personnel who were acclimatised to the region were better suited for operations then. It needs to be remembered that one of the major causes for India's defeat was the fact that the regular Army units were not used to the extreme weather. The decision taken then was in keeping with the requirements. This is not the case any more. All Central Armed Police Forces (CAPF) are acclimatised to almost every region of the country now due to country-wide deployment of all CAPF battalions. The operational role performed by the ITBP at 18,700 feet in Ladakh is testimony enough to its capability to guard the border in any part of the country. **It needs to be noted that back in 2001, the Group of Ministers had stated that the principle of 'One Border, One Force' should be strictly adhered to. If ITBP can guard the India-China border in Ladakh, there is no reason why it cannot guard the India-China border in Arunachal Pradesh and beyond. The concept of having two masters for an organisation — one for administrative control and another for operational control — is not only absurd but also leads to problems of coordination.** Therefore, the Home Ministry's move to merge all its 55,000-strong Assam Rifles with the ITBP is a step in the right direction.



### Opposed to The Move

The Army argues that the Assam Rifles should be merged with it, to ensure national security. It requires no wisdom to conclude that the Army would lose its promotional avenues once this paramilitary force is merged with the ITBP, as it would be directly under the control of the Home Ministry. At present, nearly 80% of officers' ranks from Major upwards are held by Army officers on deputation. A Lieutenant General of the Army holds the post of Director General of Assam Rifles. It is natural for the Army to oppose the move. For the time being, the Chief may be appointed from among IPS officers. But for the tussle between the IPS and the CAPF officers, consequent to the CAPF being brought under the fold of Organised Group 'A' Service this year, it would be the direct officers of Assam Rifles who will eventually take up the top posts. The Home Ministry, under Rajnath Singh, took up the issue of merger with the Cabinet Committee on Security (CCS). The matter is in the Delhi High Court now after retired personnel filed a petition saying they were facing difficulties in drawing pension because of dual control. The merger issue needs to be taken up on priority by the CCS so that doubts are cleared. The modalities of absorbing the officers should be worked out to stall any situation of a vacuum being created once the deputationists are repatriated to the Army.

### Judges for Lawyers

- The siege of the Delhi police headquarters by its personnel and the disruption of courts constituted a spectacular breakdown of governance in the national capital. The police headquarters were being guarded by the CRPF, apparently from the ranks. The personnel were outraged over attacks on them by lawyers at two city courts on Saturday and Monday, and the intervention by the Delhi High Court that appeared to be shielding the lawyers while being harsh on the police. Overworked and often used as tools by political masters, police forces are far from professional in any part of India. The outburst of the constables in Delhi is also the result of their accumulated resentment against senior officers. Last year, a Delhi IPS officer slapped a constable for stopping his private vehicle that was on the wrong carriageway. Under the direct supervision of the Home Ministry, the Delhi police is often caught in the crossfire of many political battles, and junior personnel are often made the scapegoats. Commanding respect from the lower ranks by creating an environment for them to act lawfully and without fear or favour is the paramount job of the leadership in any force. On that count, the senior police officers are wanting. At a broader and deeper level, the ugly scuffle between the police and lawyers in the capital is an alarming sign of an increasingly debilitating governance deficit and collapse of the rule of law. This takes many forms, such as police support for mobs and legal processes that victimises victims of crimes further. In 2016, JNU students and journalists were attacked in a Delhi court by a group of lawyers who got off scot-free — a severe transgression by the lawyers and a failure of the police. Lawyers and the police are critical to law enforcement, and their unfailing fealty to the law and the legal process is an essential attribute that a society counts on. Far from adhering to the principles of their respective professions, when they take the law into their own hands, it is a case of the fence eating the crop; it is the sign of a dysfunctional society turning on itself. The higher judiciary has often been a beacon of hope for the rule of law, but that confidence is not as strong as before. The judicial intervention in the clash between lawyers and the police must not only be impartial and fair but also be seen as such. To restore public confidence in policing and judicial process, strict action must be taken against those who indulged in violence — an example must be made of them. That is essential also to restore the majesty of the law and its enforcement.



Providing sexuality education (R. Rochin Chandra - Director (Chief-Executive), and Bhaskar Kumar - Early Career Researcher, both at the Center for Criminology and Public Policy, Udaipur)

- In a recent judgment, the Madras High Court ruled that courts should not be influenced by misconceptions that children are likely to lie in cases of sexual abuse or that they are tutored by parents to make false statements in court. While these observations are welcome, the attitude of the defence lawyer in this case was seriously problematic. He made several objections to the testimony of the child witness, citing reasons such as the possibility of influence of pretrial conversations on the child, delay in disclosing the abuse, and the possibility of false reporting.

### Defence Questions

The attitude of defence lawyers reflects a structural problem in the legal system, for it is biased and derogatory towards victims of child sexual abuse. Defence questions are hostile, often sexually explicit, and structured to imply that lack of resistance means consent. **To discourage this controversial practice, one of the guidelines in Sakshi v. Union of India (2004) requires questions in cross-examination to be routed to the prosecutrix through the Presiding Officer, to prevent harassment and intimidation by the defence counsel.** However, this is not an established practice and happens only when cross-examination gets unacceptably offensive and objectionable. Compounding the problem is the fact that child witnesses don't understand the confusing questions of defence counsel. This makes them vulnerable and they end up giving vague answers. Also, as children typically delay disclosure of abuse (one third of them wait at least a year), chances are that medical evidence may go undetected or get lost, thus hampering their chances of securing justice. Delayed disclosure also makes it difficult for child witnesses to recall specific details of the abuse, which makes it easier for the defence to disprove allegations. So, the moot question is, what policy should be adopted to address the concerns of delayed reporting of abuse and brutal cross-examination of child witnesses? Drawing from the interim findings of #DignityProtect, a field action project of the Centre for Criminology and Public Policy, we propose that children be educated not only about the nature of sexual abuse and but also the procedures to invoke formal justice mechanisms. For this, it is imperative to introduce sexuality education in the school curriculum, underpinned by concepts of criminology and criminal justice.

### Learning the Names of Body Parts

Children need to learn the names of body parts instead of using euphemisms. In trial proceedings, defence lawyers ask specific and inappropriate questions, which require child witnesses to describe the details of abuse including the behaviour of the accused. Not knowing how to narrate what exactly happened to them, children typically provide vague and sketchy responses ('he hurt me there' or 'I didn't feel right or comfortable when he touched me there') instead of using standard terms that describe body parts. Defence lawyers often capitalise on these responses and undermine the credibility of the witness while judges are less inclined to believe such incoherent accounts. Indeed, there is a compelling need to increase the awareness of the legal system about child-sensitive communication. **But more essentially, children should be provided sexuality education so**





they can be equipped with the right vocabulary to talk about sexual abuse, without either trivialising it or obfuscating judicial actors. Teaching the correct names of private parts will also reduce the shame and stigma associated with talking about them. Skills learnt through sexuality education will prepare children to recognise potentially inappropriate behaviour, understand the different emotions that come with feeling 'unsafe', verbalise abuse to seek help from adults, and disclose abuse promptly. They will also be able to understand grooming behaviours which are subtle, methodical and even escalating. Sexuality education will thus significantly reduce the likelihood of delayed disclosure and subsequent healing of injury on the body, which often results in loss of vital forensic evidence. The justice process appears frightening to child survivors because no one has educated them about the practices of the court. Besides, unawareness of how and who to report the abuse goes against their interest. Sexuality education will thus allow children to gain knowledge about the most effective ways to respond to sexual abuse and the probative value of forensic evidence in improving justice outcomes. It will prepare them adequately for courts while also helping them manage their expectations and psychological state throughout the legal process.

### Back to The Blackboard

- Acting out of sheer pique cannot be the ideal response to any crisis. Recent data from Tamil Nadu that became available through the Madras High Court showed a clear link between coaching classes and securing a medical seat. Some have already given in to the temptation of a knee-jerk response and called for the National Eligibility cum Entrance Test (NEET) to be cancelled, shunning the need for a calibrated response to what is undoubtedly a worrisome situation. As per data submitted to the Madras High Court by the government of Tamil Nadu, the bulk of the students who secured MBBS seats in the State in 2019 had taken coaching classes to prepare for the exam. Only 1.6 % of all students who joined the government medical colleges had managed to get a seat without undergoing any preparatory coaching programme. Significantly, even in private medical colleges, only a marginally higher percentage (3.2) had got through without coaching classes. Data also showed that a significant percentage of students in both government (66.2) and private colleges (64.4) had to take multiple attempts at NEET to score a seat. Given that the costs of coaching classes are huge, running into lakhs of rupees, it clearly puts medical education out of the reach of the poorer sections. The prohibitive cost factor has been in Tamil Nadu's list of arguments against NEET right from the beginning of its spirited opposition to the common entrance test. That it would keep a segment of students out of the race was the point posited by the State, citing the example set by the IIT-Joint Entrance Examination. The State argued that coaching classes would determine entry to courses, and ergo, put out of the race students who were poor, or hailed from rural areas. The question at the root of it all, however, is the quality of education being imparted to students, in urban and rural areas. It is the shortcoming in this sector that makes expensive coaching classes the norm. Independent of students' performance in the medical entrance test, qualitative surveys, including the Annual Status of Education Report, have revealed sad neglect of a key nation-building function — school education. Ensuring that quality education is imparted at schools by well-trained teachers would obviate the need for coaching outside of classes. NEET, as the equivalent of a quality control test, hopes to choose the best students in a given pool for a career in medicine, remaining value neutral in every other way. While ensuring such benefits of NEET continue to accrue, States should put in place a series of steps that would make learning meaningful, and fun for children, and in the interim, provide free NEET coaching classes to



help disadvantaged students make that leap. Indeed, emptying out dirty bathwater periodically is essential, but to throw the baby out too would be disastrous.

### Maternal Death Rate Declining

- India's **Maternal Mortality Ratio (MMR)** has seen a decline from **130 per 1 lakh live births in 2014-2016** to **122 per 1 lakh live births in 2015-2017**. A decline of 8 points (6.2%) was observed during this period, according to the latest Sample Registration System (SRS) 2015-2017 bulletin for MMR released. This is good news for India as nearly 2,000 maternal deaths have been averted per year, according to the bulletin. **The figure has declined from 167 in 2011-2013 to 130 in 2014-2016 and to 122 in 2015-17, registering a 6.15 per cent reduction since the last survey figures of 2014-2016.** While **Karnataka has shown the highest percentage decline in MMR, Uttar Pradesh and Madhya Pradesh have shown an increase by 15 points each in MMR.** To understand the maternal mortality situation in the country better and to map the changes, especially at the regional level, **the government has categorised states into three groups: empowered action group (EAG), southern States and other states.** Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Odisha, Rajasthan, Uttar Pradesh/Uttarakhand and Assam fall under the EAG and **Andhra Pradesh, Telangana, Karnataka, Kerala and Tamil Nadu are in the southern States group.** "Others" comprise the remaining States and Union Territories. **The decline has been most significant in EAG States from 188 to 175. The ratio has reduced considerably from 77 to 72 per 1,00,000 live births among southern states and in the other states from 93 to 90.** Independent MMR data of Jharkhand (76), Chhattisgarh (141) and Uttarakhand (89) has been released for the first time in the SRS 2015-2017 bulletin. While Rajasthan's MMR has shown the highest decrease by 13 points, followed by Odisha (12 points) and Karnataka (11 points), the States of Andhra Pradesh, Bihar and Punjab have not shown any change in the ratio. Retaining its first position, **Kerala has reduced its MMR from 46 in 2014-2016 to 42 in 2015-2017.** Likewise, Maharashtra retained its second position with **55 (down from 61) and Tamil Nadu its third position with 63 (down from 66).** Union Joint Commissioner (Maternal Health) Dinesh Baswal told The Hindu that the decline is important for India as 11 States have achieved the National Health Policy target of MMR 100 per lakh live births well ahead of 2020. Focus on quality and coverage of health services through public health initiatives under the National Health Mission such as **LaQshya, Poshan Abhiyan, Pradhan Mantri Surakshit Matritva Abhiyan, Janani Shishu Suraksha Karyakram, Janani Suraksha Yojana and Pradhan Mantri Matru Vandana Yojana** have contributed to this decline. The WHO last year lauded India's progress in reducing the MMR saying the progress puts the country on track towards achieving **the Sustainable Development Goal (SDG) target of an MMR below 70 by 2030.**

### Junking Fast Food

- In a welcome step, the Food Safety and Standards Authority of India (FSSAI) has notified a draft regulation aimed at **prohibiting the sale and advertisement of food rich in fat, sugar and salt to schoolchildren inside the school premises and within 50 m around it.** It comes in response to the 2015 order from the Delhi High Court directing the central agency to **frame norms to promote healthy diets in schools.** Besides prohibiting the sale of junk food, the FSSAI requires schools to simultaneously encourage and promote a safe and balanced diet. In a bid to shield the children from consuming unhealthy food items and snacks, the FSSAI prohibits food companies that manufacture such items from advertising or offering for free



such foods in school premises and within 50 m of the campus. To thwart food companies from luring children to consume foods rich in fat, sugar and salt, the companies are prohibited from using their logos, brand names and product names on books and other educational materials, as well as on school property such as buildings, buses, and athletic fields. As a general guidance to provide wholesome food, the agency recommends the use of a combination of whole grains, milk, eggs, and millets; it also listed a set of general guidelines for selection of food products that can be offered in schools. Even as malnutrition accounted for over seven lakh (68%) deaths in children under the age of five years in 2017 in India, there is rising obesity in schoolchildren in many States. According to a July 2017 study, India, with 14.4 million, had the second the greatest number of obese children among 195 countries. A recent study found 23 States to have child overweight prevalence more than the national average, with six States having a prevalence of over 20%. Several studies have shown how a western diet affects the composition and diversity of gut bacteria and sets the stage for many metabolic diseases. Hence, any attempt to reduce and discourage the intake of unhealthy foods, which is a major cause of unhealthy weight gain in children, should be welcomed. The challenge will be in enforcement, particularly in preventing the sale and promotion of unhealthy food near schools. For instance, despite the sale and advertisement of tobacco products within 100 yards of a school being prohibited, violation is more the norm than the exception. Shops that sell tobacco products very often also sell many of the packaged unhealthy foods that the FSSAI now wants to ban. The onus of inculcating healthy eating habits also starts at home. Besides taking steps to reduce the intake of unhealthy food, both schools and parents should ensure children get adequate physical activity, which is increasingly being neglected for various reasons. It is a combination of healthy food and regular physical activity that will go a long way in bringing up healthier children.

### An Unwanted Booster Dose for Vaccine Hesitancy

- In January this year, the World Health Organization (WHO) listed “vaccine hesitancy” as among the top 10 threats to global health this year; it is defined as [a] “reluctance or refusal to vaccinate despite the availability of vaccines”. According to WHO, vaccination prevents between two-three million deaths each year, a figure that will rise by another 1.5 million if vaccine coverage improves. Yet, a survey of over 1,40,000 people from 140 countries has revealed the striking difference in how people trust vaccines. At 95%, people from South Asia trusted vaccines followed by eastern Africa at 92%. Western Europe and eastern Europe brought up the rear with just 59% and 52%, respectively. The repercussions of vaccine hesitancy are now playing out globally — as on October 10, 2019, nearly 4,24,000 children have confirmed measles, as against a figure of 1,73,000 in the whole of 2018.

### The Indian Perspective

Vaccine hesitancy has been a concern in India. For instance, one of the main reasons for five times low uptake of oral polio vaccine in the early 2000s among poor Muslim communities in Uttar Pradesh was the fear and the misconception that the polio vaccine caused illness, infertility and was ineffective. Similarly, as recently as 2016, Muslim communities in two districts in north Kerala reported low uptake of diphtheria vaccine. One of the reasons: propaganda that the vaccine may contain microbes, chemicals and animal-derived products which is forbidden by Islamic law. Tamil Nadu and Karnataka, which have traditionally seen high vaccine acceptance, witnessed low uptake of the measles-rubella vaccine when it was



introduced in 2017. A reason was again **a fear, spread through social media, of adverse effects from vaccination**. As a December 2018 study points out, vaccine hesitancy continues to be a huge challenge for India. The study found nearly a quarter of parents did not vaccinate their children out of a fear of adverse events; this was in 121 high priority districts chosen by the Health Ministry for intensified immunisation drive to increase vaccine coverage.

### At the UN

Against this background, last week, on November 1, self-styled “yogi, mystic and visionary” Jaggi Vasudev tweeted a dangerous message. “The significance of vaccination against many debilitating diseases should not be played down. But at the same time, it is important it is not overdone, without taking into consideration the many side-effects or negative impacts of vaccinations.” The dangerous sweeping statement on vaccine side-effects will give anti-vaxxers the much-needed impetus and ammunition to scare parents from vaccinating their children. Stirring fear in people by **falsely blaming vaccines for unrelated diseases is the bedrock of the anti-vaccination movement across the globe**, India included. Even today, the message of the **discredited study (in 1998) by British physician Andrew Wakefield, who linked the measles, mumps, and rubella (MMR) vaccine with autism, is used in spreading vaccine doubts and conspiracy theories**. Besides the dangerous message, it is difficult to fathom the sudden provocation for the tweet. The tweet has a link to an article published on the Isha website on October 3, which is an excerpt of a conversation between Jaggi Vasudev and Dr Soumya Swaminathan (Chief Scientist at WHO) that was held at the United Nations General Assembly on June 27, 2019. During the conversation with Dr Swaminathan, he is seen advocating vaccination and spelling out the gains India made by preventing children from becoming crippled through oral polio vaccination. But soon he veers off track and ends up spreading dangerous misinformation about influenza (commonly referred to as flu). With a disclaimer that he is not a medical expert, Jaggi Vasudev says: “...From listening to parents [in California], this is what I gathered. I thought some of the things they were giving vaccines for were just absurd. If a child catches a flu, or something like this, it is all right to go through some of these illnesses when you are growing up.” This might turn out to be the most irresponsible and dangerous piece of misinformation to have ever been said from the hallowed platform of the UN. Unfortunately, the patently wrong message went unchallenged, giving it a ring of truth. The incorrect messaging did not stop there; it is now posted on the Isha website, increasing the chances of more people being misled. The blithe comment about flu sans any evidence is in stark contrast to the seriousness with which WHO and the Atlanta-based Centres for Disease Control and Prevention (CDC) treat it. The CDC website says, “Flu illness is more dangerous than the common cold for children” especially in those younger than five years. Children older than six months and younger than five years belong to the high-risk category, the reason why the CDC recommends “vaccination against flu each year”. WHO too recognises children below five years as a high-risk group and recommends vaccination each year.

### Good Defence

The reason why influenza should be taken seriously is because in the U.S. alone, since 2010, an estimated 7,000-26,000 children younger than five are hospitalised each year; many end up dying. It is already proven that vaccination offers the best defence against flu and its



potentially serious consequences, reduces flu illnesses, hospitalisations and even deaths. Despite H1N1 (swine flu) becoming a seasonal flu virus strain in India even during summer, the uptake of flu vaccine in India is poor — the reason why thousands of cases and deaths get reported each year. As on November 3 this year, there have been 28,109 H1N1 influenza cases and 1,203 deaths this year in India. The number of H1N1 influenza cases (42,592) and deaths (2,991) in India peaked in 2015. Despite its effectiveness varying from one season to another, several studies have shown that the flu vaccination can reduce the risk of flu illness by 40-60% when there is good match between the strains used in the vaccine and the circulating virus. A study in 2017 that looked at flu seasons between 2010 and 2014 found that vaccination reduced flu-associated deaths by 65% among healthy children. The vaccine can also prevent hospitalisation, reduce the severity of illness and “prevent severe, life-threatening complications” in children. As per WHO’s recommendation, since September 2018, the protection offered by flu vaccines has been widened with the availability of vaccines containing four strains instead of three.

### Stack and Blueprint — Building Digital Infrastructure for National Health Database

- With the launch last year of Ayushman Bharat, the world’s largest state-funded health insurance programme, and the slow but certain progress towards Universal Health Coverage (UHC), the challenge of making quality and affordable healthcare accessible to every one of India’s 135 crore citizens has acquired an altogether new dimension. Effective use of technology is critical to this project — this is where the National Health Stack and its rulebook of sorts, the National Digital Health Blueprint, drawn up by a committee led by the former UIDAI chairman and Communications and I-T secretary J Satyanarayana, comes in. The Committee submitted its final report to Health Minister Harsh Vardhan last week.

### So, What Is the National Health Stack (NHS)?

Unveiled by the NITI Aayog last year, NHS is digital infrastructure built with the aim of making the health insurance system more transparent and robust, while factoring in the uniqueness of India’s health sector, and the political realities of federalism. There are five components of NHS:

- An electronic national health registry that would serve as a single source of health data for the nation;
- a coverage and claims platform that would serve as the building blocks for large health protection schemes, allow for the horizontal and vertical expansion of schemes like Ayushman Bharat by states, and enable a robust system of fraud detection;
- a federated personal health records (PHR) framework that would serve the twin purposes of access to their own health data by patients, and the availability of health data for medical research, which is critical for advancing the understanding of human health;
- a national health analytics platform that would provide a holistic view combining information on multiple health initiatives, and feed into smart policymaking, for instance, through improved predictive analytics; and
- other horizontal components including a unique digital health ID, health data dictionaries and supply chain management for drugs, payment gateways, etc., shared across all health programmes.



### And What Is the National Digital Health Blueprint (NDHB)?

The NDHB is the architectural document for the implementation of the NHS. Its vision is “to create a national digital health ecosystem that supports universal health coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, through provision of a wide range of data, information, and infrastructure services, duly leveraging open, interoperable, standards-based digital systems, and ensuring the security, confidentiality and privacy of health-related personal information”. The key features of the blueprint include a federated architecture, a set of architectural principles, a five-layered system of architectural building blocks, a unique health ID (UHID), privacy and consent management, national portability, electronic health records, applicable standards and regulations, health analytics and, above all, multiple access channels like call centres, Digital Health India portal, and the MyHealth app. A total of 23 such building blocks have been identified in the blueprint for the NHS to become a viable reality. NDHB recognises the need to establish a specialised organisation, called the National Digital Health Mission (NDHM) that can drive the implementation of the blueprint, and promote and facilitate the evolution of a national digital health ecosystem.

### But why is the NHS Necessary?

Currently, apart from Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana, there are many secondary and tertiary care schemes running in the states — such as Swasthya Sathi in West Bengal, Aarogyasri in Telangana, Chief Minister’s Comprehensive Health Insurance Scheme in Tamil Nadu, Mahatma Jyotiba Phule Jan Arogya Yojana in Maharashtra, etc. West Bengal has opted out of Ayushman Bharat, and Telangana and Odisha have never been a part of the scheme. Also, **there is an urgent need for integration of the two arms of Ayushman Bharat — health and wellness centres which constitute the primary care arm, and PMJAY, which is the secondary and tertiary care arm under which the target is to provide 10.74 crore families with an annual health cover of ₹5 lakh each.** Without integration, the goal of continuum of care cannot be met — and that would mean PMJAY might end up becoming a perpetual drain on resources. Hence, the need for a common digital language for the operationalisation and inter-operability of various health schemes, which the NHS seeks to provide.

### Is All the Data Going to Be Safe/Secure?

One of the biggest concerns following the high-profile rollout of Ayushman Bharat has been regarding data security and privacy of patients. The concerns were aggravated after an Assam minister and a senior official of the National Health Authority posted patient details on Twitter. More than a year after the Justice Srikrishna Committee prepared a draft data privacy law, there has been little meaningful movement on it. Critics have argued that in the backdrop of the Supreme Court’s privacy judgment, the data privacy law should ideally have preceded the implementation of Ayushman Bharat.

### Fusing Traditional Medicine with The Modern (Dr. Soham D. Bhaduri - Mumbai-Based Doctor and Editor of The Journal ‘The Indian Practitioner’)

- ➔ Revival of the Indian systems of medicine, which comprises **Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH)**, served as one of the sub-themes of the cultural nationalistic reassertion in the early 20<sup>th</sup> century against the imperialistic British reign. Little



wonder then that there are high hopes that the Narendra Modi government and its seeming nationalistic ardour will spell good times for the perennially neglected alternative medicine sector, especially Ayurveda. Much in line with the expectations, a number of initiatives to promote AYUSH have been recently announced. This includes: creating AYUSH wings in defence and railway hospitals; giving soft loans and subsidies for the establishment of private AYUSH hospitals and clinics; and building institutes of excellence in teaching and research in AYUSH. Also, 12,500 dedicated AYUSH health and wellness centres are planned to be set up under the Ayushman Bharat mission. Here, two important areas presenting significant policy concerns and implications can be identified. One persistent tendency in our key strategies to mainstream AYUSH medicine has been to regard that the problem lies simply in there being 'less' of AYUSH. Hence, integration of AYUSH into the health-care system has been largely conflated with having a greater number of AYUSH facilities or having them in place where there aren't any.

### A Fraught Relationship

It is common knowledge that AYUSH's relationship with modern medicine has been fraught with multiple issues — including quackery by AYUSH practitioners; ridicule of AYUSH treatments and procedures by many; and mindless cosmeticisation and export promotion of AYUSH products. However, little by way of a concrete harmonising strategy has been devised to address these concerns. These issues are reflective of a sharp status gap between modern medicine and AYUSH that is highly detrimental for the optimal deployment of AYUSH resources. Merely expanding AYUSH's framework will only expand the present list of problems. True integration would require a concerted strategy for facilitating meaningful cross-learning and collaboration between the modern and traditional systems on equal terms. This is the only way to address the subservient status of AYUSH and to foster its legitimate inclusion into mainstream health care. The Chinese experience of integrating Traditional Chinese Medicine with Western medicine makes for a good example. An Indian parallel could envision the integration of education, research, and practice of both systems at all levels. This can include training of AYUSH practitioners in modern medicine through curriculum changes and vice versa. However, this would entail substantial groundwork with respect to the prerequisites of such integration: namely, building a strong traditional medicine evidence corpus; delineating the relative strengths, weaknesses, and role of each system; negotiating the philosophical and conceptual divergences between systems; standardising and regulating AYUSH practices and qualifications; and addressing the unique issues associated with research into AYUSH techniques. It is interesting to note that while China embarked upon the path in the 1950s, a solid road map to address the above challenges still fails to transcend political rhetoric in India. Recently, the National Medical Commission Act, 2019 was passed in the face of much opposition from the orthodox medical community, apparently signifying political will. While an earlier proposal for a bridge course for AYUSH graduates was shelved, there is no reason why the opposition to integration of traditional and modern systems cannot be nullified, particularly in view of the vast potential of AYUSH to contribute to universal health-care in India. Historically, attempts at integration have been foiled by parties from both within and outside the AYUSH sector. **In keeping with the recommendations of the Chopra Committee (1948), baby steps were taken to integrate the teaching of traditional and modern systems of medicines, proposals that were later scrapped.** While the AYUSH lobby feared a loss of identity following such integration, the allopathic lobby alleged that standards of medical care would be diluted. This kind of



isolationist approach goes against the cherished ideal of modern medicine to embrace concepts that are backed by evidence. In the case of traditional medicine, an isolationist attitude could deter scientific scrutiny and block some potential value addition. An integrated framework should create a middle path — fusing the two systems, while still permitting some autonomy for each. Accordingly, a medium- and long-term plan for seamless integration should be developed expeditiously in view of the massive drive for achieving universal health care already under way in the country.

### Excess Deaths Due to Climate Change

- A new study has projected that 1.5 million more Indians may die per year from extreme heat due to climate change by 2100, and that India's energy use will more than double in the next 20 years, driven largely by fossil fuels. If emissions continue to be as high as they are at present, India will see a death rate of about 60 per 100,000 by 2100, the study says. This projected death rate is double the current death rate from oral cancer in India, which is the most common cancer in the country. The study, 'Climate Change and Heat-Induced Mortality in India', was conducted by the Climate Impact Lab in collaboration with the Tata Centre for Development at the University of Chicago. It says the average annual temperature in India is expected to increase from 24°C to 28°C. The number of extremely hot days (above 35°C) across India is expected to increase by over eight times, from 5.1 per year in 2010 to 42.8 in 2100. By 2050, there are expected to be 15.8 extremely hot days a year. The National Capital Region is projected to see 22 times more extremely hot days and more than 23,000 climate-related deaths annually by 2100 in a high-emission scenario. Odisha is projected to see the highest increase in the number of extremely hot days, at about 30 times more than what it is today. Punjab is projected to experience 85 extremely hot days a year, the highest among all states. Overall, the six states of Uttar Pradesh (4,02,280), Bihar (1,36,372), Rajasthan (1,21,809), Andhra Pradesh (1,16,920), Madhya Pradesh (1,08,370) and Maharashtra (1,06,749) are projected to account for over 64 per cent of the heat-related deaths. While the projected death rate in a high-emission scenario is 60 per 100,000 by 2100, mitigation of emissions will bring down the death rate to roughly about 10 per 100,000, the study says. According to the report, the risks associated with extreme temperatures vary around the world and are dependent upon the wealth of a country. For instance, the impact of a single hot day on the annual mortality rate of a wealthy and warm city such as Houston, US, will be 0.4 deaths per 100,000. The same will be double for a warm and poorer city such as Delhi, at 0.8 deaths per 100,000.

### Delhi Smoke, Punjab Water — The Trade-Off

- A 10-year-old Punjab law is being blamed for contributing to the air pollution over Delhi and surrounding areas. The law led to the sowing and transplantation of the summer paddy crop to be delayed by about a fortnight, and moved the harvesting season to end-October and early November — a time when the moist air and largely inactive wind systems cause particulate matter and gases from burning paddy stubble to hang in the atmosphere. This air is carried by north-westerly winds towards Delhi, which lies to the southeast of Punjab.

### What Is the Punjab Preservation of Subsoil Water Act, 2009?

The law, brought by the SAD-BJP government of Chief Minister Parkash Singh Badal, aimed at conserving groundwater by mandatorily delaying the transplanting of paddy to beyond





June 10, when the most severe phase of evapotranspiration (transfer of water from land to the atmosphere through evaporation from the soil and plant transpiration) is over. Farmers were forbidden from sowing paddy before May 10, and transplanting it before June 10. Haryana has a similar law.

### Why Was the Law Enacted?

There has been serious concern over the drastic fall in the water table in Punjab. Paddy is procured by the government at minimum support price (MSP), and leads to over-exploitation of underground aquifers, as a very large number of tube wells (more than 14 lakhs in 2015-16) running on free power pump out virtually endless amounts of water. The Punjab State Farmers Commission (PSFC), led by the late Dr G S Kalkat, pushed for the law — he suggested it to Capt Amarinder Singh's Congress government in 2006, and followed up with the Badal government that took over in 2007. Despite farmers being a formidable vote bank, Dr Kalkat was able to convince the government that early transplanting of rice (before mid-June) resulted in unsustainable withdrawals of groundwater with the monsoon still far, temperatures very high, and the evapotranspiration rate (ETR) at its peak.

### What Is the Law's Link with Air Pollution?

Farmers' organisations say late sowing and transplanting delays the harvesting as well (it is end-October by the time operations end), and they are left with a very small window to prepare their fields for the next (wheat) crop. In this situation, setting the stubble ablaze is a quick-fix solution. By this time, temperatures have started to fall, and a combination of atmospheric and meteorological conditions ensure that the smoke cannot disperse easily. A part of the smoke from the farm fires is carried by westerly winds towards the NCR and further down the Indo-Gangetic plain. Last year, the date for paddy transplantation under the Act was pushed to June 20; it was advanced this year to June 13.

### But Does the Act Really Help Conserve Groundwater?

A study, 'Impact of Preservation of Subsoil Water Act on Groundwater Depletion: The Case of Punjab, India' (Environmental Management, 2016) by Amarnath Tripathi, Ashok K Mishra, and Geetanjali Verma, reported "a robust effect of the 2009 Act on reducing groundwater depletion". Between 2008-09 and 2012-13, the average annual rate of decline of groundwater in Punjab was 0.7 metres, less than the 0.9 m during the period 2000-01 to 2008-09, the study found.

### What Is Punjab's Underground Water Situation Currently?

According to a report in May 2019 by the Central Ground Water Board under the Ministry of Jal Shakti, 105 out of 138 blocks are in the dark zone. At current rates of depletion, good quality water in the first aquifer up to a depth of 100 m shall be exhausted in 10 years, and the entire subsurface water resource could be finished in the next 22 years.

### Is Punjab Willing to Do Away with The Subsoil Water Preservation Law?

No. The government argues that the main reason for the declining water table is the cultivation of paddy, which Punjab produces for the central pool. Stubble burning can be



managed, especially if the Centre helps with money to compensate farmers — but dry aquifers cannot be recharged, it says.

### Clearing the Air

→ Delhi is once again in the grip of its annual, winter pollution crisis. The city's tryst with air pollution crises isn't new. The rising prominence of particulate matter (PM) from various sources has long been a public health scourge. What differentiates the prevalent PM crisis from earlier ones is the public's ability to monitor pollution levels for themselves. The measurement of pollution, which used to be the domain of weather agencies or pollution control boards, can now be done with consumer appliances. However, increased public awareness and social media angst haven't translated into meaningful public action. **The Graded Response Action Plan (GRAP) in Delhi, which provides for a ratcheting slew of measures — from stopping construction work to halting private vehicles — isn't effective when air quality reaches its nadir.** It recommends action only after pollutants soar. A Task Force — which comprises top officials of Delhi and the Centre — advises the Environmental Pollution Control Authority, which is in charge of enforcing the GRAP. Rarely does it recommend tough pre-emptive action and when it does, there's no real pressure on municipal bodies and police to ensure that polluters are punished. There is a sense of resignation among both the Centre and the Delhi government about tackling the crisis. Meteorology and Delhi's geography render the city vulnerable to a certain amount of winter pollution, particularly when wind speeds drop to less than 10 kmph. But, preventing local sources of pollution from worsening air quality will require both the State and the Centre to implement unpopular decisions. **This would include an outright ban on two wheelers, three wheelers and cars when air quality starts to deteriorate, a halt on construction, shutting down power plants in the vicinity of Delhi and a substantial spike in parking rates. And, of course, getting the farmers of Punjab and Haryana to not burn stubble at all.** Even if this confluence of miracles were to occur, it wouldn't guarantee blue skies on a windless day and, therefore, political brownie points. This makes it convenient for governments to engage in theatre such as having Ministers bicycle to work and blaming farmers for burning rice chaff. The Delhi government and the Centre routinely cite pollution figures averaged for the entire year to claim success of some piecemeal measure or the other but hide the lows of October and November. Tackling Delhi's winter air requires tough steps that need to be in place at least a couple of months before the plummet. At the very least, it requires an empowered, independent agency that can implement measures while negotiating the tricky relationship between the Centre and Delhi. Else, beyond the momentary outrage, the battle against pollution will remain reliant on a prayer, and the wind.

### String of Deaths

→ The perilous use of manja, a synthetic kite string coated with powdered glass, remains pervasive, endangering human lives and making a mockery of the multiple bans on its manufacture and sale. Three-year-old Abhinayu of Chennai, who died on Sunday after a dangling manja slit his neck while he was seated on a motorcycle his father rode, is the latest victim. Only in August, a man in Delhi bled to death after being entangled by a manja. Actually, the earliest recorded instance of a death caused by a kite string in Chennai was in October 1975 in the wake of which 197 people were arrested. Kite flying is not just a pastime but also an organised festival in States such as Gujarat and Rajasthan. During this year's



Makar Sankranti, three persons were killed in Gujarat and over a 100 injured in different States. Birds, including the White Rumped Vulture, get frequently entangled in manja strings as well. An estimate cited by the Animal Welfare Board of India said that at least 2,000 birds are injured at the annual kite flying event in Ahmedabad of which 500 eventually die. What has turned **the once-harmless activity of kite flying into a bloody societal menace is the substitution of the traditional cotton thread with the nylon or single plastic fibre string made of monofilament fishing line coated with powdered glass.** Dubbed Chinese manja (though locally manufactured), the transparent and light-coloured string is not easily visible. While the cotton thread too is coated with finely powdered glass, its sharpness is blunted when mixed with boiled rice, flour, egg white and tree gum. The factory-scale manufacture of Chinese manja and its pricing at just one-third of the rate of a cotton spool, coupled with the thrill of cutting off another kite, has led to its widespread use. **The nylon string is also non-biodegradable, making it an environmental hazard.** When dangling from high-tension overhead electricity cables, it has also led to electrical accidents. Taking these into account, **in July 2017, the National Green Tribunal banned synthetic manja across India.** It directed the authorities to book violators not only under the provisions of the Indian Penal Code but also invoke the Environment (Protection) Act, Prevention of Cruelty to Animals Act, and Wildlife (Protection) Act as the case would warrant. **Multiple State governments have banned the manja. But what is lacking is enforcement.** The police seize spools of manja and arrest a few persons each time a human life is lost. There is no sustained endeavour to end the menace. Also, cases of people being convicted for manufacturing, selling or using manja are rare. Unless the authorities get their act together, the list of casualties could only get bigger with another Makar Sankranti around in two months' time.

### Endless Greed

- In less than a fortnight, cricket has suffered twin blows, both at the international and domestic level. First up was Bangladesh skipper Shakib Al Hasan's belated admission of corrupt approaches by bookies. The International Cricket Council immediately suspended him and the game was left in an uneasy state. Worse was to follow and, this time around, it was closer home as C.M. Gautam and Abrar Kazi, two players who represented Ballari Tuskers in the Karnataka Premier League, were arrested on Thursday following their involvement in match fixing and for specifically under-performing and throwing their final against Hubli Tigers at Mysore in August this year. That Gautam, who led Ballari Tuskers, has also played first-class cricket for a decade makes his crime all the more tragic. The wicket-keeper batsman has played for India A in the past while Kazi was always considered a talented all-rounder. The inducement was an amount of ₹20 lakh and the duo allegedly succumbed to greed. The KPL has been under the scanner for a while and the police believe that more grisly tales could be unearthed from the wretched bookie-player nexus. The crisis also drives home the sobering truth that cricket is not insulated from the betting syndicate's nefarious tentacles. When the match-fixing scandal first broke in 2000 and scalped big names such as Mohammad Azharuddin, Hansie Cronje and Saleem Malik, the punitive measures then taken, like a life-long ban, were seen as an adequate deterrent. But history has proved otherwise and, in the subsequent years, the inability to conclusively prove match-fixing with strong evidence in the courts has often allowed tainted players to reverse punishments and reclaim their lost space. Cricket's heart has been repeatedly mauled, be it through the spot-fixing incidents involving Pakistan's then-skipper Salman Butt, Mohammad Asif and Mohammad Amir in the 2010 Lord's Test or the 2013 IPL controversy that witnessed the



arrests of S. Sreesanth, Ajit Chandila and Ankeet Chavan, which eventually forced a clean-up of the Board of Control for Cricket in India. The unholy bond between players and bookies is an ill that cannot be wished away, especially in the Twenty20 leagues mushrooming across the cricketing globe. Players are constantly lectured on blowing a whistle on approaches by bookies or other agents of the betting mafia and an immediate ban has always been the reflexive punishment meted out by various cricketing associations. Yet, many have crossed over to the corrupt side and made a mockery of the sport's moral fibre. It is time for the authorities to get more stringent. Else the list of Gautams and Kazis will grow longer.

## Business & Economics

### Economic Slowdown May Lighten India's Carbon Burden

- There's a silver lining to India's economic slowdown. Carbon dioxide emissions are poised to grow at their slowest — a 2% rise from last year — since 2001, according to an analysis published in Carbon Brief, a site that tracks emission and carbon dioxide trends. The rise in CO<sub>2</sub> emissions from India sees wild swings — from 7.7% in 2014 to 3.5% the next year and then back to 7.8% in 2018. This is the first time that emissions are expected to grow below 3% from the previous year. Mr. Dahiya told The Hindu that though the analysis was restricted to August, the remaining months were unlikely to change the year's trend. "Coal generation trends are unlikely to change given the lack of demand and the contribution of renewables. "Slower growth in coal-based power generation will also benefit the country's air quality efforts, as essentially all coal-fired power plants lack pollution controls commonly required in, say, the EU and China," the analysts projected. Industrial coal use fell dramatically in 2017 because of a slowdown in the construction sector and bounced back in 2018. Wind generation rose by 17% in the first six months of 2019 compared to the same period a year earlier, with solar up 30% and hydro increasing by 22%. Last year, a report by the International Energy Emissions Agency said **India's per capita emissions were about 40% of the global average and contributed 7% to the global carbon dioxide burden. The U.S., the largest emitter, contributed 14%. As per its commitments to the United Nations Framework Convention on Climate Change, India has promised to reduce the emission intensity of its economy by 2030, compared to 2005 levels. It has also committed to having 40% of its energy from renewable sources by 2030.**

### India Refuses To Sign RCEP

#### What is the RCEP?

- The Regional Comprehensive Economic Partnership (RCEP) is a trade deal that was being negotiated between 16 countries. They include the 10 Association of Southeast Asian Nations (ASEAN) members (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) and the six countries with which the bloc has free trade agreements (FTAs) — India, Australia, China, Korea, Japan, and New Zealand. The purpose of the deal is to create an "integrated market" spanning all 16 countries. This means that it would be easier for the products and services of each of these countries to be available across the entire region. **The RCEP is billed to be the "largest" regional trading agreement yet — the countries involved account for almost half of the world's population, contribute over a**



quarter of world exports, and make up around 30% of the global Gross Domestic Product (the value of all goods and services produced in a year). Negotiations to chart out the details of this deal have been on since 2013, and all participating countries had earlier aimed to finalise it by November 2019.

Commerce Minister Piyush Goyal has briefed the Union Council of Ministers on the country's decision to not join the Regional Comprehensive Economic Partnership (RCEP). Among the reasons are some that are already in the public domain – like the **threat of circumvention of Rules of Origin** due to tariff differentials, where **countries take advantage of tariff differentials given to another country**, and not offered to it. Also, a long-standing request of India that the **base rate of Customs duty be changed from 2014 to 2019**, as the RCEP, even if signed in 2019, would be ratified only by 2022, which means that the 2014 base rate would be hugely outdated even for the take-off point of the agreement. A request was also made for tariff lines to be on an **auto trigger safeguard mechanism along with a review clause at a periodicity of three**, as India's experience with free trade agreements (FTAs) has been that it often leads to huge import surges that impair the domestic industry due to dumping. Most significantly, **an exclusion of Most Favoured Nation (MFN) obligations** was sought in the investment chapter, i.e., India has given MFN status looking at its strategic interests. **Plainly what this means is that without adequate safeguards, the RCEP could end up being an FTA with China through the back door with a huge trade deficit on the Indian side.** The effort was, say government sources, to ask the RCEP to consider the Indian position, and when that was not on, with other member-countries going ahead with signing, Prime Minister Modi felt there was no option but to keep out of the agreement. The government will go ahead with individual FTA negotiations with the U.S. and the European Union, but, clearly, these efforts would be informed by the RCEP experience. India's request for country-specific tariff schedules was rejected early in the negotiations. So was its suggestion of an auto-trigger mechanism to check a sudden surge in imports from particular partner countries. India also argued for stricter rules of origin, and rightly so too, but this too failed to pass muster. Movement of professionals was another area that saw an impasse. Given these, there was little chance of the political leadership agreeing to join the bloc.

### 1. Large Trade Deficits

While India runs large trade deficits with at least 11 of the 15 RCEP members, China alone accounts for \$53 billion of India's \$105 billion trade deficit with these. Given China's needs for greater access to Indian market to sustain its manufacturing industries, India was keen to protect its industry and farmers from a surge in Chinese imports. India's experience with Free Trade Agreements (FTAs) has been underwhelming, with the Niti Aayog suggesting that FTA utilisation, which is in the 5%-25% range, was meagre. Domestically, the RCEP generated considerable opposition with major stakeholders coming out against it, be it farmers, dairy industry or the corporate sector. The Opposition Congress Party, which joined the RCEP negotiations seven years ago, too decided that it was politically expedient to oppose the pact. Difficulties in the Indian economic landscape further compounded the problems. If global negotiations are a "two level" game, both the levels were facing severe challenges, making this rejection a veritable necessity. **Comprising half of the world population and accounting for nearly 40% of the global commerce and 35% of the GDP, the RCEP would have become the world's largest free trade area after finalisation, with India being the third-biggest economy in it.** Without India, however, the RCEP does not look as attractive a trade pact as it had seemed during



negotiations. Not surprising, therefore, that there are divisions within the ASEAN on moving ahead without India. ASEAN has always been keen on a diversified portfolio of partners so that its member states can leverage their centrality in their dealings with major powers and maintain their strategic autonomy. While China's clout has been growing in the region, ASEAN member states have tried to keep the U.S. engaged in the region as well. But with the Trump administration giving mixed signals about Washington's commitment towards the region, ASEAN has been looking at New Delhi with a renewed sense of anticipation. The Modi government's proactive outreach to the region in the form of its 'Act East' policy has been well received. Anxious about China's increasingly overweening economic and security presence in the region, ASEAN member states have been keen on a substantive Indian involvement in the region. India's decision to keep away from the RCEP will, hence, certainly cause concerns about its larger game plan vis-a-vis the region. New Delhi's entire Indo-Pacific strategy might be open to question if steps are not taken to restore India's profile in the region. For China, this looks like a win at a time when the Trump administration is pushing Asia into making a choice in its favour by jettisoning Chinese largesse on infrastructure and technology.

## 2. Beijing's Dominance

Both geopolitically and geo-economically, China now looks set to dominate the Indo-Pacific, which may not be good news for the region and India. This is the reason why Japan is now suggesting that it would work towards a deal which includes India. Even as China is pushing for an early conclusion of RCEP among the remaining 15 members, Economic isolation is not an option for India and so there are reports that New Delhi will be moving towards bilateral trade pacts. India will have to prepare itself more fully to take advantage of such pacts. Domestic reforms will be the need of the hour. This is an age when the whole raison d'être of economic globalisation is being challenged. India needs a strategy that brings together the economic and political aspects of its strategic thinking. In rejecting the RCEP, New Delhi seems to be signalling that despite the costs, China's rise has to be tackled both politically and economically. How the rest of East and Southeast Asia responds to India's move will determine the future balance of power in the Indo-Pacific.

## 3. Vulnerabilities in Agriculture

What led India to disassociate itself from an agreement which, till recently, was backed by the Union Commerce and Industry Minister? The immediate answer lies in the concerns expressed by all major stakeholders, namely, farmers, trade unions, major industry associations and civil society organisations, about the adverse implications of import liberalisation. Despite being a fairly open economy, India still uses tariffs to protect the significant levels of vulnerabilities, especially in agriculture but also in the manufacturing sector. **The present structure of tariff protection is so designed that together with the relatively and generally low tariffs on most manufactured imports, moderately high tariffs are imposed on agricultural imports.** The preponderance of small and marginal farmers and their inability to face competition from global agri-business has been the primary reason why the government has always excluded agriculture from import liberalisation, both in the World Trade Organization (WTO) as well as in bilateral free trade agreements (FTAs). Thus, in the FTAs with the Association of Southeast Asian



Nations (ASEAN), Korea and Japan, most of the major agricultural products were excluded from import tariff cuts.

#### 4. On Import Protection

The RCEP threatened to alter the template of import protection that was an almost settled issue for India. The “Guiding Principles and Objectives for Negotiating RCEP”, the de facto negotiating mandate, stated that “RCEP will aim at progressively eliminating tariff and non-tariff barriers on substantially all trade” and that tariff “negotiations should aim to achieve the high level of tariff liberalization”. The wording of the negotiating mandate left little scope for India to maintain its regime of import protection in response to domestic vulnerabilities, as for example in agriculture. Yet another implication of the RCEP negotiating mandate on tariff elimination for India was that China would have had to be given similar levels of market access. This set alarm bells ringing for India’s manufacturing sector which faces an increasing threat from cheap Chinese products. The major concern of this sector was that imports from China increased from less than \$11 billion in the middle of the previous decade to over \$76 billion in 2017-18; this could quickly increase further when India grants preferential tariffs to its northern neighbour as a part of the RCEP deal. **The agriculture and dairy sectors also got into the mix of tariff cuts essentially because of the presence of Australia and New Zealand, two countries that have significant interests in these sectors. Australia has large export interests in wheat and sugar, two of the most politically sensitive commodities for India. It is important to point out that in recent months, Australia has initiated a dispute against India in the WTO arguing that subsidies granted to sugarcane producers violate the rules of the Agreement on Agriculture. Three other RPCs, China, Indonesia and Thailand, have joined the dispute as third parties.** The strategy of these countries is to ensure that India reduces sugar subsidies, which would threaten the viability of sugar producers in the country. The resultant vacuum can then be plugged by these interested parties. Given this backdrop, India’s commitment on market access under the RCEP could have provided an additional handle to exploit India’s market.

#### 5. Concerns Over Dairy Sector

India’s dairy sector provides livelihood to about 70 million households. A key feature of India’s dairy sector is the predominance of small producers. In 2017, if the average herd size in a dairy farm was 191 in the U.S., 355 in Oceania, 148 in the U.K. and 160 in Denmark, it was just 2 in India. Yet, due to Operation Flood after the 1960s, India’s contribution to world milk production rose from 5% in 1970 to 20% in 2018. Today, India is largely self-sufficient in milk production. It does not import or export milk in any significant quantity. If we consider global milk trade, developed countries account for 79% of the total world export of milk. Major players are the U.S., the EU, Australia and New Zealand. A country like New Zealand exports 93% of its milk production. On the other hand, developing countries account for 80% of the world’s total milk imports. Though India is self-sufficient in milk production, China imports about 30% of its milk requirement. Thus, some of the major players in the global milk trade are in the RCEP region. About 51% of the global trade of milk, 45% of the global trade of skimmed milk powder (SMP), 38% of the global trade of butter oil, 35% of the global trade of cheese and 31% of the global trade of butter takes place in the RCEP region. This is why Australia and New Zealand, deprived of the



lucrative markets in the U.S. after the demise of the Trans Pacific Partnership (TPP), have had a deep interest in the RCEP agreement.

While the WTO allows a country to fix tariffs up to a certain maximum, or bound tariff, for a given commodity line, the RCEP binds countries to reduce that level to zero within the next 15 years. Currently, India's average bound tariff for dairy products is about 63.8% while its average applied tariff is 34.8%. The threat faced by stakeholders in the dairy business from the RCEP has been widely discussed. **New Zealand is the second largest exporter of milk and milk products**, and this group of products has contributed between a third and a fourth of the country's total exports in recent years. New Zealand milk producers are also more efficient than India's small producers, which would have given the former a price advantage in India's market — if the market for dairy products was opened under India's RCEP commitments. Above all, the factor that militates against India's acceptance of any commitments under the RCEP is the declining fortunes of both the agriculture and manufacturing sectors. The growth numbers that were used to show India as the fastest growing economy have now been replaced by significantly lower growth expectations. Under these circumstances, an aggressive opening of the Indian economy would have only added to the uncertainties faced by the domestic entities, and whose impact on the labour market could have been catastrophic.

### Tariff Issue

It is interesting to note that the government has been aware of the need to protect India's agriculture and manufacturing sectors, both within and without the RCEP. Within the RCEP, the government's first offer on tariff liberalisation made in 2015 (that was also put out in the public domain), took a rather conservative position. It spoke of a tariff elimination on 80% of imports from ASEAN and just 42.5% of imports from China, which would have addressed the vulnerabilities discussed earlier. Subsequently, India changed its stance and agreed to deep cuts in tariffs. Two critical process issues need to be raised in this context: the first is that the circumstances under which the change from the initial negotiating position was made is not clear. And the second is that unlike the initial tariff offer, the subsequent offers that the government made in the negotiations were not brought in the public domain. India's continued engagement in RCEP negotiations on market access that had set complete tariff elimination as the objective seemed even more intriguing because the government had resorted to reversing the process of autonomous liberalisation since 2017. In response to the demands made by several sectors, tariffs were increased; as a result, average tariffs for manufactured products increased from below 11% in 2017 to nearly 14% in 2018, while for agricultural products, the average tariff hikes were from below 33% to nearly 39%.

### Addressing Competitiveness

A final issue that needs to be addressed is whether joining the RCEP could have contributed in any way in increasing India's exports and participation in value chains. This is an issue that has repeatedly been spoken of in the aftermath of India's pull-out from the mega regional trade agreement. **The reality in this regard can be understood by taking a quick look at the FTAs with ASEAN, Korea and Japan. In all these agreements, India has run increasing trade deficits, essentially because the exports have not seen the desired levels of expansion.** The explanation of this phenomenon lies in the **lack of competitiveness of Indian enterprises, both in agriculture and the manufacturing sectors.**





Throughout the period in which economic reforms have played out, **successive governments have not focused on policies that can increase the efficiency of domestic enterprises**. As the dust settles after the RCEP exit, **the government must focus on the mechanisms through which India can create globally competitive sectors that can demand market access in India's partner countries**. Until then, India will be saddled with a defensive mindset in trade negotiations.

### Growth of MNCs

Over the last 25 years, Indian policy has consciously encouraged the growth of private milk companies. Milk cooperatives, which played a major role during Operation Flood, are no more seen as engines of growth. Policy has also favoured the entry of multinational dairy corporations into the Indian dairy sector, through joint ventures, mergers and acquisitions. Multinational milk firms have opened shop in India in the hope that the Indian dairy sector would soon be opened up. For instance, the Swiss firm Nestlé was the largest private purchaser of milk in India in 2019. The French milk firm Lactalis entered India in 2014 and has taken over Tirumala Milk Products in Hyderabad, Anik Industries in Indore, and Prabhat Dairy. Another French firm, Danone, has invested Rs. 182 crore in the yoghurt brand Epigamia. New Zealand's Fonterra Dairy has a 50:50 joint venture with Kishore Biyani's Future Consumer products. In other words, multinational dairy firms had been building a strong presence in India even prior to the RCEP talks. At present, these firms are forced to buy milk from Indian farmers. The reason is that the applied tariff for dairy products in India is about 35%. The bound tariff would have fallen to zero if the RCEP had come into effect. It would have then been far more profitable for firms to import milk from New Zealand or Australia rather than buy it from Indian farmers. The sale price of milk received by Indian farmers would have fallen sharply. The export price of SMP from New Zealand is about ₹150 per kg. The domestic price of SMP in India is about ₹300 per kg. An average dairy farmer in India receives ₹30 per litre of milk. According to estimations made by Amul, if free imports of SMP from New Zealand are permitted, the average price for milk received by an Indian dairy farmer would fall to Rs. 19 per L. The unit cost of milk production is relatively low in countries like New Zealand because of extensive grazing lands (which reduce feed costs), mechanised operations and the advantages of economies of large-scale production, and the high productivity of milch animals (about 30 L/day). In addition, New Zealand government policy has consciously helped its major company, Fonterra, to become the dairy giant that it is. Fonterra, which controls 90% of the New Zealand milk market and one-third of world trade in milk, is feared even by large American and European dairy firms. A key demand of American dairy firms during the TPP negotiations was that New Zealand should break up and end the monopoly of Fonterra.

### False Arguments

Two arguments were raised in favour of India signing the RCEP. First, it was argued that India would soon become a milk-deficient country and be forced to import milk. Hence, it would be better if India enters the RCEP today rather than later. Forecasts from Niti Aayog show that this argument is wrong. In 2033, India's milk production would rise to 330 MMT while its milk demand would be 292 MMT. Thus, India is likely to be a milk-surplus country by 2033. Second, it was argued that the quantity of milk imports from



New Zealand to India are unlikely to exceed 5% of their total exports. As a result, its impact on Indian prices would be insignificant. This too is a false argument. As data put together by Amul show, 5% of New Zealand's exports in this sector is enough to flood India's domestic market. It is enough to account for 30% of the Indian market for milk powders, 40% of the Indian market for cheese, and 21% of the Indian market for butter oil. These numbers are significant, and enough to ensure that Indian dairy prices plummet. If there are 70 million households dependent on dairy in India, the corresponding number is just 10,000 in New Zealand and 6,300 in Australia. Reasoned analysis shows the socio-economic costs of India becoming a party to the RCEP agreement.

- RCEP furnishes a concerted liberalisation framework which, if paired with domestic factor market reforms, could have propelled the country towards its 'Make in India' targets in ways that no amount of tinkering with the 'Ease of Doing Business' rankings will achieve. The implications of joining RCEP on the regional integration front and for Mr. Modi's 'Act East' policy was as acute. **India does not participate in the Asia-Pacific Economic Cooperation forum**, where best practices in trade and digital economy endeavours are formulated. It is not a member of the **Chiang Mai Initiative**, which has evolved from a **currency swap arrangement** into an embryonic form of Asian financial regionalism. It was excluded from the **Comprehensive and Progressive Trans-Pacific Partnership** negotiations, and is only marginally attached to the region by way of **shallow economic partnership agreements with Japan, South Korea and the ASEAN countries**. RCEP afforded a fleeting opportunity for New Delhi to hitch its wagon to the global epicentre of 'open regionalism' at a time when protectionism and populism are casting a pall over India's economic rise in the global system. Without an economic integration strategy in Asia, India will have no strategy in Asia and the sum total of its 'Act East' policy will amount to little more than becoming the naval doorman of the Indo-Pacific. **By signing on to RCEP and instituting structural reforms at home**, Mr. Modi had an opportunity to integrate India within Asian trade regionalism. To ensure that such an opportunity does not go abegging next time, he should **pursue factor market reforms** so that he will never have to face such a dilemma again.

The fallout of India's decision is that it has burnished its image as a protectionist nation with high tariff walls. With a market of 1.3 billion people, there is bound to be more pressure on India to open its gates. The smart way to handle this is to initiate reforms on the export front, bring down costs in the economy and, simultaneously, increase efficiencies. India cannot miss out on being a part of global supply chains and this can happen only if tariff barriers are reduced. And the best way to balance the effect of rising imports is by promoting exports. Tariff walls cannot be permanent.

### What Makes Doing Business Easier (Pulapre Balakrishnan - Professor, Ashoka University, Sonapat And Senior Fellow, IIM Kozhikode)

- News of a continuing improvement in India's ranking according to the World Bank's 'Ease-of-doing-business' Index appears to have come in handy for a government otherwise beleaguered by seemingly endless bad news on the economic front. The Finance Minister was quick to express both satisfaction and a determination to take India into the **top 50 countries — it is pegged at No. 63 now among the 190 ranked according to this index**. In a country where economic policy has for long remained impervious to the challenges faced by its smaller businessmen, any real attention their condition gets is to be welcomed.



### Enable the Self-Employed

The scale of the problem is better understood if we recognise that by far the largest number of working Indians is self-employed. Among them are our carpenters and service providers, and neither the grand industrial policy statements of the Nehru era nor Narendra Modi's 'Make in India' programme appear to have realised that they need to be enabled too. So there is much to be said about concerns with the ease of doing business in India, no matter that the World Bank's perception is overly based on the regulatory regime without adequate attention to infrastructure, and is embarrassingly narrow in its coverage, being confined to Delhi and Mumbai. Having said the ease of doing business is important, it needs to be emphasised that a business cannot flourish on its own. Its fortunes are tied to the health of the economy within which it is embedded. This proposition is best illustrated through a secular parable. Think of a businesswoman considering the establishment of a glove factory. She is aware that her workers will buy at least some of the gloves to be produced but that this is unlikely to turn a profit sufficient to cover the initial costs to set it up. This would lead her to shelve her investment plan. Imagine though that at the same time a businessman decides to actually set up a factory making cloth for export. This would encourage our businesswoman in her plans as she realises that the workers of the cloth factory will buy the remaining gloves that she will produce. She goes ahead with her investment plan and a business thrives.

### Creating Demand

This simple story, borrowed from the work of early development economists, shows how the viability of a business depends on the vitality of the economy in which it is embedded. The ease of doing business alone could not have helped our businesswoman had the cloth factory not been set up. And the cloth factory itself may not have been set up had its owner not been sure of the demand for his product emanating from the rest of the world. It points to the importance of what economists refer to as 'aggregate demand', without which neither the benignness of the regulatory environment nor the entrepreneurial capability of businessmen can make much of a difference to their fortunes. **To put it starkly, our economic policymakers would today be making a mistake if they spend all their energy on improving the ease of doing business while ignoring the state of aggregate demand in the economy.** This is suggested precisely by the fact that, when judged by the above-mentioned ease of doing business index, things have improved rapidly and significantly in recent years. **India's rank improved from 142 in 2014 to 77 in the report for 2019, and 63 for 2020. However, this has done little for private investment, which, when measured as share of GDP, has remained unchanged since 2014.** And, the recent surge in India's ranking on the ease of doing business has come at a time of a distinct slowing of growth. It appears that we would be unwise to judge the state of the economy by observing movements in the ease of doing business index. **That the Indian economy is facing an aggregate demand slowdown is indicated by the fact that aggregate investment, as a share of GDP, peaked in 2011. Now, it is about 10% lower.** There have been exhortations to the government to resort to deficit spending. This is of course the classic Keynesian recommendation in times of an aggregate demand slowdown. It recommends itself in principle, and the exhortation itself is a useful counter to the government's self-righteous adherence to pre-set fiscal deficit targets. However, some familiarity with the experience of the last fiscal stimulus undertaken in India would be useful in the context.



### Impact of Fiscal Stimulus

During 2008-09, in the wake of the global economic crisis, the fiscal deficit was hiked from 2.5% to 6% of GDP, rising further in the next year. Such high increases have been rare, if at all, in India. As a result, we did not encounter the steep decline in growth observed in parts of the western hemisphere. However, as soon as the deficit was taken back to levels dictated by the Fiscal Responsibility and Budget Management Act, 2003, the growth rate declined compared to what it had been before the fiscal stimulus. This holds an important lesson. The composition of the public spending matters for growth; **increases in the fiscal deficit that take the form of a rise in public consumption rather than public capital formation can have only a temporary effect.** In the two years of an exploding fiscal deficit in 2008 and 2009, public capital formation increased little. It is not surprising then that the significant fiscal stimulus could have no lasting impact on the growth rate of the economy. Had the unusually high increase in the deficit gone entirely to capital formation it would have both increased aggregate demand and raised the potential supply of the economy. Its growth impact would have lasted much longer.

### Reasons for A Slowdown

A slowing of aggregate demand growth can take more than one form. In the textbook view it is part of the investment cycle, and deficit spending can take the economy out of it. But what we may be witnessing right now could be a demand slowing with Indian characteristics. **This is related to the fact that the greater part of the population is located in a very slow-growing agricultural sector, putting a brake on consumption growth.** The grimness of the situation is summed up by the dual feature that around 70% of the population is rural and in half the years of the decade since 2008, we have had zero or negative growth in crop agriculture while the non-agricultural economy has grown steadily. Now, as the income distribution shifts away from the overwhelming majority of the population, **aggregate demand growth slows.** Anecdotal evidence that luxury cars fared well during this Deepavali while sales of the most basic items of clothing did not, points to the likelihood of such an income-distributional shift having actually taken place. **The recent corporate tax cut could feed a private investment surge but it could also just as well end up adding to the ongoing shift in income distribution, further lowering aggregate demand.** When faced with an aggregate-demand growth slowdown an active macroeconomic policy is needed. Of monetary policy it seems we are doomed to see a change too little too late after years of the Reserve Bank of India having nursed a high-interest rate regime. Fiscal policy alone holds some promise but calibration would be necessary in its use. **Spending must focus on the rural sector to raise agricultural yields and build the infrastructure needed to support non-farm livelihoods so that pressure on the land can be reduced.** This will also expand aggregate demand. Right now, the government needs to be pro-active rather than adopt a hands-off approach. Business cannot go it alone.

### Moody Downgrades India's Sovereign Rating

- Ratings agency Moody's has reacted predictably to the turbulence in the economy by revising the outlook on **its sovereign rating for India from stable to negative.** Moody's India rating is a notch higher than that of Standard & Poor's and the outlook revision now may well be to compensate for its past optimism on India. Yet, the outlook revision has to be seen



for what it is: a warning that if the economy fails to bounce back soon enough, the sovereign rating could be up for an unfavourable review. With due respect to Moody's, none of the issues that it has highlighted is unknown. The growth slowdown and its effects on the fiscal deficit and borrowings are the main worries. On the one hand, tax revenue growth is nowhere near budgeted levels and with the slowdown extending into the third quarter, it is clear that tax revenues will undershoot by a wide margin. On the other, the government has been forced to spend more to give a leg up to the economy. Apart from pushing expenditure on capital projects, the government last month gave away corporate tax concessions amounting to a whopping ₹1.45 lakh crore. Even with the boost from the ₹1.76 lakh crore dividend payout from the Reserve Bank of India, the budget arithmetic is optimistic and it now appears certain that the government will miss the fiscal deficit target of 3.3% of GDP. The only question is: by how much? **Moody's has projected that the deficit will slip to 3.7% of GDP this fiscal.** Ratings agencies are ultra-sensitive to fiscal deficit overruns but the positive factor here is that India's borrowings are almost wholly domestic. **External debt to GDP is just 20%** but the ratings do have an impact on investor sentiment. But the Moody's outlook revision comes when there are faint signs of a revival in the economy. To be sure, it may be another quarter or two before growth picks up — the second quarter numbers due later this month may show GDP growing at less than 5%. But the festive season uptick in sales of automobiles and white goods does point to the return of the consumer to the market. Of course, the possibility that it was an artificial boost driven by the big discounts that were on offer cannot be ruled out. But there are other positive signals such as the increase in bank credit offtake reported by the RBI for the second successive fortnight. The government needs to press the pedal harder on reforms and in debugging GST. It may also have little option than to go big on disinvestment in the remaining four months of this fiscal. The target of ₹1.05 lakh crore that it set for itself in the budget has to be bested by a wide margin if the fiscal deficit slippage is to be contained. The supportive measures announced in the last two months should be closely monitored for implementation.

### Real Estate Shelter

- From first looks, the long-awaited package to support the real estate sector, cleared by the Cabinet, appears well-designed. The ₹25,000 crore **Alternative Investment Fund (AIF)** announced by Finance Minister Nirmala Sitharaman has expanded in both size and scope from the earlier one announced in September. And the variables are clear such as the unit sizes that will be supported. **The AIF will provide funds to bail out stalled real estate projects with unit size of less than ₹2 crore a unit in metros and ₹1 crore in other places. The Centre will contribute ₹10,000 crore, with the State Bank of India and Life Insurance Corporation of India providing the balance.** The fund, to be managed by SBICAP Ventures, will offer support to viable projects with a positive net worth and registered with the Real Estate Regulatory Authority. What makes the scheme good is that it will also apply to projects that have been declared as non-performing assets by banks and to those lined up before the insolvency court. Apart from real estate promoters, this will also aid lenders, mainly finance companies and banks, whose funds are locked up in these projects. According to Ms. Sitharaman, over 1,600 projects involving some 4.58 lakh housing units are stalled for want of funds. There are also unsold units across the country with one market estimate putting their value at over ₹4 lakh crore. Most of the stalled projects are solvent but stuck for liquidity and with support from the AIF, can be completed, unlocking value not just for buyers but also precious cash for the project promoters and their lenders. **The real estate sector is not only one of the**



biggest providers of jobs but also has a huge multiplier effect in the economy. Industries ranging from cement and steel to paints and sanitaryware stand to reap the benefits of a healthy real estate sector. This is apart from banks and financial institutions. While the AIF is a good idea, it is important that it is implemented without glitches. Too many good ideas have suffered due to bad implementation. The critical part will be identifying the genuine projects in need of support and ensuring that biases do not creep in. Also, important will be attracting more investors into the AIF. The Finance Minister said that sovereign funds and other private investors have shown interest. These need to be followed upon quickly and money should be released from the AIF right away so that the trickle-down effect is felt before the end of this financial year. Along with private money in the AIF will also come return expectations that need to be managed. The government, through its latest move, and the Reserve Bank of India with successive rate cuts and liquidity infusion, have set the stage. The real estate industry now has to do its part.

### RBI Ups Limit for Borrowing from MFIs

- The Reserve Bank of India (RBI) increased the household income limits for borrowers of NBFC-MFIs from ₹1 lakh to ₹1.25 lakh for the rural areas with an aim to strengthen credit to those in the bottom of the economic pyramid. Similarly, the limit has been increased from ₹1.6 lakh for urban or semi-urban areas to ₹2 lakh, the RBI said in a circular. The limit has been increased after taking into consideration the important role played by microfinance institutions (MFIs) in delivering credit to those in the bottom of the economic pyramid and to enable them play their assigned role in a growing economy, it said.

### Probe on After IDBI Lets LIC Access Client Data

- The Reserve Bank of India (RBI) is probing a suspected breach of client confidentiality by IDBI Bank. The allegation is that the bank gave access to its client data to the Life Insurance Corporation of India (LIC), which owns 51% stake in the bank. According to documents reviewed by The Hindu, the IDBI Bank has done a backward integration of its systems with LIC, aimed at bringing synergy. This will give LIC access to data of the Bank's 246 lakh clients. The RBI identified the issue during an inspection. In January this year, LIC completed the acquisition of 51% stake in IDBI Bank from the government. In order to chalk out synergies for the deal, a task force was formed comprising senior officials from both the entities. IDBI Bank, however, denied any system integration. RBI norms say, "Banks shall maintain secrecy regarding customer information which arises out of contractual relationship between the banker and the customer." In January this year, LIC completed the acquisition of 51% stake in IDBI Bank from the government.

### Enhancing Insurance Coverage for Bank Deposits (Americai V. Narayanan - Chairman Of Easy Insurance India And A Certified Public Accountant)

- When word got out about the Reserve Bank of India (RBI)'s capping of withdrawals from the Punjab and Maharashtra Cooperative (PMC) Bank at ₹1,000, it did not take long for tragic stories to start pouring in. The death count had risen to three by the time the HDIL angle was discovered. With the Non-Performing Assets (NPA) situation not improving in most banks, the advent of another major crisis brought into focus, once again, the deposit insurance cover provided by the Deposit Insurance and Credit Guarantee Corporation (DICGC), a subsidiary of the RBI. Most people agree that the insurance limit of ₹1 lakh, set in 1993, needs



to be raised to a higher amount, with some suggestions being made to raise it to ₹15 lakh, which will cover 90% of the accounts completely. But the discussion around deposit insurance must extend beyond the amount of coverage. **The lack of DICGC coverage for deposits at NBFCs (many of whom the RBI regulates) and primary cooperative societies is one such aspect.** These entities often serve vulnerable sections and their depositors must not be left in the lurch in case of a crisis. Further, customers who want more coverage than the statutory cover on their deposits should be able to purchase this by paying additional premium. This option should be extended directly to banks that wish to increase the coverage of deposits to above the statutory requirements.

### Freeze in Withdrawal

Another deficiency in the current DICGC cover is that the ₹1 lakh insurance amount only needs to be released if a bank goes belly up. Without liquidation of the bank, no liability accrues on the insurance company to pay such a claim. The flaw in this scheme is obvious today — the ‘freezes’ in withdrawal directed by the RBI essentially cut the depositor’s access to his money. Hence, during such periods, at least the statutory amount should be released. This will go a long way in preventing bank runs, which could be triggered when customers get alarmed about the ability of banks to repay their deposits. **Currently the DICGC charges a flat 0.1% insurance premium on the deposits of banks.** However, as suggested by an RBI panel in 2015, premium should be based on differential risk based on the lending practices of the bank, among other things. **An SBI report states that 93% of the premium collected by the DICGC in 2018-19 came from commercial banks (public sector: 75%, private sector: 18%), but over 94% of the claims settled (ever since the inception of the DICGC) have been those of cooperative banks.** Clearly, poor governance in cooperative banks has been cross-subsidised by the better-performing commercial banks. The DICGC must draw inspiration from standard insurance practices and charge higher premiums from banks with a past history of higher claims, so that public sector banks (PSBs) — which have made zero claims so far — need not foot the bill for someone else’s mistake. This will also provide a level-playing field for PSBs which are often disadvantaged due to tight government control and inflexibility.

### Bringing in Private Insurers

Another possibility that needs to be analysed is that of bringing private sector insurers and re-insurers into the deposit insurance segment, which could drive down premium prices. **In FY19, the DICGC collected ₹12,043 crore as premium and settled ₹37 crore worth claims.** Clearly, this is a lucrative area for private players who can bring in more accurate risk-based pricing of these policies. And since underwriting such policies entails significant risk-bearing on which the country’s economy thrives, it needs to be reinsured by credible entities even beyond traditional re-insurers like Lloyd’s of London. **Compared to other BRICS nations, India today has the lowest deposit insurance cover to per capita income ratio, at 0.9 times.** Denying people, the right over their hard-earned money is a colossal hazard for the financial system, which runs on the trust of depositors. Already, trust in banks could be waning — in FY18, growth in bank deposits fell to a five-decade low. If the government is serious about formal financial inclusion, the stated objective of flagship schemes like the Pradhan Mantri Jan Dhan Yojana, it must realise that an immediate availability of funds is as important as the insurance coverage of funds to increase the confidence of citizens in the banking system. Hence, it must



take purposeful strides in expanding and rectifying the deposit insurance scheme as a safety net of the financial system.

### Why Is the Telecom Sector Under Stress?

- On October 24, in a strongly-worded order, the Supreme Court of India upheld the Department of Telecom (DoT)'s interpretation of "adjusted gross revenue" (AGR), which came as a huge blow to telecom service providers. Following the order, the telcos are now staring at dues of an estimated ₹1.4 lakh crore, which needs to be paid to the government within three months. Most industry players and analysts have argued that the payout of the huge amount could be the final straw for the already distressed sector.

### Why is AGR Important?

The definition of AGR has been under litigation for 14 years. While telecom companies argued that it should comprise revenue from telecom services, the DoT's stand was that the AGR should include all revenue earned by an operator, including that from non-core telecom operations. The AGR directly impacts the outgo from the pockets of telcos to the DoT as it is used to calculate the levies payable by operators. Currently, telecom operators pay 8% of the AGR as licence fee, while spectrum usage charges (SUC) vary between 3-5% of AGR.

### Why Do Telco's Need to Pay Out Large Amounts?

Telecom companies now owe the government not just the shortfall in AGR for the past 14 years but also an interest on that amount along with penalty and interest on the penalty. While the exact amount Telco's will need to shell out is not clear, as in a government affidavit filed in the top court, the DoT had calculated the outstanding licence fee to be over ₹92,000 crore. However, the actual payout can go up to ₹1.4 lakh crore as the government is likely to also raise a demand for shortfall in SUC along with interest and penalty. Of the total amount, it is estimated that the actual dues is about 25%, while the remaining amount is interest and penalties. The total amount to the government is owed by about 15 operators. However, 10 of them have either closed operations or are undergoing insolvency proceedings in the last 14 years. They include Reliance Communications, Telenor, Tata Teleservices, Aircel and Videocon. Currently, the Indian telecom sector has four players — Bharti Airtel, Reliance Jio, Vodafone Idea and state-owned BSNL/MTNL (Bharat Sanchar Nigam Limited/Mahanagar Telephone Nigam Limited) — so the government is unlikely to recover the entire amount of dues owed to it. Of the current players, Bharti Airtel and Vodafone Idea are the most affected by this order. While the total dues of Bharti Airtel are estimated to be about ₹42,000 crore, for Vodafone Idea the amount is around ₹40,000 crore. The two state-run firms BSNL and MTNL together owe a little less than ₹5,000 crore just as licence fees. The least impacted by the Supreme Court order in the private sector is the relatively new entrant in the market, Reliance Jio. The Mukesh Ambani-owned firm forayed into the sector in September 2016 and owes the government about ₹14 crore.

### Is There Stress in The Sector?

The telecom industry is reeling under a debt of over ₹4 lakh crore and has been seeking a relief package from the government. Even the government has on various occasions admitted that the sector is indeed undergoing stress and needs support. Giving a ray of hope to the telecom companies, the government recently announced setting up of a Committee





of Secretaries to examine the financial stress in the sector, and recommend measures to mitigate it. The move came a few days after the Supreme Court ruling. The Committee of Secretaries, headed by Cabinet Secretary Rajiv Gauba, will have Secretaries of Ministries of Finance, Telecommunication and Law, among others as members and look at “all aspects” of the financial stress. It will also consider some of the long-standing demands of the industry, including granting a delay in payment of dues for spectrum for the next two financial years (2020-21 and 2021-22). This move alone is expected to help telcos avoid an immediate outflow of over ₹42,000 crore, thereby increasing short-term liquidity. The committee will also look at demand of a reduction in the SUC and universal service obligation fund levy. Interestingly, the Telecom Regulatory Authority of India (TRAI) may also simultaneously examine the merits of a “minimum charge” that operators may charge for voice and data services. Currently, telecom tariffs are among the lowest globally, driven down due to intense competition following the entry of Reliance Jio in the sector. Top-level executives from both Bharti Airtel and Vodafone Idea have in recent meetings with Telecom Minister Ravi Shankar Prasad sought government intervention to increase “unsustainable” tariffs. However, any decision on tariffs comes under the domain of sector regulator TRAI.

### Why Are the Private Players Fighting?

The rivalry between Reliance Jio and the two older operators, Airtel and Vodafone Idea, is not new. The two sides have been engaged in a public row ever since Jio’s entry into the telecom market over a variety of issues. It is not much of a surprise that the two sides do not see eye to eye even on the issue of financial stress in the sector. **Reliance Jio earlier this week shot off a letter to Mr. Prasad strongly objecting to the relief sought by the other two players, and also stating that they both had the financial capacity and monetisation possibilities to “comfortably” pay government dues. The Mukesh Ambani-owned firm pointed out that the Cellular Operators Association of India, the industry body of which Jio is also a member, in its letter to DoT on the industry’s behalf did not include Jio’s comments. It further added that the COAI had used a “threatening and blackmailing” tone with the government by referring to a possibility of a loss of jobs and investments in the sector if relief was not provided. Jio has also alleged that these operators have not provisioned for the possibility of the liabilities following the Supreme Court judgment, which is binding on them as per the Indian Accounting Standards under the Companies Act, 2013.** The other operators have maintained that the definition of AGR has been sub-judice since 2005 and that before the Supreme Court order, most rulings in several other courts, including the Telecom Disputes Settlement and Appellate Tribunal, have largely been favourable to telecom operators. Hence, these liabilities were not provided for. Meanwhile, ignoring Reliance Jio’s contentions, the COAI has sent off another note to DoT, requesting complete waiver of statutory dues as a result of the top court’s order.

### Is India Going to Be A Three-Player Market?

The country’s telecom sector has seen a lot of consolidation over the past couple of years as a result of intense competition. Recently, the government also announced plans to merge the two telecom public sectors units, BSNL and MTNL, leaving only four players in the market. Many analysts have pointed out that in the event that the government does not announce any relief measures for the sector, Vodafone Idea would be in a “precarious situation”, adding that there is a strong possibility that the Indian telecom market could eventually have only two private players. This was also followed by reports stating that the company is



looking at exiting the Indian market. However, Vodafone Group dismissed these as “not true and malicious”.

### What Happens Next?

All the hopes of the industry are now pinned on measures the government announces as part of the relief package for the sector. On the AGR-related dues, the operators have said that they are seeking clarity from the government on the total amount and have requested support to deal with this “adverse” outcome. The industry body has sought waiver of the complete amount, or at the least, the interests and the penalty charges. However, some experts have questioned whether the government can waive these amounts, given that the Supreme Court has explicitly said in its judgment that interest and penalty have rightly been levied. The top court had held: “... we find no substance in the submission that interest, penalty, and interest on penalty cannot be realised. It is as per the agreement. In the facts and circumstances, we find no ground to reduce the same, considering the nature of untenable objections raised on behalf of the licensees.” The operators may also explore legal options and file for review.

## Life & Science

### How Long Is A Day on Each Planet?

- Centuries ago, the ancients divided the day into 24 equal parts, or hours. Today, we look at this from the other point of view: The Earth takes approximately 24 hours to rotate once. Among other planets, Mars spins once in a little under 25 Earth-hours, while Jupiter spins so fast that its day is less than 10 hours long. It is a measure so central to our understanding of the planets that it might appear scientists would have got the rotation periods of the Solar System planets figured out by now. The fact is, they have not. Astronomers are still looking for an accurate assessment of the length of a day on Venus, while Saturn continues to deceive us. Two new studies underline how much there is still left to learn.

### Venus: Hide & Seek

Venus is something of an oddball. Obscured by clouds, it does not present a readily visible surface feature, such as a crater, which could have been a reference point for measuring its rotation period. In 1963, when radar observations broke through the cloud cover, Venus revealed that it rotates in a direction opposite to that for most planets. These observations showed the length of a Venusian day is 243 days, or 5,832 hours. Subsequent measurements have, however, given inconsistent values, differing by about six minutes. In 1991, studies based on the Magellan spacecraft’s observations concluded that the correct rotation period is 243.0185 days, with an uncertainty of about 9 seconds. Present uncertainties, researchers note in a study in the journal *Icarus*, correspond to a distance of about 13 miles on the surface. For lander missions, including one planned in the next decade, that distance is more than enough to miss a targeted landing site. From Earth-based radar observations between 1988 and 2017, the researchers measured the location of features on the Venusian surface at specific times. “Those feature locations allow us to solve for the longitude of the point on



Venus that is closest to the Earth during each observation. Once you know the longitude change over time, that provides the rotation rate,” lead author Bruce Campbell, chair of the Smithsonian Institution’s Centre for Earth and Planetary Studies, said by email. The authors conclude the mean Venusian day is 243.0212 days, with the smallest uncertainty yet — just 00006 days. They expect further improvements over the next decade.

### Saturn: Seasonal Tricks

A gas giant, by definition, it has no solid surface features for scientists to track. For Jupiter, scientists figured out the rotation period by observing patterns in radio signals from there. Saturn has defied such attempts. It emits only low-frequency radio patterns that are blocked by Earth’s atmosphere. Only after Voyagers 1 and 2 sent home data, in 1980 and 1981, could scientists analyse patterns that suggested **a day on Saturn is about 10:40 hours long**. But just 23 years later, the **Cassini** spacecraft sent data that showed the period had changed by 6 minutes, about 1%— which should take hundreds of millions of years. To find answers for Saturn, a new study led by Duane Pontius of Birmingham-Southern College, US, looked at Jupiter. **A key difference is that unlike Jupiter, Saturn has a tilted axis and, therefore, seasons like Earth. Depending on the season, the northern and southern hemispheres receive different amounts of ultraviolet radiation from the Sun. This affects the plasma at the edge of Saturn’s atmosphere.** In turn, this creates more or less drag at different altitudes, according to the model suggested in the study, published in the American Geophysical Union’s Journal of Geophysical Research: Space Physics. “Left to itself, the upper atmosphere would move at the same speed as the lower atmosphere, but the drag makes the upper atmosphere take longer than the lower atmosphere to make a full rotation around the planet,” Pontius explained by email. This suggests that the **observed periods are not the rotation period of Saturn’s core**. That remains unmeasured. “As for when how and when the core period can be measured, I really don’t know! However, the physics of Saturn’s magnetosphere is now known to be governed by the rotation rate that governs of its upper atmosphere.”

### ISRO’s NavIC Set to Be Commercialised by Antrix

- The Indian Space Research Organisation (ISRO) and its older commercial arm Antrix Corporation Ltd. are poised to commercialise India’s regional navigation satellite system, NavIC, with Antrix recently floating two separate tenders to identify industries that can develop dedicated NavIC-based hardware and systems. NavIC (Navigation in Indian Constellation) is the Indian system of eight satellites that is aimed at telling business and individual users where they are, or how their products and services are moving. The indigenous positioning or location-based service (LBS) works just like the established and popular U.S. Global Positioning System or GPS, but within a 1,500-km radius over the sub-continent. Antrix’s Chairman and Managing Director S. Rakesh said the company was currently identifying suitable device manufacturers on the one side and comprehensive integrators of NavIC-based systems (SIs) on the other side. Eligible manufacturers from the two sets would be empanelled so that they could bid for government projects that require monitoring of moving assets and fleet. The early set of commercial NavIC users, he said, would be potentially transporters of resources such as mined ore, coal and sand in various States. Several transporters currently use GPS-based systems. “Mining and transportation sectors need vehicle tracking applications that are tied to revenue sharing systems of the



government,” said Mr. Rakesh. The Ministry of Road Transport and Highways mandated last year that all national-permit vehicles must have such tracking devices. As a pilot, **many fishing boats have been fitted with these devices that have a unique texting facility.** Besides the Antrix tenders, two other recent developments have paved the way for taking NavIC closer to end users. In mid-October, ISRO announced that Qualcomm Technologies, Inc., a leading producer of semiconductor chips, had developed and tested NavIC-friendly chipsets across its user bases and that it would add NavIC to them. The third and important positive for NavIC was the certification of the Indian system by the 3GPP (The 3<sup>rd</sup> Generation Partnership Project), a global body for coordinating mobile telephony standards. The specifications will be available in March 2020 and the Telecommunications Standards Development Society, India has said it would adopt them as a national standard.

### Five Dwarf Planets and A New Candidate — How Is It Decided?

- **As of today, there are officially five dwarf planets in our Solar System. The most famous is Pluto, downgraded from the status of a planet in 2006. The other four, in order of size, are Eris, Makemake, Haumea and Ceres.** Now, there is a claimant for a sixth dwarf planet. Called Hygiea, it has so far been taken to be an asteroid. It lies in the asteroid belt between Mars and Jupiter. Using observations made through the European Space Organisation’s SPHERE instrument at the Very Large Telescope (VLT), astronomers have now found Hygiea may possibly be a dwarf planet. They have reported their findings in the journal Nature Astronomy. **If it qualifies, Hygiea will be the smallest dwarf planet in the Solar System.** The International Astronomical Union sets four criteria for a dwarf planet, and Hygiea already satisfies three — **it orbits around the Sun, it is not a moon, and it has not cleared the neighbourhood around its orbit. The fourth requirement is that it have enough mass that its own gravity pulls it into a roughly spherical shape.** According to the new study, VLT observations now show Hygiea satisfied that condition, too. This is the first-time astronomers have observed Hygiea in high resolution to study its surface and determine its shape and size.

### Bengal Cities Yield New Species of Tree Frog

- Six herpetologists from Assam, West Bengal and Malaysia have recorded a new species of tree frog that had eluded the world of science despite thriving in residential areas. Their study establishing the mid-sized tree frog as the 26<sup>th</sup> species under the genus Polypedates has been published in the latest edition of Zootaxa, a peer-reviewed scientific mega journal for animal taxonomists. Polypedates is a genus of tree frog found throughout South and Southeast Asia. The new species has been named Brown Blotched Bengal Tree Frog (*Polypedates bengalensis*). The name is derived from a series of six to nine dark brown blotches that extend laterally from behind the frog’s eye to the vent. The frog’s body colour is yellowish-brown to greenish-brown. “This frog is a classic case of an amphibian being elusive while in plain human sight for ages. Specimens of this frog were not discovered from deep jungles but from residential areas in two districts of West Bengal,” Guwahati-based herpetologist Jayaditya Purkayastha, who runs the Help Earth NGO, told The Hindu. After all the measurements – the males varied from 47.9-53.6 mm in size and a single female was 72 mm – and other data collections were done, the herpetologists concluded that the frog belonged to the genus Polypedates. A genetic identity investigation by Ms. Das established the frog as a new species in this genus while the Malaysia-based Mr. Das, an authority on herpetofauna in Asia, took care of the team’s data limitations. The male frogs were seen

[Shatabdi Tower, Sakchi, Jamshedpur](#)



perched on vegetation, including bamboo, banana and taro leaves, and were calling from a height of 1.2-1.8 m above ground, over stagnant waters bodies that were mostly rainwater pools.

### What is Pliosaur?

- Over 150 million years ago, enormous reptiles swam the Jurassic oceans. The largest aquatic carnivorous reptiles that have ever lived, they are often dubbed “sea monsters”. Scientifically, they are placed in the suborder Pliosauroida, whose members are called pliosaurs. Interest in these giants has been revived with the recent discovery of their bones in a cornfield in the Polish village of Krzyzanowice. Remains of pliosaurs are rare in Europe. “They measured over 10 metres in length and could weigh up to several dozen tons. They had powerful, large skulls and massive jaws with large, sharp teeth. Their limbs were in the form of fins. We found bones of these pliosaurs in the north of the Swietokrzyskie Mountains,” palaeontologist Dr Daniel Tyborowski said in a statement released by Poland’s Ministry of Science and Higher Education. **In the Jurassic era, the Swietokrzyskie Mountains area is believed to have been an archipelago of islands, where there were warm lagoons and shallow sea reservoirs, home to the marine reptiles discovered by the palaeontologists.** The locality where the remains were discovered is considered to be rich in the fossils of coastal reptiles. Researchers now hope to find more remains in the coming months.

### Ape Fossil Gives Clues to Bipedalism

- Fossils unearthed in southern Germany of a remarkable ape that lived about 11.6 million years ago may dramatically alter the understanding of the evolutionary origins of a fundamental human trait - walking upright on two legs. Scientists said the ape, called *Danuvius guggenmosi*, combined attributes of humans - straight lower limbs adapted for bipedalism - with those of apes - long arms able to stretch out to grasp tree branches. That indicates *Danuvius* was able to walk upright on two legs and also use all four limbs while clambering through trees. It is the oldest-known example of upright walking in apes. **The discovery suggests that bipedalism originated in a common ancestor of humans and the great apes - a group that includes chimpanzees, bonobos, gorillas and orangutans - that inhabited Europe rather than an ancestor from Africa, the continent where our species *Homo sapiens* first appeared roughly 300,000 years ago, the researchers said. Until now, the oldest fossil evidence of bipedalism in humankind’s evolutionary tree dated to about 6 million years ago: fossils from Kenya of an extinct member of the human lineage called *Orrorin tugenensis* as well as footprints on the Mediterranean island of Crete.** If *Danuvius* turns out to be ancestral to humans, that would mean that some of its descendants at some point made their way to Africa. The discovery of *Danuvius* may shatter the prevailing notion of how bipedalism evolved: that perhaps 6 million years ago in East Africa a chimpanzee-like ancestor started to walk on two legs after environmental changes created open landscapes and savannahs where forests once dominated. “This paradigm is now declining - or, in other words, is shown by us to be wrong,” Böhme said. ***Danuvius* indicates that upright walking originated in the trees, not on the ground, and that humankind’s last common ancestor with apes did not go through a stage of hunched knuckle-walking, as previously thought,** Böhme added. “Our last common ancestor with great apes doesn’t look like a chimp, or any living great ape. He may have looked like *Danuvius*,” Böhme said. *Danuvius* was smaller than today’s great apes, though males were close in size to male chimpanzees and bonobos -



perhaps 65 pounds (30 kg) - while females were smaller, perhaps 45 pounds (20 kg). **Danuvius was just over 3 feet (1 meter) tall. Danuvius lived in what was then a hot climate on a flat landscape with forests and meandering rivers.** The emerging picture of its locomotion differs from any known living creature, BÜhme said, describing it as “extended limb clambering,” with Danuvius walking on two legs while using its long arms for support and balance but not for pulling up the body as other apes do. “Before Danuvius, we did not have a model of the evolution of bipedalism that included key elements of both ape and human posture and locomotion.” **Fossils of at least four Danuvius individuals were found in the Allgäu region of Bavaria, including many key elements but no complete skull. The completely preserved limb bones, vertebra, finger and toe bones enabled the researchers to reconstruct the way the creature moved about in its environment.**

### Zimbabwe’s Severe Drought Killing Elephants and Other Wildlife

- Elephants, zebras, hippos, impalas, buffaloes and many other wildlife are stressed by lack of food and water in Zimbabwe’s Mana Pools National Park, whose very name comes from the four pools of water normally filled by the flooding Zambezi River each rainy season, and where wildlife traditionally drink. The word “mana” means four in the Shona language. At least 105 elephants have died in Zimbabwe’s wildlife reserves, most of them in Mana and the larger Hwange National Park in the past two months, according to the Zimbabwe National Parks and Wildlife Management Authority. Many desperate animals are straying from Zimbabwe’s parks into nearby communities in search of food and water. **Mana Pools, a UNESCO World Heritage Site for its splendid setting along the Zambezi River, annually experiences hot, dry weather at this time of year.** But this year it’s far worse as a result of poor rains last year. Even the river’s flow has reduced. Seasonal rains are expected soon, but parks officials and wildlife lovers, fearing that too many animals will die before then, are bringing in food to help the distressed animals. The extremely harsh conditions persuaded park authorities to abandon their usual policy of not intervening. The last substantial rains came in April, he said. An early end to a “very poor rainy season” has resulted in insufficient natural vegetation to see the animals through, said Mel Hood, who is participating in the Feed Mana project, which is providing supplementary feeding. There are more than 12,000 elephants roaming Mana’s flood plains as well as an abundance of lions, buffaloes, zebras, wild dogs, hyenas, zebras and elands. The animals are visibly affected by the drought. Some impalas show signs of skin mange. In addition to the land animals, the park has 350 bird and aquatic species, according to the parks agency. In other parts of Mana, park authorities are pumping water from deep boreholes, but the supplies are barely enough, he said. “We used to say nature should take its course,” Dzoro said of the park’s normal policy of not intervening and allowing the ecosystem to find its own balance. “We are now forced to intervene, which is manipulative conservation, because we are not sure when and how we will receive the rain. To avoid losing animals we have to intervene to maintain population sizes,” Dzoro said.

### What is the Danakil Depression?

- Extremophile microbes can adapt to environmental conditions that are too extreme for everything else. New research, however, has pointed to a place on Earth — bubbling pools of water and mounds of salt covering its landscape — that is too daunting even for these microorganisms. **The Danakil Depression in north-eastern Ethiopia is one of the world’s hottest places, as well as one of its lowest, at 100 metres below sea level.** At the northern end

**Shatabdi Tower, Sakchi, Jamshedpur**



of the Great Rift Valley, and separated by live volcanoes from the Red Sea, the plain was formed by the evaporation of an inland water body. **All the water entering Danakil evaporates, and no streams flow out from its extreme environment.** It is covered with more than 10 lakh tonnes of salt. In 2016, scientists ventured here to find out if anything could survive in such harsh conditions. At the time, expedition leader Felipe Gómez from Spain's Centro de Astrobiología said, "Any microorganisms living here will be extremophilic microbes of a major interest to astrobiologists." Now, a new study published in Nature Ecology & Evolution on October 28, says that active and naturally occurring life cannot be sustained at Danakil. **It identifies two barriers: magnesium-dominated brines that cause cells to break down; and an environment having simultaneously very low pH and high salt, a combination that makes adaptation highly difficult.**

### Flying Taxis Will Come Soon

- A drone-like flying taxi whirred over Singapore's waterfront on October 22, with the firm behind the test hoping the aircraft will revolutionise travel in traffic-choked Asian cities. The 18-propeller vehicle, developed by German firm **Volocopter** and with a pilot onboard during the test flight, took off from a promontory and flew for about two minutes and 30 seconds around the Marina Bay district. Heavy rains in the morning almost delayed the flight, but the skies cleared in time for the battery-operated, two-seater taxi to quietly fly past skyscrapers. **While the hover-taxis — resembling small helicopters but powered by drone-like technology — can fly autonomously,** there was a pilot aboard during the test for safety reasons. Volocopter has already tested the aircraft in Dubai, Helsinki, Germany and Las Vegas but the Singapore trial is the first in the heart of a city. The orderly metropolis is likely to be among the first to get the service, with a commercial rollout expected in two to four years, and Volocopter then hopes to introduce the vehicles in traffic-clogged Asian cities. Prices for a trip in the aircraft have not yet been determined but Volocopter is aiming for just above the fare of a taxi ride. The company wants to bring the service to sprawling cities like Jakarta, Manila and Bangkok, as well as parts of India and China. The flying taxi will be used in Singapore to provide quick travel on routes such as from Marina Bay to Sentosa island, home to several tourist attractions and luxury hotels, or to ferry people from ships anchored offshore to port.

### Glyphosate

- German pharma company Bayer is facing thousands of lawsuits over one of its products. A Reuters report said 42,700 plaintiffs in the US are blaming Bayer's herbicides for their cancer, up from 18,400 plaintiffs in July this year. In August, a jury in California said that Monsanto (the company which Bayer acquired in 2018), should have warned of the alleged cancer risks. Reuters quoted Bayer as claiming, however, that it has strong support from US farmers who want the company to keep the product. The herbicides are based on a compound called glyphosate. First developed in 1970, **glyphosate is scientifically N-(phosphonomethyl) glycine** under the IUPAC system of nomenclature. It is applied to the **leaves of plants to kill weeds.** It is widely used in India, too. According to a 2016 bulletin published by the Indian Council of Agricultural Research (ICAR), the weed killer in India goes by various brand names, including **Roundup, Glycel, and Brake.** Describing the herbicide's reach in the country, it says, "Glyphosate was highly accepted by the tea planters in the past two decades. It has a very good market size in the tea sector of West Bengal and Assam. Presently, the consumption of glyphosate is highest in Maharashtra as it is becoming a key herbicide in sugarcane, maize



and many fruit crops including mango, banana, grapes, pomegranate and citrus." In 2015, the World Health Organization's International Agency for Research on Cancer published a study that found glyphosate is "probably carcinogenic to humans". Activists have been campaigning against glyphosate-based products. In August this year, The Financial Express quoted an official source as saying, "Although it will be a political decision whether to ban it or not, the official position is that the herbicide is needed for agriculture and is used in many countries, including the US, China, Brazil and Canada. The harmful effects of Glyphosate on human health is yet to be established as the World Health Organization has not issued any advisory." France, Italy, and Vietnam banned the herbicide's use after the IARC finding. In August 2018, a jury in California said that Monsanto (the company which Bayer acquired in 2018), should have warned of the alleged cancer risks. Since then, litigation against the company gathered pace. Reuters reported that analysts were predicting a future settlement in the \$8-12 billion range (approximately between Rs 57,000 and Rs 85,000 crore).

### As the Seas Come Closer (Sujatha Byravan - Scientist Who Studies Science, Technology and Policy)

- How many people will be forced to migrate as a result of climate change? Figures range from tens of millions to hundreds of millions, but the multiple entanglements of climate change make it difficult to get accurate estimates. People may move because of drought, violence, degradation of local ecosystems, war or job loss. Poverty, adverse effects of globalisation and conflict may get worse with climate change, which is why it is often referred to as a "threat multiplier". Getting accurate sea level rise (SLR) projections has also always been difficult. Along with expansion of warm waters and melting of glaciers, subsidence of land also increases relative SLR. Models for glacier melt are not as well developed as other models that study global warming. SLR projections going beyond 2050 are therefore not as accurate as those until mid-century. There is broad agreement that if high emissions of greenhouse gases (GHGs) were to continue, average global SLR could be as high as two metres by the end of this century.

#### Effects of Sea Level Rise

Past studies, which used NASA's Shuttle Radar Topography Mission (SRTM) database, underestimated the land and people affected by SLR because tree-tops and tall buildings caused errors in assessments. A new study by Scott Kulp and Benjamin Strauss, published in Nature Communications, uses neural networks to improve accuracy and finds that the area affected by SLR will be substantially more than previously estimated. This means that the various effects from SLR: coastal flooding, saltwater intrusion into land, destruction of coastal infrastructure, communities and ecosystems will be much more than anticipated. While earlier measures suggest that five million people in India will be annually affected by coastal flooding, the new estimates point to 36 million; similarly, in Bangladesh instead of five million, 42 million will be threatened. By 2050, in a scenario that limits warming to 2°C above average pre-industrial temperatures, about 150 million people worldwide will be permanently below the high tide line along the coast and, by 2100, the numbers will rise to 360 million people. The new estimates indicate that about a billion people reside on land along the coast going up to an elevation of 10 metres (the low elevation coastal zone) and the bulk of them, more than two thirds, are below the five-metre elevation. Most of the people found to be at risk from coastal events live in Asia — residing in countries like China,





Bangladesh, India, Vietnam, Indonesia, Thailand, the Philippines and Japan. Very large fractions of coastal populations in these countries will be vulnerable. Other than Asia and the Netherlands, there are 20 countries (13 of which are small island nations) in which more than a tenth of their population are expected to reside below the high tide line by 2100, and this is with deep cuts to emissions. Coastal cities, such as Alexandria, Ho Chi Minh City, Basra and Shanghai are among the most vulnerable and large portions of Mumbai and Kolkata will be fully submerged by 2050. The effects on the economy, coastal communities, infrastructure and land will be immense and people living along the coast will be forced to move inland, probably to nearby towns and cities. When this is not possible, such as on small island nations or in low-lying delta regions like Vietnam, people will be forced to move across borders, thus affecting political stability.

### What Should India's Policies Be?

Denial cannot be a mechanism to deal with these anticipated challenges from climate change. Preparing for SLR will entail protecting the coast through measures such as natural barriers, levees, flood barriers and even hard barriers. But engineering protection mechanisms are expensive and have consequences for the coastline. Stopping infrastructure construction along the coast and integrating anticipated SLR effects into coastal planning are essential. The government should not be in a situation of moral hazard where it ends up bailing out investors, insurers and others who have increased their exposure to risk. Planning for retreat from the most vulnerable areas well ahead of time is essential. Urban policies, especially in mid-size towns, should integrate proposals for new migrants. Turning border regions into fortress worlds will also not be justified, both in practical and ethical terms. What is required is preparation in advance with regional policies for labour, regional agreements for migration and for advance skill development. Given that South Asia is one of the most vulnerable regions to climate change and the countries here share ecological zones, borders and coastlines, in addition to language and family histories, coordinated management of extreme events, advance preparation for migration into mid-size towns and better ecosystem support in the hinterland are useful ways to collaborate and build regional partnerships. And, since migrants in general cannot, for the most part, be distinguished from climate migrants, rights, services and policies need to be applied to all migrants. Otherwise, countries will create multiple classes of migrants — as many have accused Australia of doing — based on their reasons for moving and places of origin. It is tempting to assume that these are impossible goals to set for India, but that is a short-sighted perspective. Our long history has shown that the subcontinent has always been a place that welcomes people. Investing in the rural economy, reducing unemployment, reducing poverty and improving measures for sustainability can improve people's lives and increase their resilience and openness to "others". The protests across the world by people of all ages show that there is fervour for transformation to deal with the climate crisis. This is our historic moment to act decisively.

### What Fish Do Amid Climate Change

- Among various ways in which climate change is impacting life on Earth, one has been to change the distribution of fish species in the oceans. Scientists have predicted that the shift will be towards the poles. In a new research paper, they have explained the biological reasons why fish species will follow that direction. It stems from the way fish breathe. Scientists describe this with the Gill-Oxygen Limitation Theory, or GOLT. Daniel Pauly, the author of the



theory, is the principal investigator of the 'Sea Around Us' initiative at the University of British Columbia's Institute for the Oceans and Fisheries.

A statement on the 'Sea Around Us' website explains the theory. Warming waters have less oxygen. Therefore, fish have difficulties breathing in such environments. Additionally, such warming, low-oxygen waters also increase fish's oxygen demands because their metabolism speeds up. This is because, as fish grow, their demand for oxygen increases. However, the surface area of the gills (two-dimensional) does not grow at the same pace as the rest of the body (three-dimensional). The larger the fish, the smaller its surface area relative to the volume of its body. So, the fish move to waters whose temperatures resemble those of their original habitats and that satisfy their oxygen needs. As the global sea surface temperature has increased by approximately 0.13°C per decade over the past 100 years, "suitable" waters are more and more found towards the poles and at greater depths. Previous studies by Pauly and his colleagues have already predicted that climate change will cause some fish species to shift their distribution by more than 50 km per decade, the statement said.



# DreamIAS