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International

Trump's Executive Order Targeting Social Media Platforms

- US President Donald Trump signed an executive order aimed at removing certain protections for social media platforms that aim to safeguard them from any liabilities arising out of the content that is posted on their websites. The order gives federal regulators the agency to take action against online platforms that are seen as censoring free speech.

What Is an Executive Order?

An executive order is a written directive issued by the President and is one of the most common presidential documents. Such orders are not legislations and don't require the approval of the Congress, which also means that the Congress cannot overturn them. According to the American Bar Association, Congress may pass legislation that makes it difficult or impossible to carry out an executive order, such as removing funding. However, ultimately, only a sitting US president can overturn an executive order by issuing another one to that effect.

What Does It Say?

The executive order says that online platforms are engaging in "selective censorship" and that Twitter's labelling of Trump's Tweets shows "political bias". "At the same time online platforms are invoking inconsistent, irrational, and groundless justifications to censor or otherwise restrict Americans' speech here at home, several online platforms are profiting from and promoting the aggression and disinformation spread by foreign governments like China," the order mentions.

What Triggered the Move?

The move comes after **Twitter labelled two posts made by Trump about California's vote-by-mail plans as fact-checked**. As part of its new policy undertaken amid the coronavirus pandemic, the platform has introduced labels and warning messages that aim to provide "additional context and information" on Tweets containing disputed, misleading or unverified claims related to the pandemic. However, the labels can also be used in situations where the risk of harm associated with a Tweet is less severe and people may be confused or misled by the content. Trump tweeted, "There is NO WAY (ZERO!) that Mail-In Ballots will be anything less than substantially fraudulent. Mail boxes will be robbed, ballots will be forged & even illegally printed out & fraudulently signed. The Governor of California is sending Ballots to millions of people, anyone....", followed by another Tweet that said, "...living in the state, no matter who they are or how they got there, will get one. That will be followed up with professionals telling all of these people, many of whom have never even thought of voting before, how, and for whom, to vote. This will be a Rigged Election. No way!". Twitter reacted with a link that said, "Get the facts about mail-in ballots" that linked to a page titled, "Trump makes unsubstantiated claim that mail-in ballots will lead to voter fraud." The page included details on the President's false claims and links to articles from publications, including the Washington Post and CNN. **Twitter had announced last year that it would, in some cases, tag notices onto tweets from the verified accounts of government officials, elected representatives and those running for office who had more than 10,000 followers.** Mr. Trump



has repeatedly made baseless claims on voting by mail and had threatened, earlier in May, to cut federal funding to some states over the issue. On Sunday, several Republican groups had sued California after Mr. Newsom said everyone eligible to vote would be sent an absentee ballot to encourage mail voting due to the pandemic.

- Twitter's action has potentially large ramifications given the U.S. is months away from a general election and Mr. Trump uses the site several times a day to communicate with his more than 80 million followers.

What Changes with The Order?

Section 230 of the Communications Decency Act (CDA) provides immunity to online platforms and protects them from being liable for the content billions of people post on their platform every day. Further, under this section, providers of "interactive computer services" are free from being treated as the publisher or speaker of any information posted by the users, rendering these platforms "unfettered by Federal or State regulation". Significantly, **the Act also protects online platforms from civil liability, which means that they may not be liable for restricting access to certain content that platforms may consider being, "obscene, lewd, lascivious, filthy, excessively violent, harassing or otherwise objectionable" and when such content is removed in "good faith".** However, Thursday's executive order says that when online platforms remove or restrict access to content, which are not based on the aforementioned criteria, or is in bad taste, it engages in editorial conduct and thereby becomes the "publisher" of all the content posted on its website. Based on this, the order seeks to revoke the liability shield offered to platforms and exposes them to liability "like any traditional editor and publisher that is not an online provider." Further, the order directs the Secretary of Commerce (Secretary) to file a petition for making rules with the Federal Communications Commission (FCC) along with the Attorney General to clarify the conditions under which an action taken by an online platform to restrict access or availability of certain content is not "taken in good faith" and therefore such action is excluded from being protected under Section 230.

What Are the Implications of This Order?

Legally, the order may not make much of a difference. According to a report in The New York Times, the order does not make it clear as to why FCC, an independent agency outside of Trump's control, would have any agency in interpreting the relevant sections of the CDA. Further, the report mentions that an agency such as FCC cannot override a statute enacted by Congress. Even so, the order can certainly give rise to a policy debate about the liabilities and responsibilities of social media platforms. Twitter has said that the order is a "reactionary" and "politicised" approach to a landmark law. It says that Section 230 protects American innovation and freedom of expression. "Attempts to unilaterally erode it threaten the future of online speech and Internet freedoms," Twitter said. On the other hand, Facebook's CEO Mark Zuckerberg in an interview he gave to Fox News criticised Twitter for fact-checking the US president and said, "I just believe strongly that Facebook shouldn't be the arbiter of truth of everything that people say online. In general, private companies probably shouldn't be – especially these platform companies – shouldn't be in the position of doing that."

- As political ironies go, U.S. President Donald Trump's tirade against social media platforms is a class apart. After Twitter flagged two of his posts as factually inaccurate, the President threatened to "strongly regulate" or "close down" all social media platforms. Like most of his statements, this one too appeared on Twitter where he has 80.4 million followers. When Mr. Trump entered the race for the Republican presidential nomination in 2015, critics scorned him as a mere, inconsequential Twitter handle, for his acerbic posturing on the platform. But outrage is richly rewarding on digital platforms, as he went on to prove. Twitter too was a beneficiary in the process. **The crafty use of social media for incendiary politics the world over scraped the shine off these decentralised and unregulated platforms that were initially hailed**



as **prodigiously democratising**. Controversies erupted in quick succession, including their role in genocides and election rigging. The misuse of social media to spread falsehoods that often incite violence has been a particularly tricky question. These platforms have often declared their commitment to stop fake news, but any attempt to enforce content regulation comes with additional complications, as Twitter's attempt to fact-check the President shows. The intention to ensure all political discussions are fact-bound and shorn of inflammatory rhetoric is laudatory, but no one body can be the enforcer in this.

The current conflict between the President and social media platforms is only a component of the ongoing wider debate in the U.S. on the nature of large tech companies. **Big tech companies such as Google, Facebook, Amazon, Microsoft and Apple have given rise to concerns of privacy, data misuse, political bias, monopoly behaviour, tax avoidance and national security. In the U.S., there is a common ground among the Democrats and the Republicans that these tech companies need to be reined in. Republicans say social media platforms are anti-conservative. Democrats believe some of these platforms are easily manipulated by enemies of the nation and accuse them of unfair trade and labour practices, and call for breaking them up. Facebook's attempt to launch a digital currency, Libra, has triggered sovereignty concerns among nations. It had to pay \$5 billion in fines to settle investigations into its misuse of data in the Cambridge Analytica controversy. These companies boast of being global and able to fly above the eyes of government. Some reordering of that arrangement appears to be on the horizon. But it would be a pity if the trigger for the overhaul is one social media platform's attempt to call out the irresponsible statements of the world's most powerful leader.**

Why Donald Trump Wants the US to Exit the Open Skies Treaty

- In a setback to the world's arms control framework, the Trump administration on said that it will withdraw from the **Open Skies Treaty (OST)**, a 34-member accord that allows participants to fly unarmed reconnaissance flights over any part of their fellow member states. The move by the United States, which had been speculated for some time, has been described by Democratic Party lawmakers as a "gift" to Russian President Vladimir Putin– as it could further distance Washington from its European allies.

What Is the Open Skies Treaty?

First proposed in 1955 by former US President Dwight Eisenhower as a means to deescalate tensions during the Cold War, the landmark treaty was eventually signed in 1992 between NATO members and former Warsaw Pact countries following the demise of the Soviet Union. It went into effect in 2002 and currently has 35 signatories along with one non-ratifying member (Kyrgyzstan). The OST aims at building confidence among members through mutual openness, thus reducing the chances of accidental war. Under the treaty, a member state can "spy" on any part of the host nation, with the latter's consent. **A country can undertake aerial imaging over the host state after giving notice 72 hours before, and sharing its exact flight path 24 hours before. The information gathered, such as on troop movements, military exercises and missile deployments, has to be shared with all member states. Only approved imaging equipment is permitted on the surveillance flights, and officials from the host state can also stay on board throughout the planned journey.**

Open Skies Treaty: The US's Withdrawal

While it was envisaged as a key arms control agreement, many in Washington had for over a decade **accused Russia of non-compliance with OST protocols**, blaming Moscow of obstructing surveillance flights on its territory, while misusing its own missions for gathering



key tactical data. As per a report in The New York Times, President Trump was also unhappy that a Russian reconnaissance flew over his golf course in New Jersey state in 2017. His administration has now chosen to withdraw from the pact, with Secretary of State Mike Pompeo accusing Russia of “flagrantly and continuously violating the Treaty in various ways for years.” Russia has denied the allegations, and has called Washington’s exit as “very regrettable”.

Significance of The Open Skies Treaty

The OST was signed in 1992, much before the advent of advanced satellite imaging technology which is currently the preferred mode for intelligence gathering. Yet, as explains a report in The Economist, surveillance aircraft provide key information that still cannot be gathered by satellite sensors, such as thermal imaging data. Also, since only the US has an extensive military satellite infrastructure, other NATO members would have to rely on Washington to obtain classified satellite data, which would be more difficult to obtain compared to OST surveillance records that have to be shared with all members as a treaty obligation. Notably, the Economist report also mentions the OST’s utility for Washington, which since 2002 has flown 201 surveillance missions over Russia and its ally Belarus. A former Trump official had also hailed OST data gathered during the 2014 Russia-Ukraine conflict.

What US Departure Could Mean for The Treaty

In his press statement, Pompeo said that the US would reconsider its decision to withdraw if Russia “demonstrates a return to full compliance”. This approach is reminiscent from last year when Trump had suspended US participation in the **Intermediate-Range Nuclear Forces (INF) Treaty**– another security agreement that had been credited with curtailing the arms race in Europe towards the end of the Cold War. Then too, the US had said that it would re-engage with Russia if it sought a new treaty– a possibility that never materialised. **Experts believe that the same could happen with the OST, with Russia using Washington’s exit as a pretext for leaving the treaty itself. Russia’s departure could adversely impact Washington’s European allies, which rely on OST data to track Russian troop movements in the Baltic region, as per an NYT report.** “Pulling out of the Open Skies Treaty, an important multilateral arms control agreement would be yet another gift from the Trump Administration to Putin,” top Democrat leaders said in a letter to Pompeo and Secretary of Defence Mark Esper.

Out of Another Treaty

The OST exit is only the most recent example in the list of important pacts that Washington has stepped away from during the Trump presidency, such as the **Paris Agreement** and the **Iran nuclear deal**. **Experts are now contemplating the fate of the much larger US-Russia ‘New START’ nuclear arms control agreement, which is slated to expire in February 2021. Trump has already said that his administration would not renew the treaty unless China joins.** Many see this as improbable, given the already heightened tensions between Washington and Beijing over the coronavirus pandemic.

Latin America Is the New Epicenter

- ➔ South America is “a new epicentre” of the COVID-19 pandemic, the World Health Organization (WHO) has declared, as U.S. President Donald Trump intensified his push to reopen the reeling American economy. Brazil led the surge across South America, its death toll passing 21,000 on Friday from 3,30,000 infections, the third-highest caseload of any country in a pandemic that has infected 5.2 million globally and killed more than 338,000. Experts have hailed the impact of lockdown measures for slowing the spread of the COVID-19 disease, but Mr. Trump



has long prioritised the needs of the economy over public health concerns – renewing his attacks on local officials for refusing to allow businesses to reopen.

Blow to U.S. Economy

His concerns about the economy were thrown into stark relief late on Friday when car-rental giant Hertz filed for bankruptcy for its North American operations – yet another sign of the virus and lockdown laying waste to the U.S. economy, which has already shed almost 40 million jobs. In Europe, where rates of infections and deaths are stabilising in many countries, governments are moving away from enforced national lockdowns towards advisory measures involving social distancing. “In a sense, South America has become a new epicentre for the disease,” WHO emergencies director Mike Ryan said on Friday, singling out Brazil. **Unlike in Europe and the United States, where the elderly was hardest-hit, a significant number of deaths in Brazil have been younger people, who are often driven by poverty to work despite the threat of infection.** As the toll mounted, grave-diggers at a cemetery outside the commercial hub Sao Paulo were scrambling to keep up. “We’ve been working 12-hour days, burying them one after the other,” said one worker at Vila Formosa, wearing a white protective suit, mask and face shield. Elsewhere in Latin America, **Peru was also struggling with an intense outbreak** – the country of 32 million having registered more than 1,10,000 cases and 3,100 deaths.

Trump’s Reopening Call

The figures, though disastrous for region, are dwarfed by the 96,000 deaths suffered so far in the United States, which has registered 1.6 million infections. However, Mr. Trump is facing an uphill re-election battle later this year and is ramping up pressure on State and local governments, telling them to restart religious services immediately by reclassifying churches, synagogues and mosques as “essential services”. “In America, we need more prayer, not less,” said Mr. Trump, who counts religious conservatives as a core of his electoral base. The administration also renewed attacks on city officials, suggesting lockdown measures in Los Angeles were illegal. “We are not guided by politics in this we are guided by science, we are guided by collaboration,” said Los Angeles Mayor Eric Garcetti. The U.S. also pushed on Friday to restart the sporting calendar.

Right-Wing Militias on The Loose

- A police team picked up two men from a luxury condominium by a lake in Brasilia. They also seized posters with photos of heavily-armed men in full military gear, calling for a military coup in Brazil. The suspects had sent a mail, titled “Death sentence to the traitors of the motherland”, to the country’s top judges. “We call on the people to kill politicians, judges, prosecutors, Mayors, their advisers, relatives, and demons of all sorts in defence of themselves,” the mail said. For a year, judges have been receiving death threats from anonymous groups. A Supreme Court judge, Celso de Mello, said the people behind the threats were “fascists” and “Bolsonaristas” – the fanatic followers of President Jair Bolsonaro. Under Mr. Bolsonaro, the system of checks and balances between the institutions has been creaking as the far-right leader often projects the Supreme Court and Congress as his enemies. But the most vicious attacks on these institutions come from the Bolsonaro groups, which are hyper-active on social media, with a massive troll army crammed with fake accounts and bots. Their weapon of choice is fake news. “Extreme right-wing groups work tirelessly to delegitimise the democratic institutions in Brazil. These groups make and distribute fake news as a way to take advantage of people’s fears and vulnerabilities. As people hope for a solution and as a fix to the fears, they promote the narrative of pro-military intervention,” said David Nemer, an assistant professor of Media Studies at the University of Virginia, who tracks social media trends. Since 2018, when Mr. Bolsonaro launched his presidential campaign, Brazil has been



a laboratory of fake news and hate. Now, as his government fails completely to control the COVID-19 spread and multiple scandals land in the highest court, the Bolsonaristas are ramping up their hate machinery. Leading the pack is “300 of Brazil”, which is “inspired by the Battle of Thermopylae during the Persian Wars” and whose members appear in public in army fatigues. They have a clear agenda: “To make the Supreme Court judges understand, if necessary, coercively, that they are not demigods”.

A Movement for Bolsonaro

Led by a 30-something woman called Sara Winter, who claims to have cut her teeth into “revolution” in Ukraine, “300” was created in a social media “live” event as the leader appeared with two notorious bloggers to create a “movement in support of Bolsonaro”. Using their strong social media presence, Winter and her fellow-travellers recently launched a campaign to raise money for “information war tactic training” to attack the judges and parliamentarians. They managed \$12,000 in a matter of days. But the “300” actions are not restricted to the virtual world. As Mr. Bolsonaro encourages weekend events in the capital to rally his supporters against the quarantine, the group has been setting up camps at various locations. After last Sunday’s gathering, where several “300” members were seen with weapons, an illegal act in Brazil, federal prosecutors called for action against the “armed militia”. But that hasn’t stopped the group from using their dog-whistle tactics to fire up the far-right base of Mr. Bolsonaro and try to subdue the opposition with online attacks. “Sara Winter’s group is clearly fascist. It is a paramilitary group formed to intimidate the opposition, and, as she says, to exterminate the left from Brazil,” said Henry Bugalho, a popular Youtuber who analyses the Brazilian politics on his daily show. “They want to deny others any space in political debates.” Such tendency, unfortunately, is flowing from the top. In a video, released to the public by the Supreme Court on Friday, Mr. Bolsonaro is seen attacking his opponents in a profanity-filled rant. The meeting, called to discuss measures to tackle the pandemic, turned into a hysterical show as the President launched an all-out attack on the Governors and Mayors who are taking quarantine measures to check the spread of the virus. “I am going to give arms to the people against this dictatorship of quarantine,” Mr. Bolsonaro is seen saying in the video. Senator Randolfe Rodrigues said the video “shows the worst intentions of the President”. “He talks about arming everyone. He has already shown that he has direct relations with the criminal underworld. He has already shown that he wants to legalize the militias. He does not want to give arms to people; it is for militia groups, whom he wants to use for his ambitions,” said Mr. Rodrigues, the leader of the opposition.

U.S. House Passes Uighur Rights Bill

- The U.S. House of Representatives overwhelmingly approved legislation on Wednesday calling for sanctions on Chinese officials responsible for oppression of Uighur Muslims, sending the Bill to the White House for President Donald Trump to veto or sign into law. The tally was 413-1. The near-unanimous support in Congress puts pressure on Mr. Trump to impose human rights sanctions on China. Although Trump’s fellow Republicans in Congress said they expected he would sign the Bill, the White House has not yet indicated whether he will do so. The Bill calls for sanctions against those responsible for repression of Uighurs and other Muslim groups in China’s Xinjiang province, where the United Nations estimates that more than a million Muslims have been detained in camps. It singles out the region’s Communist Party secretary, Chen Quanguo, as responsible for “gross human rights violations” against them. The Bill also calls on U.S. firms operating in Xinjiang region to ensure their products do not include parts using forced labour.



China Passes Controversial Hong Kong Law

- China's Parliament on Thursday passed new legislation for Hong Kong that will for the first time empower Beijing to draft national security laws for the Special Administrative Region (SAR). At the closing session of the annual National People's Congress (NPC) in Beijing, the draft legislation was passed overwhelmingly, with 2,878 votes for, one against and six abstentions in the Communist Party-controlled legislature. The law, called the "NPC Decision on Establishing and Improving the Legal System and Enforcement Mechanisms for the Hong Kong Special Administrative Region to Safeguard National Security", essentially empowers the NPC to draft new national security laws for Hong Kong. That could happen as early as June, when the NPC Standing Committee, which convenes every two months, holds its next sitting. The draft legislation said the scope of the laws could cover any activity that "seriously endangers national security". It said it was aimed at enabling "measures to counter, lawfully prevent, stop and punish foreign and overseas forces' use of Hong Kong to carry out separatist, subversive, infiltrative, or destructive activities".

Basic Law

The NPC decision has been criticised by pro-democracy parties and some in the legal community in Hong Kong as undermining the "one country, two systems" model. Since 1997, Hong Kong has been governed by the Basic Law, which gives the SAR "executive, legislative and independent judicial power, including that of final adjudication". Only matters of defence and foreign affairs are handled by the central government. While the law says the state would "fully, and accurately implement the principles of one country, two systems", it also enables organs of the central government "for the protection of national security" to set up "institutions in the HKSAR", a provision that has been a particular source of concern. "It is entirely unclear how the proposed agencies set up in the HKSAR will operate under the laws of the HKSAR, whether they will be bound by the laws of the HKSAR, whether they have the power of enforcement, and whether such powers as exercised will be limited by the laws currently in force in the HKSAR", the Hong Kong Bar Association said in a statement reported by the South China Morning Post. The law could also block foreign judges from sitting on national security cases, following the example of Macau, which has done so since 2018, Reuters reported. Hong Kong's court of final appeal has 15 foreign judges, under a system aimed to ensure judicial independence for a global financial centre. At his annual press conference following the NPC, China's Premier Li Keqiang said China "will still follow the principle of Hong Kong people governing Hong Kong". He said "one country, two systems" is China's "basic state policy" and Beijing would continue to ensure Hong Kong had "a high degree of autonomy". U.S. Secretary of State Mike Pompeo certified to Congress that it was the administration's view that Hong Kong could no longer enjoy the special economic privileges it had received from the U.S. because of the erosion of its autonomy, a move that could hurt the SAR's economy.

Mutual Respect

In his press conference, Mr. Li called on China and the U.S. to manage their differences and "discard a 'Cold War' mentality". "I believe both countries should respect each other and develop a relationship on the basis of equality, respect each other's core interests and major concerns and embrace cooperation," he said.

Rising Tide

- Protests and violence returned to Hong Kong on May 24. In scenes that became all-too-familiar through much of last year, police used water cannons, tear gas, and pepper spray, as a protest march descended into clashes between protesters and riot police. The weekend's march had

Shatabdi Tower, Sakchi, Jamshedpur



originally been planned ahead of a debate in Hong Kong's Legislative Council (LegCo) on a new national anthem bill, which would punish anyone who insulted China's anthem with up to three years in prison. The protest assumed significance when two days before the march, China's central government stunned Hong Kong's pro-democracy parties by tabling a new national security bill, as the National People's Congress met in Beijing. What has concerned pro-democracy activists in Hong Kong is a new provision for China's national security organs to "set up institutions" in the Special Administrative Region.

The timing of the move may reveal its motivations. Hong Kong's legislative elections are in September and the pro-Beijing camp fears losing control of LegCo, even if its unusual rules have stacked it with pro-Beijing lawmakers. Only half of the 70 seats are directly elected; the rest are nominated. Yet such is the rising tide of support for pro-democracy parties that Beijing worries it could lose the two-thirds majority needed for any amendments to the Basic Law. The pro-democracy camp swept November's district council elections, seen as a referendum on the youth-driven protests. A record 70% turnout won the pro-democracy candidates 390 of 452 seats. The elections demonstrated that public support for full democracy is growing. The new piece of legislation is aimed at tightening Beijing's grip over Hong Kong, but it may well end up having the opposite effect. Hong Kong cannot be won without its people.

China's Virus Apps Could Survive the Outbreak

- At the height of China's coronavirus outbreak, officials made quick use of the fancy tracking devices in everybody's pockets – their smartphones – to identify and isolate people who might be spreading the illness. Months later, China's official statistics suggest that the worst of the epidemic has passed there, but the government's monitoring apps are hardly fading into obsolescence. Instead, they are tiptoeing toward becoming a permanent fixture of everyday life, one with potential to be used in troubling and invasive ways. While the technology has doubtless helped many workers and employers get back to their lives, it has also prompted concern in China, where people are increasingly protective of their digital privacy. Companies and government agencies in China have a mixed record on keeping personal information safe from hacks and leaks. Authorities have also taken an expansive view of using high-tech surveillance tools in the name of public well-being. The government's virus-tracking software has been collecting information, including location data, on people in hundreds of cities across China. But authorities have set few limits on how that data can be used. And now, officials in some places are loading their apps with new features, hoping the software will live on as more than just an emergency measure.

Health Guardian

Governments worldwide are trying to balance public health and personal privacy as they pull out the stops to protect their people from the virus. In China, however, the worry is not just about potential snooping. The country's leaders have long sought to harness vast troves of digital information to govern their sprawling, sometimes unruly nation more efficiently. But when computer systems have so much authority over people's lives, software bugs and inaccurate data can have big real-world consequences. "Epidemic prevention and control need the support of big data technology, but this does not mean agencies and individuals can randomly collect citizens' information by borrowing the name of prevention and control,"



Why Protests Many in Germany Are Protesting Against Thailand King's Sojourn in Alps

- King Maha Vajiralongkorn of Thailand has been residing at a hotel in Germany's Bavarian Alps since the COVID-19 outbreak spread to Thailand in March. However, the Thai monarch's stay at luxury getaway is not the only reason why he is being criticised at home and in Germany. According to reports in Thailand and major news publications in Germany, **King Maha Vajiralongkorn has been isolating with an entourage of at least 100 people and a harem of 20 women, and has broken a string of public health laws concerning COVID-19 that ordinary citizens are expected to follow.** While criticism of the Thai royal family is not permitted by law, the monarch's long-standing inappropriate conduct has been a cause of embarrassment for many in Thailand and has been subjected to scrutiny. This latest escape is a part of the long list of Maha Vajiralongkorn's many indiscretions.

Why Are Protests Being Held in Germany Against Thailand's Monarch?

In March, exiled Thai historian and critic Somsak Jeamteerasakul tweeted a photo of the flight path taken by the king to Germany, with the caption "what do we need a king for?". The photo circulated on Thai social media for weeks, with many criticising the monarch's actions. Many critics have denounced the king for failing to show leadership and responsibility at a time when not only the country's public health but also its economy has been hit hard. COVID-19 has kept tourists away, given that the industry contributes to approximately 20 per cent of Thailand's GDP. In the first week of May, Thai and German activists protested against the Thai king outside the Grand Sonnenbichl Hotel in Bavaria where the monarch had been staying with his entourage. The activists also projected messages onto the exterior of the hotel. "Why does Thailand need a king who lives in Germany?", asked one message. The protests were repeated days later outside Thailand's embassy in Berlin. These protests have generated much discussion in Thai social media users across various platforms. Although the hotel is not officially in operation, an exception was made for the king and his entourage. Local authorities justified the king's stay by saying that it was a single group of people with "no fluctuations". Since the outbreak of COVID-19, Thai Airways, the country's national airline, suspended all flights to Europe. Notable exceptions were those to Munich and Zurich, which critics say are the Thai king's favoured destinations for his jaunts with his entourage that usually include women. The king has been criticised for violating Thailand's lockdown rules in early April when he briefly interrupted his vacation in Germany and returned to Bangkok for a trip that lasted only 24 hours. Observers believe that the king was obliged to return because he was required to attend an official ceremony to mark the founding of his dynasty. The king flying back to Germany in 24 hours, prompted a flood of criticism on Thai social media with the hashtag #WhyDoWeNeedAKing becoming one of the top trends on the social media platform. In the latest development, the king was pictured on a bicycle near the hotel with an unknown woman on another bicycle near him.

What Does Thailand's Law Say About Criticizing Thai Royalty?

Thailand's **lèse majesté** laws make it a criminal offence to defame, insult or threaten the king, queen and heir-apparent. However, the laws are more broadly used to include other members of the Thai royal family. Critics say these laws have also been misused by the royal family to silence criticism and calls for accountability. The laws have also been used to arrest and bring criminal charges against foreign nationals who have been critical of the Thai royal family. Despite these harsh laws, there had been increasing discontent among the younger generation in Thailand who do not look at the royal family with the same deference as their parents or grandparents. They are also quick to call out the royal family for conduct that they believe is



inappropriate and social media is a popular channel for venting this criticism. **What started out as criticism against the king for his actions during COVID-19, evolved into criticism of the royal family at large.** Although the royal family did not release any statements on the issue, soon after the issue blew up on social media, Thailand's Minister of Digital Economy and Society Puttipong Punnakanta implied in a tweet that posting content that endangered Thailand's national security would have consequences.

Why Are There Criticisms Against Thailand's Monarch?

Observers say that Thailand's present monarch King Maha Vajiralongkorn is also not widely respected by many in the country, in part due to his conduct that many believe does not befit a monarch. There has been a string of controversies that have chased Maha Vajiralongkorn even before he ascended the throne in 2016. **The king's indolent lifestyle and his treatment of his many wives and their families is well-known and is a subject of ridicule, if not openly discussed in Thailand due to laws in force.** Foreign newspapers that report on these stories find access to their publications blocked in Thailand. Anti-monarchists have been reportedly killed in other countries in Southeast Asia where they had been in hiding. Observers say that Maha Vajiralongkorn's consolidation of power and influence over the military, police and the judiciary in Thailand, particularly since he ascended the throne has been a move to remove the little accountability that may have existed in the country, leaving the royal family to carry on without any serious repercussions. Observers also believe that **though Maha Vajiralongkorn doesn't enjoy the same popularity that his father King Bhumibol Adulyadej did, it appears that the present king doesn't care about public opinion.** As far as the criticism is concerned, for any that particularly rankles, the lèse majesté laws exist.

What Is The 'Dieselgate Scandal' Against Volkswagen?

→ Germany's Federal Court of Justice (BGH) ruled against car manufacturer Volkswagen, the first judgment in the diesel scandal. As a result of the ruling, **the company must pay compensation to the owner of a vehicle fitted with a "defeat device" meant to bypass a vehicle's emissions control system. Volkswagen will also partially refund the owner.** The ruling has set a crucial benchmark for over 60,000 such pending cases brought forward by German consumers seeking compensation over the emissions test devices. **It was in 2015 that Volkswagen admitted to having installed emissions-cheating devices in its vehicles, which cost the company over \$33 billion in vehicle refits and regulatory fines,** mostly in the United States. The scandal is often dubbed as the **"Dieselgate scandal"** and Volkswagen has since admitted the device affects over 11 million cars worldwide.

What Was The "Dieselgate Scandal"?

In September 2015, the US Environmental Protection Agency (EPA) found that in over 590,000 diesel motor vehicles, Volkswagen had violated the Clean Air Act as the vehicles were equipped with "defeat devices" in the form of a computer software, which was designed to cheat on federal emissions tests. A defeat device is one that bypasses or renders inoperative a vehicle's emission control system. **Essentially, software of this kind is designed to detect when the vehicle is undergoing an emissions test and turns on full emissions controls during the testing period. In the course of normal driving, the effectiveness of such devices is reduced. In the notice issued by the EPA in September 2015, it alleged that Volkswagen installed these devices in its 2009-2015 two-litre diesel vehicles, thereby violating EPA's emissions standards since these vehicles emit 40 times more pollution than the level permitted.** Some of the affected vehicles included Jetta (2009-2015), Beetle (2013-2015) and Passat (2012-2015) among others. **The major excess pollutant, in this case, were nitrogen oxides.** In November 2015, the EPA issued a separate notice of violation of the Clean Air Act



to car manufacturers Audi, Porsche and Volkswagen for producing and selling certain model year 2014-2016 three-litre diesel cars and SUVs that included a software device meant to circumvent the emissions standards. These vehicles emitted nine times more pollution than the standards allowed. Subsequently, Volkswagen informed the EPA that the defeat devices existed in all of its US three-litre diesel models since 2009. In January 2016, the Department of Justice filed a complaint on behalf of the EPA against **Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Porsche AG, and Porsche Cars North America, Inc.** for alleged violations of the Clean Air Act. In January 2017, Volkswagen pleaded guilty to three criminal felony counts and agreed to pay \$2.8 billion as a criminal penalty. Further, as separate civil resolutions of civil, environmental, customs and financial claims the company agreed to pay \$1.5 billion.

What Does the Latest Court Ruling Say?

Following the EPA allegation in 2015, regulatory investigations were carried out against the company in several countries including South Korea, France, Italy, Germany, UK and Canada. In September 2015, Volkswagen revealed that over 1.2 million vehicles in the UK were involved in the diesel emissions scandal. Out of the 11 million affected vehicles worldwide, over 2.8 million were in Germany. In September 2019, the Federation of German Consumer Organisations (VZBV) brought forward a case against Volkswagen on behalf of consumers in the country. **The ruling on Monday concerned a case involving the plaintiff Herbert Gilbert who bought a used Volkswagen Sharan in early 2014 for approximately €31,000. In his case, Gilbert asked that the company pay him the full purchase price plus interest. Whereas, the Volkswagen group maintained that consumers did not suffer any damage from the manipulated diesel cars. The court on Monday ruled that Gilbert be paid compensation to the tune of over €26,000, minus depreciation resulting from the kilometres he drove. The judgment also requires that plaintiffs return their cars to the company.**

Why Is the Ruling Important?

The ruling is expected to pave the way for remaining cases pending in Germany as the courts are expected to rule in favour of the plaintiffs. **The company, on the other hand, has maintained that they would offer these consumers a payment, which would be less than what consumers can get through a court judgment. However, if consumers settle with the company directly they get to keep their vehicles. German newspaper Süddeutsche Zeitung reported that the company has tried its best to delay a judge's verdict to leave the legal position unclear as long as possible. During this time, several thousand consumers chose to settle with the company, due to which yesterday's ruling will only impact a limited number of plaintiffs.** Significantly, in the reasoning of their judgment, the judges maintained that it should be assumed that the Board of Directors knew about the manipulation because of the scale of the fraud. Volkswagen said that it would like to agree with the plaintiffs individually in order to avoid lengthy legal proceedings. A report in German newspaper Welt said, "...one thing is clear: All pending proceedings must now be assessed in such a way that the plaintiffs are entitled to the full purchase price, minus a discount for the kilometres already driven, but plus the usual litigation or default interest".

Why A Top Afghan Official Visited the Grave of Ex-President Najibullah

- Over the Eid holidays in Afghanistan, the **grave of Mohammed Najibullah, the country's President from 1987-1992**, received a surprise visitor. **Hamdullah Mohib, the Afghan National Security Adviser**, paid a quiet visit to the Melan graveyard in Gardez, in the eastern province of Paktia, where Najibullah was buried after **his barbaric killing by the Taliban in 1996**. This was the first time that a senior member of any post-Taliban Afghan government has visited the



grave of an Afghan **political leader whose association with the Soviet invasion made him a controversial and polarising figure**, but who in his final years transitioned to an Afghan nationalist and **believed – wrongly, as it turned out – that his Pashtun roots could save him from those who wanted him dead**. In Afghanistan's book of tragedies, his gruesome end at the hands of the Taliban is right at the top, the macabre opening scene of five years of Taliban rule over the country. The other grave that Mohib visited was likely that of **Ahmad Shah Massoud, the leader of the Northern Alliance, who was killed by al-Qaeda hours before the 9/11 attacks**. He is buried in his home province of Panjshir Valley north of Kabul. Mohib said in a second tweet: "Today's Afghanistan is made up of different beliefs that used to be antagonistic to each other, but today all work under one system, one flag and one Afghanistan."

Where Does Najibullah Come into All This?

A Pashtun who began his political career while he was a medical student in Kabul University, Najibullah started out as a member of the communist People's Democratic Party of Afghanistan. The PDPA seized power in the 1978 Saur revolution, but it was only with the Soviet invasion of Afghanistan in 1979 that Najibullah's rise began. He was first the security boss of Afghanistan as the head of KHAD, the Afghan secret service that was for all purposes run by the KGB. Over the course of the next 14 years, Najibullah would travel the political spectrum from Marxist to Afghan nationalist. From 1987, when Moscow installed him as President, Najibullah initiated steps for a return to peace, known as the National Reconciliation Policy (NRP). Glasnost was sweeping through the Soviet Union, and the Red Army's continued presence in Afghanistan looked untenable. Najibullah realised it would not be long before he would be on his own. **Under the NRP, Najib reverted to the country's old pre-communist name of Republic of Afghanistan (from 1978 to 1987 it was known as the Democratic Republic of Afghanistan), Islam was declared the state religion, and the PDPA itself became the Hezb-e-Watan Party, in a bid to appeal to the Islamist mujahideen victors of the war**. But his efforts were in vain. As the mujahideen began taking over Kabul in 1992, he resigned. India tried to evacuate him from Afghanistan that April in an operation that went wrong badly. The car in which he was being taken to the airport (by some accounts, the Indian ambassador's car) was stopped outside the airport gates by guards owing allegiance to Abdul Rashid Dostum, a warlord who had been bankrolled by Najibullah, but who had switched sides when the payments stopped, after the Afghan government's tap went dry following the break-up of the Soviet Union in 1991. The plane that was to fly Najibullah to Delhi was waiting on the runway, with the United Nations envoy to Kabul sitting inside. Najibullah had a heated argument with the guards, but failed to get them to let him pass. Nor could he go back to the President's palace. So the car took him to the UN compound where he would live for the next four and a half years in self-imprisonment. The Taliban took over Afghanistan from the warring factions of the mujahideen after a four-year long civil war. In 1996, they captured Kabul from Ahmad Shah Massoud's retreating forces. Najibullah, his brother and two other companions, who had been sheltering in the UN compound, were left to fend for themselves. Massoud did offer to give him safe passage to the north, but he turned down the offer, as he was still counting on his Pashtun ethnicity to make a deal with the Taliban, which he believed would be more complicated if he escaped with a Tajik to the north. With no UN officials left in the compound, a small team of the Taliban, including, according to some accounts, an ISI officer in disguise, stormed in. **Najibullah and his brother were beaten, dragged behind a jeep, castrated, shot, and then strung up from a traffic light pole outside the Presidential palace. It was a chilling message to the people of Kabul and Afghanistan. The violence shocked the world, and was condemned as un-Islamic by even Saudi Arabia, a friend of the Taliban.**



Significance of Mohib's Visit to Najib's Grave

Large sections in Afghanistan have been against the US-Taliban deal, describing it as a handover of the country to the Taliban once again. Mohib, blackballed by the US ever since his remarks against US Special Envoy to Afghanistan Zalmay Khalilzad, is part of the country's security apparatus, which has no love lost for Pakistan's ISI, and sees the Taliban as a proxy of Pakistan. At such a time, the show of posthumous solidarity with Najibullah, especially after a month of extreme violence in Afghanistan, has served to remind of Najibullah's own efforts at an Afghan-led and Afghan-owned national reconciliation, and how that failed. It recalls the extreme cruelty of the Taliban as they established themselves as the rulers of Afghanistan. It is also a finger in the eye of Pakistan. **Najibullah, after all, was the leader who managed to thwart the powerful ISI and its boss Hamid Gul's dream project of toppling his government and installing a mujahideen regime in Kabul just a month after the Soviet forces withdrew in February 1989.** Gul had planned that the mujahideen would carry out a full military-style assault on Jalalabad, the Afghan city closest to the Khyber Pass, and declare it as the seat of the new government. Gul calculated on the Afghan army's capitulation minus Soviet help. But after a brief advance, just the opposite happened. The Afghan army managed to inflict a huge defeat on the mujahideen and its backers, with the help of its An-32s and Scud missiles. The Soviet Union backed Najibullah with material help during this time. The battle lasted five months. Over 3,000 mujahideen were killed, many thousands of civilians were either killed or had to flee. Benazir Bhutto, who had then just been elected for the first time, fired Gul. The episode set the stage for the next few seasons of civilian-military tensions in Pakistan. More significantly for the present times, as the Pakistani political commentator Mohammed Taqi wrote in a 2014 essay, Najibullah "was immensely popular among the Pashtun nationalist rank and file in Pakistan", although the leadership of two big Pashtun parties – the Awami National Party and the Pakhtunkwa Milli Awami Party – did not stand by him when he needed them. Taqi described Najibullah as the "Afghan Prometheus". **With Pakistan doing everything to suppress a new wave of Pashtun nationalism through the Pashtun Tahaffuz Movement in its own north-west, the last thing it would wish to see is the resurrection of a long dead Afghan leader as a Pashtun hero.** Taqi told The Indian Express that while in Afghanistan Najibullah was disliked by most people because of his "brutal past", there has also been a realisation of what he had tried to pull off. "Many do see him as someone who really tried truth and reconciliation" through his National Reconciliation Policy. In that sense, said Taqi, **Mohib's visit to Najibullah's grave, besides being "anti-Taliban messaging", was "also a truth and reconciliation gesture to Afghans themselves".** It is ironic that the effort to acknowledge Najibullah as an Afghan nationalist has come at a time when India is considering opening channels to the Taliban, with which it has never had formal relations. **While Najibullah's family escaped to India months before he was deposed in 1992, and has lived in Delhi ever since, the Narasimha Rao government accorded formal recognition to the ISI-CIA backed mujahideen government of Gulbuddin Hekmatyer in Kabul, willing to put aside animosities with Pakistan for pragmatic compulsions.** The wheel has turned full circle. As Delhi considers if talking to the Taliban is better than being left out of the table altogether, Najibullah's daughter, Muska Najibullah, captured some of the irony in a tweet on May 15: "#TheKhalilzadStrategy – how to distract the world from a failed #peace #deal in Afghanistan? Drag one of its oldest and loyal friends and create a regional mess".

Settlement Without Peace

- After months of political discord, following an already delayed election and disputed results that saw two simultaneous presidential inaugurations, Afghan President Ashraf Ghani and his political opponent Abdullah Abdullah came to a power-sharing agreement on March 17. According to the deal, **President Ghani will retain the presidency, while Mr. Abdullah will**



assume a newly created office of the Chairman of the High Council for Peace and National Reconciliation. He will also be appointing 50% of the Afghan Cabinet and other provincial offices. "The agreement is not a privilege or a handout," Mr. Abdullah said during the signing ceremony. "It's rooted in the last election and every clean vote. It comes at a very difficult time when we face serious threats," he said, referring to the increasing violence in Afghanistan. In his new role, Mr. Abdullah will be responsible for leading the much-delayed intra-Afghan talks with the Taliban.

Continuing Attacks

However, despite the momentary relief, Afghan analysts remain sceptical whether the agreement will provide the stability needed to initiate the peace negotiation with the insurgent group, which has continued to attack Afghan forces and civilians despite making a deal with the U.S. in February to end the 19-year-long conflict. The growing violence in the country has already brought the current administration to an impasse with the Taliban who they blame for the increasing attacks. President Ghani launched an offensive against the Taliban following the recent attack on a maternity hospital in the Afghan capital that resulted in 24 deaths, including babies, pregnant women and health workers. He also suspended the release of Taliban prisoners that was promised by the U.S. in their deal to the Taliban as a trust-building gesture ahead of intra-Afghan talks. "Being the go-to guy for peace talks, Abdullah will have to deliver by starting the talks. However, there are times like these when Ghani will push for military operations. There will be a difference of opinion between the President and Abdullah on this very matter," reasoned Hekmatullah Azamy, deputy director at the Kabul-based Centre for Conflict and Peace Studies. "I anticipate in the coming days that there will be certain blame-gaming between the two, where Abdullah will ask to move forward on the peace talks but Ghani might want to focus on the military approach." Mr. Nishat, Mr. Abdullah's aide, expressed similar concerns for the future implementation of the deal. "It will create friction between the two. That is my worry." Additionally, the deal also provides Mr. Abdullah the security and protocol privileges of the "second person" in the country after the President, a position usually held by the Vice-President. While President Ghani's Vice-President, Amrullah Saleh, has not commented on the issue, he was not present at the signing ceremony. Despite the challenges, those watching the development closely remain hopeful for an optimistic outcome.

No Answers Yet for Somalia

- As Somalia grapples with the staggering challenge from the COVID-19 pandemic, chances are that the June 8 public hearings at the International Court of Justice (ICJ) on Somalia's maritime dispute with Kenya will be deferred yet again. The public health emergency also raises a question mark on the general elections scheduled for later this year, especially as the nation seeks to restore universal suffrage after five decades.



Maritime Dispute

Somalia and neighbouring Kenya have locked horns for over a decade on the delimitation of the maritime boundary in the Indian Ocean. At issue is a roughly 1,00,000 sq. km area, which, as per seismic surveys, contains huge deposits of oil and gas. Under a 2009 Memorandum of Understanding, each granted the other no objection to presenting separate submissions to the UN Commission on the Limits of the Continental Shelf (CLCS) concerning the outer limits of the continental shelf beyond 200 nautical miles. The parties also committed to finding a settlement in accordance with international law on the basis of the CLCS's recommendations. But friction intensified following Kenya's 2011 despatch of troops into Somalia, ostensibly to counter the al-Qaeda affiliate, al-Shabab. Kenya's backing for the semi-autonomous Jubaland region has also caused consternation in Somalia. Given the diminishing prospects of a mutual compromise on the dispute, Somalia petitioned the ICJ in 2014. Somalia won a symbolic victory of sorts in February 2017. The Hague court in the Netherlands rejected by a majority Kenya's contention challenging the admissibility of Somalia's application, as also the court's jurisdiction in the case, in view of the MoU. The court held that this MoU was in no way breached just because one of the parties decided on an alternative mode of dispute resolution. Moreover, while the agreement was legally binding, there was nothing to suggest that judicial proceedings could take place only after the CLCS issued its own recommendations, said the court. In a diplomatic row last year, Kenya recalled its ambassador and expelled Somalia's envoy, accusing the Somalian government of illegally auctioning oil blocks in the disputed waters. In parallel, the African Union has intervened to find a settlement out of court via a mediator. As regards the judicial proceedings at The Hague, a decision is expected on the public hearings, postponed twice last year, scheduled to commence next month.

Universal Suffrage

The people of Somalia will, later this year, for the first time since the 1969 general elections, exercise their right to political participation under universal suffrage. The one-person one-vote law, which received President Mohamed Abdullahi Mohamed's assent in February, is a milestone in the country's gradual path to democratic governance after enduring military rule for over two decades and the long transition following the civil war. Notably, there was a 100-fold increase in the number of delegates (14,025) in the 2016 electoral college which chose the 275-member House of the People and the 54 senators-strong upper chambers. There are



fewer women legislators in the current parliament than the 30% seats allotted to them. But a steady increase in the number of female representatives witnessed in successive elections is an encouraging sign. Somalia has systematically suppressed a free press that is vital to a vibrant democracy. Eight journalists have been killed and as many have fled the country during Mr. Mohamed's term as the al-Shabab and the police behave with impunity, says Amnesty International. The Committee to Protect Journalists said in 2016 that as many as 59 media personnel were killed since the 1991 civil war. In the backdrop of such systemic constraints and the current pandemic, the practical difficulties of implementing universal suffrage would be formidable. Authorities and activists can, however, take comfort in the fact that the alternatives would be far less desirable.

How A Dam on River Nile May Trigger Water Wars in East Africa

- Africa's longest river, the Nile, has been at the centre of a decade-long complex dispute involving several countries in the continent who are dependent on the river's waters. At the forefront of this dispute however, are **Ethiopia and Egypt**. Later this year, talks are set to begin between the two countries in Washington D.C. on the future of the hydropower project on the Nile that is at the centre of these disputes.

What Is the Dispute About?

When completed, the **Grand Renaissance Dam** hydropower project being constructed by Ethiopia, will be Africa's largest. While the main waterways of the Nile run through Uganda, South Sudan, Sudan and Egypt, its drainage basin runs through other countries in East Africa, including Ethiopia. Ethiopia began construction of the dam in 2011 on the Blue Nile tributary that runs across one part of the country. Egypt has objected to the construction of this dam and in Sudan has found itself caught in the midst of this conflict. Due to the importance of the Nile as a necessary water source in the region, observers are concerned that this dispute may evolve into a full-fledged conflict between the two nations. The US has stepped in to mediate.

How Can This Lead to Conflict?

Ethiopia's mega project on the Nile may just allow the country to control the river's waters, and this is essentially what concerns Egypt because it lies downstream. Last year, **Ethiopia announced that it planned on generating power using two turbines by December 2020**. However, **Egypt has objected to these plans and has proposed a longer timeline for the project because it does not want the water level of the Nile to dramatically drop as the reservoir fills with water in the initial stages**. For the past four years, triparty talks between Egypt, Ethiopia and Sudan have been unable to reach agreements. Egypt isn't alone in its concerns. Sudan is hardly a passive observer caught in the conflict just because of its location. It too believes Ethiopia having control over the river through the dam may affect its own water supplies.

Why Does Ethiopia Want This Dam?

Ethiopia believes this dam will generate approximately 6,000 megawatts of electricity when it is done. According to a BBC report, 65% of Ethiopia's population suffers due to lack of access to electricity. This dam will reduce those shortages and help the country's manufacturing industry. The country may also be able to supply electricity to neighbouring nations and earn some revenue in exchange. Neighbouring countries like **Kenya, Sudan, Eritrea and South Sudan also suffer from electricity shortages**. If Ethiopia sells electricity to these nations, they may also reap benefits.



What Is Happening Now?

In the latest developments on this front, Egypt announced this past Thursday that it is willing to resume negotiations with Ethiopia and Sudan concerning the dam. According to Egypt's foreign ministry, any agreement would have to take into account the interest of Ethiopia and Sudan, the two countries in the Nile basin that are directly involved in this issue. Following the announcement in April by Ethiopia's Prime Minister Abiy Ahmed that his country would proceed with the first stage of filling the dam, Sudan's Prime Minister Abdalla Hamdok held a virtual meeting with Ahmed to discuss the issue. Observers believe Egypt's latest stance on the issue follows the virtual meeting between the leaders of Ethiopia and Sudan. **While Ethiopia has stated that it does not need Egypt's permission to fill the dam, Egypt on the other hand, wrote to the UN Security Council on May 1, saying the dam would jeopardise food and water security and livelihoods of ordinary Egyptian citizens. In the letter to the UNSC, Egypt also implied that the dam would cause armed conflict between the two countries.**

Why We Need A Name for The Greatest Economic Crisis in A Century

- The IMF calls it the Great Lockdown. Morgan Stanley says it's the **Great Covid-19 Recession, or GCR** for short. Ed Yardeni, who coined the term "bond vigilantes" back in the 1980s, has named this the **Great Virus Crisis**. There's even a suggestion to call it a **Pandession**. As economists around the world search for the right terminology to describe the **biggest economic crisis since the Great Depression**, it could take years to settle on a name, if history is any guide. While many in the U.S. now refer to the 2007-2009 slump as the **Great Recession**, that term is far from universal. In Anglo financial centres like Sydney and London, the term GFC – short for Global Financial Crisis – is more common. Others call it the North Atlantic Financial Crisis, since that's where it hit hardest. **As for the origins of the 'Great Depression,' it's a term that was used by various US presidents and others such as British economist Lionel Robbins, who published a book in 1934 titled "The Great Depression."**

Great Lockdown

The **Great Lockdown** has the backing of the world's premier economic body. At its spring meetings in April – held virtually this year – the International Monetary Fund used that phrase to summarize how the world economy had been upended. But there are rivals. Yardeni, president and chief investment strategist of Yardeni Research Inc., floated the **Great Virus Crisis** in an interview with Bloomberg News in March, and has been plugging it in his research notes since.

What's in a Name?

"Language is vitally important when confronted with something novel. If you don't have the language, you can't visualize, conceive of or think your way out of it." There's also a chance the current downturn could affect how economic historians refer to the 2007-09 crisis. After all, the Great War became known as World War I once the even more destructive World War II came along. Because history takes time to settle, it may be too early to agree on a descriptive name just yet, said Michael Every, head of Asia financial markets research at Rabobank. "It's not binary," Every said. "The Great Lockdown is likely to be the opening salvo of something else."



Foreign Affairs

What Explains the India-China Border Flare-Up?

- The India-China border has been witnessing tensions over the past month, with incidents reported in at least four different locations along the Line of Actual Control (LAC). On May 14, Indian Army Chief General Manoj Naravane said incidents at the **Pangong lake in Ladakh** on May 5 and at **Naku La in Sikkim** on May 9 had led to injuries, caused by “aggressive behaviour on both sides”. He said the two sides had disengaged. Stand-offs at two other spots in Ladakh, in the **Galwan valley** and in **Demchok**, have reportedly escalated with a build-up of troops by both sides. On May 22, General Naravane visited the Leh-based 14 Corps headquarters in Ladakh to assess the situation.



Why Do Face-Offs Occur?

Face-off and stand-off situations occur along the LAC in areas where India and China have overlapping claim lines. The LAC has never been demarcated. **Differing perceptions are particularly acute in around two dozen spots across the Western (Ladakh), Middle (Himachal Pradesh and Uttarakhand), Sikkim, and Eastern (Arunachal Pradesh) sectors of the India-China border. The boundary in the Sikkim sector is broadly agreed, but has not been delineated.** Face-offs occur when patrols encounter each other in the contested zones between overlapping claim lines. **Protocols agreed to in 2005 and 2013 detail rules of engagement to prevent such incidents,** but have not always been adhered to.

What Is Behind the Latest Tensions?

The stand-off in Galwan valley, according to reports, was triggered by China moving in troops and equipment to stop construction activity by India. Delhi says this was well within India's side of the LAC. The LAC was thought to be settled in this area which has not seen many incidents in the past, but China now appears to think otherwise. The **northern bank of Pangong lake has,** however, been a point of contention where there are differing perceptions of the LAC. **The incident in Sikkim is somewhat unexpected as the contours of the LAC are broadly agreed to in this sector.** **The broader context for the tensions appears to be a changing dynamic along the LAC, as India plays catch-up in improving infrastructure there. China has enjoyed an advantage in infrastructure as well as terrain that is more favourable to mobilisation.** Previous agreements between the two countries have recognised both sides' need for “mutual and equal security”, implicitly taking into consideration the different – and more difficult – terrain on India's side that hinders mobilisation from depth.



Why Has Not the LAC Been Clarified?

India has long proposed an exercise to clarify differing perceptions of the LAC to prevent such incidents. **Maps were exchanged in the Middle Sector, but the exercise fell through in the Western Sector where divergence is the greatest.** China has since rejected this exercise, viewing it as adding another complication to the on-going boundary negotiations. **India's argument is rather than agree on one LAC, the exercise could help both sides understand the claims of the other, paving the way to regulate activities in contested areas until a final settlement of the boundary dispute.**

What Is the State of Boundary Negotiations?

The 22nd round of talks between the Special Representatives, National Security Adviser Ajit Doval and China's State Councillor Wang Yi, was held in Delhi in December 2019. Both "agreed that an early settlement of the boundary question serves the fundamental interests of both countries" and "resolved to intensify their efforts to achieve a fair, reasonable and mutually acceptable solution". In 2005, an agreement on political parameters and guiding principles completed the first of three stages of the talks. The current, and most difficult, stage involves agreeing a framework to resolve the dispute in all sectors. The final step will involve delineating and demarcating the boundary in maps and on the ground.

What Are the Prospects Of A Settlement?

The likelihood appears remote. The main differences are in the Western and Eastern sectors. **India sees China as occupying 38,000 sq. km in Aksai Chin. In the east, China claims as much as 90,000 sq. km, extending all across Arunachal Pradesh. A swap was hinted at by China in 1960 and in the early 1980s, which would have essentially formalised the status quo. Both sides have now ruled out the status quo as a settlement, agreeing to meaningful and mutual adjustments. At the same time, the most realistic solution will involve only minor adjustments along the LAC, considering neither side will be willing to part with territory already held. The 2005 agreement said both sides "shall safeguard due interests of their settled populations in border areas". One particular sticking point appears to involve China's claims to Tawang in Arunachal Pradesh, which has been increasingly referenced in public statements in recent years. Dai Bingguo, Mr. Wang's predecessor, said in 2017 that "the disputed territory in the eastern sector, including Tawang, is inalienable from China's Tibet in terms of cultural background and administrative jurisdiction". The Tawang demand is, however, more a symptom than the root of the problem. In truth, China knows ceding Tawang will be impossible for any Indian government to consider.** The broader issue appears to be a fundamental difference in how both sides view the boundary question. As one Chinese scholar put it in 2018, **"China's experience indicates that resolving border disputes is usually the result, rather than the cause, of improvement in relations. But India insists that its relations with China won't improve fundamentally until the border dispute is resolved."** Therein lies the crux of the problem. In some sense, Beijing appears to view an unsettled border as holding some leverage with India, one of the many pressures points it could use to keep India off-guard. Until that strategic calculus – and China's broader view of its relations with India – changes, the stalemate will likely endure.

- There is enough information to conclude that this is the most serious such stand-off India and China have seen in years. As reported by The Hindu, sources say that **the number of Chinese soldiers, the aggression with which they have dealt with Indian soldiers, as well as the number of points of conflict, indicate strategized action by Chinese commanders. While both governments have been careful to keep the tone of their comments sober, the fact that both**



sides have repeatedly mentioned that talks are on is also proof of an ongoing situation. A full de-escalation will entail soldiers being able to return to their normal LAC patrols, something military officers say will probably need a high-level political intervention and for the Indian side, an insistence that Chinese soldiers, who appear to have been the aggressors, returning to positions they previously held.

In the midst of these sensitive negotiations, the interventions by the U.S. come as inopportune distractions. The first comment, last week, by a then senior State Department official, accusing China of being an aggressor on several fronts and posing a “threat” to its neighbours, was followed by President Donald Trump’s offer, this week, to mediate between Delhi and Beijing. Neither comment appears to have been made in consultation with India. India has made it clear that it will not accept Mr. Trump’s offer and has denied his claim that he spoke to Prime Minister Modi on the issue. The government’s first priority now must be to end the current stand-off, and then for its senior officials to enter serious talks on LAC demarcation. Given all the new infrastructure being built by India, it may also be necessary to negotiate new border management protocols that were last updated in 2013. The government must also investigate how a big build-up of Chinese soldiers was not acted upon earlier.

- India’s construction of a road to **Daulat Beg Oldie (DBO)** in the **Galwan** Valley has been suggested as one reason for the recent stand-off between India and China along the Line of Actual Control (LAC). In October last, Defence Minister Rajnath Singh inaugurated a strategically important bridge in this general area **on the Shyok river to boost connectivity from Drabuk to the strategically important Daulat-Beg-Oldie (DBO) in eastern Ladakh. Sandwiched between the strategic Karakoram and Chang Chenmo ranges, the ‘Col Chewang Rinchen Setu’ is a 430-metre bridge built at an altitude of 14,650 feet built by the Border Roads Organisation (BRO) within 15 months.** The BRO is gearing up to resume work full-time post the COVID-19 lockdown restrictions. It is also building 61 strategic Indo-China Border Roads (ICBRs), measuring 3323.57 km in length, under the direction of the China Study Group (CSG). The official sources said the work was completely affected in the aftermath of the lockdown briefly and partially resumed after getting special permissions. With restrictions being significantly reduced, the BRO was making efforts to move construction labour in large numbers to forward locations, including by special trains. The working season was very limited and there was need to catch up on the lockdown delays as well. In March last, the Parliamentary Standing Committee on Defence expressed satisfaction that the BRO has completed work on 75% of the construction work on the 61 ICBRs.
- China has said India was “attempting to unilaterally change the status quo” on the LAC. **The Durbuk-Shyok-DBO road was under construction for more than 15 years.** As per protocol, local commanders kept informing each other about the construction activities. China never raised any objection against it. In fact, construction work on China’s side of the LAC has been of a much higher scale. It appears that current activities by China are meant to put pressure on India, and are not based on any perceived transgression by Indian troops.

Changing Lines

China has a history of changing lines. In the late 1950s, the lines kept moving westward, and ultimately led to the 1962 war. More recently, **in 2002, when maps were exchanged during the Expert Group meetings, China showed a claim line in the western sector which was different from what existed on the ground since 1962. Again in 2007, China’s perception of the border in Depsang in the Ladakh sector, in Sikkim, and in many other places appeared to change. In 2017, China wanted to unilaterally change the boundary and the trijunction with Bhutan and India, which sparked the Doklam stand-off.** Until 2006, Chinese troops were positioned a few kilometres behind the LAC, except for a few places where they were deployed eyeball to eyeball with Indian troops. From 2007 onwards, we have seen a surge in defence infrastructure development along the LAC. At many locations, troops have been moved to forward areas. At



the same time, bilateral military relations have improved, with annual defence dialogues and joint training. Patrol face-offs have been resolved with existing protocols, and issues resolved at the local commanders' level. **After the 1986-1987 Sumdorong Chu incident, it was only more than 30 years later, at Doklam, that Chinese transgression led to both sides moving up a brigade-sized force (around 5,000 troops) to the LAC.** The Border Peace and Tranquillity Agreement of 1993 has helped limit the number of troops deployed near the LAC by both sides, and necessitates a mutual appraisal of any change in numbers. **In Ladakh, both sides have, according to reports, moved up at least a brigade-sized force.**

Problems with Hotlines

Such disputes should be peacefully resolved, as was done at Sumdorong Chu and Doklam. **As a rule, cases of violation are resolved through a meeting of local commanders, which may be arranged through a conversation on hotlines established for that purpose.** This arrangement has not been without problems. When a transgression is initiated by China, often the Chinese side does not answer the call on the hotline, as may have happened in this case. During the 2013 stand-off at Depsang, and the 2014 incident at Chumar which took place when President Xi Jinping was visiting India, the local Chinese commander did not pick up the hotline. It took several days to resolve the crisis, leaving some to ask if President Xi's hold on the People's Liberation Army was not as strong as assumed to be. Now, the situation is different. Named the 'hexin' or core, Mr. Xi has assumed total control. It will be unlikely that Mr. Xi will go against the spirit of Wuhan and Mamallapuram, in which he has been personally invested. The stand-off in Ladakh is likely to be resolved peacefully. Given the conventional strength of both sides, any skirmish will lead to a stalemate. China will not gain anything. On the contrary, it has much to lose. China is aware it cannot push India to a strategic alliance with the U.S., which will tilt the balance of power against Beijing. This current crisis may, however, have at least one lasting impact. We may see increased permanent deployments by both sides along the LAC, and a further erosion of trust in the agreements that both sides have built, with great effort, since 1993, which has for so long helped keep the peace.

Infra Work in Border Areas to Continue

- There will be no let-up in the infrastructure development on the border with China despite the continuing standoff along the Line of Actual Control. China has been objecting to Indian road construction at several points along the LAC. The almost month-long standoff began when Chinese troops moved inside Indian areas with vehicles and equipment in some of the four standoff points at the LAC, including **Pangong Tso, Demchok, Galwan Valley and Naku La in Sikkim**, where PLA soldiers also blocked Indian patrols and pitched tents. In response, India too moved troops forward and also redeployed additional troops to the Ladakh region. While both India and China asserted that discussions were on through military and diplomatic channels, the stalemate on the ground continued. Sources said that at Naku La, Chinese troops had moved couple of kilometres inside Indian territory and after the issue was resolved between the local commanders on the ground, they moved back, but not fully. Both Galwan Nalah and Naku La have not been areas of contention in the past, as observed by several officials.



Beijing's Ladakh Brinkmanship (Mohammed Ayoob - University Distinguished Professor Emeritus of International Relations, Michigan State University)

→ The current intensification of tension between China and India following the escalation of Chinese troop build-up in Ladakh is but one sign that Beijing is increasingly feeling beleaguered. In response, it has embarked on a strategy of brinkmanship with several goals in mind. **External adventurism, when cloaked in the garb of ultra-nationalism, can shore up a regime's legitimacy at home.** This is particularly the case when an authoritarian regime whose legitimacy rests primarily on its economic performance is faced with a situation where growth is expected to plummet. Simultaneously, it can act as a **diversionary measure to escape international opprobrium**, similar to what China is facing currently because of Beijing's attempt to cover up the spread of the coronavirus during the crucial early weeks when it could have been more easily contained. Many countries hold China responsible for the huge cost in human lives and suffering as well as the unprecedented economic distress. In the face of such criticism, the Chinese regime is increasingly using jingoistic jargon to build up domestic support. President Xi Jinping's recent speech to the PLA is an outstanding example of this strategy. He exhorted the Chinese armed forces to "prepare for war" in order to "resolutely safeguard national sovereignty" and "the overall strategic stability of the country".

Bilateral ties with U.S.

This is a sign that the **Communist Party of China (CPC) feels increasingly threatened both domestically and externally.** **China's relations with the U.S. have been going downhill almost since the beginning of the Donald Trump presidency.** Washington has periodically imposed economic sanctions on China and Beijing has retaliated in kind. Trade talks have faltered because of growing protectionist sentiments in the U.S. and Chinese inability to adequately respond to them. Tensions between the U.S. and China have also increased for other reasons. **The chipping away at Hong Kong's autonomous status by Beijing and the suppression of the pro-democracy movement in Hong Kong has led to severe criticism by the U.S. administration and in the Congress.** Differences over the **issue of Taiwan** have added to tensions, with China viewing the U.S. as the primary impediment preventing Taiwan's integration. **The Trump administration has significantly increased support to Taiwan with arms sales that have added to China's concern.** Above all, the U.S.-China rivalry in the **South China Sea** acts as the potential flashpoint that may well lead to a shooting war. In the past decade, China has vigorously advanced its territorial claims in the South China Sea by militarising islands it controls, vociferously contesting claims by other regional states and impeding their attempts to access territories they claim. So far, it has been careful that these moves do not trigger a serious confrontation with the U.S. However, it is quite possible that a Chinese leadership that feels besieged could adopt a more provocative strategy, thus increasing the risk of a military confrontation with the U.S. **Washington has a strong interest in preventing China from asserting control over the South China Sea as maintaining free access to this waterway is important to it for economic reasons.** It also has defence treaty obligations to the Philippines, which has vigorously contested Chinese territorial claims. Further, **China's control of the South China Sea would be a major step toward replacing the U.S. as the foremost power in the Indo-Pacific region.** Increased Chinese adventurism could result in an escalation of U.S.-China confrontation in the South China Sea. If that happens, the India-China face-off in Ladakh could become part of a much larger "great game", with the U.S. trying to preserve the status quo and China attempting to change it to further its objective of regional dominance at the U.S.'s expense. The current India-China crisis should, therefore, be seen in its proper context and not as an isolated event.



Aggressive PLA Flouts Protocols

- As the standoff between Indian and Chinese soldiers at several points along the LAC in the “Western” or Ladakh sector and Sikkim continues, at least three facts point to why this standoff is different from past incidents that break out in the summer, say strategic experts. “Chinese troops have shown more aggression, engaged in physical skirmishes and disregarded agreed protocols,” he said. In fact, the numbers of Chinese soldiers at each point of recent confrontations, including three points in Ladakh or the “Western sector” and at Nakula Pass in Sikkim, have been a factor of some concern. **Officials have spoken of soldiers being outnumbered when normal patrols with the strength of a few dozen each on the Indian side have run into Chinese forces that number in hundreds.** The second difference from the past is the levels of aggression shown by the Chinese side, which include violence that has left **at least 70 Indian soldiers injured**, including some who needed to be flown out for treatment (injuries received by the Chinese side have not been reported on). **More Chinese boats have been observed patrolling the Pangong Tso (lake)** while the PLA has dug in tents and trenches, according to sources. The third point of concern is **the number of points, including those in “previously uncontested” areas which have opened up since April.** “They have reportedly pushed into a new area, Galwan river valley, where the LAC was not disputed, pitched tents and dug in with reinforcement ... The fact that there have been incursions at multiple locations is worrisome,” Mr. Kantha said. Significantly, China’s Foreign Ministry has also accused India of “attempting to unilaterally change the situation on the ground”. Another point of concern for diplomats has been whether the modified Chinese patterns reflect a tactical push, or beyond that, are driven by its ambitions on a strategic level. **In particular, the actions are seen as an attempt to push back Indian troops in Ladakh, where infrastructure has been improved considerably in the last decade.** In addition, **rising U.S.-China tensions may have placed Beijing in a defensive position, and the PLA’s aggression may mean China is “signalling” that growing Indo-U.S. strategic ties do not diminish the risks India faces along the 3,488-km boundary with China.** Most experts also agree that as long as there are military and diplomatic parleys, the situation will remain under control, but a prolonged confrontation will heighten the chances of an escalation.

For A Reset in India-Nepal Relations (Rakesh Sood - Former Diplomat and Currently Distinguished Fellow at The Observer Research Foundation)

- Near Garbyang village in Dharchula Tehsil of the Pithoragarh district of Uttarakhand, there is a confluence of different streams coming from north-east from Kalapani and north-west from Limpiyadhura. The early British survey maps identified the north-west stream, Kuti Yangti, from Limpiyadhura as the origin, but after 1857 changed the alignment to Lipu Gad, and in 1879 to Pankha Gad, the north-east streams, thus defining the origin as just below Kalapani. Nepal accepted the change and India inherited this boundary in 1947. The Maoist revolution in China in 1949, followed by the takeover of Tibet, created deep misgivings in Nepal, and India was ‘invited’ to set up 18 border posts along the Nepal-Tibet border. The westernmost post was at Tinkar Pass, about 6 km further east of Lipulekh. **In 1953, India and China identified Lipulekh Pass for both pilgrims and border trade.** After the 1962 war, pilgrimage through Lipulekh resumed in 1981, and border trade, in 1991. **In 1961, King Mahendra visited Beijing to sign the China-Nepal Boundary Treaty that defines the zero point in the west, just north of Tinkar Pass.**
- The importance of Himalayan passes with the Tibetan plateau was amply highlighted in the **1962 war.** During that war, Chinese forces used the pass of Se La in Tawang and reached the Brahmaputra plains in the east. The military defeat in the east clearly demonstrated that weakly guarded passes were a major vulnerability of Indian military preparedness against



China. In comparison to Se La which was somewhat fortified, Lipulekh was vulnerable. Nepali analysts say that **King Mahendra was concerned that India would take military steps to forcefully take the region of Kalapani to secure the mountain pass. He reached an agreement with Delhi and handed over the region for security purposes to India.**

→ **By 1969, India had withdrawn its border posts from Nepali territory. The base camp for Lipulekh remained at Kalapani, less than 10 km west of Lipulekh.** In their respective maps, both countries showed Kalapani as the origin of Kali river and as part of their territory. **After 1979, the Indo-Tibetan Border Police has manned the Lipulekh Pass.** In actual practice, life for the locals (Byansis) remained unchanged given the open border and free movement of people and goods. **After the 1996 Treaty of Mahakali (Kali river is also called Mahakali/Sarada further downstream) that envisaged the Pancheshwar multipurpose hydel project, the issue of the origin of Kali river was first raised in 1997.** The matter was referred to the **Joint Technical Level Boundary Committee that had been set up in 1981 to re-identify and replace the old and damaged boundary pillars along the India-Nepal border.** The Committee clarified 98% of the boundary, leaving behind the unresolved issues of **Kalapani and Susta (in the Terai)** when it was dissolved in 2008. It was subsequently agreed that the matter would be discussed at the Foreign Secretary level. **Meanwhile, the project to convert the 80-km track from Ghatibagar to Lipulekh into a hardtop road began in 2009 without any objections from Nepal.** The Survey of India issued a new political map (eighth edition) on November 2, 2019, to reflect the change in the status of Jammu and Kashmir as two Union Territories. Nepal registered a protest though the map in no way had changed the boundary between India and Nepal. However, on November 8, the ninth edition was issued. The delineation remained identical but the name Kali river had been deleted. Predictably, this led to stronger protests, with Nepal invoking Foreign Secretary-level talks to resolve issues. With the Indian Ambassador Manjeev Puri in Kathmandu retiring in end-December and Foreign Secretary Vijay Gokhale retiring a month later, the matter remained pending despite reminders from Kathmandu.

Nepali Nationalism

By April 2020, Mr. Oli's domestic political situation was weakening. Under the Nepali Constitution, a new Prime Minister enjoys a guaranteed two-year period during which a no-confidence motion is not permitted. This ended in February unleashing simmering resentment against Mr. Oli's governance style and performance. His inept handling of the COVID-19 pandemic added to the growing disenchantment. Within the Nepal Communist Party (NCP) there was a move to impose a 'one man, one post' rule that would force Mr. Oli to choose between being NCP co-chair or Prime Minister. **The re-eruption of the Kalapani controversy, when Defence Minister Rajnath Singh did a virtual inauguration of the 80-km road on May 8, provided Mr. Oli with a political lifeline.** A subsequent comment by the Chief of the Army Staff (COAS), General Manoj Naravane, on May 15 that "Nepal may have raised the issue at the behest of someone else" was insensitive, given that the Indian COAS is also an honorary general of the Nepal Army and vice-versa, highlighting the traditional ties between the two armies. Mr. Oli had won the election in 2017 by flaunting his Nepali nationalism card, the flip side of which is anti-Indianism. This is not a new phenomenon but has become more pronounced in recent years. Mr. Oli donned the nationalist mantle vowing to restore Nepali territory and marked a new low in anti-Indian rhetoric by talking about "the Indian virus being more lethal than the Chinese or the Italian virus". **A new map of Nepal based on the older British survey reflecting Kali river originating from Limpiyadhura in the north-west of Garbyang was adopted by parliament and notified on May 20.** On May 22, a constitutional amendment proposal was tabled to include it in a relevant Schedule. **The new alignment adds 335 sq. km to Nepali territory, territory that has never been reflected in a Nepali map for nearly 170 years.** This brief account illustrates the complexity underlying India-Nepal issues that cannot be solved by rhetoric or unilateral map-making exercises. Such brinkmanship only breeds



mistrust and erodes the goodwill at the people-to-people level. Political maturity is needed to find creative solutions that can be mutually acceptable.

Rewriting the Fundamentals

Prime Minister Narendra Modi has often spoken of the “neighbourhood first” policy. He started with a highly successful visit to Nepal in August 2014. But the relationship took a nosedive in 2015 when India first got blamed for **interfering in the Constitution-drafting in Nepal** and then for an **“unofficial blockade”** that generated widespread resentment against the country. It reinforced the notion that Nepali nationalism and anti-Indianism were two sides of the same coin that Mr. Oli exploited successfully. In Nepali thinking, the **China card** has provided them the leverage to practise their version of non-alignment. In the past, China maintained a link with the Palace and its concerns were primarily related to keeping tabs on the Tibetan refugee community. With the abolition of the monarchy, China has shifted attention to the political parties as also to institutions like the Army and Armed Police Force. Also, **today’s China is pursuing a more assertive foreign policy and considers Nepal an important element in its growing South Asian footprint.** The reality is that India has ignored the changing political narrative in Nepal for far too long. India remained content that its interests were safeguarded by quiet diplomacy even when Nepali leaders publicly adopted anti-Indian postures – an approach adopted decades earlier during the monarchy and then followed by the political parties as a means of demonstrating nationalist credentials. **Long ignored by India, it has spawned distortions in Nepali history textbooks and led to long-term negative consequences.** For too long India has invoked a “special relationship”, based on shared culture, language and religion, to anchor its ties with Nepal. Today, this term carries a negative connotation – that of a paternalistic India that is often insensitive and, worse still, a bully. It is hardly surprising that the **1950 Treaty of Peace and Friendship which was sought by the Nepali authorities in 1949 to continue the special links it had with British India and provides for an open border and right to work for Nepali nationals is viewed as a sign of an unequal relationship, and an Indian imposition.** Yet, Nepali authorities have studiously avoided taking it up bilaterally even though Nepali leaders thunder against it in their domestic rhetoric. The urgent need today is to pause the rhetoric on territorial nationalism and lay the groundwork for a quiet dialogue where both sides need to display sensitivity as they explore the terms of a reset of the “special relationship”. A normal relationship where India can be a generous partner will be a better foundation for “neighbourhood first” in the 21st century.

Why Are India And Nepal Fighting Over Kalapani?

→ Why Is Lipulekh Pass Important?

The region juts into the Himalayas and is connected to the other side of the mountain range through the Lipulekh pass, which has been used for centuries by **Hindu and Buddhist pilgrims and tourists on their way to Kailash Mansarovar.** The nearby markets have been used by various mountain communities. **The Himalayas have several passes that connect the Gangetic region with the Tibetan plateau but Lipulekh is strategically located as it is nearest to the heart of the Indian state or the National Capital Region and can be of particular concern in case of an armed conflict with China.**

Where Have Nepal And India Erred?

India and China were in clear violation of Nepal’s concerns during the 2015 Lipulekh agreement between India and China which renewed India’s Mansarovar pilgrimage connection. Neither side consulted Nepal or sought its opinion before that agreement that boosted pilgrimage and trade to Tibet. Nepal’s then Prime Minister, the late Sushil Koirala, reportedly cancelled a visit



to Delhi following this agreement. Diplomats also maintain that India should have resolved the issue with Nepal when the late Prime Minister Girija Prasad Koirala raised it with India during the 2006 India visit when Prime Minister Manmohan Singh received him at the airport in Delhi. Indian officials suggested that it could be resolved later. Analysts now say South Block should have acted promptly on Koirala's suggestion. Though Nepal has been steadfast in citing the Sugauli treaty as the foundation of its territorial claims, on occasion, some of the new generation leaders have spoken against the treaty. According to Uddhab Pyakurel of Kathmandu University, Prime Minister Pushpa Kamal Dahal "Prachanda" for example had indicated frustration with the Treaty of Sugauli after his Prime Ministerial stint in 2009 saying that the treaty had become irrelevant and championed the cause of a Greater Nepal going into the region west of the Kali. This shows that the Nepali claim based on the Sugauli treaty is not consistent either.

What Is the Current Position?

Nepal has published a revised official map incorporating the territory from the Limpiyadhura source of the Kali to Kalapani and Lipulekh pass in the northeast of the triangular region as its territory. On May 22, the Cabinet led by Prime Minister K.P. Sharma Oli registered a constitution amendment motion to grant constitutional status to the map. Indian observers say this move makes any future solution on the Kalapani issue nearly impossible as a constitutional guarantee will make Kathmandu's position inflexible.

Nation

Failing to Perform as A Constitutional Court (Ajit Prakash Shah - Former Chief Justice, Delhi And Madras High Courts and Former Chairperson, Law Commission of India)

→ As India, along with the rest of the world, grapples with the public health crisis caused by COVID-19, it faces many unique challenges. The most acute problem is faced by migrant labourers: they have no work, no source of income, no access to basic necessities, no quality testing facilities, no protective gear, and no means to reach home. Every day, we hear of migrant labourers walking hundreds of miles, many dying in the process. The saddest is the apathy shown by the institutions meant to look out for their interests. I refer here to the Supreme Court, which has failed to satisfactorily acknowledge that the fundamental rights of migrant labourers have been violated, and ignored these workers when they most needed protection. Undeniably, the state must ensure that adverse consequences of this pandemic are minimised. But any duty performed by the arms of the state, even during emergency, must always be bounded by constitutional propriety, and respect fundamental rights. The judiciary becomes the all-important watchdog in this situation.

No Relief for Workers

In this lockdown, enough and more evidence points to fundamental rights of citizens having been grossly violated, and especially those of vulnerable populations like migrant labourers. But instead of taking on petitions questioning the situation, the Supreme Court has remained ensconced in its ivory tower, refusing to admit these petitions or adjourning them. By effectively not granting any relief, the Court is denying citizens of the most fundamental right of access to justice, ensured under the Constitution. In doing so, it has let down millions of



migrant workers, and failed to adequately perform as a constitutional court. In one of the strictest lockdowns in modern India, the Centre issued many directives, but designated the States as the implementing authorities. But the issue of migrant labourers is inherently an inter-State issue, and States have had to tackle it both internally as well as inter-se. Who will guarantee safe transport for the return of migrant workers? When in quarantine, who will grant them a sustenance allowance, or look after their health issues, or look after needs besides food? Who will ensure job loss compensation? Who will conduct regular and frequent testing? Only the Supreme Court can enforce accountability of the Centre in these matters. In rejecting or adjourning these petitions, the Court has made several questionable remarks: the condition of migrant labourers is a matter of policy and thus, does not behove judicial interference; or, governments already provide labourers with two square meals a day, so what more can they possibly need (surely, 'not wages'); or, incidents like the horrific accident where migrant labourers sleeping on railway tracks were killed cannot be avoided because 'how can such things be stopped'. Equally, lawyers have been castigated for approaching the Court 'merely' on the basis of reports. But the Court has rarely insisted on such formality: its epistolary jurisdiction (where petitions were entertained via mere letters) is the stuff of legend, so its reaction here, during an emergency, seems anomalous. Many of the so-called excuses of the Court have been tackled by previous judgments, notably the question of policy and non-judicial interference. There are numerous judgments where it has laid out matters of policy: for instance, the Vishaka guidelines on sexual harassment in the workplace; the right to food; and various environmental protection policies. In these cases, the Court formulated policies and asked the States to implement them. Today, there is an unfortunate presumption discernible in the Court's response that the government is the best judge of the situation. In believing thus, the Court seems to have forgotten that the Constitution does not fall silent in times of crises. Similarly, nothing prevents the Court from monitoring the situation itself directly, especially regarding the state's obligations: it could easily direct bureaucrats to collect empirical data on the ground, as it has done before. One is struck immediately by the lack of compassion or judicial sensitivity in handling this situation, and it prompts two observations. First, the Court is not merely rejecting or adjourning these petitions; it is actively dissuading petitioners from approaching the courts for redress because the Court determines that it is the executive's responsibility. Ordinarily, the Court would have at least nudged petitioners towards the High Courts, but here, even that choice is not available – the Court is practically slamming the door shut. Second, there is the matter of how the Court is treating such public interest litigations. PILs are a specific instrument designed to ensure the protection of the rights of the poor, downtrodden and vulnerable, and "any member of the public" can seek appropriate directions on their behalf. This lies at the heart of the PIL. The concept of a PIL is to be non-adversarial, but the Court is treating these as adversarial matters against the government. PILs, in fact, ought to be a collaborative effort between the court and all the parties, where everyone comes together in seeking a resolution to the problem. Today, we find ourselves with a Supreme Court that has time for a billion-dollar cricket administration, or the grievances of a high-profile journalist, while studiously ignoring the real plight of millions of migrants, who do not have either the money or the profile to compete for precious judicial time with other litigants.

Role of High Courts

At this stage, I must acknowledge the stellar role being played by some High Courts, even though governments have tried to discourage them on grounds that since the Supreme Court is not interfering, High Courts need not do so either. At least four High Courts (Karnataka, Madras, Andhra Pradesh and Gujarat) have started asking questions about migrant rights. This is almost a replay of what happened during Emergency, where High Courts boldly stood up and recognised violations, but were overruled eventually by the Supreme Court. The Madras High Court, for example, has quashed criminal defamation cases against media houses,



stating that democracy cannot be throttled this way. Contrast this with the Supreme Court's reaction to the bizarre claim of the Solicitor-General who argued that the exodus of workers was due to fake news: The Court seemed to have accepted this, and media houses were advised to report more responsibly. In such times, High Courts come across as islands of rationality, courage and compassion. However, in truth, the subject matter of migration is inherently an inter-State issue, not an intra-State one. This is a time when the apex court must intervene and monitor the calamitous situation, instead of taking the government's word as gospel. Justice Brandeis' words quoted by Justice H.R. Khanna in ADM Jabalpur ring especially true in these times: "Experience should teach us to be most on our guard to protect liberty when the Government's purposes are beneficent ... [the] greatest danger to liberty lies in insidious encroachment by men of zeal, well-meaning but lacking in due deference for the rule of law."

Ensure Transport, Food for Migrants, SC Tells Centre, States

- A three-judge Bench of the Supreme Court said there have been "inadequacies and certain lapses" on the part of the Central and State governments in dealing with the migrant workers' crisis during the COVID-19 lockdown. The court ordered the Centre and the States to immediately provide transport, food and shelter free of cost to the stranded migrant workers. The **Suo motu cognisance** of media reports and representations from senior lawyers to step in to protect the fundamental rights of the migrant workers were taken by the judges in their chambers. The court admitted that the "crisis is even continuing today with large sections of migrant labourers still stranded on roads, highways, railway stations and State borders". Effective concentrated efforts were required to redeem the situation, it noted. It referred to newspaper and media reports on helpless migrants forced to travel thousands of miles on foot or bicycles during the lockdown. It issued formal notice to the Centre, the States and the Union Territories and asked them to file their responses by May 28. It said the case was urgent.

A Time for Reform in Courts (V.V. Sivakumar And Chitranshul Sinha Are Partners at Dua Associates, Advocates and Solicitors)

- The pandemic has turned the world on its head. No aspect of life has escaped unscathed. This includes the functioning of courts and tribunals. The judiciary has limited its work to hearing urgent matters via video conferencing. A lot has been written about how this is an opportunity to improve IT infrastructure of courts so that they can move to video conference hearings as the norm. However, any such move without first revamping procedural law would be futile.

Changing the System

In **subordinate civil courts and High Courts, a significant time of daily proceedings is taken up by cases where only adjournments are sought for procedural matters like filing of replies.** Both as a response to this crisis, as well as in the medium term, this system can be done away with. A system needs to be devised where cases are not listed before the court unless all the documents are filed within strict timelines and every procedural requirement complied with. The existing infrastructure is enough to enable this. Listing can be done before the court only in cases requiring urgent interim intervention from the court, while the matter is pending procedural completion, after verification of urgency by a judicial officer or a judge upon oral or written application. When courts reopen, apart from fresh cases, only a limited number of cases (say, 20-30 a day) which are ripe for arguments can be posted. This can be done with sufficient notice to the Bar Associations that requests for adjournments will be looked at askance. This will ensure that court rooms are not crowded. Circulation of the cases to be



listed in advance (say, two weeks before listing) will give advocates enough time to take instructions from clients and prepare for arguments.

The Supreme Court Rules, 2013 should amend provisions pertaining to Special Leave Petitions (SLPs). **Article 136 of the Constitution enables people to file a petition seeking leave to appeal a decision of any judicial or quasi-judicial authority. The Supreme Court grants leave to appeal if the petition raises a question of law of general public importance, or if the judgment appealed against is especially perverse, which would require interference from the Court.** The provision has been abused over the years to only clog the docket of the Supreme Court. **The Supreme Court was never intended to be a court of appeal, barring such appeals which specific statutes provide for. The High Courts are usually meant to be the final courts of appeal. Instead, SLPs are now being treated as the last round of appeal. Reports show that SLPs comprise about 60-70% of the Supreme Court's docket. Out of this, 80-90% of SLPs are dismissed, which means only 10-20% of such cases raise important questions of law. This takes up a lot of time of the Court.** A simple solution would be to do away with immediate oral hearing of SLPs. The Supreme Court Rules could be amended to provide for a structure of pre-hearing of SLPs. Every SLP must be accompanied by an application for oral hearing which must be decided first by the Court, and that too in chambers. To assist the Court for that, a cadre of judicial research assistants made up of qualified lawyers should be created. **The research assistants can go through each SLP and cull out the important questions of law as envisioned in Article 136.** Thereafter, the Court may or may not allow applications for oral hearings based on whether such questions of law merit its attention. Only such SLPs in which oral hearing is permitted should be listed for hearing. SLPs in which no questions of law are raised, or frivolous ones are raised, should be dismissed without oral hearing and upon imposition of costs. This will ensure that only meritorious SLPs get judicial attention and will deter people from filing frivolous SLPs. **It will also reduce pendency exponentially as the system will free up the Court's time to hear statutory appeals and matters pertaining to interpretation of the Constitution or constitutional validity of laws or executive actions.**

No Filing Reply to Appeals

Even in cases of statutory appeals, and appeals where leave is granted in SLPs, the Court should do away with the system of filing reply to the appeals and rejoinders to such replies. Every case can be decided based on records of the subordinate courts. As no new arguments on facts can be raised before the Court in appeals, the system of filing additional pleadings should be rendered redundant as the pleadings are simple regurgitation of the records of the subordinate courts. **Most such appeals can be dwelled upon by judges and their research assistants in chamber, and only such appeals should be granted detailed hearings where the judges require clarifications. The above mechanisms will ensure that the Supreme Court moves away from an oral hearing-based system to a written submission-based one.**

Batting for Free Speech

- A feature of public life in Tamil Nadu in the last three decades has been the indiscriminate institution of criminal defamation proceedings against Opposition leaders and the media. It is no surprise, then, that the most comprehensive judgment on the limits of the State's power to prosecute members of the press for defamation should come from the Madras High Court. **The verdict of Justice Abdul Quddhose, quashing a series of defamation complaints filed since 2011-12, is remarkable for applying a set of principles that would firmly deter the hasty and ill-advised resort to State-funded prosecution on behalf of public servants.** The first principle is that the **State should not impulsively invoke provisions in the CrPC to get its public prosecutor to file defamation complaints in response to every report that contains criticism.** The court deems such impulsive actions as amounting to throttling democracy. It advises the



government to have a higher threshold for invoking defamation provisions. It notes that each time a public servant feels defamed by a press report, it does not automatically give rise to a cause for asking the public prosecutor to initiate proceedings on her behalf. The statutory distinction between defaming a public servant as a person and as the State itself being defamed has to be maintained.

Justice Quddose goes on to fault the government for according sanction to the initiation of cases through the prosecutors without explaining how the State has been defamed. He cautions prosecutors against acting like a post office, noting that their role is to scrutinise the material independently to see if the offence has been made out, and if so, whether it relates to a public servant's conduct in the course of discharging official functions or not before filing a complaint. So, the court finds that **many were cases in which public servants ought to have filed individual cases**. An earlier Madras High Court ruling noted that an **essential ingredient of criminal defamation must be that an imputation was actuated by malice, or with reckless disregard for the truth**. A recent judgment by Justice G.R. Swaminathan enunciated what is known in the United States as the 'Sullivan' rule of 'actual malice'. While quashing a private complaint against a journalist and a newspaper, the judge said two of the exceptions to defamation given in Section 499 pertained to 'public conduct of public servants' and 'conduct of any person on any public question'. This implied that the legislature itself believed that **unless it is demonstrated that reporting on a public servant's conduct or on a public question was vitiated by malice, the question of defamation does not arise and that even inaccuracies in reporting need not occasion a prosecution for defamation**. Within a matter of days, the HC has struck two blows for free speech and press freedom.

Continue India's Tryst with Nehruvian Ideology (A. Raja, A Member of Parliament, Is A Former Union Minister)

- Fifty-six years after Jawaharlal Nehru left the world stage – his anniversary is today, May 27 – demagogic attempts are still being made to dub Nehruvian ideology as myopic. In the discussion on the dilution of Article 370 of the Indian Constitution in both Houses of Parliament, Nehru was not only criticised by the ruling party, but even lampooned. The debate began with the opinion that Nehru had mishandled the Kashmir issue, and that had it been entrusted to Sardar Patel, as in the case of the other princely States, the end result would have been impeccable. Pertinently, one needs to understand the historical context and the point in time of Kashmir's integration with India.

A Dedication to Integration

Mehr Chand Mahajan who served as the Prime Minister of Jammu and Kashmir in 1947-48, and later as Chief Justice of India, has recorded in his autobiography the entente between Nehru and Patel in the matter of Kashmir's integration with India. On October 24, 1947, Mahajan received a late-night call from Deputy Prime Minister Sardar Patel asking him to come over to Delhi from Amritsar, in the same plane in which Lady Mountbatten was to go to Srinagar to meet the recently-freed Sheikh Abdullah with a message from Prime Minister Jawaharlal Nehru. It is also important to note that Nehru was in the U.S. at this time and Patel was at the helm in India. **Yet, the correspondence between Nehru and Patel during this period clearly captures a sense of camaraderie and sincere dedication to the goal of Kashmir's integration with India. Even the letter drafted by Nehru addressed to Sheikh Abdullah was sent to Patel for his perusal through N. Gopaldaswami Ayyangar**. This then led to the initiation of administrative proceedings in the Constitutional Assembly. Even minor changes in the draft Article 370 were being apprised (with relevant clarifications) to Nehru by Patel, as seen in his letter dated November 3, 1949. Article 370 was deemed temporary by both Nehru and Patel, but given



Kashmir's geography and its implications for India's national security, that Constitutional provision was an urgent necessity. In its absence, Kashmir would have virtually atrophied.

Approaches of Nehru, Patel

Nehru's sincere commitment to secularism, evinced in his espousal of the principles of religious equality, is being criticised either as "pseudo-secularism" that is biased in favour of the minorities or as an impractical exercise in futility given how the majority's religion is compared to the minorities. The criticism is touted as if Patel and Nehru had divergent opinions on the meaning of secularism even though there is no such evidence. Granville Austin's observation is relevant here: "Nehru and Patel were the focus of power in the Constituent Assembly, when they were divided on an issue, as in the case of property clause, factions could line up behind them and the debate would be lengthy. But when they settled their differences, the factions among the rank and file would do little else but shake hands and make the decision unanimous." Patel's view on secularism is moderate and as chairman of the advisory committee on fundamental rights, he had to review the report of the sub-committee on minorities in the Constituent Assembly. His tenor there was very much that India should follow the principle of secularism. Nevertheless, Patel is often identified as a Hindu traditionalist. It is a historical fact that Hindu traditionalist leaders like Madan Mohan Malviya and Lala Lajpat Rai favoured the idea of an Indian nation built around the majority (Hindu) community to which Nehru was strongly opposed. **When K.M. Munshi (then a Union Minister) tabled in Parliament the matter of reconstruction of Gujarat's Somnath Temple which had been damaged by the army of Mahmud of Ghazni in the 11th century, Deputy Prime Minister Sardar Patel announced in November 1947, that the government would provide funds for rebuilding the temple. However, at the insistence of Nehru, Gandhiji suggested that the project should be financed by public subscription.** Nehru was strongly committed to keeping the government distanced from religion – an attitude that defined the character of new-born India. **Nehru used every available opportunity to not only propound the benefits of a 'socialistic democracy' as opposed to the 'Hindu Nation' prescribed by the Hindu Mahasabha, but also to reassure India's Muslim minority of their future in India.** On the other hand, on June 6, 1948, Sardar Patel urged the Hindu Mahasabha to amalgamate with the Congress. He made similar pleas to the RSS. In Sankar's Sardar Patel: Select Correspondence (1945-50), we find that **in May 1948, after Gandhi's assassination, Nehru was anxious about the 'recrudescence of the RSS'. Consequently, the RSS was banned. Golwalkar pleaded first with Nehru and then with Sardar Patel to lift the ban on RSS. At which point, Patel demanded that Golwalkar should put together a written constitution for the RSS. In the end of January 1949, the RSS's official constitution came into being. However, Sardar Patel's expectations were not met in this constitution and it became an exercise in futility. Golwalkar intended to launch an agitation from his place of detention. Finally, in June 1949, Patel agreed to accept an amended constitution and the ban on the RSS was lifted on July 11. Patel's favourable inclination towards the RSS reached its peak when a resolution was passed in the Congress Working Committee (CWC) on October 10, 1949, authorising Swayamsevaks to become members of the party – all during the absence of Nehru who was then travelling abroad. The internal democracy within the Congress was also put to the test in 1950, when Purushottam Das Tandon was elected as party president by defeating Kripalani, with the support of Patel in recognition of his Hindu nationalist loyalties. Tandon emphasised two points at the Nashik Congress session: one was Hindu nationalism and the other was adoption of Hindi as an official language.** Nehru as Prime Minister threw his weight against this emergent tense and prickly situation. He said, "... If you want me as Prime Minister, you have to follow my lead unequivocally. If you don't want to me to remain, you tell me so and I shall go. I will not hesitate. I will go out and fight independently for the ideas of the Congress as I have done all these years."



Need for Science and Logic

The approaches of Nehru and Patel in dealing with Hindu nationalist ideology may be divergent but they are clearly two sides of the same coin – that coin being secularism. History recounts that Patel's approach was based on his faith and trust, not on logical inferences. Nehru felt that India needed to favour science and logic instead of orthodox religiosity. He believed that 'education is meant to free the shackles of the human mind and not to imprison it in pre-set ideas and beliefs. His motto, namely cultivating scientific temper and nurturing the spirit of tolerance are the foundations of his concept of secularism. Consider Nehru's commitment to the adoption of the Hindu Code Bill introduced by the then Law Minister B.R. Ambedkar. According to Ambedkar, "The Hindu Code Bill was the greatest social reform measure ever undertaken by the legislature in the country..." The Bill was vehemently resisted by every Hindu nationalist in the Congress. President Rajendra Prasad even expressed apprehension that it may cause disruption in every Hindu family. Nehru's inability to pass the Bill initially, forced Ambedkar to resign from the cabinet. However, Nehru's continuous struggle to get the Bill passed (even if with some amendments) is credible testimony to his commitment to uphold secularism. Nehru had dreamt for a modern India to have an exalted position on the world stage, rising above sectarian politics and divisive forces. In January 1948 he said, "As far as India is concerned, I can speak with some certainty. We shall proceed on secular lines... in keeping with the powerful trends towards internationalism." An effective democracy and the nurturing of unity and solidarity are the need of the day for our nation. Nehruvian ideology continues to remain essential even today to fight against the dark forces of communalism and to kindle the light of social harmony.

Domicile Rules For J&K

- On March 31, the Ministry of Home Affairs (MHA) issued the Jammu and Kashmir Reorganisation (Adaptation of State Laws) Order, 2020 by publishing a gazette notification. Through the order, the MHA amended 109 laws and repealed 29 laws of the erstwhile State of Jammu and Kashmir. The MHA amended a 2010 legislation, the Jammu and Kashmir Civil Services (Decentralisation and Recruitment Act), by substituting the term "permanent residents" with "domiciles of UT [Union Territory] of J&K."

What Did The 2010 Act Say?

The 2010 Act pertained to employment in the Civil Services comprising "district, divisional and State" cadre posts. Earlier, only permanent residents of J&K were eligible to apply for gazetted and non-gazetted posts. The domicile rules as defined under the amended order will determine recruitment to all government posts in J&K from now on. On May 20, the Union Cabinet chaired by Prime Minister Narendra Modi gave ex-post facto approval to the order. On August 5, 2019, Parliament had diluted Article 370 of the Constitution, revoked the special status of J&K and had bifurcated the State into two Union Territories – of J&K and Ladakh, the latter without a Legislative Assembly. The two revoked provisions of the Constitution let the J&K Legislature decide the "permanent residents", prohibiting a non-J&K resident from buying property there and ensuring job reservation for its residents.

What Are the Main Features of The New Policy?

The March 31 order offered protection to domiciles only in Group D and entry-level non-gazetted government posts. After an uproar by the J&K unit of the Bharatiya Janata Party (BJP) which raised concerns that protecting only lower level jobs for domiciles was an insult to the residents, the MHA reversed the order within 72 hours. The newly formed Apni Party also opposed it. On April 3, a fresh order with six changes was issued saying the policy will



apply to “any post” in the government. The order defines domiciles as anyone “who has resided for a period of 15 years in the UT of J&K or has studied for a period of seven years and appeared in Class 10th/12th examination in an educational institution located in the UT of J&K or who is registered as a migrant by the Relief and Rehabilitation Commissioner (Migrants)”. It said that children of central government officials including the all India services, public sector units, autonomous body of Centre, Public Sector Banks, officials of statutory bodies, central universities and recognised research institutes of the Centre who have served in J&K for a “total period of 10 years” will be domiciles. The domicile status also applies to “children of such residents of J&K who reside outside J&K in connection with their employment or business or other professional or vocational reasons but their parents should fulfil any of the conditions provided”. It will allow West Pakistan refugees and children of women who married non-locals to apply for jobs in J&K. The power to issue domicile certificates has been vested in the tehsildar (revenue officer). According to MHA’s reply to a parliamentary panel on February 18, there are over 84,000 vacancies in J&K of which 22,078 vacancies pertain to Class IV employees, 54,375 to non-gazetted, and 7,552 vacancies are at the gazetted level.

What Are the Rules for Grant of Domicile Certificate?

On May 18, the J&K administration notified the J&K grant of domicile certificate procedure rules, 2020 to issue the certificates within 15 days, saying the officer not able to do so will be penalised ₹50,000 of his or her salary. Residents of J&K who live outside the erstwhile State can get domicile certificates by simply producing their Permanent Residence Certificate (PRC), ration card copy, voter card or any other valid document. Those migrants not registered with the Relief and Rehabilitation department can do so by providing documents such as electoral rolls of 1988, proof of registration as a migrant in any State in the country or any other valid document. There is a provision to get the certificate online too.

Why Is the Policy Being Opposed?

The two main political parties, the National Conference (NC) and the People’s Democratic Party (PDP), have opposed the order saying “it was aimed at changing the demography” of J&K. The NC said in a statement that the amended domicile law was made in exercise of power under the J&K Reorganization Act 2019 that has been challenged in a number of petitions before the Supreme Court of India. The PDP said that it will resist the policy by democratic and peaceful means. It said the COVID-19 pandemic was not a deterrent for the Centre to continue with its project to disempower J&K and that the demographic change and disenfranchisement will further complicate the J&K issue.

What Can Go Wrong with Styrene?

→ On May 7, a leak of styrene gas in Visakhapatnam left 11 dead and affected thousands.

Based on What We Know, What Could Have Happened in Vizag On May 7?

It is actually a colourless liquid, and not a gas. Styrene exists as a single molecule, but is unstable and has a high propensity for auto-polymerisation, meaning it tries to combine with itself to make long chains, especially at temperatures over 65°C. This process is exothermic, that is, a lot of heat is released during auto-polymerisation, and can become uncontrollable. For these reasons, styrene is always stored at relatively low temperatures (between 15°C and 20°C). This is to avoid inadvertent polymerisation and the resultant generation of heat. A small amount of another chemical – called an inhibitor – such as **para-tertiary-butyl-catechol** is also added to stored styrene in order to prevent polymerisation. Despite these precautions, in geographies or seasons that have significant temperature differences between night and day,



small amounts of styrene vaporise when the temperature is high, and then condenses on tank roofs, walls, or fittings, when it cools down. The inhibitor exists only in the liquid phase, and thus styrene vapours don't have the inhibitor mixed in them. So, in condensed styrene stuck on walls, roof or fittings, there is nothing to prevent auto-polymerisation. This often leads to a plugging of pressure relief valves in the tank or in the pipelines. Now based on all this information, here is what I think could have happened in Vizag: Due to the long shutdown, it is possible that slow polymerisation of styrene in the tank had begun, especially where it might have been in condensed state. This probably went unnoticed. In addition, there have been reports that some valves had failed to function at the time of start-up, probably because of choking, and it is quite possible that the process adopted for declogging these valves might have resulted in them giving way, and the liquid styrene leaking out. As the liquid streamed out of the small orifice, it would have led to a sudden turbulence and mixing in the tank, which in turn could have led to violent polymerisation. This probably resulted in an increase in temperature inside the tank, facilitating the vaporisation of styrene, and these vapours escaping. And because the refrigeration system had also malfunctioned, there was nothing to control the rise of temperature inside the tank. An alternative hypothesis is that styrene condensate formed on the roof and walls of the tank might have fallen into the liquid, and could have become the reason for initiation of polymerisation. Now, the fact that long storage, lack of refrigeration, or depleting inhibitor content leads to slow polymerisation is not unknown. It happens occasionally, and is detected during routine monitoring of the storage tank. If timely intervention is not made, it could lead to a runaway explosive condition. I do not think that kind of explosive condition existed in the Vizag tanks at the time of the accident. Otherwise, the result could have been far more catastrophic, as the tank itself could have ruptured.

The Accident Revived Memories of Bhopal. As Someone Who Handled the Aftermath of The Bhopal Leak, Do You See Parallels?

I think it is unfair to compare this accident with the leak of methyl isocyanate (MIC) in Bhopal. MIC is far more poisonous and toxic. The concentration of MIC that is classified as immediately dangerous to life and health (IDLH) is just 2-5 parts per million, whereas for styrene, this is 700 ppm. MIC's biological response in human beings is similar to that of hydrogen cyanide. It blocks the functions of haemoglobin in the blood.

Does This Suggest an Element of Negligence in The Vizag Accident?

A standard practice is to analyse the contents of the storage tanks daily for oxygen, inhibitor and polymer concentrations. The temperature inside the tank also needs to be monitored regularly, and kept as low as possible, with continuous refrigeration. These checks are even more important during long plant shutdowns. Inadvertent polymerisation of styrene gives us enough notice and warnings, as temperature rises very slowly. Even in the absence of an inhibitor, it takes about 25 days for the temperature in the tank to increase from 20°C to 30°C. So periodic monitoring is all that is required to ensure safety. Industry has been handling styrene for decades now. There is no documented record of a major styrene-related accident anywhere in the world. Some minor accidents involving rail car containers and road tankers have been reported. One of the biggest incidents reported was an explosion in a shipping tanker in a South Korean port last year. This is true of the industry in India as well. India imports close to 1.5mn tonnes of styrene annually and processes it into several products we use daily.

What Does Styrene Do to The Body?

Styrene has low oral toxicity and moderate inhalation toxicity. Styrene vapours are an irritant to eyes, gastro-intestinal tract, mucous membranes, and respiratory tract. But long-term health



effects of styrene are very small. There is no evidence that it induces any kind of cancer. Most of the symptoms of exposure to styrene are reversible.

What Does the Vizag Accident Say About Industrial Safety Standards in India?

In recent years the record of process safety in the chemical industry has significantly improved, thanks to technology, automation and IT. India has some unique problems that we need to address quickly. A lot of our chemical manufacturing is in the small and medium sectors, whose ability to invest in industrial and environmental safety as well as occupational health is limited. Several of our manufacturing plants are ageing and reluctant to invest in capital either to revamp or scrap/rebuild, and that is a matter of concern. Urban populations have encroached on spaces that were originally demarcated for industry, including the buffer (and green) zones that all chemical industry was mandated to follow. There is also an increasing tendency to skip long-term training and skill development by resorting to casual labour in the operational area. The chemical industry will face severe shortage of skilled operating personnel in the years to come.

Hydroxychloroquine Use in Worst-Hit Maharashtra

- In Maharashtra, hydroxychloroquine remains the preventive of choice for healthcare workers exposed to the novel coronavirus. At least 80-90% of health workers involved in the treatment of Covid-19 patients have been given HCQ tablets as a preventive, state Health Minister Rajesh Tope told The Indian Express. "These are dynamic numbers, but definitely HCQ has been taken by thousands of our frontline staff. We do not deviate from the ICMR protocol. Not just our frontline staff but police officers, doctors and even those who are exposed while conducting surveillance duties at the containment zone have taken the HCQ drug," Tope said. On Friday, a revised central advisory recommended the use of hydroxychloroquine as a preventive medication for a wider range of persons in high-risk zones. In Maharashtra, only in cases of contraindications – that is if the person has a heart ailment or even high blood pressure – does the doctor provide his/her recommendation. An ECG is also done on healthcare workers before administering the drug, Tope said. HCQ is primarily prescribed for rheumatoid arthritis and lupus patients. Common side effects are usually mild to moderate and related to the stomach. "Patients of arthritis who are being effectively managed with HCQ need not be alarmed by what is being reported from HCQ experience with Covid-19," rheumatologist Dr Arvind Chopra said. The latest ICMR advisory, while favouring the use of HCQ as a preventive in high-risk populations, has "noted the occurrence of side effects and since this has important implications in clinical practice, they should publish the data in sufficient detail in a peer-reviewed medical journal on priority," Dr Chopra said. Private hospitals have devised their internal protocol and identified those who are vulnerable. Dr Sunil Rao, Group Director of Sahyadri Hospital, said more than 2,000 of their frontline workers have taken HCQ. "If they have side effects like tingling sensation in the ear or any other symptom it is immediately stopped," he said. Employees at pharmacies and billing counters too are taking the drug.

Maharashtra Governor's Latest Standoff with Uddhav Thackeray Govt

- The relationship between the Uddhav Thackeray-led Mahavikas Aghadi and Raj Bhavan has been tense for a while but Governor Bhagat Singh Koshyari's proposal, that Raj Bhavan be made an independent establishment on the lines of the judiciary, has escalated matters further. Here's what the latest stand-off between the two sides is all about.



What Does the Maharashtra Governor Want?

On the lines of the Indian judiciary and the legislature, the Maharashtra Governor wants the administration of the Raj Bhavan to be under his control. In a letter addressed to Chief Minister Uddhav Thackeray, Governor Koshiyari has **basically proposed that Raj Bhavan be deemed to be an independent establishment with his office enjoying sole powers to decide on all matters related to appointments, transfers and other service-related matters of the staff deployed at the Raj Bhavan. At present, an independent desk of the Chief Minister-led General Administration Department (GAD) oversees all these matters.** But Koshiyari wants these powers to be shifted to Raj Bhavan itself. Almost immediately after Koshiyari had assumed office last September, the previous BJP-led regime in the state had enhanced the Governor's discretionary fund from ₹15 lakh to ₹5 crore.

What Is the Current Established Procedure?

Senior state bureaucrats have pointed out that even today, the state administration does not really thrust particular officers to the Raj Bhavan. Just like in other states, the Maharashtra Governor, as the figurative head of the state, has powers to choose his team of officers and staff. **The established procedure is that when there is a staff requirement for the governor's office, he is sent a list of eligible candidates from which he can choose. Normally, the Governor's preference of the choice of candidates is honoured.** At present, the three Raj Bhavan premises in Maharashtra – one each in Mumbai, Pune and Nagpur – have a staff of just over 200 people. Barring one or two exceptions, almost all of them are on deputation from various cadres of the state administration. In many ways, the staff at Raj Bhavan are meant to serve as a bridge between the state administration and the Governor's office.

How Has the Thackeray Government Responded to The Governor's Proposal?

The contentious proposal is the latest in a series of misgivings between the Raj Bhavan and the Maharashtra Vikas Aghadi, with sources confirming that the Thackeray-led coalition is in no mood to give in. So far, Thackeray's department has not responded to the proposal at all. It holds a view that the proposal is not in keeping with established recruitment rules. The government's side was also quick to point out that even the Rashtrapati Bhavan is not an independent establishment. While the Governor first wrote to Thackeray over the demand in March, the state administration has been sitting on the proposal. **Senior bureaucrats also argue that while the judiciary and the legislative wing are independent arms in three-tier governance set up, the Raj Bhavan, essentially, is an extension of the government.** Many of them hold the view that linking the current demand to the autonomy enjoyed by the judiciary and the legislature regarding appointments and transfers will not be appropriate. Senior political leaders and also some of the past Governors from Maharashtra seems to agree with this point of view.

What May Have Triggered the Proposal?

There are two aspects. One being the Governor's office is keen to hire specific officers from cadres of other states and other governments. According to sources, the GAD and the Governor's office previously had some disagreements over the fixing of the pay scale and seniority of an officer on special duty who has been on deputation from the Centre. While this was resolved, another proposal demanding accommodation of some other officers from cadres from other states had caused a standoff, which may have eventually led to the Governor demanding that Raj Bhavan's established be delinked from the GAD. On the other hand, Raj Bhavan has maintained that the Governor's proposal has more to do with the administrative delays experienced while dealing with routine service and promotion matters of the Raj Bhavan staff. "Even for a routine pay scale matter, the file has to travel to the GAD, which often



takes a while to be cleared," a source said. But senior bureaucrats argue that such delays can be resolved through dialogue.

What Are the Implications?

For the time being, it has only escalated the standoff between the Raj Bhavan and the ruling coalition in Maharashtra. According to officials, a bigger implication will be seen in the unlikely event of the state government accepting the Governor's proposal. Would this then lead to similar demands being raised from other Raj Bhavans across the country? Would it force a change in the administration of the Rashtrapati Bhavan? The BJP in the Opposition is yet to react to Koshiyari's demand but a question of what will happen in the event of some Governor raising the same issue in a BJP-ruled state is now being asked in the corridors of power.

Karnataka Govt. Takes Efforts to Solve Mystery Over Birthplace of Purandara Dasa

- To explore definitive archaeological evidences that may put an end to speculations regarding the birthplace of **Purandara Dasa, hailed as father figure of Carnatic music**, the Department of Archaeology, Heritage and Museums will soon commence field research work at Keshavapura in Araga Grama Panchayat of Tirthahalli taluk in Karnataka. As **'Purandara Vithala' was the pen name of his compositions, it was widely believed that the mystic poet was born in Purandharagad, Maharashtra. However, many in Malnad claimed that he hailed from this region.** According to historians, Araga in Malnad was a buzzing commercial centre during the Vijayanagar rule, the period to which the poet belonged to. Referring to the names of the places in the vicinity of Keshavapura – Varthepura, Vithalanagundi, Dasanagadde, it was argued that these places were inhabited by merchant community influenced by the Vaishnava tradition to which Purandara Dasa belonged. The late Patamakki Rathnakar, former MLA of Tirthahalli, who had requested the Karnataka government to conduct research over the issue, had said that many words that figured in Purandara Dasa's compositions were used by people in Malnad then in their day-to-day life. **Prior to his initiation to Haridasa tradition, Purandara Dasa was a rich merchant and was called as Srinivasa Nayaka. Referring to this, the proponents of the theory that Puranadara Dasa was born in Malnad point out that 'Nayaka' title was attributed to locally influential people, including wealthy merchants in Malnad during the Vijayanagar rule.** To solve the mystery regarding the birthplace, the State government had directed Kannada University, Hampi, to form an expert committee. The committee formed by the university comprised R.K. Padmanabha, music expert; Leeladevi R. Prasad, former Minister of Kannada and Culture; A.V. Navada, Veeranna Rajoora, Aralumallige Parthasarathy and Shivanand Virakthamutt, experts in Kannada Bhakti Sahitya or devotional literature. After visiting Keshavapura and surrounding places, the committee members said there was enough evidence to come to the conclusion that the devotional poet was born here. The committee had recommended that further research be conducted on the issue. Shejeshwara R., Assistant Director, Department of Archaeology, Heritage and Museums, said archaeology experts would visit Araga and surrounding villages for preliminary research soon.

Early Take-Off

- Even after long negotiations with States, and with a truncated schedule, the Centre has found it difficult to relaunch domestic flights. Several were cancelled on the first day services were resumed after being frozen on March 25. **Some Chief Ministers, notably Uddhav Thackeray in Maharashtra and Edappadi Palaniswami in Tamil Nadu expressed apprehension about a premature resumption of civil aviation, as the spread of COVID-19 is unrelenting, and quarantine monitoring has its limits.** The experience of flight cancellations, passenger

[Shatabdi Tower, Sakchi, Jamshedpur](#)



frustration and low capacity among States to track thousands of passengers should prompt a rethink on scheduled flights. Access to emergency air travel in a large country is a legitimate expectation, and a targeted programme run efficiently can meet that need, without induced demand produced by commercial flights. **Going back to the drawing board to draft a plan for emergency travel, using documentation and aggregation of such passengers may be the short-term option.** The risks associated with domestic aviation have multiplied due to **early missteps in several States: mass gatherings, political events and consumer crowding for panic buying have resulted in major transmission clusters.** The trajectory of fresh COVID-19 cases shows that this was aggravated by the bungled response to the concerns of migrant labour, exposing thousands of workers and their communities to infection. Understandably, States, which have denied the presence of community transmission, want to reduce the pace at which they must monitor newly arriving individuals.

Enabling scheduled travel through national policy, whether by air or rail, could be seen as a reasonable effort only when State governments are fully prepared, and adopt a uniform code of practice. Within the lockdown, the virus crisis has snowballed only in States such as Maharashtra, Tamil Nadu and Gujarat, and in Delhi, but that picture could change with the operation of daily flights, a couple of hundred scheduled trains from June 1 and the large number of promised Shramik Special trains for migrant workers. It is essential, therefore, for States to adopt a coordinated approach on quarantine and testing. **Travel choices, in the present phase, should be designed to discourage optional journeys.** Moreover, passengers on all flights, including relief flights, could have a lower risk if airlines and the government keep the middle seats vacant as decided on March 23 by the DGCA. There is no reason to think that the pandemic has begun to wane. The global aviation map shows that even market economies placing great emphasis on individual freedoms have severely limited travel, making exceptions only for returning citizens. Relaxing travel must be preceded by focused containment measures and an agreed protocol for States.

A Moment for Civilizational Introspection (Harsh Mander - Human Rights Worker, Writer and Teacher)

- The traumatic months of the national lockdown lay bare many troubling truths about the profound estrangement of people of privilege from the working poor. They reveal a society in which the privileged are extraordinarily comfortable with inequality, and wanting in elementary empathy and solidarity. They confirm that the veneer of modernity and the progressive, egalitarian values of the Constitution remain – in the prophetic words of Babasaheb Ambedkar – no deeper than a coat of paint.

For any young person growing up in middle-class homes, the poor are visible at every turn, but only in their instrumentality as people who exist to service our every need. They never know them as classmates, as colleagues or competitors at work, or as friends in a playground or cinema theatre. **When the COVID-19 infection hit us, we saw the working poor suddenly as dangerous potential spreaders.** We wanted them suddenly at bay. We ignored that it was not the poor who endangered us, but we who endangered the poor when they came into contact with us. After all, **it was people who could afford flight tickets who brought the novel coronavirus into India.** We welcomed the strategy of a lockdown – possibly, the **harshest and largest in the world**, with the smallest relief package. We felt safe, locked in our homes. Deprived of domestic help, we were inconvenienced, but adjusted willingly for our own safety. We adjusted also to working from home, secure that our salaries and savings would tide us through. With running water on tap, we washed our hands regularly. We were untroubled because our health insurance would pay for treatment in expensive private hospitals. We grappled with boredom and occasional depression, but it was a time also to rebuild our bonds



with our families. **We were indifferent that the lockdown fell like a meteor on the lives of millions of the working poor.** They had fully functional lives before, mostly without state support. After possibly some years in poorly resourced schools, they travelled far to escape the dead-end poverty and caste oppression of the countryside. The cities were uniformly unwelcoming to them. The state made no arrangements for affordable decent housing or to protect their rights as workers. Instead it was consistently hostile to them, rendering illegal and demolishing their slum shanties or roadside vending. Still, millions of them survived and overcame, working hard to build, clean, maintain and sustain the cities, and raise the lives of their families despite an unjust, uncaring state. **The lockdown by design had nothing to offer them except to destroy overnight the lives they had resiliently built for themselves.** After all, **the safety of physical distancing and handwashing were impossible for them in their grimy, crowded shanties or rough streets.** With their livelihoods bombed out by state policy, in their ruins they were suddenly forced to endure the very hunger they escaped when they had moved to the city. Despite this, we in the middle-classes readily demonstrated our support for the lockdown, cheerily banging utensils or lighting lamps and candles as instructed. It is sobering to be mindful that most men and women trudging or cycling home in dangerous journeys, dying on railway tracks or of hunger and exhaustion on trains without food and water, are between 15 and 30 years old. But for the accident of their birth, they could instead have been in high school or university, studying online, or working from the safety of their homes, fighting boredom with an overdose of Netflix.

A Bias

The brazen class bias of state policies did not trouble us at all. All government servants and most employees in the formal private sector were secure that they would be paid full salaries under the lockdown. The poor had to make do with slim financial handouts not more than two days' wages, an appeal from the Prime Minister to employers to pay wages, and lining up for hours for cooked meals each day. Being thrust into massive deprivation and forced to survive the indignity of occasional charity seemed in the fitness of things for the poor. It seemed also in the fitness of things that while we could quarantine in the comfort of our homes or in hired hotel rooms, the poor were forced into crowded dormitories with clogged bathrooms and inedible food, which they regarded as jails. But nowhere was the cruelty of the ruling classes on display more than in the treatment of migrant workers who wished to return home. **For people stranded overseas, students in hostels, and pilgrims, the state organised special flights and buses. For migrants, there was first a complete sealing of borders and cancellation of trains and buses.** As millions began to trudge or cycle hundreds of kilometres with small children in tow, many dying in accidents or of exhaustion on the way, the government finally announced a small number of trains. Migrants had to pay, until massive outrage forced a reluctant backtrack. But a complicated maze of bureaucratic requirements were thrust in place. One had to apply online, and also get official clearances. Getting a seat was like a lottery and information came online. Workers without smartphones fell back on the very contractors who had let them down to negotiate them through this tangle. Trains were often cancelled, or rerouted, and there was no food and water along the way. People died of dehydration and hunger while travelling. Buses were little better. Private enterprise and corruption thrived and migrants were charged thousands even to travel on bus rooftops. After perilous journeys on crowded buses or trucks, packed in ways which could only spread the contagion exponentially, there were instances where several were drenched in unsafe disinfectants. Officials at many checkpoints demanded bribes, and workers sometimes paid more for travel than air tickets. Migrants, until recently providers for family in the village, had to ask them for money to be able to come home, and they mounted vast new debts. **Governments and business did not help them because they did not care, and because they did not want them to move.** They did not see them as human beings in their fullness of the agency and humanity, but only as a factor



of production, labour which should be obediently available on call whenever they were able to restart their enterprises. When the Union government finally decided to restore flights, the Minister said that health certificates before travel and quarantine after were not 'practical' (although some State governments insisted on quarantine). But what was deemed not practical for resourced and networked air travellers was made mandatory for pauperised workers without social capital. This should be a moment for civilizational introspection. In coming months, as hunger spreads, jobs crumble, children are pulled out of school into labour, and poor people die without hospital beds and ventilators, will we acknowledge our collective culpability in the social crime of the radical dispossession of our people, in an ultimately vain bid to keep just ourselves safe? Will we recognize the abject collapse of our moral centre? Will we at last learn lessons of solidarity, equality and justice?

In Uncertain Times, How Search For 'Normal Year' Leads to Data Vacuum

→ In 2009-10, the National Sample Survey Office (now National Statistical Office or NSO) conducted a large sample survey of Household Consumer Expenditure (HCE). This survey, usually carried out once in five years, was repeated in 2011-12. The reason: 2009-10 saw India suffer both a severe drought and the aftereffects of the global financial crisis. 2011-12 was a "normal" year like 1999-2000 and 2004-05, "free" from any major economic downturn. 2011-12 not only yielded the HCE survey data used for estimating poverty lines and ratios: Households with consumption expenditure below a certain level, which is state-specific and different for rural and urban areas, are considered poor. That period produced a surfeit of information also from other sources – the 2011 Census, NSSO's Employment and Unemployment Survey (EUS), and the Rural Development Ministry's Socio Economic and Caste Census (SECC). Policymakers and researchers were, simply put, spoilt for choice with regard to official data availability. Contrast these to the present times where there's a virtual data vacuum. The NSO did carry out a HCE survey for 2017-18, but the Ministry of Statistics & Programme Implementation did not release its results citing "data quality issues". Instead, it proposed conducting back-to-back HCE surveys in 2020-21 and 2021-22 "after incorporating all data quality refinements". The 2020-21 survey is supposed to start from July, which looks unlikely given the novel coronavirus-induced situation. "It is a massive exercise due to the size of the sample (101,651 households in 2011-12) and also questionnaire (covering the consumption of around 300 food and non-food items). The field investigators go to remote areas and spend roughly 2 hours with each household. Nobody can risk it this time, so we'll have to wait for the 2021-22 survey," said Pronab Sen, former Chief Statistician of India. But it's not just the HCE survey.

What Else Is Uncertain

The Census, which collects individual-level demographic as well as socio-cultural, occupational, education and migration-related information, is scheduled to be conducted in February-March 2021. Prior to that, the first House listing & Housing phase – which looks at the amenities and assets possessed by households along with the condition of homes (construction material, number of rooms, etc) – was to take place during April-September 2020. There were question-marks over the launch of this phase even before the Covid-19 lockdown, especially as it was clubbed with the updating of the National Population Register opposed by many non-BJP ruled states. With Covid-19, there is a remote chance of the House listing & Housing phase taking off immediately. The house listing operation is crucial for carving out enumeration blocks or specific areas that are allotted to each of the 30 lakh-odd field functionaries tasked with collection of Census information. "We have postponed all the activities till further orders," an official spokesperson told The Indian Express. The same goes for the SECC, whose individual/household-level data, unlike that of the regular Census, isn't



confidential. The Narendra Modi government has used the SECC-2011 database for identifying beneficiaries under Pradhan Mantri Gramin Awaas Yojana (rural housing), Ujjwala (LPG connection), Saubhagya (household electrification), Ayushman Bharat (health insurance) and other welfare schemes. But the SECC-21, too, cannot be undertaken without the demarcation of enumeration blocks as part of the Census house listing operation. Even assuming the current uncertainty to be temporary, the considerable time lag before the release of the next HCE survey, Census and SECC findings leaves very few relatively recent sources of primary survey data for enabling informed policymaking. Yes, there is the Agriculture Census 2015-16, the NABARD All-India Rural Financial Inclusion Survey 2016-17, and the NSO's 2017-18 reports on social consumption (health and education) and access to drinking water and sanitation. But they don't answer basic questions: Has poverty in India fallen and by how much since 2011-12? Is consumption of protein-rich foods and vegetables growing at the same rate as in the previous decade? Do official production estimates for milk or horticultural crops square up with HCE data on household consumption?

What This Can Lead To

The economic crisis, particularly post lockdown, only further complicates matters. With neither 2020-21 nor 2021-22 set to be "normal years", any official survey may throw up distorted results, such as a dramatic drop in HCE. The 2017-18 HCE survey report itself was allegedly withheld because it showed rural consumption declining in real inflation-adjusted terms over 2011-12 amid high farm distress. The upcoming Census could also give a distorted picture with regard to migrants, whose share in India's population rose from 29.9% to 37.6% between 2001 and 2011. "The Census considers a person a migrant if he/she, on the date of enumeration, is at a place different from his/her place of birth. In an unusual year such as this, where many migrant workers have gone back to their villages, you might end up with something different from the actual overall decadal trend," noted Sen. However, Mahesh Vyas, managing director of Centre for Monitoring Indian Economy (CMIE), believes that the government should continuously do surveys without waiting for normal years. "Finding these is becoming increasingly difficult. In 2016-17, there was demonetisation. In 2017-18, it was goods and services tax. 2018-19 and 2019-20 were apparently normal, but this year you again have lockdown," he pointed out. The NSO's more recent Periodic Labour Force Surveys (PLFS) have broken new ground by producing annual estimates of employment and unemployment in both rural and urban India (as opposed to the five-yearly EUSs till 2011-12), along with quarterly figures for only urban areas. But so far, only the PLFS for 2017-18 has been released. For 2018-19, quarterly data is available till January-March 2019, while restricted to urban areas. The one significant trend these reveals is a drop in the proportion of India's population aged 15 years and above currently employed or seeking work – the so-called labour force participation rate (LFPR) – from 55.9% in 2011-12 to 49.8% in 2017-18. CMIE, which is a private data provider, has been compiling all-India weekly LFPR and unemployment rate numbers since January 2016. Its Consumer Pyramids survey claims to cover 174,405 households in four-month periods (Jan-Apr, May-Aug and Sep-Dec), more than the 102,113 that the NSO's 2017-18 PLFS did over one year. "We do about 43,600 households in a month and 10,900 every week. Since the survey data collected from our panel households using handheld GPS-enabled devices is uploaded and validated the same day, we are able to generate reliable weekly rates. Our estimates are consistent with the trend captured by the PLFS. Post lockdown, we have seen both falling LFPR and rising unemployment rates (calculated as a percentage of the labour force," added Vyas. But CMIE's sample households are also selected from enumeration blocks that are based on the Census. "If the next Census shows new towns with higher population growth, our sampling frame has to reflect that. And enumeration is something that only the government can do," admitted Vyas.



Locust Attack: How They Arrived, Seriousness of The Problem, And Ways to Solve It

What Are 'Desert Locusts' Doing in Non-Desert Lands?

Desert locusts (*Schistocerca gregaria*), which belong to the family of grasshoppers, normally live and breed in semi-arid or desert regions. For laying eggs, they require bare ground, which is rarely found in areas with dense vegetation. So, they can breed in Rajasthan but not in the Indo-Gangetic plains or Godavari and Cauvery delta. But green vegetation is required for hopper development. Hopper is the stage between the nymph that is hatched from the eggs, and the winged adult moth. Such cover isn't widespread enough in the deserts to allow growth of large populations of locusts. As individuals, or in small isolated groups, locusts are not very dangerous. But when they grow into large populations their behaviour changes, they transform from 'solitary phase' into 'gregarious phase', and start forming 'swarms'. A single swarm can contain 40 to 80 million adults in one square km, and these can travel up to 150 km a day. Large-scale breeding happens only when conditions turn very favourable in their natural habitat, desert or semi-arid regions. Good rains can sometimes generate just enough green vegetation that is conducive to egg-laying as well as hopper development. This is what seems to have happened this year. These locusts usually breed in the dry areas around Ethiopia, Somalia, Eritrea along the eastern coast of Africa, a region known as the Horn of Africa. Other breeding grounds are the adjoining Asian regions in Yemen, Oman, southern Iran, and in Pakistan's Balochistan and Khyber Pakhtunkhwa provinces. Many of these areas received unusually good rains in March and April, and that resulted in large-scale breeding and hopper development. These locusts started arriving in Rajasthan around the first fortnight of April, much ahead of the normal July-October normal. The **Locust Warning Organisation**, a unit under the **Agriculture Ministry**, had spotted these and warned of their presence at Jaisalmer and Suratgarh in Rajasthan, and Fazilka in Punjab near the India-Pakistan border. Subsequently, there has been arrival of several swarms from the breeding areas.

When July-October Is the Normal Time, How Did They Arrive So Early?

The answer to this question probably lies in the **unusual cyclonic storms of 2018 in the Arabian Sea**. Cyclonic storms **Mekunu and Luban** had struck **Oman and Yemen** respectively that year. Heavy rains had transformed uninhabited desert tracts into large lake where the locust swarms breed. If left uncontrolled, a single swarm can increase 20 times of its original population in the first generation itself, and then multiply exponentially in subsequent generations. Scientists of LWO had got the first whiff of impending problem in the 2019-20 rabi season when unusually active swarms were reported in Rajasthan, Gujarat and some parts of Punjab. Control measures minimised damage in India during that time. But **further action could not be taken because of the lockdown around the world, and the swarms remained active in Yemen, Oman, Sindh and Balochistan areas**. The present swarms are their direct descendants, and are arriving in India in search of food.

But Why the Further Eastward Movement?

The current swarms contain **"immature locusts"**. These feed voraciously on vegetation. They consume roughly their own weight in fresh food every day, before they become ready for mating. But right now, Rajasthan does not offer enough to satisfy their hunger. With no crops in the field, they have been invading green spaces, including parks, in Jaipur and orange orchards near Nagpur. LWO estimates that at present there are three or four active swarms in Rajasthan while Madhya Pradesh has two to three of them. A small group deviated into Maharashtra as well. **Once they start breeding, the swarm movement will cease or slow. Also, the breeding will happen mainly in Rajasthan. Apart from the search for food, their movement has been aided by westerly winds that were, this time, further strengthened by the low pressure**



area created by Cyclone Amphan in the Bay of Bengal. Locusts are known to be passive flyers, and generally follow the wind. But they do not take off in very strong windy conditions.

So, What Damage Have They Caused?

So far, not much, since the rabi crop has already been harvested, and farmers are yet to really start kharif sowings. The UN Food and Agriculture Organization (FAO) has, however, predicted "several successive waves of invasions until July in Rajasthan with eastward surges across northern India right up to Bihar and Odisha". But after July, there would be westward movements of the swarms that will return to Rajasthan on the back of changing winds associated with the southwest monsoon. The danger is when they start breeding. A single gregarious female locust can lay 60-80 eggs three times during its average life cycle of 90 days. If their breeding is coterminous with that of the kharif crop, we could well have a situation similar to what maize, sorghum and wheat farmers of Kenya, Ethiopia and Somalia experienced in March-April.

How Can These Pests Be Controlled?

Historically, locust control has involved spraying of organo-phosphate pesticides on the night resting places of the locusts. On May 26, the Indian Institute of Sugarcane Research, Lucknow, advised farmers to spray chemicals like lambdacyhalothrin, deltamethrin, fipronil, chlorpyrifos, or malathion to control the swarms. However, the Centre had on May 14 banned the use of chlorpyrifos and deltamethrin. Malathion is also included in the list of banned chemicals but has been subsequently allowed for locust control. Special mounted guns are used to spray the chemicals on the resting places and India has 50 such guns, and 60 more are expected to arrive from UK by the first week of June. Drones are also being used this year.

- Monitoring and tackling periodic outbreaks of the marauding insects are among the objectives of the Locust Warning Organization (LWO) in Jodhpur. There were 13 locust upsurges from 1964 to 1997, and after 2010 there was "no large-scale breeding" reported. Once a significant outbreak starts, it lasts for about two years, and then there is a quietus for about eight years. LWO officials say that the swarm building up is potentially the "worst in decades". The breeding locusts which threaten farming are an indirect fallout of the warming Indian Ocean, as some meteorologists suggest. Last year, there were fears that the monsoon may fall short because of an El Niño, or warming of the Equatorial Pacific. However, there was an extreme flip. By July it was evident that a positive Indian Ocean Dipole, or relatively higher temperature in the western Indian Ocean, was in the works. This led to record-breaking rainfall in India – then a cause for cheer – as well as in eastern Africa. But moist African deserts precipitated locust breeding and favourable rain-bearing winds aided their transport towards India. On the other hand, coronavirus quarantines meant that routine coordination activities involving India, Pakistan and Afghanistan regarding spraying pesticides were halted. While it is some comfort that there is now limited standing crop in India, forecasts are for good rains in Rajasthan, and, paradoxically, conducive conditions for locust breeding during the sowing season. A less highlighted aspect of global warming is that it may link disparate disasters – floods, pandemics and pestilence – amplifying the potency of each. Improved science and technology are only making it clearer that man's follies transcend borders. This makes it necessary to abandon any territorial blame game and focus on policies that will ensure an equitable, sustainable future.

Now Online, A Map Tracking Migrants, Real Time

- India Observatory, an open-source database, has come up with a GIS-enabled dashboard that includes an India map reflecting the movement of migrants in real time on their long journeys, often on foot, along with facilities and relief organisations on their routes. The platform, a

[Shatabdi Tower, Sakchi, Jamshedpur](#)



collaboration with Foundation for Ecological Security (FES), Anand as its main nodal point, is called **CoAST India (Collaboration/Covid Action Support Group)**. It draws information from 55 organisations on the ground, mostly in villages, and aims to make such data available so that it would enable governments and small local civil society groups to be of assistance. The map matches “time and spatial data, on administrative facilities in the area, transportation and healthcare facilities of an area and summaries, on the fly, in real time of people passing by,” said Jagdeesh Rao, CEO of FES.

From Ecology to Migration

India Observatory was set up in December 2019, with FES focused on ecological issues about forests, water bodies, conservation, etc. that needed “a bird’s eye view or a satellite’s vision”. “We had started getting an ability to track natural habitat for all of India. We had data over 1,800 parameters which we mapped... But when Covid-19 broke out, hundreds of persons came forward and we decided to recraft the site to take into account movements of people, we formed a group called RCRC (Rapid Community Response to Covid). Placing all the information we have about resources and infrastructure on the ground, along with needs of people passing through or stopping over, needing food, financial support, medical care or facing any other threat, we have a proper grid available, updated regularly. So, a click on the map can tell us of the people who are travelling, the issues they have and the resources of the area. The local groups can reach them and provide support.” The governments of Jharkhand and Kerala shared data that enabled the map to get off the ground. On April 15, an Ecological Web of India became functional as the Migrant Map as they moved. Azim Premji Foundation, LibTech, IIIT Bengaluru, and the PHIA Foundation, and volunteers with the Stranded Workers Action Network and Revitalising Rainfed Agriculture (RRA) Network, helped found this. The data started with recording thousands of distress phone calls received, and was plotted on to a map.

What It Contains

Four elements are sought to be brought together: location of migrants and vulnerable people, their specific needs, location of key infrastructure on the way which can double up as a rest-centre, or quarantine space and location of relief and rehabilitation providing NGOs and civil society organisations. Rao emphasises the importance of open-source data at a time of crisis like this so that small groups that are efficient in small areas can help mitigate the disaster and not wait for big organisations or governments alone to make the moves. Former ISRO chief A S Kiran Kumar, at a panel in Hyderabad where India Observatory was launched on December 3, 2019, spoke of the importance of developing geospatial data and the importance of it being available to all, government, civil society and industry, to enable its best use. But most data held by the National Disaster Management Authority or the Survey of India is usually treated as ‘strategic’ and is not available to the public at large. The map is available free in 12 languages.

What Making Aarogya Setu Open-Source Means

- The Ministry of Electronics and Information Technology announced that it has released the source code of Aarogya Setu app to promote transparency and collaboration with the software developer community. The IT Ministry’s move came in the wake of demands from cyber law experts and critics who had said the app was too closed in nature and without adequate data protection measures.



What Does an Open-Source Software Mean?

Software can be divided into two broad categories, proprietary and open source. Any software that has to be bought or licensed from the creator of the software is called a **proprietary or closed-source software**. Examples include Microsoft Windows, Google Earth and Adobe Photoshop. The intellectual property rights of the software, even if bought or licensed, remains with the creator. **Open-source software** requires no licensing and need not be bought. Its source code is open for everyone to download, examine, redistribute, and improve upon if they can, with an acknowledgment to the original software coder or the company. Examples of such software are WordPress, VLC Media Player, and the Mozilla browser.

Why Has the Source Code of Aarogya Setu Been Made Public?

When launching the app on April 2, the IT ministry had explicitly mentioned in the terms of use that no one was allowed to reverse-engineer the app or alter with the coding of the app. This led to critics questioning whether the app could be used for surveillance and go beyond its mandate of contact tracing. Cyber law experts and the software developer community called upon the government to allow reverse engineering and also publish the source code of the app so that it could be seen by anyone. **While releasing the source code on Tuesday, the government said it was doing so to promote transparency and ensure security and integrity of the app.** The source code, the government said, was released in line with its "Policy on Adoption of Open Source Software for Government of India".

Does That Address Security and Privacy Concerns?

It is too early to tell, say experts. Now that the source code has been released, software developers from around the world will be able to go through the code and point out vulnerabilities or fix loopholes, if any, by writing fresh codes and suggesting these to the government, Udbhav Tiwari, Public Policy Advisor at Mozilla said. Besides, **the government has not yet released the server-side code of the app.** Kazim Rizvi, founder of policy think-tank The Dialogue, said the **server-side code must be released to further assuage privacy and security concerns.**

What Purpose Will Be Open-Sourcing the Server-Side Code Serve?

Any applications or functionalities on mobile phones and other handheld devices need Internet connectivity to run. **Sending and processing of such data is done on the server. By having access to the server-side data, individuals can check whether the data provided to the app is flowing directly to the dedicated servers or not.** If not, either the discrepancy can be reported or clarifications can be sought from the government.

- The government has also launched a **"Bug Bounty" programme** wherein financial rewards will be given to security researchers for finding any vulnerability in the application or suggesting improvements to the source code. While the source code for the Android version of the application will be available for review on GitHub, the iOS version of the application will be released as open source within the next two weeks, the Ministry of Electronics and IT said in a statement. Almost 98% of over 11.4 crore users of Aarogya Setu users are on Android platform. **The "Bug Bounty" programme will be open to Indian and foreign nationals, but only Indians will be eligible for rewards offered under the scheme. Anyone who points out a security vulnerability in the app source code will be eligible for a reward of up to ₹3 lakh, and up to ₹1 lakh for pointing out a suggestion or improvement in the source code.**



Fresh Leaks of Personal Details Detected on Dark Web

→ Even as cybercrime agencies and experts are investigating the leak of millions of Indian job-seekers' personal details on the dark web, two more similar instances have come to light in the last 12 hours. **The fresh leaks include nearly 2,000 Aadhaar cards and details of 18 million Indians, all available for free. The leak of nearly 2.9 crore job-seekers' details was discovered by Cyble Inc., a U.S.-based cyber intelligence firm, which has been trying to trace the source of the leak and identify the perpetrators.** Cyble founder Beenu Arora said the Aadhaar cards were posted on the dark web sometime in the last 12 hours. A large number of files appear to have originated from 2019, and several IDs were scanned from mobile cameras, and often transferred to other parties via WhatsApp. It's highly likely that more IDs may have been compromised, and the perpetrator decided to share only a small subset. We are still looking into this further," Mr. Arora told The Hindu. Cyble researchers said the Aadhaar cards and the job seekers' details were posted by different entities, both with a different level of reputation on the dark net.

Second Leak

Meanwhile, Cyble researchers have received an anonymous tip off according to which the jobseekers' data leak was the result of an **unprotected Elasticsearch instance** – a tool that collects data from a wide range of locations on the Internet in accordance with the requirements of the person conducting the search, and allowing the user to analyse large troves of data in real time from all over the Internet.

Howrah's Botanical Garden Now A Graveyard Of 1,000 Trees

→ Inside the walled gates of the **Acharya Jagadish Chandra Bose Indian Botanic Garden at Shibpur in Howrah district**, the chirping of birds gets distinctly louder. **Set up in 1787, the 273-acre garden, located at the other end of the Hooghly, has turned into a graveyard of trees.** Massive trees, hundreds in number, with trunks having a girth of several metres, have fallen all over the garden, blocking access to large parts of the campus. "We have lost nearly 1,000 trees, including some notable and rare species," Kanad Das, scientist, Botanical Survey of India (BSI), and in charge of the Botanic Garden, said. The garden has over 13,000 trees of about 1,100 species.

Rare and Notable

Among the rare trees that have fallen include the only full-grown kalpabriksha (*Adansonia digitata*) tree in the garden, the mad tree (*Pterygota alata* var. *irregularis*), the para rubber tree (*Hevea brasiliensis*), the Malabar chestnut (*Pachira insignis*), the Chir pine (*Pinus roxburghii*), and several century-old mahogany trees (*Swietenia mahagoni*) in the garden's famous Mahogany Avenue. Most of these trees were introduced to the garden by British botanists in the late 18th and early 19th centuries. Commercial cultivation of mahogany and rubber began in India after the species were first introduced in this garden. The cyclone also did not spare the iron fencing along the Hooghly; the brick wall along Andul Road of the Botanic Garden has suffered significant damage too. **Amid all the devastation, the "Great Banyan Tree" on the western edge of garden offered the only silver lining. The tree, which has an enormous canopy, has survived with some damage. The 250-year-old tree, which predates the botanic garden, has a canopy of over 1.5 hectares. It is supported by over 4,000 prop roots.**

Major Attraction

Located at the western edge of garden, about 10% of the Great Banyan's prop roots have been damaged by the cyclone. The authorities managing the Botanic Garden are confident that the

[Shatabdi Tower, Sakchi, Jamshedpur](#)



destroyed prop roots can either be repaired, or new roots will come up. The tree is one of the garden's major attractions. **The main trunk of the banyan tree had to be removed in 1925, after an infection was caused by a wood-rotting fungus.** A.A. Mao, Director, Botanical Survey of India, who visited the garden on Saturday, said that the sort of damage that the Great Banyan Tree has suffered was expected in a cyclone of such intensity. "We are lucky that the tree had a horizontal expansion and wasn't tall like the other trees of the botanic garden," he said.

Major Suman Gawani Chosen for UN Award

- Major Suman Gawani of the Indian Army, who served as a women peacekeeper with the United Nations Mission in South Sudan (UNMISS) in 2019, has been selected for the prestigious **United Nations Military Gender Advocate of the year Award**, the Army said. Major Gawani received the award from the UN Secretary General Antonio Guterres during an online ceremony at the UN Headquarters, New York, on Friday on the occasion of International Day of United Nations Peacekeepers, the Army said in a statement. **Carla Monteiro de Castro Araujo, a Brazilian Naval officer, will also receive the award.** As a military observer in UNMISS from November 2018 to December 2019, Major Gawani was the principal focal point of contact for gender issues for military observers in the mission. "The officer encouraged participation in joint military patrols to maintain gender balance, irrespective of the hardships under extreme field conditions," the Army said, adding she also strived to integrate gender perspective into the planning and military activity in the mission. She was selected to attend a specialised training on Conflict Related Sexual Violence (CRSV) at Nairobi, and participated in various UN forums to demonstrate how a gender perspective can help in protecting civilians, especially from conflict-related sexual violence, the Army stated.

Business & Economics

What Deceleration in GDP Growth Rate Tells Us About State of Indian Economy?

- **Ministry of Statistics and Programme Implementation (MoSPI)** released the data for the fourth quarter (January to March) of the last financial year (2019-20) as well as the provisional estimates of the full-year GDP growth rate. The provisional figure, which is likely to be revised again by January next year when MoSPI releases the First Revised Estimates for FY20, **states that the Indian economy grew by 4.2% in 2019-20. This is the lowest annual growth rate of GDP registered under the new GDP data series which uses 2011-12 as the base year.** This is not only a far cry from the 8.5% growth that the government expected in July 2019 when it presented the Budget for that year but also significantly lower than the 5% that the Second Advance Estimates suggested at the end of February earlier this year.

Nominal GDP Plummets

This is, of course, the growth rate in real GDP. A similar fall can be seen in the trajectory of the nominal GDP, which is the observed variable. **Real GDP is arrived at by subtracting the nominal GDP growth by the inflation level.** At the time of the 2019-20 Budget presentation in July, nominal GDP was expected to grow by 12%-12.5%. By the end of it, provisional estimates peg it at just 7.2%. In 2018-19, the nominal GDP grew by 11%. This sharp deceleration in nominal GDP growth, more than anything else, shows the continued weakening of India's growth momentum even before it was hit by the Covid-19 induced lockdown in the last week of March.



Reflects Poor Fiscal Marksmanship

There are two reasons why this sharp deceleration in the nominal GDP matters. First of all, the **nominal GDP growth rate is the base of all fiscal calculations in the country**. The government bases its calculations – say the amount revenues it will raise and the amount of money it will be able to spend – on this initial assumption. **A sharp divergence in nominal GDP growth rate basically upsets all other calculations in the economy**. For instance, a sharp fall means the government does not get the revenues it had hoped for and, as such, it can't spend as much as it wanted to. Secondly, the substantial deceleration in nominal GDP growth reflects poorly on the government's fiscal marksmanship. In other words, it shows that **the government was not able to assess the magnitude of economic growth deceleration that was underway**. Poor fiscal marksmanship, in turn, leads to inaccurate policy making because a government could end up making policies for an economy that doesn't actually exist on the ground. **For instance, it can be argued that in an economy that was slowing down sharply and that too on account of a decline in demand, even a massive corporate tax cut would be ineffective**. To be sure, despite this once-in-a-generation reform, private investments actually fell by almost 3% in 2019-20 – in sharp contrast to the 9% increase in 2018-19. The provisional estimates released on Friday specifically bring out this weakness as they included significant downward revisions on quarterly GDP estimates.

Frequent and Significant Revisions in Quarterly GDP

India's national income accounting data – the new GDP data series using 2011-12 as the base year – has come in for a fair bit of criticism in the past. This questioning grew deeper when Arvind Subramanian, who was the Chief Economic Advisor to India's Finance Ministry between 2014 and 2018, argued, in 2019, that the new series overestimated India's GDP by as much as 2.5 percentage points. While that debate is not yet settled, the credibility of India's GDP estimates is not helped by frequent and significant revisions. The growth estimate for Q2 (July, August and September), for instance, has gone from 4.5% to 5.1% and back to 4.4% in a matter of just 5 months (between January and May 2020). In particular, **it is now becoming clear that all through 2019-20 India's growth rate was decelerating much faster than what was officially accepted at that time**. For instance, in July, which falls in the second quarter, **the government insisted that the full-year real GDP will grow by 8.5% even though all indicators suggested a fast growth deceleration**. This is eventually being borne out by the provisional estimates.

A Warped Economic Structure

Another key takeaway from the provisional GDP estimates is the undesirable emerging structure of the Indian economy. It has been repeatedly and unanimously argued in the past, across all hues of governments, that **for India to grow and create jobs for the millions that enter its workforce each year, manufacturing growth has to rise**. Together with services, manufacturing growth was supposed to absorb the millions still dependent on agriculture, which even when it grows fast, does not have the ability to raise per capita income in a big way. If India was to create lots of well-paying jobs that allow it to reap the so-called demographic dividend then it had to be via manufacturing growth. But 2019 paints a dismal picture in this regard. **While the agriculture and allied sectors enjoyed buoyant growth, as the year progressed, manufacturing simply lost its way – contracting for three of the four quarters**.



How India Can Become Self-Reliant (D. Raghunandan Is with The Delhi Science Forum, Affiliated to The All India People's Science Network)

→ Addressing the nation on the COVID-19 pandemic, Prime Minister Narendra Modi emphasised the necessity of a self-reliant India. **Self-reliance in state-run heavy industries and strategic sectors in the decades following independence had placed India ahead of most developing countries. In the 1970s and 80s**, however, India did not modernise these industries to climb higher up the technological ladder. The private sector, which had backed the state-run core sector approach in its Bombay Plan, stayed content with near-monopoly conditions in non-core sectors in a protected market. Little effort was made to modernise light industries or develop contemporary consumer products. India's industrial ecosystem was thus characterised by low productivity, poor quality and low technology, and was globally uncompetitive. **India completely missed out on the 'third industrial revolution' comprising electronic goods, micro-processors, personal computers, mobile phones and decentralised manufacturing and global value chains during the so-called lost decade(s).** Today, India is the world's second largest smartphone market. However, it does not make any of these phones itself, and manufactures only a small fraction of solar photovoltaic cells and modules currently used, with ambitious future targets. At the turn of the millennium, **when India embarked on liberalisation, privatisation and globalisation, the very concept of self-reliance was rubbished, in the belief that it was tantamount to reinventing the wheel when advanced technologies could simply be bought from anywhere at lower costs.** Two related ideas have prevailed since then, and neither delivered the desired results. The first was that public sector undertakings (PSUs) are, by definition, inefficient and sluggish for the competitive globalised scenario. No effort was made to engender either real autonomy or a transition to new technological directions. Instead, PSUs with capability and scale for the task were undermined or abandoned, along with many nascent research and development (R&D) efforts (for instance, in photovoltaics, semiconductors and advanced materials). On the other hand, the private sector displayed little interest in these heavy industries and showed no appetite for technology upgradation. With entry of foreign corporations, most Indian private companies retreated into technology imports or collaborations. Even today, most R&D in India is conducted by PSUs, and much of the smaller but rising proportion of private sector R&D is by foreign corporations in information technology and biotechnology/pharma. **Given the disinclination of most of the private sector towards R&D and high-tech manufacturing, significant government reinvestment in PSUs and R&D is essential for self-reliance.** The second idea was that inviting foreign direct investment and manufacturing by foreign majors would bring new technologies into India's industrial ecosystem, obviating the need for indigenous efforts towards self-reliance. However, mere setting up of manufacturing facilities in India is no guarantee of absorption of technologies (the ability to independently take them to higher levels). There is no evidence from any sector that this has taken place or has even been attempted. The fact is, **foreign majors jealously guard commercially significant or strategic technologies in off-shore manufacturing bases. The key problem of self-reliance is therefore neither external finance nor domestic off-shore manufacturing, but resolute indigenous endeavour including R&D.** Experience and achievements in other countries in Asia attest to this, and also contradict the notion that self-reliance is a hangover from Nehruvian 'socialism'. **Learning from Japan's post-war success, countries like South Korea, Taiwan, Singapore and Hong Kong took huge technological and industrial strides in the 1970s and 80s. South Korea, in particular, climbed determinedly up the technology ladder and value chains in electronic goods, consumer durables, automobiles, micro-processors, personal computers and heavy machinery. It emerged as a global powerhouse in manufacturing, but also in indigenously developed technologies. Taiwan developed technologies and manufacturing capacities in robotics and micro-processors, while Singapore and Hong Kong adapted advanced technologies in niche**



areas. These self-reliant capabilities were enabled, among other factors, by planned state investments in R&D including basic research (3-5% of GDP), technology and policy support to private corporations, infrastructure and, importantly, education and skill development (4-6% of GDP). Countries like Thailand, Malaysia, Indonesia and Vietnam have focused on off-shore manufacturing lower down the value chain and without the thrust on self-reliance. This is useful for job creation but is an unsuitable model for a country of India's size and aspirations. China is, of course, unique in scale and in its determination to become a superpower not just geopolitically but also in self-reliant S&T and industrial capability. China advanced purposefully from low-end mass manufacturing to a dominant role in global supply chains. It has now decided on shifting to advanced manufacturing and has set itself a target of becoming a world leader by 2035 in 5G, supercomputing, Internet of Things, artificial intelligence (AI), autonomous vehicles, biotech/pharma and other technologies of the 'fourth industrial revolution'.

The Way Forward for India

Unfortunately, India may well have missed the bus in many of these technologies in which the U.S., Europe and China have established perhaps insurmountable leads. Yet self-reliant capabilities in electric and fuel cell vehicles, electricity storage systems, solar cells and modules, aircraft including UAVs, AI, robotics and automation, biotech/pharma and others are well within reach. Large-scale concerted endeavours would, however, be required, since self-reliance will not happen by itself. State-funded R&D, including in basic research, by PSUs and research institutions and universities needs to be scaled-up significantly, well above the dismal 1% of GDP currently. Upgraded and reoriented PSUs would also be crucial given their distinctive place in the ecosystem. Private sector delivery-oriented R&D could also be supported, linked to meaningful participation in manufacturing at appropriate levels of the supply chain. Finally, India's meagre public expenditure on education needs to be substantially ramped up (as against current trends of privatisation which would only shrink access), including in skill development. No country has achieved self-reliance without mass quality public education. And no country has developed without a much stronger public health system than what we have in India.

How Would Direct Benefit Transfer of Power Subsidy Work?

- ➔ Before it submits suggestions regarding the Electricity Amendment Bill 2020, recently drafted by the Union power ministry to amend the Electricity Act 2003, a big challenge lies ahead for the Punjab government, which has been providing free power to the agriculture sector. The new bill has proposed providing subsidy on power to farmers through Direct Benefit of Transfer (DBT), which would be different from the prevailing 'free power' system. Experts and farmers say that under the garb of DBT, it is a move to stop the free power supply to them.

What Is the Current System of Power Subsidy for Farmers in Punjab?

At present, Punjab is supplying free power to 14.16 lakh electricity-run tube wells of the agriculture sector which are getting power through 5,900 Agricultural Pump set Feeders (APFs). These APFs are metered and the Punjab State Power Corporation charges the state government ₹5.26 per unit for consumed units recorded in metered APFs. There are no individual meters installed on every tube well in Punjab, which is among the first states to separate agriculture sector feeders. Farmers are getting power supply for their Kharif and Rabi crops from these feeders as per the recommendations of the Punjab Agriculture University (PAU), Ludhiana. It is supplied for around eight hours every day in Kharif season and four hours on alternate days during Rabi crop season. The state government pays around ₹6,000 crore



power subsidy bill to Punjab State Power Corporation Limited (PSPCL) every year under its 'free power scheme' to the farming sector.

What Would Change Under the DBT Allowed Under the New Electricity Bill 2020?

Under DBT, farmers will have to pay the bill for the power consumed for agriculture purposes. After that, they will get the subsidy in their bank accounts through DBT. A meter would be installed on every individual tube well. In Punjab, the consumption per tube well, having motors mostly with power rating between 7.5 and 12 HP (horse power), is 8,000-9,000 units. So, the annual power bill will come to around Rs 46,000 to ₹48,000, and farmers are required to pay a bill of ₹4,000 per month. In Punjab, 67 per cent farmers come under the small and marginal categories with 1-2 hectares land. **Paying bills in advance is not possible for them due to debt. If farmers don't pay their bills, the department will disconnect their connection, which could lead to several clashes in Punjab between PSPCL employees and farmers' unions as well as power theft.** "When Punjab government delays paying subsidy bill to PSPCL by 6 months to a year, how will it pay DBT to farmers on time?" asked Vinod Kumar Gupta, a retired PSPCL officer and spokesperson for the All India Power Engineers Federation,

Can It Work Like DBT On LPG Gas Cylinders?

It may or it may not, only time will tell, said experts. "The bill suggests the subsidy be paid directly to consumers in cash on the pattern of LPG subsidy. This proposal should be tried in a pilot project and if results are encouraging, only then it should be included in the amendment bill," said Gupta. In the agriculture sector, where free or subsidised power is being provided on the basis of a load of pump sets to millions of consumers in every state without any provision of meter on the basis of fixed charges, it is not feasible to provide meters on every pump set up across the country and then give cash subsidy every month after the consumer has paid the bill, he added. Punjab government's own DBT scheme titled '**Paani Bachao Paisa Kamao**' is also working here. How it is different from DBT under the new Bill? The Punjab government's scheme is a voluntary one. The farmers who have adopted it need to get install a power meter on their tube well but are not required to pay any power bill. Under PBPK, if a farmer has a 10 BHP motor on his/her tube well, he/she is entitled to a monthly consumption of 2,000 kilowatt-hours (200 units per HP) for four months from June 20 to October 20, covering the period between transplanting and harvesting of paddy. **If he/she consumes 4000 to 5000 units from his/her entitlement by using groundwater judiciously, then he/she will earn ₹4 per unit for the units saved.** For instance, if he/she saves 3000 units out of 8000, he/she will get ₹12,000 in his/her account through DBT. Also, **the government will benefit from it. Instead of paying Rs 5.26 per unit (which is the per unit rate for the agriculture sector) to PSPCL, it has to pay ₹4 to the farmer per unit for consuming less power and water and ₹1.26 is government's saving.** 'PBPK' was launched in Punjab in 2018 as a pilot project by the PSPCL on six of the state's 5,900 feeders. Now over 600 farmers have voluntarily enrolled for this on 250 feeders to date and have saved over 6 lakh units and earned around ₹24 lakh. The main purpose of PBPK is to save groundwater by using it judiciously because under the traditional system, several farmers are misusing the water by over-irrigating the crops due to free power available to them.

How It Will Impact PSPCL?

Currently, PSPCL is maintaining only 5,900 power meters installed on feeders but as per the new bill, **PSPCL needs to installed electricity meters on every tube well, which will require at least ₹1,200 crore along with 10 per cent recurring charges on these annually.** PSPCL needs to appoint more manpower to maintain it. It will be a huge burden on PSPCL too.



What Do Farmers' Organizations Think of This?

Farmers organisations say that if the Punjab government agrees to this bill, they will fight it tooth and nail. From where will poor farmers pay such heavy bills when they get income after six months following the sale of their crop, they ask. Farmers organisations have already planned to hold massive protests on May 30 and 31 at subdivision level in Punjab and will observe 'Black Day' on June 1 along with several other organisations opposing the bill. "From the Punjab government's statement it seems that it is in favour of the new bill when it says it will benefit 26 lakh farmers against the 10 lakh currently who own tube wells," said Jagmohan Singh, general secretary, Bhartiya Kisan Union (BKU) Dakuanda, adding that the government should first clarify from where it got the figure of 26 lakh farmers in Punjab. "According to PAU, there are around 12.50 lakh farming households in Punjab and even if the division has taken place among the brothers, they share the water of the same tube well connections, which are installed in their joint properties." "Anywhere in the world, the agrarian sector cannot run without the support of the government as it is the base of every human being who is dependent on farmers' produce from his/her morning tea to dinner. During the lockdown period, everything was closed except farming activities," he said, adding that at the time of Covid-19, dependence on the agrarian sector has increased manifold when several lakh daily wagers return to their villages and will work in their small landholdings to earn their living. "It is like a private company which will benefit private players only," said he, adding, "We will stop sowing paddy and other crops and will sow whatever is required for our use only."

What RBI Discontinuing 7.75% Saving Bonds Means to Investors

- After the cut in deposit rates by the banks and a cut in small savings rate by the government over the last couple of months, the Reserve Bank of India on Wednesday said the **Government of India has discontinued 7.75 per cent savings (taxable) bonds, 2018 for subscription with effect from the close of banking business on Thursday.** While the move comes in line with the cut in repo rate by the RBI and subsequent cut in deposit rates by banks and small savings rate by the government, the move will deprive investors of another saving instrument that yielded relatively higher post tax returns for investors.

What Are 7.75 Per Cent RBI Bonds?

The 7.75 bonds 2018 were issued with effect from January 10, 2018 and were available for subscription to resident citizens/HUF to invest in a taxable bond. While one bond was of ₹1,000 each, the bonds had no maximum limit for investment. The bonds had a 7-year lock-in period from the date of issue, but it permitted premature encasement to individuals who were 60 years and above. Interest on these bonds will be taxable under the Income-tax Act, 1961.

What Has Happened Now?

The government has withdrawn these bonds with effect from Friday and therefore it will not be available for investors to invest. This means it is only ceasing fresh issuance and not redeeming those already invested. Those whose cheques got submitted and cleared till yesterday will get 7.75 per cent.

Was It in High Demand?

Investment advisors say that while it was mostly used by HNIs to invest, the demand for RBI bonds went up significantly over the last couple of months as investors turned risk averse. **Even as the post-tax returns were low as compared to PSU-debt, experts say investors rushed for it as they saw it as the safest investment instrument available.**



How Did It Fare Against Other Options?

As the 7.75 per cent RBI bonds were taxable instruments, the interest income on it would be taxable at the marginal tax rate. For those having income of over ₹5 crore and having interest income from these bonds, the return would be 4.44 per cent. For those falling in the tax bracket of 30 per cent, the return from these bonds would stand at 5.4 per cent, while for those falling in the lowest tax bracket of 10 per cent, the post-tax return would be 6.975 per cent. In April 2020, the government announced a cut in the small savings rate. **While the rates for PPF were cut from 7.9 per cent earlier to 7.1 per cent, that on Sukanya Samriddhi Yojana was brought down to 7.6 per cent from 8.4% earlier.** In comparison, SBI is currently offering 5.3 per cent for a term deposit of 3-5 years and 5.4 per cent on term deposits of 5-10 years. The post-tax return for those falling in 30 per cent tax bracket would stand at 3.71 per cent and 3.78 per cent respectively. Experts say that PSU debt papers offer post tax return of around 7 per cent.

Why the Cut in Rates?

A cut in repo rates not only reduces the rate at which commercial banks borrow from RBI but also leads to a cut in deposit and lending rates for banks. The RBI's move to cut in repo rate has been to push credit growth and demand in the economy in a bid to augur growth in the economy.

Export Blocks

→ Official trade data for April, released at the mid-point of the Finance Ministry's five-tranche package to salvage the economy in the throes of a pandemic-induced lockdown, was the grimest in over two decades. **Merchandise exports had collapsed by over 60% and imports contracted only slightly less. Only two of India's 30 biggest export products clocked positive growth – iron ore and pharmaceuticals, the latter by just a quarter of a percent.** Thanks to the sharp dip in global oil prices, higher volumes of petroleum exports didn't help much in value terms. The trade collapse was not surprising as the spate of national lockdowns around the world have not only dented demand and investment, but also severely disrupted global supply chains and shipping routes. India's exports, however, were already in a free fall. The government's economic stimulus package in totality offered several reform commitments, improvements in the ease of doing business along with some forbearance and a few sops for micro, small and medium enterprises (many of which are also export-oriented units). However, there was no explicit respite offered for exporters. **The Reserve Bank of India, on May 22, did unveil a few measures, including a special ₹15,000 crore liquidity facility for the Exim Bank of India and a six-month extension for importers to complete outward remittances. For exporters, the maximum permissible credit period from banks was extended from 12 months to 15 months, for disbursements made up to July 31, 2020.**

The three-month credit extension for exporters was, in fact, not a new measure and had already been announced by the central bank on March 23. So, its repackaging two months later as a fresh move suggests policy makers are running short of ideas to prop up a key employment-generating bulwark of the country's economy post-liberalisation. **In an employment-intensive sector such as textiles, garment exports, which fell 16% between January and March, fell 91% in April.** The outcome for May is unlikely to be any better and the **World Trade Organization expects trade flows to slip by between 13% and 32% over 2020.** The prognosis gets even murkier when one adds to this the **new barriers on trade in medical and food supplies imposed by over 90 countries, and an increasing tendency to look inward for essential supplies (as India is doing too with its emphasis on self-reliance).** The country is again pitching to become an alternative investment destination for big global businesses in the hope that the COVID-19 pandemic would prompt them to hedge their China-dependent supply chains. But investment moves are a longer-term play. Meanwhile, Indian exporters shouldn't be caught on the back



foot as bigger stimulus packages, announced by other countries, kick in to revive demand and give a minor fillip to international trade.

For Farms and Farmers

→ The **Rajiv Gandhi Kisan Nyay Yojana launched by Chhattisgarh** aims to supplement the income of the State's 18 lakh rice, maize and sugarcane farmers by ₹10,000 to ₹13,000 per acre, through direct cash transfers. Besides the Centre's PM-KISAN scheme that provides ₹6,000 to farm families owning less than five acres of land, Telangana, Odisha and Andhra Pradesh have similar cash transfer programmes for farmers. For balancing the interests of the consumer and the farmer, India has an extensive Minimum Support Price (MSP) regime which works in combination with the PDS. But the efficiency of neither MSP procurements nor the PDS is uniform across the country. **The Centre says it fixes MSPs at 1.5 times the cost of production for farmers, but this calculation is not free of controversy.** Last year, several States including Chhattisgarh and BJP-ruled U.P. and Haryana questioned the Centre's MSP calculations. Though food is a universal necessity, those who produce it languish at the bottom of the economic pyramid.

These income support schemes target landowners, and bypass tenants and labourers. In Chhattisgarh, there is preliminary evidence that tenants managed better rates from owners last year after the government gave incentives over and above MSPs to farmers. The State is now designing a cash transfer scheme for landless labourers, according to Chief Minister Bhupesh Baghel. **But these interventions are only palliative and cannot address the underlying problem, which is the non-remunerative nature of farming. A more market-driven approach has often been proposed as the solution, and the agriculture-related components in the Centre's response to the economic crisis caused by the pandemic appear to toe that line.** However, many previous arguments about the agriculture economy have been rendered questionable by the pandemic. The food supply chain crisis in the U.S. is instructive. Considered supremely efficient, it ended up with wasted produce and unmet demand as the pandemic erupted. India's agricultural management must take into account such fresh learning from the pandemic, and vulnerabilities arising out of supply chain-dependent food security. The list of pre-existing morbidities in the agriculture sector is also long, including messy land records, unscientific and unsustainable crop patterns, market linkages that make the farmers vulnerable to exploitation by officials and middlemen, inadequate irrigation, adoption of technology, conflict with wildlife, and changing weather and climate patterns. For now, the Centre must announce the MSPs for the current season at the earliest – late announcements have added to the uncertainties for the farmers in recent years. The creation of a buoyant agriculture sector will take much more, and those efforts must be made on a war-footing.

The Need for A Million Worksites Now (Jean Drèze - Visiting Professor at The Department of Economics, Ranchi University)

→ The Public Distribution System (PDS) is preventing the worst. The same surveys show that an overwhelming majority of poor households (86% according to the APU survey) are currently receiving food rations. The doubling of food rations for three months was a good move on the part of the central government – there is every reason to extend it beyond the end of June. The PDS, however, leaves out 500 million people, including many who live in poverty. Further, even for those who are covered, the PDS is little more than a protection against hunger. It cannot ensure adequate nutrition, let alone a decent standard of living. To cope with the crisis, poor households urgently need a chance to earn cash beyond small mercies. Unconditional cash transfers are not easy to use for this purpose, because there is no simple way of

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identifying those in need, and covering everyone would amount to spreading the money very thin. Universal basic income is a nice idea, but when you do the maths, anything practical tends to reduce the “basic income” to a pittance. India’s National Rural Employment Guarantee Act (NREGA) offers an obvious alternative, at least for rural areas: employment on demand at basic wages.

Unprecedented Demand

The demand for NREGA work is stronger than ever. This is not surprising: most people would prefer to do some work and earn a little than to sit idle with empty pockets. This huge demand contrasts with the resilient indifference of rural workers towards NREGA in recent years, due to low wages and erratic payments. Wages are still low, and payments are still far from timely and reliable; what has changed is that for most workers today, there is nothing better on the cards. We had a telling experience of this renewed demand for NREGA work in a number of deprived villages of Latehar district (Jharkhand) in the last few days. In this area, the idea of work on demand is still alien to most rural workers, so few of them take the initiative of applying for NREGA work. But whenever we helped people to prepare work applications, men and women from almost every household in the village flocked to the spot with their job cards to fill the forms. Without assistance, however, most workers would find it difficult to submit work applications. The sad truth is that except in areas where rural workers are relatively empowered, work applications (reflected in “e-muster rolls”) are not generally initiated by the workers themselves. Instead, they are initiated on their behalf by others, who have a stake in activating NREGA works: for instance, landowners who want some work done on their land, middlemen who take cuts at various steps, government officials who are under pressure to meet targets, and village heads who wish to please or serve their constituency. In other words, NREGA works attract the workers, and not the other way around. That, at any rate, is how it tends to work in the poorer States. In the old days (good or bad), workers were allowed to turn up at the worksite and enrol on the spot. That made things easier for them: applying for work was a right, not an obligation. But now, it has become an obligation: no-one can be employed unless his or her name has been entered in advance in the e-muster rolls. Most workers have no idea how to go about this. This is one reason why the scale of NREGA works remains very low in many States in spite of a huge demand for employment. This situation calls for large-scale opening of NREGA works on a proactive basis. Every village needs at least one major worksite, where a good number of people can work at short notice (with adequate distancing precautions). Ideally, workers should be allowed to enrol at the worksite. Further, large-scale employment generation should continue throughout the monsoon, the hardest period of the year for poor people in large parts of rural India. Averting a humanitarian disaster in the next few months calls for a veritable explosion of NREGA work. Much can be done to facilitate this: expanding the list of permissible works, hiring more gram rozgar sevaks (employment assistants), simplifying the implementation process, mobilising para-teachers for work application drives, and so on. And of course, top-down orders to expand the scale of works could work wonders. NREGA is not supposed to be top-down, but it does have a long history of top-down orders, and after all, this is an emergency.

Switch to Cash Payment?

It is also worth considering a return to cash payment of NREGA wages, at least as an option for the duration of the crisis. This would not only help to ensure timely and reliable payment of wages, but also spare workers the ordeal of extracting their wages from overcrowded banks or business correspondents. Further, cash payment of wages would act as a tremendous incentive for rural workers to demand NREGA work, whatever it takes. The idea of a return to cash payment of wages is likely to horrify those who trust digital payments to eliminate



corruption. But recent experience suggests that this trust is misplaced. The digital payment system has merely changed the modalities of corruption in NREGA: the crooks used to fudge the paper records, now they fudge the electronic records. The latter may or may not be harder to fudge than the former depending on the circumstances. Even if cash payments are a little more vulnerable to leakages, that may be a tolerable price to pay in an emergency, to protect workers from the hazards of NREGA's byzantine payment system. These include a payment rejection rate of 4%, according to official data, and the tyranny of "Qwicy", as the Know Your Customer (KYC) process is known in rural Jharkhand. Of course, the possible hazards of a hasty switch to cash payments also need to be considered.

The NREGA Budget

Funds are not an immediate concern since the NREGA budget for 2020-21 has been raised to ₹1-lakh crore or so. But more is likely to be required to meet the tremendous demand for NREGA work. It is important to ensure that funds never dry up: this happened every year in the last few years, leading to huge wage arrears. NREGA is supposed to be a demand-driven programme with an open-ended budget; nothing in the Act authorises the government to impose a budget cap. These are some of the issues that arise in activating NREGA for crisis relief. The main thing is to provide work aplenty and pay wages at speed. This is a matter of life and death.

ILO Urges PM Not to Dilute Labour Laws

- The International Labour Organisation (ILO) has informed trade unions of India that its Director-General has expressed concern and urged Prime Minister Narendra Modi to "send a clear message" to the Central and State governments to uphold international labour laws after the recent dilution of laws by some States. **A group of 10 Central trade unions wrote to the ILO in Geneva on May 14, seeking its intervention to protect workers' rights and international labour standards.**

Wide Representation

The unions that sent the representation to the ILO were the Indian National Trade Union Congress, the All-India Trade Union Congress, the Hind Mazdoor Sabha, the Centre of Indian Trade Unions, the All-India United Trade Union Centre, the Trade Union Coordination Committee, the Self Employed Women's Association, the All-India Central Council of Trade Unions, the Labour Progressive Federation and the United Trade Union Congress. **They sent the representation to the ILO after Uttar Pradesh, Madhya Pradesh, Gujarat and some other States either suspended a large number of labour laws for two-three years or diluted them in an attempt to woo industry in the midst of the COVID-19 pandemic.**

Life & Science

NASA-SpaceX Demo-2 Mission: What Is Special About The 'Starman Suits'?

- NASA's SpaceX Demo-2 test flight, supposed to lift off for the International Space Station (ISS) – the first crewed flight to launch from American soil since the conclusion of the space shuttle era in 2011 – has now been rescheduled for May 31, due to weather conditions. The so-called "**Starman suits**" the astronauts will wear on the Demo-2 mission have been designed by Hollywood costume designer Jose Fernandez, who has worked on costumes for films including Batman versus Superman, The Fantastic Four and The Avengers among others.

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In August 2019, SpaceX held a training event in Hawthorne, California, where Behnken and Hurley performed pre-launch operations connected to the Demo-2 mission, including performing suit-up procedures alongside the SpaceX team. **The SpaceX spacesuits are different from other spacesuits typically worn by astronauts because of their sleek design, and are being described as resembling a tuxedo.** “Actually, what the SpaceX suits evoke most of all is James Bond’s tuxedo if it were redesigned by Tony Stark as an upgrade for James T. Kirk’s next big adventure. Streamlined, graphic and articulated, the suits are more a part of the pop-culture-Comic-Con continuum of space style than the NASA continuum,” a report published in The New York Times said. Fernandez was hired by SpaceX’s CEO Elon Musk in 2016. After Fernandez presented the prototype designs for the SpaceX suits, they were worked on by spacesuit engineers to make them functional for flight. As per a BBC report, **the helmets of these suits are 3D printed with touchscreen-sensitive gloves and the suit is all in one piece, customised for the wearer.** For astronauts aboard Boeing’s Starliner spacecraft, the company unveiled its cobalt blue spacesuit designs in 2017. These spacesuits are **meant to be lighter and more flexible, are equipped with touchscreen gloves, have vents that allow astronauts to be cooler while maintaining pressure inside the suit, and have an incorporated helmet and visor.**

How Are Launch-And-Entry Spacesuits Different from EMUs?

The SpaceX suits are only meant to be worn inside the space shuttle, and are not suitable for carrying out spacewalks. Spacesuits for spacewalks, called Extravehicular Mobility Units (EMUs), are heavier than launch-entry suits (LES) and are already present aboard the ISS. While inside the spacecraft, the atmosphere can be controlled, to explore and work in space, humans require that “they take their environment with them because there is atmospheric pressure and no oxygen to sustain life”, as NASA puts it. Such spacesuits – EMUs – are worn for spacewalks or extravehicular activities (EVA) conducted outside a space shuttle. **These provide astronauts with oxygen supply and protect them against extreme temperatures (in Earth’s orbit temperatures can vary between -250 F and 250 F in the sunlight), radiation and space dust.** During ascent or descent, astronauts wear partially pressurised suits referred to as LES, which protect them against loss of cabin pressure. For instance, if the cabin pressure is too low, the blood tends to pool in the lower body, causing astronauts to blackout. These suits have a helmet, gloves and boots that serve to protect the astronaut. Further, according to NASA, inside the shuttle in orbit, astronauts wear comfortable clothes such as knit shirts, pants or flight suits. **One launch and entry suit designed by NASA includes the Orion suit, designed for astronauts who will be a part of the Artemis missions to the moon. These suits are bright orange, to make the crew easily recognisable in the ocean if they exit the Orion spacecraft in case of an emergency.** The spacesuits are a re-engineered version of the so-called “pumpkin suits”, formally called the Advanced Crew Escape Space Suit System (ACES), which were used till the end of the Space Shuttle program in 2011. Modifications to the ACES include a lighter, stronger helmet, which comes in more than one size and makes communications with other crew members easier, has better fire resistance, improved thermal management and a reengineered zip for easier donning and doffing.

What is Tianwen-1, China’s Mars Mission?

- China’s space program is now slated to achieve a new milestone. **In July, the country will launch its first Mars mission, the ‘Tianwen-1’,** which is expected to land on the Red Planet’s surface in the first quarter of 2021. **The success of the mission will make China the third country to achieve a Mars landing after the USSR and the United States.** Named after the ancient Chinese poem ‘Questions to Heaven’, the Tianwen-1, an all-in-one orbiter, lander and



rover will search the Martian surface for water, ice, investigate soil characteristics, and study the atmosphere, among completing other objectives.

The Tianwen-1 Mission

The Tianwen-1 mission will lift off on a **Long March 5 rocket**, a launch system developed by the China Academy of Launch Vehicle Technology (CALT), from the Wenchang launch centre, and will carry **13 payloads (seven orbiters and six rovers)** that will explore the planet. The mission's launch in July was confirmed on Sunday by the China Aerospace Science and Technology Corporation (CASC), which has been working on the project since 2016. As per a report in the Air and Space Magazine, the **Chinese mission will be the first to place a ground-penetrating radar on the Martian surface, which will be able to study local geology, as well as rock, ice, and dirt distribution.** Two candidate landing sites have been identified, one of them being Utopia Planitia, according to Space News. **China's previous 'Yinghuo-1' Mars mission, which had piggybacked on a Russian spacecraft, had failed after it could not leave the Earth's orbit and disintegrated over the Pacific Ocean in 2012.** The Chinese mission is expected to take off in late July, around the same time when NASA is launching its own Mars mission– the ambitious **'Perseverance'** which aims to collect Martian samples and bring them back to Earth in a two-part campaign.

Previous Mars Missions

The USSR in 1971 became the first country to carry out a Mars landing– its 'Mars 3' lander being able to transmit data for 20 seconds from the Martian surface before failing. The country made its second Mars landing two years later in 1973. The second country to reach Mars's surface, the US, holds the record for the greatest number of Mars landings. Since 1976, it has achieved 8 successful Mars landings, the latest being the **'InSight' in 2019** (launched in 2018). **India and the European Space Agency have been able to place their spacecraft in Mars's orbit.** India's **Mars Orbiter Mission (MOM) or 'Mangalyaan'** was able to do so in September 2014, almost a year after its launch from the Satish Dhawan Space Centre in Andhra Pradesh.

Why Mars Exploration

After the Moon, the greatest number of space missions in the Solar System have been to Mars. **Despite being starkly different in many ways, the Red Planet has several Earth-like features– such as clouds, polar ice caps, canyons, volcanoes, and seasonal weather patterns.** For ages, scientists have wondered whether Mars can support life. In the past few years, Mars missions have been able to discover the possible presence of liquid water on the planet, either in the subsurface today or at some point in its past. This has made space explorers more curious about whether the planet can sustain life. **Newer NASA missions have since transitioned from their earlier strategy of "Follow the Water" to "Seek Signs of Life".**

What We Know of The Largest Electric Powered Flight Expected Today

- In a breakthrough for electric flight technology, a 750-horsepower electric engine made by MagniX, an Australian electric motor manufacturer, will power a Cessna 208 Caravan aircraft to fly for an expected 20-30 minutes over Washington state. This will be the largest aircraft ever to fly on electric power. In December last year, an engine from the same company powered a seaplane in Vancouver, Canada, in what was described as the "world's first" 100 per cent electric flight. The retrofitted Caravan plane, which can carry nine passengers, is expected to take off at 8 am Pacific time (8:30 pm in India) on May 28, and will fly at a speed of 183 kmph, as per a Guardian report. However, for its first journey, a test pilot will fly the plane alone. The plane selected, a Cessna 208 Caravan, is a popular utility aircraft around the



world since the 1980s, with over 2,600 currently being operated for commuter airlines, air cargo, VIP transport, flight training, and humanitarian missions. MagniX aims at commercial operations over a 100-mile range by 2021, and hopes retrofitting its engine to a Caravan would speed up regulatory approvals. **According to a CNBC report, such electric flights could require significantly less maintenance compared to fuel-based aircraft, and could lead to short-distance flights becoming cheaper, thus helping make it more viable for airlines to fly to remote locations.** Apart from MagniX, several companies are involved in making electric flights a reality. **The ride-sharing company Uber has announced air taxis to fly as early as 2023.** Major industry players such as Airbus and Rolls Royce, a number of start-ups, as well as the space agency NASA are involved in developing electric flight technologies. Yet, despite the promise shown by short-range electric flights, several more years of development is expected for powering long-distance journeys. A major obstacle in this process is battery technology, with **the weight of the battery being a major challenge.** **The aviation sector is a fast-growing source of carbon emissions, and significantly contributes to climate change.** According to the World Wildlife Federation, **unregulated carbon pollution from aviation is the fastest-growing source of greenhouse gas emissions.** If the entire sector is considered as a country, it would be among the 10 most polluting nations on the planet. By 2050, the aviation industry is expected to cater to 16 billion passengers, up from 2.4 billion in 2010. **If the sector solely relies on conventional technologies, emissions would triple by 2050.** Making the aviation sector eco-friendly is an important step for meeting the 2016 Paris Agreement's goal of limiting the increase in global temperatures to below 2 degree Celsius, and pursuing efforts to limit the increase to 1.5 degree Celsius. Environmental activism has already impacted the popularity of air travel as a mode of transport. According to a UBS bank study from October last year, campaigns such as those by **Greta Thunberg and the Swedish concept of "flygskam" or "flight shaming" are expected to cause people to cut down on their flying habits in the US and Europe.**

Truecaller Data for Sale on Dark Web Is From 2019 Leak

- A day after data of 4.75 crore Indian Truecaller users was found to have been offered up for sale on the dark web, Truecaller stated that the data seemed to be from a set leaked in May 2019. Researchers from Cyble Inc, the U.S.-based cyber intelligence firm that found the leak, confirmed the same. Meanwhile, the same threat actor also put up a whopping 600 million other data sets for sale. The Truecaller data, which is of users from all over the country and is classified into folders, was being offered for a mere \$1000 (about ₹76,000). Cyble founder Beenu Arora said that it was confirmed that the data was a subset of the 2019 leak.

Cyber Threat

The 600 million other data sets posted for sale belongs to Chinese and Taiwanese companies as well as individuals. The data has been put up by TooGod, the same entity responsible for the Truecaller data posting.

The Cicadas Are Coming Out After 17 Years, Why They Take So Long to Get Wings

- A brood of periodical cicadas, **noisy insects that breed underground for as long as 13-17 years are expected to emerge into some states on the east coast of the US this year.** This year, the grouping dubbed Brood IX will emerge after spending 17 years underground, into states including Southwest Virginia, parts of North Carolina and West Virginia. The emergence of over 1.5 million cicadas per acre is expected. According to Virginia Tech, people living in these areas will experience a "unique natural" phenomenon that has not occurred in most of the area since 2003.



What Are Cicadas?

Cicadas are insects that spend most of their lives underground and emerge from the soil mainly to mate. Once out of the ground, their life span is fairly short, somewhere between two-four weeks. Doug Pfeiffer, a Fruit Entomologist at Virginia Tech, writes in his blog that there will be major outbreaks of periodical cicadas in 2020 and 2021. There are three species of 17-year cicadas and three species of 13-year cicadas. In the blog, Pfeiffer goes on to explain that originally 30 broods of periodical cicadas were defined, mostly separated by geography and the time they emerge from the ground. At present, there are about 15 active broods of these cicadas as some have gone extinct. The insects are found in the America's as well as New Zealand and Australia. The name 13 and 17 year refers to the number of years that cicada nymphs take to reach adulthood. It is not clear why their development period is so long; researchers suspect that it may be linked to avoiding predators above the soil. During this time underground the nymphs feed on sap from plant roots. After this developmental period, the cicada nymphs construct a "cicada hut" and burrow their way out from the soil and climb onto any nearby tree or vegetation, a fact sheet published by the Virginia State University states. A BBC Earth video described the adult cicadas as "clumsy" and "very edible", due to their lack of defences because of which they "virtually offer themselves to their attackers" which may include turtles and other inhabitants in a forest. Even though many cicadas are eaten by their predators, their "relentless" stream renders their predators full and overwhelmed, to the point of bursting, giving the survivors a chance to achieve their purpose of mating.

What Happens When Cicadas Emerge?

After emerging from the ground in billions, the cicadas shed their exoskeletons or outer skins to take their winged form. Their exoskeletons are frequently found attached to tree trunks and twigs. The emergence of cicadas is often "tightly" synchronised, with most adults appearing within a few nights. The lifespan of adult cicadas is short, about two to four weeks during which time they feed relatively little and mate. Male cicadas "sing" to attract the females, the collective chorus of these male cicadas is very loud and can reach up to 100 decibels, which is as much as a powered lawnmower. After mating, the females lay their eggs in twigs that are ½ to ¼ inches in diameter. One female is capable of laying over 400 eggs in 40-50 different sites. The eggs remain in the twigs for six to ten weeks before they hatch and after hatching the nymphs fall to the ground where they burrow 6-18 inches underground to feed and emerge 13 or 17 years later, depending on their grouping. The egg-laying by the cicadas causes significant damage to small twigs. They damage many ornamental and hardwood trees, especially newly planted fruit and ornamental trees such as apple, dogwood, peach, cherry and pear among others, which are the most seriously damaged.

Invasive Mussel Is Spreading Rapidly in Kerala's Backwaters

- ➔ An invasive mussel native to the South and Central American coasts is spreading quickly in the backwaters of Kerala, elbowing out other mussel and clam species and threatening the livelihoods of fishermen engaged in molluscan fisheries. The rapid spread of the Charru mussel (*Mytella strigata*) may have been triggered by Cyclone Ockhi which struck the region in 2017, according to a paper published in the Journal of Aquatic Biology and Fisheries. Surveys show the presence of the Charru mussel in the Kadinamkulam, Paravur, Edava-Nadayara, Ashtamudi, Kayamkulam, Vembanad, Chettuva and Ponnani estuaries/backwaters. Ashtamudi Lake, a Ramsar site in Kollam district, remains the worst-hit. With a population as high as 11,384 per sq. metre here, it has replaced the Asian green mussel (*Perna viridis*) and the edible oyster *Magallana bilineata* (known locally as muringa). Externally, the Charru mussel resembles the green and brown mussels (*kallummekkaya* in Malayalam), but is much smaller in size. Its colour varies from black to brown, purple or dark green.



A Fast Breeding Pest

In Ashtamudi Lake, the Charru mussel had established breeding populations in 2018 and 2019, acquiring the moniker 'varathan kakka' (alien mollusc). The short-necked clam fisheries in the lake had obtained an eco-label from the Marine Stewardship Council and about 3,000 people are dependent on fisheries here. In such a scenario, the fast-breeding Charru mussel could be seen as a 'pest,' the authors state. "The potential of *Mytella strigata* to outcompete the lucrative clam fishery is a serious concern that urgently needs to be addressed," they add. Though this smaller mussel is edible, the overall economic loss and impact on biodiversity is much bigger, it is pointed out. In all probability, the mussel reached the Indian shores attached to ship hulls or as larval forms in ballast water discharges. Cyclone Ockhi may have simply speeded up their invasion of inland waters. In this scenario, there is an urgent need to identify the presence of the Charru mussel in other parts of India by locating the pathways of introduction, said Biju Kumar of the University of Kerala.

New Plant Species Found in Western Ghats

- A team of scientists of the Botanical Survey of India (BSI) have reported the discovery of three new plant species in the evergreen forest patches of the southern end of the Western Ghats in Kerala and Tamil Nadu. The three species – *Eugenia sphaerocarpa* of the Myrtaceae or Rose apple family, *Goniothalamus sericeus* of the Annonaceae family of custard apple and *Memecylon nervosum* of the Melastomataceae (Kayambo or Kaasavu in local parlance) family – were discovered during a recent exploration led by BSI scientist K.A. Sujana.

Of Firms and Nations (Chirantan Chatterjee - Faculty Member at IIM Ahmedabad And Visiting Fellow at Hoover Institution, Stanford University)

- Within just a few days, economics has lost two leading lights. **Oliver Williamson**, the Nobel Laureate from the University of California, Berkeley, died at 87 on May 21. This was soon followed by the sudden demise of **Alberto Alesina**, a Harvard political economist, aged 63.

The Optimal Size

Both Williamson and Alesina moved out of the shadows of their advisers over time to carve out their own niche. While this is a noteworthy point in following the scholarly trajectory of both, the other is how between them they spanned two key tenets of an economy. **One examined the optimal size of a firm, and the other, the optimal size of a nation.** Williamson, in fact, focused his entire body of work on a new unit of analysis. He posited that to understand the optimal size of firms, one needs to focus on transactions and contracts as the unit of analysis. These, he argued, ultimately influences how large or vertically integrated firms became. Meanwhile, Alesina dealt with the question of what is the optimal size of nations. In his book, *The Size of Nations*, with his co-author Enrico Spolaore, Alesina argued that the optimal size of a country is determined by a trade-off between the benefits of size and the costs of heterogeneity. In a large country, per capita costs may be low, but the heterogeneous preferences of a large population make it hard to deliver services and formulate policy. Smaller countries may find it easier to respond to citizen preferences in a democratic way. In a world where there is, both within and among nations, a heterogeneous quality of responses in dealing with COVID-19, and where we have examples from smaller nations like Taiwan, South Korea, Singapore vis-à-vis larger ones like the U.S., Brazil or India, Alesina's work rings a bell. Williamson's thoughts, meanwhile, should also resonate with reshaping of bargaining contracts that employees will now strike with employers in the new 'work from home' future that firms are venturing into.



Older Men Worry Less About Covid-19 Than Others

- Data on Covid-19 so far has indicated that men are more vulnerable than women, and the elderly more vulnerable than the young. Now, a study has found that older men worry less about Covid-19 than women their age or than younger men and women, and thus may be at greater risk of contracting it. This is a concern given that older men are already more at risk, according to the study by researchers at Georgia State University, and published in The Journals of Gerontology. In general, worry begins to ease with age, and is also lower among men than women. "Not only do older adults exhibit less negative emotions in their daily lives, they also exhibit less worry and fewer PTSD symptoms following natural disasters and terrorist attacks," gerontology and psychology researcher Sarah Barber said in a statement. They were relatively less likely to have worn a mask, to report having stopped touching their faces or to have purchased extra food. Barber does not think the answer is to try to incite worry in older men. She thinks a better answer is to help them understand their risk accurately, the university said.

In Gene Linked to Dementia, A Correlation with Severe Covid

- A new study has found a link between the severity of Covid-19 and a gene linked to dementia. Having a faulty gene linked to dementia doubles the risk of developing severe COVID-19, according to the large-scale study, published in the Journal of Gerontology: Medical Sciences. The gene is called APOE, and exists in a different form, one of which is termed e4e4. Researchers at the University of Exeter Medical School and the University of Connecticut School of Medicine analysed data from the UK Biobank, which collects health and genetic data on 500,000 people. They found high risk of severe Covid-19 infection among European ancestry participants who carry two faulty copies of this gene. One in 36 people of European ancestry have two faulty copies of this gene, and this is known to increase risks of Alzheimer's disease up to 14-fold and also increases risks of heart disease, the University of Exeter said in a statement. Now, the research team has found that carrying these gene mutations doubles the risks of Covid-19 – even in people who had not developed these diseases. The same team has previously found that people with dementia are three times more likely to get severe Covid-19, the University said. It said part of the increased risk may have been due to exposure to the high prevalence of the virus in care homes. However, the new study suggests that a genetic component may also be at play. The team found that people with the APOE e4e4 genotype were at double the risk of developing severe Covid-19, compared to those with the common e3e3 form of the APOE gene.

Assam Varsity Develops Fungal Powder to Boost Immunity

- Bodoland University, one of Assam's youngest universities, says it has developed a fungal powder to help people boost immunity during the time of a global pandemic. The powder is from a parasitic but rare "super mushroom" called Cordyceps militaris. Bodoland University (BU) looked at ways to fight the virus by boosting a person's immunity. The outcome was a potent pinch of C. militaris, powdered through lyophilisation or freeze-drying at -80°C. The earth has more than 400 species of Cordyceps, a fungus parasitic on insects as well as other fungi. Often referred to as a super mushroom, Cordyceps known for its anti-ageing, anti-viral, energy and immunity-boosting effect. "Natural Cordyceps is hard to get and if dried, costs at least ₹8 lakh per kg. Our lab has been growing C. militaris since 2017 at a fraction of the cost," said Sandeep Das, Dean of BU's faculty of Science and Technology.



Long Journey

"We made small paper pouches, each containing 150 mg of the super mushroom powder and distributed it free to about 500 people, many from nearby villages, while handing out herbal and alcohol-based sanitisers and masks. The dose ideally is once a week for making the system strong enough to resist viral attack," Mr. Das told The Hindu. The Department of Biotechnology has ordered capsules in two sizes from a firm based in Nashik, Maharashtra. The consignment is expected to reach BU soon. Each capsule containing the powdered super mushroom would cost ₹120 if produced commercially. But the university wants to make it affordable for the common man.

Why do Some Covid-19 Patients Lose Their Sense of Smell?

→ SARS-CoV-2, the virus that causes Covid-19, hijacks two human proteins to invade cells. One is the ACE2 "receptor" on the cell surface (it opens the door for the virus) while the other is called TMPRSS2, which the virus uses to replicate its genetic material. In mice, the researchers found, these two proteins are produced by certain cells of the nasal cavity that contribute to the mice's sense of smell (and ours). Within the olfactory epithelium, which is a tissue lining the nasal cavity that is involved in smell, the "sustentacular cells" had the highest level of SARS-CoV-2 receptors, researcher Rafal Butowt of Nicolaus Copernicus University, Poland, told The Indian Express by email. The sustentacular cells help transfer odours from the air to neurons. Butowt and colleagues first used various methods to measure the levels of expression of the two proteins. They found that the mature olfactory neurons do not express ACE2, while the sustentacular cells do. "The sense of smell in Covid-19 patients appears to be lost, because the sustentacular cells assist neurons in sensing odours, probably by processing odour-binding proteins," Butowt said. Identifying these cells could help in the development of more accurate diagnostic tests, the researchers said. They have called for future studies should examine whether sustentacular cells can pass the virus to neurons, which could provide SARS-CoV-2 a route to infect the brain.

Age Is A Factor

The researchers also found that larger amounts of the proteins are made in older mice than in younger ones. "These are significant findings, because the more entry proteins a host cell has, the easier it is for the virus to bind, enter and infect that cell. The high levels of entry proteins in the nasal epithelium may explain why older humans are more likely to become infected with the novel coronavirus than younger humans," Butowt said. The question is whether what was observed in mice happens in humans too. "It is known that the entry proteins have similar expression patterns among mammalian species – meaning that the mouse appears to be suitable model for the human condition," Butowt said.

Why the Nose Matters

Earlier research had identified two kinds of cells in the nose as the likely first entry points for the virus. These are goblet cells (which produce mucus) and ciliated cells (which help sweep mucus to the throat so it can be swallowed). That study, too, had drawn its conclusions from the expression of the two entry proteins. Using the Human Cell Atlas database, it looked at data from different tissues of non-infected people. It found that these two proteins had the highest presence in goblet and ciliated cells. There is a key difference in what the two studies looked at. The previous study, by researchers of UK's Wellcome Sanger Institute, looked at all human cells and identified goblet and ciliated cells as the likely first points of entry. These occur in the respiratory epithelium, while the new study looked specifically at the olfactory epithelium. Asked if the findings are in conflict, Butowt said all studies depend on the method



used. "However, what is sure is that sustentacular cells in the olfactory epithelium have highest level of SARS-CoV-2 receptors as compared to other cells in olfactory epithelium, and ciliary and goblet cells I may say the same as compared to other cells in the respiratory epithelium. But direct comparison between respiratory and olfactory epithelium requires further studies with more techniques," Butowt said.

Solidarity Trial: What Progress Has Been Made So Far?

- The World Health Organization (WHO) announced it would no longer assign patients to the hydroxychloroquine (HCQ) arm of the multi-country Solidarity Trial on possible treatments for Covid-19. A recent study in The Lancet had cautioned that the use of a regimen containing hydroxychloroquine or chloroquine (with or without a macrolide – antibiotics such as azithromycin) was associated with no evidence of benefit. Instead the use was linked to increased rates of mortality and heart arrhythmias among hospital patients with Covid-19. The announcement raises several questions, particularly in India which is a major manufacturer/exporter of the drug and has also reposed implicit faith in its therapeutic and prophylactic role for health workers exposed to Covid-19 cases.

What Is the Solidarity Trial?

"Solidarity" is an international initiative for clinical trials launched by the WHO, along with partners, to help find an effective treatment for Covid-19. It was originally supposed to look at four drugs or drug combinations: remdesivir, HCQ, ritonavir/lopinavir and lopinavir/ritonavir/interferon beta 1a. Now with HCQ trial enrolment stalled for at least the next few weeks, the Solidarity trial will proceed with the other three arms. Some data on HCQ will still be generated, though. India is among the countries where the Solidarity Trial is being carried out. Four hospitals in Jodhpur, Ahmedabad, Chennai and Bhopal have received regulatory approvals, and more will follow. In all, patients in 20-35 hospitals in the country will be part of the trial.

Have Any of The Arms Made Particularly Good Progress?

So far, remdesivir is widely being described as the most promising, although results of various trials have sometimes been conflicting. Developed by Gilead Sciences Inc, remdesivir is a broad-spectrum antiviral which was previously tested in humans with Ebola virus disease, and which has also shown promise as a drug against MERS and SARS, both of which are caused by coronaviruses. A trial funded by the US National Institute of Allergy and Infectious Diseases has found, in the preliminary results, significant positives to the use of remdesivir in patients requiring oxygen therapy. The drug was found to speed up recovery during a trial and the results were encouraging enough to warrant publication of the results even while the trial was still on. However, in an earlier, truncated study reported in The Lancet, Chinese researchers had concluded they could not find any "statistically significant clinical benefits" of the drug.

What Results Was HCQ Showing in Trials, And What Led to The Suspension?

Hydroxychloroquine is a drug used in the treatment of autoimmune diseases such as rheumatoid arthritis and lupus, and also as a malaria treatment and preventive. In a sense, it remains part of the trial because patients who had been earlier randomised to get the drug will continue to do so until the treatment is completed. The WHO is expected to take a call on its future inside the trial by mid-June.



What Are the Other Arms of Solidarity?

Ritonavir and liponavir are second-line HIV drugs, known as **HIV protease inhibitors**, that have been in use for some time. They bolster the immune system, which reduces the chances of a HIV-positive person developing complications such as tuberculosis. Their use in India for HIV, though, is very limited – 70% Indian patients are on first-line drugs. These drugs are manufactured in India mainly for export mostly to African countries. Following early reports from China on successful use of the drug combination, India in February had obtained regulatory clearance for their use in Covid-19. **The drugs were used in a handful of patients before India began to focus on HCL and azithromycin by the end of March. India's change of stance came following a 199-subject trial in China on the efficacy of ritonavir/lopinavir. The study reported that at 22.1%, the mortality reported in the trial was substantially higher than the 11% to 14.5% mortality reported in initial studies of patients hospitalised with Covid-19.** However, the drugs have not been written off as candidates in the hunt for Covid-19 treatments.

What Is the Other Arm That Includes Ritonavir/Lopinavir?

It involves the two drugs in combination with **interferon beta 1a** – which belongs to a class of **substances known as cytokines** that are secreted by immune cells to signal other cells to act against an imminent or acute infection. It is used **to treat diseases like multiple sclerosis**. Some studies have shown that if interferon beta 1a is added to ritonavir and lopinavir, there are better results than when the antivirals alone are used.

What Is India's Position?

India expanded the list of people eligible for prophylactic use of HCQ to include non-healthcare frontline workers. The revised advisory now says: **"Joint Monitoring Group and NTF have now recommended the prophylactic use of HCQ in all asymptomatic healthcare workers involved in containment and treatment of COVID19 and asymptomatic healthcare workers working in non-COVID hospitals/non-COVID areas of COVID hospitals/blocks, asymptomatic frontline workers, such as surveillance workers deployed in containment zones and paramilitary/police personnel involved in COVID-19 related activities and asymptomatic household contacts of laboratory confirmed cases."** The drug, though, is not to be used in people with retinopathy, hypersensitivity to the disease, cardiac problems or glucose 6 phosphate deficiency. It is not to be used in pregnant or lactating mothers of children aged less than 15 years. either. Use of the drug has to be preceded by an ECG. Data on assessment of HCQ prophylaxis among 1,323 healthcare workers indicated mild adverse effects such as nausea (8.9%), abdominal pain (7.3%), vomiting (1.5%), hypoglycemia (1.7%) and cardio-vascular effects (1.9%). And as per the data from the Pharmacovigilance Program of India, there have been 214 reported instances of adverse drug reactions associated with prophylactic HCQ use. Of these, 7 were serious individual case safety reports with prolongation of QT interval on ECG in 3 cases. The advisory warned: "It is reiterated that the intake of above medicine should not instil a sense of false security." The advice for use of the drug along with azithromycin in serious patients of Covid-19 remains. However, last week Dr R R Gangakhedkar director of epidemiology and infectious diseases at the Indian Council of Medical Research said: "We will review the evidence (on hydroxychloroquine) and take a call". India has in the past discussed population-level prophylactic use of the drug.

Glenmark To Conduct 'FAITH' Trials

- ➔ With the number of COVID-19 patients rising in India, Glenmark Pharmaceuticals Ltd., has announced a new randomised, open-label study to test the combined efficacy of two antiviral



drugs – **Favipiravir and Umifenovir** – as a potential COVID-19 treatment strategy. The two antiviral drugs have different mechanisms of action, and their combination may demonstrate improved treatment efficacy by effectively tackling high viral loads in patients during early stages of the disease, the company said in a statement. Early administration of a combination of antiviral medications acting by different mechanisms is desirable for the treatment of COVID-19, since the viral load of SARS-CoV-2 peaks around the time of symptom onset, it added. The current Glenmark study will examine whether early administration of a combination of Favipiravir and Umifenovir enhances anti-viral efficacy on COVID-19 patients. Hence, a combined use of Favipiravir and Umifenovir acting on different mechanisms offers a comprehensive antiviral cover on pre-entry and post-entry lifecycle of the SARS-CoV-2 virus, the company said. Both Favipiravir and Umifenovir inhibited virus infection in vitro and have shown efficacy in COVID-19 clinical trials. The new combination clinical trial will be called FAITH – (FA vipiravir plus Um I fenovir (efficacy and safety) Trial in Indian Hospital setting).

What We Know So Far About Breast Milk, Pregnancy and Covid-19

- ➔ A recent study published in The Lancet has examined the milk from two nursing mothers infected with SARS-CoV-2. The researchers found SARS-CoV-2 RNA in the second mother for four consecutive days. Even so, it remains unclear if a new-born can be infected by the consumption of infected breast-milk. So far, little is known about the presence of virus in breastmilk and the transmission of the virus from infected breastmilk to an infant.

What We Know About Pregnancy and Coronavirus

Earlier in April, the Indian Council of Medical Research (ICMR) laid down the need for healthcare workers and obstetricians to factor in the consequences of the “probable” vertical transmission of Covid-19. Vertical transmission can occur before birth (antenatal), weeks immediately prior to or after birth (perinatal), or after birth (postnatal). The guidelines noted, “With regard to vertical transmission (transmission from mother to baby antenatally or intrapartum), emerging evidence now suggests that vertical transmission is probable, although the proportion of pregnancies affected and the significance to the neonate has yet to be determined.” **Pregnant women are at a higher risk of developing more severe illness from Covid-19, as pregnancy weakens the immune system. Another reason that pregnant women may develop more severe outcomes is because during pregnancy, the upper respiratory tract tends to be swollen due to high levels of oestrogen and progesterone and restricted lung expansion, which may make such women susceptible to respiratory pathogens.** A review article published in the Journal of Reproductive Immunology in April states that Covid-19 could affect the wellbeing of mothers and infants by altering the immune responses in pregnant women. Further, it says that maternal infection and inflammation that resulted as a response to the infection could also affect the developing foetus.

What Does the New Study in The Lancet Tell Us?

Researchers collected milk samples from two infected mothers after feeding and milk disinfection and viral loads were determined using RT-qPCR tests. Following admission and delivery (day 0), four samples taken from Mother 1 tested negative. On the other hand, virus RNA was detected in the milk taken from Mother 2 at 10 days, 12 and 13. Further, the detection of virus RNA in Mother 2 coincided with mild COVID-19 symptoms. **While it cannot be said for certain if breastmilk with virus RNA can go on to infect new-borns who consume it,** the finding adds to the emerging evidence about the possible locations where virus RNA can be found. For instance, **the presence of viral RNA of SARS-CoV-2 has also been found in faeces, but that**



does not necessarily mean that it is infectious. Researchers have called for further studies of breastmilk samples to determine if transmission is possible through this medium.

Monkeys Stay Resistant to Reinfection

- Evidence from studies carried out on rhesus macaque monkeys suggest that once infected with novel coronavirus, the animals may be protected against reinfection. Though early, this is an encouraging news that vaccines when developed may be able to elicit immune response – humoral and cellular immune responses – to protect individuals from infection. The team led by Dan H. Barouch from Harvard Medical School in Boston; Massachusetts published the results in the journal Science. In total, nine adult rhesus macaques (6-12 years old) were exposed to two different doses of the virus. The researchers found high levels of virus in the lungs and nose (nasal swabs). While the virus cleared by day 10 in the lungs, it persisted for as long as 28 days in the nose. The researchers next evaluated different immune response by animals that were infected by the virus. They found that all nine animals developed binding antibody responses to the spike protein of virus and neutralising antibody responses, too. In addition, antibody responses of multiple subclasses were found.

Declining Viral Load

On day 35, following initial viral infection, all the nine monkeys were re-exposed or challenged with the same three doses of the virus. Compared with three monkeys that were not earlier infected with the virus, all the nine animals that were challenged showed very less virus in the lungs on day one and no virus on subsequent days. In the case of the nose, the viral load was higher than in the lungs but lower than when exposed for the first time (to induce infection). The viral load in the nose after the challenge showed “rapid decline”. “Little or no clinical disease was observed in the animals following rechallenge,” they write.

Blood Clots in The Lung May Be A Major Cause Of COVID-19 Deaths (Alok Srivastava

- Professor Of Medicine At The Christian Medical College, Vellore)

- The major fear of COVID-19 infection is the significant fatality associated with it. Even though death from this infection has been relatively low in India and is <1% in Tamil Nadu, given the very large number of people infected, significant numbers continue to die. Based on the data available so far, it is clear that the cause of death in almost all patients is respiratory failure. What is its cause? Unlike what would be expected in a viral infection in the lungs, it is not the pneumonia itself, like in most previous influenza outbreaks, but rather surprisingly it is early and progressive clotting of blood in the lungs (pulmonary thrombosis) which impairs blood supply and gas exchange leading to respiratory failure. This mechanism is supported by several levels of evidence. First, it has been recognised from the very early reports that very high proportions of patients with COVID-19 infection presenting to hospitals had elevated levels of d-dimer, a general marker of thrombosis in blood vessels. Those with highly elevated d-dimer levels were more prone to severe respiratory complications and death. In most of these patients, there are no other sites of thrombosis to explain the raised d-dimer such as the leg veins which is much more common but has only been reported in a few patients late in their illness after they have been in the hospital for several days.

Strongest Evidence

Second, the strongest evidence for this extensive microvascular thrombosis comes from several autopsy studies from different countries. All these have shown extensive blood clots in the small vessels of the lung (microvascular thrombosis - MVT) with only modest evidence



of the pneumonia suggesting that it is the blood clots which cause poor oxygenation and respiratory failure.

Need for Interventions

The critical need therefore is for early recognition and intervention with blood thinners (anti-coagulation) in this illness and with appropriate doses. This can be easily implemented in all hospitals based on some simple assessments: Rate of breathing at rest (say above ~20/minute) and lowered level of oxygen in the finger (pulse-oximeter, which is easily checked in hospitals at presentation - less than 93%) even when they look relatively well. If possible, d-dimer levels should be checked immediately. If found to be elevated (more than 2-3-fold above normal), this would indicate the evolving condition in the lung. Such patients should immediately receive commonly used blood thinners such as heparin or low molecular weight heparin (LMWH) in therapeutic doses till the symptoms resolve. In those with higher risks of complications, preventive doses of LMWH have been advised soon after diagnosis. These medicines may be contraindicated in certain situations. So proper medical supervision is necessary. Careful monitoring for adverse effects must also be done. It is important therefore that the public as well as health care professionals be aware of this problem of blood clots in the lung whose severity is unique to COVID-19. There is of course need for more studies to determine the right doses at the right stages of the disease.

Faeces Samples Can Harbour Infectious Coronavirus, Study Finds

- Researchers from China have isolated infectious novel coronavirus from faeces of a patient who died. While other researchers were able to show viral RNA in urine and faeces samples using molecular tests, such studies have not been able to tell if the virus was infectious in nature. The latest study by a team led by Jincun Zhao from Guangzhou Institute of Respiratory Health, Guangzhou in China was able to confirm infectiousness of the virus isolated from faeces samples. Confirmation of infectious virus in faeces samples raises the potential for faecal-oral or faecal-respiratory transmission through aerosolised faeces. The results were published in the journal Emerging Infectious Diseases. During the 2003 SARS pandemic, 329 residents of a private housing estate in Hong Kong were infected and 42 died. Investigation of the building's structure showed that faulty sewage pipelines led to aerosolization of contaminated faeces, which was believed to be the source of infection. Earlier, another team of researchers from China were able to isolate the virus from a single stool specimen and culture the virus. This led to the World Health Organization recognising that "coronavirus infection may lead to intestinal infection and be present in faeces". According to the WHO, there are "no reports of faecal-oral transmission of the COVID-19 virus" so far. The main routes of transmission for SARS-CoV-2 virus so far known include droplet transmission and contact with contaminated surfaces. On March 29, the WHO recognised airborne transmission of novel coronavirus. In airborne transmission, the virus is present within droplet nuclei, which are generally considered to be particles less than 5 micron in diameter, can remain in the air for long periods of time and be transmitted to others over distances greater than one metre. On January 17, 2020, a 78-year-old man who had a history of recent travel to Wuhan, China, was admitted to a hospital. The first faeces specimen was collected on January 27 and tested positive for viral RNA. Researchers also collected samples on three more days, and all samples were positive for viral RNA. They were able to isolate, culture the virus and even sequence the whole genome of the virus. The viral load was higher in faeces than in respiratory specimens collected at multiple time points (17-28 days after symptom onset), they write. They were, however, not able to isolate the virus from faeces samples collected at later time points suggesting that the virus in faeces was not infectious when collected at later time points of disease onset. In all, the researchers collected faeces specimens from 28 patients and were



able to isolate the virus from two of the three patients. This indicates that infectious virus in faeces is a “common manifestation” of COVID-19, they say.



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