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International

Is Trump Empowered to Delay the Election?

- U.S. President Donald Trump triggered a new controversy by suggesting that the November elections be delayed due to the COVID-19 pandemic. "With Universal Mail-In Voting (not Absentee Voting, which is good), 2020 will be the most INACCURATE & FRAUDULENT Election in history... Delay the Election until people can properly, securely and safely vote???" he tweeted. Though rumours were doing the rounds for some time, this was the first time Mr. Trump suggested that the elections should be postponed. Does he have the powers to do so? He doesn't. According to the U.S. Constitution, it is Congress, not the President, that decides the timing of the elections. A federal law approved on January 25, 1845 has unambiguously set the election timing. "That the electors of President and Vice President shall be appointed in each State on the Tuesday next after the first Monday in the month of November of the year in which they are to be appointed," states the law, referring to the selection of the Electoral College. This falls on November 3 this year. It can be changed only by passing a new law, which needs the approval of both the House of Representatives and the Senate, and will be subject to legal challenges. The House is now controlled by the Democratic Party and the Senate by the Republicans. Senior leaders of both parties have dismissed Mr. Trump's suggestion to postpone the election.

What If It's Delayed?

While the possibility of postponing the elections is very, very low, even if lawmakers agree to change the date, in the event of a bigger crisis, Mr. Trump can't continue in the White House beyond his stipulated term. President Trump's first term is set to expire at noon on January 20, 2021. The 20th Amendment of the U.S. Constitution moved the beginning and ending of the terms of the President and the Vice-President from March 4 to January 20. These dates cannot be changed. Ordinarily, if the presidency is vacant, the Vice-President assumes charge. But here, the terms of both President Trump and Vice-President Mike Pence will expire on January 20. The House Speaker is the next in the line of succession. But the two-year term of the current House expires on January 3, 2021. So, Speaker Nancy Pelosi cannot assume the presidency. The next in the line is the 'president pro tempore' of the Senate, largely a ceremonial position. According to Article 1, Section Three of the Constitution, the Vice-President is the president of the Senate, and the Senate should choose a president pro tem to act in the absence of the Vice-President. Currently, senior Republican Chuck Grassley is the president pro tem. But if elections are not held in November (in which 23 Republican Senate seats and 12 Democrat seats are up for grabs), the current equation of the Senate would change. The Democrats would have a majority and they could elect a new president pro tem.

Voting by Mail

If elections are held in November, a record number of Americans are expected to vote by mail due to the COVID-19 crisis. Most States have said that registered voters must request for a



ballot in the mail or cast their votes in person. **Independent researchers have debunked the voter fraud theories.** States can adopt different measures such as barcodes to track the ballots (the voter can also track his or her ballot) and conduct post-election audits. **Studies have also pointed out that in States like Washington, which vote almost entirely by mail, no major frauds were reported in the past. President Trump has not offered any evidence to his claims either.**

Gandhi-King Initiative Passes U.S. House Committee

- A Bill authored by American civil rights leader and lawmaker John Lewis, which seeks to establish an exchange programme between India and the U.S. to study the work and legacies of Mahatma Gandhi and civil rights leader Martin Luther King Jr., passed an important committee in the U.S. House of Representatives, days after Mr. Lewis's death. The Bill, co-sponsored by Indian American Congressman from California Ami Bera will establish annual scholar and student exchange programmes for Indians and Americans to study the leaders' legacies and visit historic sites in India and the U.S., relevant to the India's freedom struggle and the U.S.'s civil rights movement. The Bill also seeks to establish the Gandhi-King Global Academy, a conflict resolution initiative based on the principles of non-violence. It proposes the establishment of the U.S.-India Gandhi-King Development Foundation set up by the U.S. Agency for International Development (USAID) and the government of India, organised under **Indian law**. The Foundation, which has a proposed budget authorised of up to \$30 million per year for five years through 2025, is tasked with administering grants to NGOs that work in health, pollution and climate change, education and empowerment of women.

Fitting Tribute

"Just like Gandhi and Dr. King, Congressman Lewis shaped the world through his actions of non-violence, and his life story will reverberate throughout history. The Gandhi-King Scholarly Exchange Initiative Act is a fitting tribute to his incredible legacy," Mr. Bera, who heads the influential Subcommittee on Asia, the Pacific and Non-proliferation, said. "As the world's oldest and largest democracies, the U.S. and India have long traditions of upholding these shared values championed by figures like Gandhi, King, and Congressman Lewis. But they are increasingly under threat in both countries. This legislation will help ensure those values endure and remind us that by holding true to them, we embody and live up to the best of our two nations," he said.

Meet Noor Inayat Khan, The Indian-Origin British Spy Who May Soon Be On Coins In

UK

- British media reported this week that Rishi Sunak, the Chancellor of the Exchequer, is considering a proposal to feature historical figures from the **Black, Asian and minority ethnic (BAME) community of the country on a set of coins titled 'Service to the Nation'.** **If the proposal is passed, it will be the first time that non-white people will be featured on British coins or notes.** The plan has been submitted to the Royal Mint, which is to come up with proposals and designs. Zehra Zaidi of the advocacy campaign 'Banknotes of Colour', along with a group of historians and MPs, had written to the Chancellor proposing some historical figures. Among them were the Indian-origin British spy **Noor Inayat Khan**, as well as Khudadad Khan, the first soldier of the British Indian Army to receive the Victoria Cross. Khudadad Khan, who belonged to the Chakwal district of Punjab in present-day Pakistan, died



in 1971. The continuing Black Lives Matter protests in the United States, triggered by the killing of George Floyd by a police officer in Minneapolis in May, which have put a spotlight on the lack of BAME representation in the UK, and have compelled authorities to take appropriate steps.

Who Was Noor Inayat Khan?

Born in Moscow to an Indian father and an American mother, her family moved to London and then to Paris during the First World War. Although Noor started working as a children's writer in Paris, she escaped to England after the fall of France (when it was invaded by Germany) during the Second World War. In November 1940, she joined the Women's Auxiliary Air Force, an arm of the UK's Royal Air Force to train as a wireless operator. She then did a stint at the secret intelligence organisation set up by Winston Churchill called Special Operations Executive (SOE). She became the first radio operator to be sent to Paris to work for SOE's Prosper resistance network under the codename Madeleine. She was just 29 then, and had signed up for a job in which people were not expected to be alive for longer than six weeks. Even as many members of the network were being arrested by the Nazi secret police Gestapo, Noor chose to stay put – and spent the summer moving from one place to another, sending messages back to London, until she was arrested in 1943. She was executed at the Dachau concentration camp in southern Germany near Munich. Noor was awarded the highest honour in the UK, the George Cross, in 1949, and the French Croix de Guerre with the silver star posthumously.

What Was Noor's Connection to India?

She was connected to India through her father Inayat Khan. He was founder of the Sufi Order of the West, which is now known as the **Inayati Order**. He had migrated to the West as a Hindustani classical musician, and then moved to teaching Sufism. Inayat Khan was born in Baroda. His maternal grandfather was the noted musician **Ustad Maula Bakhsh Khan, who founded the music academy Gyanshala, which now serves as the Faculty of Performing Arts at Maharaja Sayajirao University**. Maula Bakhsh's wife, Qasim Bibi, was a granddaughter of Tipu Sultan of Mysore. Inayat returned to India in 1926 and chose the site of his burial at the Nizamuddin Dargah complex in New Delhi. The Inayat Khan dargah still stands in a corner of the complex.

Besides Being A GC, What Other Honours Has Noor Received?

In 2014, Britain's Royal Mail had issued a postage stamp in honour of Noor as part of a set of 10 stamps in the 'Remarkable Lives' series. In 2012, a memorial with a bust of Noor was unveiled in London by Princess Anne. Shrabani Basu, author of 'Spy Princess, The Life of Noor Inayat Khan', and Chair of the Noor Inayat Khan Memorial Trust, had campaigned for the memorial. In February 2019, Noor's London home at 4 Taviton Street in Bloomsbury, the house that she left for her final mission, was honoured with a blue plaque. She was the first Indian-origin woman to be awarded the plaque.

How Has Noor Been Represented in Popular Culture?

Various documentaries on women agents and the SOE have featured her story, such as Netflix's 'Churchill's Secret Agents: The New Recruits'. In 2018, a play titled 'Agent Madeleine' premiered at the Ottawa Fringe Festival. In 2012, Indian producers Zafar Hai and Tabrez Noorani obtained the film rights to the biography by Basu. In the film 'Liberté: A Call to Spy',



an American historical drama, actor Radhika Apte played the role of Noor. The film had its world premiere at the Edinburgh International Film Festival last year.

'54 Nations Not Doing Enough to Fight Slavery'

- With Commonwealth countries accounting for about 40% of people living in conditions of modern slavery in the world, the 54 nations were found lacking in actions to eradicate modern slavery by 2030, according to a report released by the Commonwealth Human Rights Initiative (CHRI) and anti-slavery organisation Walk Free, on the occasion of World Day Against Trafficking in Persons. The report stated that India had fared the worst in terms of coordination, "with no national coordinating body or National Action Plan in place". "Commonwealth countries have made little progress towards their commitment to eradicate modern slavery by 2030, despite an estimated one in every 150 people in the Commonwealth living in conditions of modern slavery," CHRI and Walk Free said in a statement. The report found that one-third of the Commonwealth countries had criminalised forced marriage, while 23 had not criminalised commercial sexual exploitation of children.

Durga Meme Row and Other Reasons Why Israeli PM's Son Yair Netanyahu Is Always in The News

- Yair Netanyahu, 29, the son of Israeli Prime Minister Benjamin Netanyahu, has no formal role in Israel's government but he is never far from controversy and ensuing headlines. In his latest gaffe, the younger Netanyahu shared a Twitter image of Goddess Durga superimposed with the face of Attorney-General Avichai Mandelblit and the tiger superimposed with that of prosecutor Liat Ben Ari, who are both investigating an ongoing corruption case involving his father. Below the photo was a caption in Hebrew that read: "Know your place you despicable people". The deity's arms were morphed to show the middle finger. Following criticism for his tweets, particularly from Indian social media users, Netanyahu deleted the post, writing: "I've tweeted a meme from a satirical page, criticizing political figures in Israel. I didn't realize the meme also portrayed an image connected to the majestic Hindu faith. As soon as I realised it from comments of our Indian friends, I have removed the tweet. I apologize to all our Hindu brothers and sisters for this mistake. (sic)"

What Role Does Yair Netanyahu Play in Furthering the Prime Minister's Agendas?

"Yair is considered to be a very influential social media figure (in Israel) and has a large number of followers on different platforms like Facebook, Twitter and Instagram. He is considered to be an informal spokesperson of his father on social networks and many times we see that some controversial opinions and messages his father cannot say, he can express freely," Netanyahu pushes content on social media that appeals to his father's right-wing political base, a group of ardent supporters who are called 'Bibists', a play on the **prime minister's nickname 'Bibi'**. "We can see how hundreds of right-wing "trolls" on social media follow him and share or retweet his messages...They are willing to share and publish every single lie or smear that can help his father and hurt his enemies," says Ring. Netanyahu's modus operandi on social media is similar to that followed by other leading populist leaders around the world, Ring says, from Trump to Hungary's prime minister Viktor Orbán and Brazil's Bolsonaro. "He usually uses social media to attack "liberal" elites and focuses mainly on mainstream media, calling them leftist and fake news, the legal system and the Supreme Court, saying they are "deep state" trying to overthrow his father, and of course the opposition



and the Arab minority.” To an outside observer, Netanyahu’s iconoclasm doesn’t appear to leave any institution or individual untouched if he deems them to be critical of his father. Protests against Israel’s Prime Minister Benjamin Netanyahu have been on for weeks, with thousands of protestors taking to the streets and gathering outside the prime minister’s official residence in Jerusalem. Since July, Israelis have been protesting against the government’s mishandling of the COVID-19 outbreak and its impact on the country’s economy. These protests come at a time when Netanyahu has been facing charges of fraud, breach of trust and accepting bribes in a series of scandals, with protestors ramping up calls for the prime minister’s ouster. The prime minister’s corruption trial started this month and hearings in the case will begin in January 2021. In the weeks since protests started, crowds had also gathered outside Netanyahu’s beach house in Caesarea, in north-central Israel. Last week, Netanyahu publicly addressed the protests warning protestors to not descend into “anarchy, violence” and attacks against the police. He also urged the protestors to maintain health ministry guidelines to prevent the spread of COVID-19. In Jerusalem last week, Israeli police used water cannons to disperse protestors.

→ Why Has Israel Been Hit with Protests Recently?

According to local news reports, protests in Israel started essentially because of the economic impact of COVID-19 that has hit small business owners and the self-employed the hardest. The self-employed have complained that government support schemes that had been promised to alleviate economic hardship have not reached them. In the first week of July, Netanyahu had met protesting groups and had promised to hasten payments through these schemes. Some protestors have also said that aid measures haven’t been enough despite the government’s revisions. Since Israel implemented strict lockdown measures in March following rising infection numbers, livelihoods of thousands of people have been severely hit. These measures, however, did initially help control a wider outbreak of infections, say local news reports. Although the government began lifting lockdown restrictions in May, the economic impact has persisted for many in the country. According to a BBC report, unemployment has risen to 21% since lockdown measures were first implemented in Israel.

What Was the Netanyahu Family’s Response to Protests?

Israeli newspaper Haaretz reported that the Netanyahu family has been publicly criticising these protestors, with the prime minister’s son Yair Netanyahu taking the front seat in his battle against his father’s critics, both political and ordinary Israelis, despite not holding any official position in the government. The prime minister also accused “demonstrators last week of spreading disease and relieving themselves in the streets and courtyards near his residence – claims his son had made on Twitter earlier using pictures from other places and times with no connection to the demonstrations.”

EU To Restrict Exports to Hong Kong

→ The European Union will restrict exports to Hong Kong of equipment that could be used for surveillance and repression after Beijing imposed a controversial new security law, diplomatic sources said. The bloc has expressed deep concern over the new law, which critics say will severely curb Hong Kong’s longstanding autonomy and relative freedom. But the EU has struggled to agree a united response to China, with member states deeply divided over whether to stand up to Beijing – a hugely important trading partner – or to try to



cooperate with it. France and Germany proposed the restriction on so-called "dual use" technology at a meeting of Foreign Ministers earlier this month.

China Halts HK Extradition Pacts with Canada, Australia And U.K.

- China announced the suspension on Tuesday of Hong Kong's extradition treaties with Canada, Australia and Britain in a tit-for-tat move following similar decisions by those countries over a controversial new security law. Western nations have angered Beijing over their responses to the law imposed on Hong Kong which they see as an erosion of the civil liberties and human rights the city has enjoyed since its handover from Britain in 1997. Canada, Britain and Australia are part of the "Five Eyes" intelligence alliance. The other members are New Zealand, which suspended its extradition treaty with Hong Kong earlier on Tuesday, and the United States, which has signalled it is preparing to do the same. China has accused the countries of interfering in its internal affairs and defended the security law as crucial to restore order in Hong Kong following a wave of pro-democracy protests marred by violence.

How, Despite Backlash, Chinese Tech Firm Huawei Emerged as Top Smartphone Maker

- Despite a global backlash on its products – both backend network equipment and consumer technology devices – Chinese major Huawei emerged as the top smartphone maker in terms of global device shipments during the April-June quarter pipping South Korean conglomerate Samsung to take the number 1 spot, according to data released by Counterpoint Research.

What Were the Numbers for April-June?

During the quarter, Huawei shipped 54.8 million smartphones, compared with Samsung's 54.2 million. US-based Apple was at the third position with 37.5 million devices shipped during the quarter, followed by Chinese smartphone maker Xiaomi at 26.5 million devices. During the April-June quarter last year, Huawei had shipped 56.6 million smartphones but represented only a 16% market share, which this year came at par with Samsung with both companies enjoying 20% share.

How Did Huawei Manage to Grab the Top Spot?

According to Counterpoint Research, Huawei was able to attain a leadership position because of a unique market scenario created by COVID19. China, Huawei's largest market, is now recovering from the pandemic compared to other markets like Europe, Latin America, and North America. Smartphone shipments in China declined 17% year-on-year during the quarter, a more modest decline than the rest of the world that declined 28% on the year. Huawei continued its push in China, benefiting from the recovery. It now holds almost half (47%) the market in China, and this alone contributes to 71% of Huawei's shipments compared to 62% a year ago. However, in markets outside China, its shipments declined 29% YoY. Huawei did well in some Eastern European markets like Russia and Ukraine. However, the research firm also pointed out that as markets outside China recover, it will be difficult for Huawei to maintain this lead in the coming quarters.



How Is the India Smartphone Market Shaped?

The April-June quarter saw Chinese firm Xiaomi strengthen its position as the top smartphone seller in India with a 29% market share during the three-month period, compared with a 28% share same period last year. With the exception of Samsung, which had the second-highest market share, all companies in the top five were Chinese. India's smartphone shipments declined by 51% YoY to just over 18 million units during the quarter. The nationwide lockdown imposed by the Indian government to contain the COVID-19 spread had resulted in zero shipments during April. In June, however, Indian smartphone shipments registered a mild decline of 0.3% year-on-year, caused by the pent-up demand as well as a push from brands. Due to concerns over potential COVID-19 infection, consumers prefer contactless purchasing and online channels. Smartphone brands are also recognising this trend by pushing more inventory to online channels.

Why Young People Are Protesting Against the Government in Thailand, Again

→ In a string of protests staged across Thailand this week, thousands of students revived the country's youth-led pro-democracy movement amidst the coronavirus pandemic and demanded the resignation of Thai Army-backed Prime Minister Prayuth Chan-ocha. Wearing uniform black T-shirts and face masks, demonstrators were seen at different protest sites holding up the iconic three finger salute from the 'Hunger Games' film franchise, which became a symbol of liberation in Thailand soon after the military coup in 2014. Anti-government rap songs and chants of "Get Out" echoed outside Thai schools and universities, as protestors called for the dissolution of the parliament and the rewriting of the constitution. The demonstrations first began on Saturday, when around 3,000 young people — led by the student coalition group Free Youth — assembled at Bangkok's historic Democracy Monument. In the days that followed, smaller protests broke out in cities and towns across the country. Thai Army Chief General Apirat Kongsompong alleged that the spate of youth-led protests was most likely part of a larger political conspiracy. While he vowed to allow protests to continue without military interference, Kongsompong claimed that security forces would still need to closely monitor these movements, Bloomberg reported. **With the government yet to address the protestors' grievances, Thailand's recent 'youthquake' shows no signs of weakening.** According to Free Youth, several more demonstrations are planned over the weekend.

Why Are Young People Protesting Against the Thai Government?

The Free Youth protestors first outlined their three big demands at the Democracy Monument last Saturday — first, they called for the resignation of Chan-ocha and the dissolution of the parliament; second, they demanded the rewriting of the constitution; and third, they urged authorities to stop intimidating activists for exercising their freedom of expression. Another factor that has fuelled the recent youth-led anti-government movement is the economic impact of the ongoing Covid-19 pandemic, which has also brought the country's otherwise thriving tourism industry to a complete standstill. According to the Bank of Thailand, the country's economy is expected to contract by a minimum of 8% this year, CNN reported. Due to a coronavirus-induced recession, thousands have been rendered jobless. Students, particularly graduates, find themselves especially vulnerable as they have few to no jobs to choose from. Many denounced the country's leadership for failing to reverse the economic damage caused by the pandemic. The situation is made worse by the **emergency decree** imposed by the countries' prime minister, which strictly prohibits public assembly, stops people from leaving their homes, and also includes a clause to prevent the spread of



misinformation that may cause public fear. According to reports, another month-long extension is expected despite the fact that Thailand is one of the few countries that has successfully been able to contain the spread of the virus. Critics have accused the Thai government of using the decree as a tool to prevent dissent and public protests such as these. Ever since the military coup in 2014, which brought Chan-ocha to power, the government has aggressively cracked down on pro-democracy protestors. Over the last few years, the government has even been accused of abducting critics and activists. In June, the disappearance of 37-year-old Wanchalearm Satsaksit – a member of the pro-democracy social movement 'Red Shirts' – sparked outrage amongst the country's youth. Several other exiled Thai critics have allegedly been snatched off the streets in neighbouring countries in recent years. In 2018, the bodies of two missing activists were found floating in the Mekong river. Many young people protesting today claim they are frustrated by the lack of pro-people reforms and years of economic stagnation. The countries' stringent **lèse majesté** laws, which make defaming or insulting the king an illegal offence, have also shrunk the space for dissent considerably.

[How Did Prayut Chan-O-Cha Come to Power in The First Place?](#)

Thailand's political scene has been wrecked by years of crises and coups. The coup in 2014 was one among over 12 that have been staged by the Thai army since the end of absolute monarchy in 1932. The last military take-over took place in 2006, when the government led by **Thaksin Shinawatra** was toppled by the army. His sister **Yingluck Shinawatra** was Prime Minister during the 2014 coup. On May 22, 2014, then-army chief Prayuth Chan-ocha announced that after months of political turmoil in the country, the military had seized power of the government and had suspended the constitution. He promised to restore order, before suspending TV broadcasting and banning political gatherings. A nationwide curfew was enforced. The crises first began earlier that year, when Shinawatra ordered the dissolution of the lower house of parliament. In May, a court ordered her removal for alleged abuse of power. Chan-ocha quickly replaced Shinawatra and declared himself Thailand's premier. Despite curfews and overwhelming military presence on the streets, protests led by ordinary citizens spontaneously broke out across the country. Following the coup, a hand-picked legislature was set in place, comprising mostly military and police officials. An interim constitution, issued in July, gave the military sweeping powers. Under Chan-ocha's leadership, the army and the royalist elite have joined forces and consolidated power. Last year, the country witnessed its first elections since the army coup. Young people turned up in overwhelming numbers to vote for change – they wanted a political revamp led by a progressive pro-democracy party. But a military-drafted constitution kept this from happening. Despite winning more seats than anyone else in parliament, Thailand's main opposition – Pheu Thai – didn't get to choose the country's next leader. The 250-seat senate was chosen entirely by the military, which unsurprisingly voted to keep junta leader Chan-ocha in office. The country's youth was dismayed when he was re-elected in 2019. The hashtags #RIPTHAILAND and #NotMyPM trended on Twitter for days after the results were announced. Despite his unpopularity among sections of Thai youth, the 65-year-old former general has become one of the countries' longest-serving leaders in history.

[What Is the History of These Pro-Democracy Protests in Thailand?](#)

The pro-democracy rallies seen this week did not emerge out of thin air, the protestors merely picked up where they left off earlier this year, before public assemblies were abruptly halted due to the pandemic. In February this year, thousands took to the streets after Thailand's



popular pro-democracy opposition party Future Forward, led by billionaire tycoon Thanathorn Juangroongruangkit, was disbanded for allegedly violating election laws. Students gathered on college campuses across the country to express their anger and frustration at the Thai government's decision. They accused the country's leadership of being undemocratic and demanded Chan-ocha's resignation. **The young pro-democracy demonstrators who stormed the streets this year, are vastly different from the 'Red Shirt' protestors that preceded them. The Red Shirts, formally known as the United Front for Democracy Against Dictatorship (UDD), was a political movement formed after the 2006 coup.** The group mostly consisted of rural workers who demanded the reinstatement of the then-deposed PM Thaksin Shinawatra. **They also protested against the harsh living conditions in Thailand's countryside. In contrast, today's young protestors come from relatively privileged backgrounds and reside in some of the countries' biggest cities and towns. Their methods are similar to those of protestors in the 1960s, who are considered Thailand's first generation of student demonstrators.** Protests in the 60s were launched by young people who were disillusioned with the rampant corruption and elitism that dominated politics and instead desired democratic and progressive leadership. The student movements that followed were better organised and have been a permanent fixture in Thailand's political scene. Student unions in universities and groups like the National Student Centre of Thailand (NSCT, 1968-1976) and the Student Federation of Thailand (SFT, 1984-early 2000) left an indelible mark in Thai politics. **Unable to gather in public during the Covid-19 pandemic, student protests took their revolt online. Thai youth used Twitter as a platform to voice their dissent and even forge an alliance with pro-democracy protestors in Hong Kong. Hashtags like #nnevy and #MilkTea alliance were used by protestors from both countries to counter Chinese nationalist trolls.**

Why Thailand's Students Have Demanded Amendments to School Haircut Rules

- When students across Thailand returned to school in July, after weeks of coronavirus lockdown, there were reports on social media platforms that a student at a public school in Sisaket, in north-eastern Thailand, who allegedly violated mandatory hairstyle rules prescribed by the government, was forced to undergo a haircut in public by school authorities in an act aimed at punishment and humiliation. For decades, schools in Thailand that come under the purview of the Ministry of Education have enforced strict rules regarding hair length and styles for male and female students. Violations of these rules involve penalties, including humiliating haircuts in public, as witnessed in the case of the student in Sisaket.

What Happened After Haircut Rules Were Amended?

Despite the government's amendments to haircut rules, observers say that little is being implemented on the ground, with school authorities clinging to archaic interpretations of the rules and enforcing their own punishments and penalties for students perceived to be in violation. Observers say the amendments give students a certain amount of freedom when it comes to their appearance and one reason why schools have been unwilling to comply with these amendments is because they have enjoyed the power and authority that these school dress code rules have provided to them for decades. **These haircut rules have stirred a debate on social media channels regarding students' rights and the kind of power and authoritarianism that institutions exert over them. The debate has also highlighted the drawbacks of Thailand's public-school system that has consistently prioritised rote learning over critical thinking and unquestioned acceptance of authority, starting from teachers in the classroom to government officials.** This debate has also resulted in students reporting how school authorities have wielded power over them, leaving them unable to or discouraged



from reporting cases of violence and abuse, due to prevailing socio-cultural norms in Thai society. In a recent social media post, 15-year-old Benjamaporn Niwas, co-founder of the group "Bad Students", posted a photograph of herself sitting on a chair outside Siam Square in central Bangkok, with her mouth sealed with duct-tape, her hands tied behind her back, and a pair of scissors in her lap. Hanging from her neck is a sign board saying: "This student with long hair violated regulations. She invited punishment." In the photos, Niwas's hair appears to be of the prescribed length, not exceeding below her ear lobes. Her protest seems to have earned her supporters and critics alike on social media. Twitter user 'MyGroomisYibo' wrote in support of Niwas: "Older people: Children these days don't have patience... no need.... more modern times.... But we think that today's children have heads.... Dare to doubt and ask the question why and why...."

Fall from Grace

→ For over four decades, Najib Razak was one of the most powerful voices of Malaysian politics. The son of a former Prime Minister, a legislator for decades and an all-powerful Prime Minister for nine years, he suffered the biggest setback in his eventful career on Tuesday when a trial court found him guilty on seven corruption charges in connection with the **1Malaysia Development Bhd (1MDB)** financial fraud. He was sentenced to 12 years in prison and fined \$50 million. Billions of dollars were allegedly stolen from the 1MDB – an investment fund he launched in 2009 when Prime Minister – by employees of the fund or of the government. The money was traced by prosecutors to a mega-yacht, a Picasso painting and the Hollywood film, 'The Wolf of Wall Street'. His bank accounts received about \$1 billion. The allegations cost him dearly, leading to the first election defeat of Mr. Najib's party, the United Malays National Organisation (UMNO), in 2018. But infighting within the ruling coalition led by nonagenarian Mahathir Mohamad led to the fall of the new government, returning Mr. Najib's party to power earlier this year. The country's prosecution and judiciary went ahead with the trial despite the change in government and held one of the most powerful men accountable for his actions. The trial court has stayed the sentences until a higher court gives a final verdict on his planned appeal.

The verdict comes at a time when the Southeast Asian country continues to grapple with political instability. The new government of Muhyiddin Yassin has a razor-thin majority in Parliament. The Opposition, led by the charismatic Anwar Ibrahim, accused the government of trying to help Mr. Najib. In May, prosecutors had cut a deal with Mr. Najib's stepson Riza Aziz and dropped 1MDB-related charges against him, which triggered a political backlash. With Mr. Najib's conviction, the Opposition is likely to revive its calls for a vote of confidence, which **Prime Minister Muhyiddin** has resisted so far. He would also face pressure from the UMNO, whose 39 MPs are supporting his government. UMNO leaders have already come out in support for Mr. Najib, calling the case politically motivated. **If Mr. Muhyiddin disowns Mr. Najib, who, besides the appeals, also faces a host of other corruption charges, the Prime Minister could face a revolt from the UMNO, leading to his government's collapse. If he interferes in the investigation and trial, it could politically strengthen the Opposition narrative and prove risky for him, especially when Malaysia is going through a volatile phase.** Ideally, Mr. Muhyiddin should uphold the law, respect the independence of the prosecution and distance his government from Mr. Najib. But that would also mean putting his government at risk.



Here's How Covid-19 Hit Virus-Free Vietnam Again

- Vietnam has had one of the world's best records in containing the coronavirus despite bordering China, its biggest trading partner, where the virus was first reported. But after more than three months with no reports of local transmission, new cases have now been reported in six cities and provinces in the past week and authorities in the communist-ruled country are scrambling to contain the new outbreak.

How Has Vietnam Been Affected So Far?

Vietnam, with more than 95 million people, is the most populous country in the world to record no coronavirus deaths so far. It has had a total of only 459 cases, far fewer than most other large countries in Southeast Asia and reported no local transmissions of the virus for 100 days until July 25. Since then it has reported 42 infections linked to the first case in a third wave which started in the coastal resort city of Danang. The limited impact of the virus is one reason why Vietnam is one of the few regional economies that is still expected to eke out some growth this year.

How Did Vietnam Do So Well?

Public health experts describe Vietnam's initial response as a textbook example of how to deal with an infectious disease outbreak. Vietnam ramped up testing and contact tracing far faster than neighbouring countries and put tens of thousands of people in quarantine if they were suspected of contact with anyone infected or had come from abroad. The response was aided by the surveillance infrastructure of a state that tolerates little opposition as well as widespread popular support that some compared to that of the U.S.-war era. When a second wave of infections began in March, much of the country was put under lockdown, and schools and businesses shut.

Then What Happened?

Vietnam was one of the first countries to start easing its strict lockdown in late April with local transmissions apparently stopped. Bars reopened and crowds returned to the streets, football matches started again and although face mask use was encouraged to stop the spread of the disease, many people stopped bothering. Vietnam started to revive its domestic tourism industry.

Foreign Affairs

UN Report Flags IS Threat in Karnataka, Kerala

- A UN report on terrorism has warned that there are "significant numbers" of Islamic State (IS) terrorists in Kerala and Karnataka, noting that the Al-Qaeda in the Indian Subcontinent (AQIS) terror group is planning attacks in the region. The 26th report of the Analytical Support and Sanctions Monitoring Team concerning the IS, the Al-Qaeda and associated individuals and entities said that the AQIS operates under the Taliban umbrella from the Nimruz, Helmand and Kandahar provinces of Afghanistan.



AQIS Operations

The group reportedly has between 150 and 200 members from Bangladesh, India, Myanmar and Pakistan. The current leader of the AQIS is Osama Mahmood, who succeeded the late Asim Umar. The AQIS is reportedly planning retaliation operations in the region to avenge the death of its former leader, the report said. According to the report, one-member state reported that the IS Indian affiliate (Hind Wilayah), which was announced on May 10, 2019, has between 180 and 200 members. The report added that there are significant numbers of IS operatives in Kerala and Karnataka.

IS Attacks

In May last year, the terror group (also known as ISIS, ISIL or Daesh) claimed to have established a new “province” in India, the first of this kind of announcement that came after clashes between militants and security forces in Kashmir. The dreaded outfit, through its Amaq News Agency, had said that the Arabic name of the new branch is “Wilayah of Hind” (India Province). A senior Jammu and Kashmir police officer had rejected the claim. Previously, the IS attacks in Kashmir were linked to its so-called Khorasan Province branch, which was set up in 2015 to cover “Afghanistan, Pakistan and nearby lands”.

Sikhs And Hindus Of Afghanistan — How Many Remain, Why They Want to Leave

- ➔ Since a terror attack by an IS gunman killed 25 Sikhs at Gurdwara Har Rai Sahib in Kabul on March 25, the small Sikh and Hindu communities in Afghanistan have made multiple appeals to the Indian government for “immediate evacuation”. A look at these communities’ history in Afghanistan:

When Did Hinduism Reach Afghanistan?

According to historian Indrajeet Singh, author of ‘Afghan Hindus and Sikhs: A History of a Thousand Years’, Hindu rulers once reigned over Eastern Afghanistan, including Kabul. “Islam entered Afghanistan in the 7th century. **The Zunbil dynasty is believed to be the earliest Hindus who ruled over Kandahar to Ghazni regions of Afghanistan, from 600 to 870 AD. Later the Hindu Shahi dynasty ruled. They were replaced only by the end of the 10th century by Ghaznavids, who maintained Hindu forces,**” Singh said. **“It was only in 1504 that Mughal Emperor Babur captured Kabul... Babur used to refer to Kabul as ‘Hindustan’s own market’ and the province of Kabul remained with Hindustan until 1738.”**

When Did Sikhism Reach Afghanistan?

Sikhism founder Guru Nanak visited Afghanistan in the early 16th century and laid the foundation of Sikhism there. **As per the history of his travels recorded in the earliest Janamsakhis, it was during his fourth udaasi (travels) during 1519-21, with his companion Bhai Mardana, that Guru Nanak reached Afghanistan and visited present-day Kabul, Kandahar, Jalalabad, Sultanpur. All these places now have gurdwaras. Kabul was then under Babur’s rule.** Guru Nanak’s followers from Kabul also started visiting present-day Punjab region. The seventh Sikh Guru, Har Rai, too played a pivotal role in sending Sikh missionaries to Kabul and a dharamsaal (earlier name for gurdwara) was established there. “Several documents record the thriving trade of Hindus and Sikhs in Afghan society but today, 99 per cent of them have left the country. Afghanistan now refuses to acknowledge them as their natives but they have made contribution to their motherland despite a turbulent journey. Can an Afghan be a Hindu or a Sikh? History says, YES,” Singh writes in his book.



When Did Their Exodus from The Country Start?

According to Singh, there were at least 2 lakh Sikhs and Hindus (in a 60:40 ratio) in Afghanistan until the 1970s. In 1988, on the first day of Baisakhi festivities, a man with an AK-47 stormed a gurdwara in Jalalabad and gunned down 13 Sikhs and four Afghan soldiers. In 1989, Gurdwara Guru Teg Bahadur Singh in Jalalabad was hit by rockets fired by the Mujahideen and 17 Sikhs were killed. The exodus started in 1992 when the Mujahideen took over. "The Soviet intervention, which started in 1979, lasted for a decade and Afghanistan became a battleground for the Cold War. The US and its allies started providing weapons to Mujahideen to fight a proxy war against the Soviet occupation. The Soviets withdrew in 1989... The Mujahideen captured Kabul in 1992 and deposed President Najibullah... A large number of Afghan Sikhs and Hindus started the exodus and left the country," Indrajeet Singh writes. Under the Mujahideen, there were widespread kidnappings, extortion, property grabbing incidents, religious persecution, targeting Sikhs and Hindus which became the trigger point for exodus. After the Taliban took over Afghanistan, those who remained continued to face persecution.

Where Did Those Who Moved Out Settle?

"During those days, it was extremely difficult for anyone in Afghanistan to get a passport. But still the Afghan government (in the months before the Mujahideen took over entire Kabul) issued speedy passports under a scheme called **Aab Gang pilgrimage passport (Aab meaning water, Gang meaning river Ganga)**. The Indian Embassy set up an on-the-go visa department at Gurdwara Har Rai Sahib in Shor Bazar of Kabul to rapidly issue visas to Hindus and Sikhs. Some 50,000 people left Afghanistan under this scheme and came to India," said Indrajeet Singh. After arriving in India, many Sikhs and Hindus moved to other countries and are currently spread across the UK, Europe, US etc. "The majority of Afghan Hindus are now settled in Germany and Sikhs in the UK. Others live in Austria, Belgium, Holland, France, Canada and the US," said Pritpal Singh, an Afghan Sikh settled in London and director of the documentary Mission Afghanistan.

Currently, How Many Afghan Sikhs Are Settled in India?

Khajinder Singh, head of Afghan Hindu Sikh Welfare Society in Delhi, said, "Approximately, there are 18,000 Afghan Sikhs living in India, of whom 50-60% have citizenship and the rest are living as refugees or on long-term visas. Most are living in Delhi followed by Punjab and Haryana."

How Many Sikhs And Hindus Are Left in Afghanistan?

Not more than 700. Chhabol Singh, member, managing committee, Gurdwara Dashmesh Pita Sri Guru Gobind Singh ji Singh Sabha Karte Parwan, Kabul, said, "There are around 650 Sikhs (90-100 families) and nearly 50 Hindus left here... No one wants to live here now after the Kabul gurdwara attack." On July 1, 2018, a suicide bomb attack in Jalalabad killed at least 19 Sikhs and Hindus. But the tipping point was the attack at Gurdwara Guru Har Rai Sahib on March 25 this year when an IS gunman killed at least 25 persons. "Even after the 2018 attack, they did not want to leave their businesses and shops. But the 2020 attack was the final nail in the coffin because an attacker stormed inside a gurdwara and killed them. Gurdwaras are also homes for Sikhs in Afghanistan as most of them don't have their own houses. Also, Sikhs in Afghanistan took heart from the Citizenship Amendment Act in India, knowing that getting Indian citizenship would be easier than before," said Khajinder Singh.



Will the CAA Help Them?

The Citizenship (Amendment) Act, 2019, which reduces the period of mandatory stay in India from 11 years to five years for minorities from three countries including Afghanistan, will help those Afghan Sikhs and Hindus in getting the Indian citizenship, who moved to India before the cut-off date of December 31, 2014. The Home Ministry, however, is yet to frame the rules for CAA.

How Many Gurdwaras And Temples Are Left in Afghanistan?

Till the beginning of the 1990s, there used to be at least 63 functional gurdwaras in Afghanistan. Now barely ten of them are functioning, with hardly anyone left to do sewa. The main ones are: Gurdwara Har Rai Sahib (now closed after March 2020 attack), Gurdwara Dashmesh Pita Sri Guru Gobind Singh ji Singh Sabha Karte Parwan (central gurdwara), Gurdwara Baba Sri Chand, Gurdwara Khalsa ji, Gurdwara Baba Almast, Gurdwara Baba Mansa Singh Ji – all in Kabul. Asamai Mandir and Dargah Peer Rattan Nath Mandir in Kabul, Dargah Mathura Dass in Jalalabad, Dargah Peer Rattan in Ghazni and some in Kandahar are among a few temples functional in Afghanistan.

Behind Row Over Pakistan ‘Gurdwara Conversion’, A Video and A Dispute That Began

In 1880s

- India, earlier this week, lodged a strong protest with Pakistan High Commission over attempts being made to convert Gurdwara Shaheed Ganj Bhai Taru Singh Shaheedi Asthan in Naulakha Bazar of Lahore into a mosque. Political parties in Punjab and the SGPC too raised objection. The reactions came after a video was shared on social media in which a man from Lahore could be heard claiming that the gurdwara site belonged to a mosque and it was ‘grabbed’ by the Sikh community.

Who was Bhai Taru Singh?

According to the Encyclopaedia of Sikhism published by the Punjabi University, Patiala, Bhai Taru Singh was a pious Sandhu Jatt from village Puhla (now in Amritsar), who tilled his land and spent his earning in helping Sikhs fighting against the Mughals. It is believed then Lahore governor Zakariya Khan got Taru Singh arrested and asked him to opt between Islam or death. When Taru Singh refused to convert, he was brutally tortured and scalped. It is believed that he died on July 1, 1745 at the age of 25. At the spot where he is believed to have been tortured, currently stands the Gurdwara Shaheed Ganj Bhai Taru Singh (Shaheedi Asthan). It is believed that Zakariya fell ill and died after apologizing to Taru Singh, who died a few days after being scalped.

What Is the History Behind the Complex Where the Gurdwara Stands?

The Shaheed Ganj complex in Naulakha Bazar where the gurdwara stands is associated with four ‘historical’ shrines. These include the Gurdwara Shaheed Ganj Bhai Taru Singh (Shaheedi Asthan), Shaheed Ganj mosque (now non-existent), Darbar Hazrat Shah Kaku Chisti (dargah) and Gurdwara Shahid Ganj Singh Singhnian, which stands at some distance from the complex. It is believed that the mosque, which was allegedly closed after the British took over and Sikh community won a court case, was built during the reign of Mughal emperor Shah Jahan by one of his cooks and completed in early 1720s. “Subsequently, a public square and the area around the mosque was allegedly used by the Mughals to persecute and punish the



Sikhs and people from other communities who would refuse to convert. They were publicly executed. Taru Singh was also persecuted here,” says Shahid Shabbir, a historian working on the Sikh history in Pakistan. **The gurdwara came up in the 1760s after the Bhangi Misl Sikh army conquered Lahore and it is said that the prayers at the mosque were stopped after Sikhs took over. Later the gurdwara, it is believed, also received a large jagir (land to maintain its expenses) during Maharaja Ranjit Singh’s reign. It is, however, unclear when exactly the dargah came up. A separate Gurdwara Singh Singhnian also stands at some distance, commemorating martyrdom of Sikh men and women who were martyred during Mughal rule in the 18th century.**

So Where Exactly Was the Mosque?

Even the historians are unsure of where exactly the mosque stood and their assertions contradict each other. Pakistan-based historian Shahid Shabbir claims that mosque structure was next to the Gurdwara Bhai Taru Singh Shaheedi Asthan. “There is clear evidence in the form of photographs of a mosque being demolished in 1935 at the spot behind Shaheedi Asthan. The domes of both structures are visible in them. Currently, the five arches of the mosque are in ruins,” he claims. However, Dalvir Singh Pannu, author of ‘The Sikh Heritage: Beyond Borders’ believes that the mosque was next to Gurdwara Singh Singhnian and had no relation to Shaheedi Asthan. “The matter is sub-judice still and controversial but according to my research, the mosque was next to Gurdwara Singh Singhnian and was taken over by Sikhs after they won the case. It was not even a mosque and there is no proof if any prayers were held there. The mosque apparently never had any link to Bhai Taru Singh Shaheedi Asthan,” he claims.

What Is the Claim of The Evacuee Trust Property Board (ETPB) In Pakistan? What Action Has Been Taken by It?

The ETPB has claimed that it was an ‘individual act’ by a person to derail Muslim-Sikh harmony in Pakistan and the body has shot off a letter to DIG Lahore demanding an action against him. It has also claimed that the man wanted to grab a plot situated in Landa Bazar, Lahore.

What is PSGPC Saying on The Matter?

Satwant Singh, president, Pakistan Sikh Gurdwara Prabandhak Committee (PSGPC), said, “The man has been arrested and he has no supporters. He only wanted to derail Sikh-Muslim harmony in Pakistan. The annual prayers at the historical gurdwara will continue and ETPB has assured Sikh community that the site will not be tampered with in any case.”

Who Is Rashed Chowdhury, The Bangladeshi Against Whom the US Has Reopened A Case?

- United States Attorney General William Barr reopened a case that had been closed for almost 15 years against a man who has been accused of being part of the coup in which Bangladesh’s Father of the Nation, Bangabandhu Sheikh Mujibur Rahman, was assassinated in 1975, Politico reported this week. The man, M A Rashed Chowdhury, has been in the US since 1996, the year the Bangabandhu’s daughter, Sheikh Hasina, became Prime Minister of Bangladesh. Soon afterward, the parliament in Dhaka had revoked the immunity enjoyed by plotters of the coup.



Who is M A Rashed Chowdhury?

M A Rashed Chowdhury is a former Bangladeshi military officer and diplomat. He is accused of participating in the military coup that led to Mujib's assassination on August 15, 1975. Chowdhury was a Major in the Bangladeshi army at the time.

Was He Tried for Participating in The Coup and The Assassination?

Following Mujib's death, the junta that came to power passed the Indemnity Ordinance granting immunity to all those involved in the coup and assassination. In 1979, the ordinance was turned into law by the Bangladesh Jatiya Sangsad (national parliament) when Gen Ziaur Rahman was President. Ziaur Rahman had become chief of the Bangladesh army days after Mujib was assassinated. He became President in 1977, and founded the Bangladesh Nationalist Party (BNP) in 1978. Ziaur Rahman was himself assassinated in May 1981 – and after a few years, his wife Khaleda Zia took over the BNP. Khaleda served as Prime Minister of Bangladesh for two five-year terms beginning in 1991 and 2001. After the end of her first term, the Awami League, led by the Bangabandhu's daughter Sheikh Hasina came to power. The Indemnity Act was revoked, and the Hasina government put 20 people accused of the assassination of Mujib on trial. In 1996, Chowdhury was serving as a diplomat in Bangladesh's Embassy in Brazil. When he was recalled home by the government, Chowdhury, fearing reprisal, fled to the US with his family.

What Happened in the US?

After fleeing to the US, Chowdhury applied for political asylum. About eight years later, he was granted asylum by US immigration judge Phan Quang Tue. While the Bangladesh government accuses Chowdhury of playing a major role in Mujib's killing and the coup, Judge Phan Quang Tue ruled in 2004 that he was "a last-minute inductee who played a relatively minor role". The US Department of Homeland Security appealed against the decision, saying that Chowdhury's participation in the coup disqualified him from being granted asylum. This led to the US Department of Justice's Board of Immigration Appeals (BIA) hearing the case. In 2006, the BIA confirmed asylum to Chowdhury.

So Why Is the Case Being Reopened Now?

Chowdhury's legal team has questioned the abrupt decision made by Attorney General Barr. Marc Van Der Hout, who is one of the lawyers representing the former officer, told Politico: "It's purely a favour the Trump administration is doing for Bangladesh." Many see the reopening of the case as part of the US effort to woo the Hasina government, which has been working with China to build important infrastructure in Bangladesh. According to Bangladeshi media, the country's civil aviation authority has signed a deal with the Beijing Urban Construction Group to expand the terminal building of the airport in Sylhet, a city in the north east of Bangladesh, very close to the borders of Assam, Meghalaya and Tripura.

Has Bangladesh Made Efforts to Get Its Hands-On Chowdhury?

Over the years, Bangladesh has attempted to persuade the US to extradite Chowdhury, who was tried in absentia and awarded the death penalty along with 12 former army officers by the Bangladesh Supreme Court on November 19, 2009. On October 10, 2011, Bangladesh Foreign Minister Dipu Moni, during her visit to the US, took up the issue of deporting Chowdhury with then Secretary of State Hillary Clinton in Washington DC. Subsequently, on March 29, 2012, Akramul Qader, then Bangladesh's Ambassador to the US, formally



requested Congressman Peter King, chairman of the House Committee on Homeland Security, to send Chowdhury back. Foreign Minister Moni raised the issue with Secretary of State Clinton again on May 5, 2012, when Clinton visited Dhaka. Since being appointed Foreign Minister in January 2019, A K Abdul Momen has campaigned extensively for Chowdhury to be handed over, including with Secretary of State Mike Pompeo.

Indian Bid for Airport Too High

- Bangladesh Foreign Minister A.K. Abdul Momen said the contract for building an airport terminal at Sylhet was not awarded to an Indian firm because of a high bid and therefore, went to a Chinese firm. The Hindu and other news outlets had earlier reported that the construction of a new terminal at **MAG Osmani International Airport** at Sylhet had gone to **BUCG (Beijing Urban Construction Group)**. Indian construction giant Larsen & Toubro was among the bidders for the project. **The proximity of Sylhet to India's northeast and a possible concentration of Chinese workers in the area has given rise to security concerns.**

Tender Norms

"The question arose, why the job was given to China and not India. In this case, work is given considering the technical and financial aspects by following the tender process," Dr. Momen said. Addressing the media ahead of Id, the senior Minister referred to several issues related to India and China, and said New Delhi had not reached out to Bangladesh seeking support on the border standoff with China. Dr Momen said India had not communicated nor had it delivered a diplomatic note to Dhaka regarding the situation in Ladakh where Indian and Chinese forces have faced-off for the last three months.

Galwan And After

Referring to the incident in the Galwan Valley on June 15, Dr. Momen said, "few" Indian soldiers had died. But he cited Prime Minister Narendra Modi's comment and said as per the Indian leader, the Chinese have not occupied "an inch" of Indian territory. "The Indian government did not send us any verbal notes that any of their people have died. As a result, naturally we did not make any statement," the Foreign Minister said when asked about Dhaka's studied silence on the issue. Dr. Momen had earlier told The Hindu that his country advocated dialogue and regional peace.

Trouble in Nepal

- The storm raging in Nepal's ruling Nepal Communist Party (NCP) is again rocking the Khadga Prasad Oli government, and putting Kathmandu's polity in suspense over what might follow. A crucial meet meant to announce an end to the differences between the party's two leaders, Mr. Oli, and his rival, Pushpa Kamal Dahal (Prachanda), was postponed. Last week too, the two rival factions decided to put off a meeting of the Standing Committee after Prime Minister Oli failed to attend. While the bone of contention, which has roiled party members, is that Mr. Oli continues to hold two posts – that of NCP Chairperson and Prime Minister – it is clear that there is a more complex power game going on. Party members leading the move against Mr. Oli point to growing discomfort over his autocratic style. The Dahal faction, which had merged with the Oli-led United Marxist Leninist (UML) in 2018 when their combine won a massive mandate in the general election, is also impatient for a chance to rule. Mr. Dahal is already unhappy over past power sharing agreements that he believes Mr. Oli reneged on, and Mr. Oli still has residual bitterness over Mr. Dahal's decision to pull out of



his previous government in 2016. There is also concern over Mr. Oli's head-on collision with India over the past few weeks, beginning with the constitutional amendment to adopt a disputed map as well as his rather rash language against India, including a recent controversy over the birthplace of the Hindu god, Lord Ram. Mr. Oli has said that he believes there is a conspiracy against him, and alluded to alleged machinations by the Indian Embassy in Kathmandu. Finally, there is considerable disquiet in the party and in the press over the public role played by the Chinese Ambassador to Nepal in bringing together the warring factions, especially after Mr. Oli's threat to split the NCP and revive the UML earlier this month. Many in South Block will take heart, and may even rejoice over Mr. Oli's troubles, given his recent petulant behaviour with the Modi government. India-Nepal ties have hit new lows, with neither side willing to schedule the much-promised meeting of Foreign Secretaries to begin to sort out their problems. Yet, it is important for the Modi government and the Indian mission to take a mature stand and play a more constructive role in the current political crisis. The larger struggle for the continuance of Nepal as a parliamentary democracy rather than as a politburo-style polity dominated by the party elite also depends on the outcome of this tussle. While Mr. Oli is outnumbered in the ruling party structure, he has won a mandate, and there is little doubt that he remains popular in Nepal. In power or out of it, New Delhi will still need to contend with Mr. Oli, whose polarising politics could impact the country's fragile ethnic mosaic, if not channelled deftly, and with some delicacy.

Why the Breakdown Of US-China Ties Matters for India

→ In a widely noted and strongly criticised speech, the US Secretary of State, Mike Pompeo, laid out two definitive propositions on China. One is that nearly five decades of US engagement with China have arrived at a dead-end. In the other, Pompeo recognised that the US can't address the China challenge alone and called for collective action. He mused on whether "it's time for a new grouping of like-minded nations, a new alliance of democracies." Pompeo, however, insisted that tackling China is very unlike the "containment of Soviet Union". It is "about a complex new challenge that we've never faced before. The USSR was closed off from the free world. Communist China is already within our borders". Both propositions are of consequence to India, writes C Raja Mohan in his latest column in The Indian Express. While India must pay close attention to the unfolding China debate in the US, it must also note the structural changes in American engagement with China over the last two decades. America's political and institutional sentiment in favour of rearranging the bilateral economic relationship with China, resisting Beijing's expansionism, and countering its influence in operations at home has gained steady ground. So has the idea of working with like-minded countries, especially large democracies, to balance China. "Delhi will certainly demur at Pompeo calling the group an 'alliance'. It would rather have it described as a 'coalition of democracies'," he states. The idea of democracies working together has an enduring appeal for the US. That India figures in this American vision is relatively new. So is Delhi's readiness to reciprocate. "Constructing a global coalition of democracies will take much work and quite some time. But engaging with that initiative, amidst the rise and assertion of China, should open a whole range of new possibilities for Indian foreign and security policies," concludes Mohan.

Australia Rejects China's Sea Claims

→ Australia has rejected Beijing's territorial and maritime claims in the South China Sea in a formal declaration to the UN, aligning itself more closely with Washington in the escalating



row. In a statement filed, Australia said there was “no legal basis” to several disputed Chinese claims in the sea, including those related to the construction of artificial islands on small shoals and reefs. “Australia rejects China’s claim to ‘historic rights’ or ‘maritime rights and interests’ as established in the ‘long course of historical practice’ in the South China Sea,” the declaration read. “There is no legal basis for China to draw straight baselines connecting the outermost points of maritime features or ‘island groups’ in the South China Sea, including around the ‘Four Sha’ or ‘continental’ or ‘outlying’ archipelagos.”

Pompeo’s Declaration

The declaration comes after U.S. Secretary of State Mike Pompeo declared Beijing’s pursuit of territory and resources in the South China Sea as illegal, explicitly backing the territorial claims of Southeast Asian countries against China’s. **Beijing claims almost all of the South China Sea based on a so-called nine-dash line, a vague delineation from maps dating back to the 1940s.** The latest escalation comes ahead of annual talks between Australia and the U.S., with Ministers travelling to Washington for the first time since Australian borders were closed due to the COVID-19 pandemic. The meetings come at a “critical time” and it is essential they are held face-to-face, Foreign Minister Marise Payne and Defence Minister Linda Reynolds said in a statement on Saturday. U.S. relations with China have markedly deteriorated in recent months, especially over trade disputes, the COVID-19 pandemic and Beijing’s crackdown on dissent in Hong Kong.

How the New Public Procurement Restrictions Target China

- ➔ After a series of measures to prevent the influx of Chinese products and investments into India, the government has **now amended the General Financial Rules, 2017 to impose curbs on public procurement from bidders of countries that share a land border with India.** This latest move by the government, on grounds of defence and national security, is expected to affect mainly Chinese entities as countries to which lines of credit or development assistance have been extended are exempted from the fresh restrictions.

The New Order

Any bidder from countries which share land borders with India will be eligible only if it is registered with the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT) and will be required to take mandatory political and security clearance from the Ministries of External and Home Affairs, respectively. The central government has also directed state governments to implement this order for all public procurement. Apart from attached ministries and departments and subordinate bodies, this new order will be applicable to all autonomous bodies, public sector banks and financial institutions, central public sector enterprises, public-private partnerships receiving financial support from the government or public sector undertakings, union territories and National Capital Territory (NCT) of Delhi and the linked agencies.

Exceptions to The Order

Relaxation will be provided for the procurement of medical supplies for containment of COVID-19 global pandemic till December 31. Also, the order for prior registration will not apply for countries to which the Government of India extends lines of credit or provides development assistance, even if it shares a land border with India. India shares its border with China, Nepal, Bhutan, Pakistan, Bangladesh and Myanmar. As per official data, out of



these land-border sharing countries, the government has extended lines of credit to Bangladesh, Nepal, Myanmar, exempting them from this new order. India has extended lines of credit totalling \$30.59 billion with 64 countries –including 41 from Africa. This order will also not apply to cases where orders have been placed or a contract has been concluded or letter of acceptance has been issued, but new tenders will be covered under this order. Also, if the first stage of evaluation of qualifications has not been completed in the already invited tenders, bidders not registered under the new order will be treated as not qualified.

Previous Anti-China Measures

The government has been taking a series of measures in recent months to restrict the inflow of Chinese investments and products into the country. On June 23, the government made it mandatory for sellers on the Government e-Marketplace (GeM) portal to clarify the country of origin of their goods when registering new products. The GeM portal now allows buyers to reserve a bid for Class I local suppliers, or suppliers of those goods with more than 50 per cent local content. For bids below Rs 200 crore, only Class I and Class II (those with more than 20 per cent local content) are eligible. The government had also announced an interim ban on 59 apps with Chinese links including TikTok, ShareIt, UC Browser, CamScanner and WeChat citing “emergent threats” to the country’s sovereignty and national security. Following the clashes between Indian and Chinese troops in Galwan Valley on June 15, the government had also pushed for “Atmanirbhar Bharat”, which prompted several government departments to launch an offensive against imports from China. At \$ 70.32 billion in 2018-19 and \$ 62.38 billion between April 2019 and February 2020, China accounts for the highest proportion of goods imported into India (around 14 per cent in 2019-2020 so far). Earlier in April, the government had amended the FDI rules mandating prior approval for investment by entities in countries that share land borders with India. The move came days after China’s central bank, the People’s Bank of China (PBoC), raised its shareholding in Housing Development Finance Corporation (HDFC) to over one per cent. The government stated that prior approval was compulsory for foreign investments from all the countries sharing borders with India to prevent “opportunistic takeovers” of domestic firms following the Covid-19 pandemic.

Needed, A Map for India’s Foreign Policy

- Not long ago, India was seen as a natural rising power in South Asia and the Indian Ocean Region. It was the de facto leader of the South Asian Association for Regional Cooperation (SAARC). It has historical and cultural ties with Nepal. It enjoyed traditional goodwill and influence in Sri Lanka and Bangladesh. It had made investments worth billions of dollars in Afghanistan and cultivated vibrant ties with the post-Taliban stakeholders in Kabul. It had committed itself to multilateralism and the Central Asian connectivity project, with Iran being its gateway. It was competing and cooperating with China at the same time, while the long border between the two countries remained largely peaceful. Cut to the present. India is perhaps facing its gravest national security crisis in 20 years, with China having changed the status quo along the Line of Actual Control (LAC) in the western sector in its favour. The border saw violent clashes last month, leading to fatalities for the first time in 45 years. SAARC is out of joint. Nepal has turned hostile having adopted a new map and revived border disputes with India. Sri Lanka has tilted towards China, which is undertaking massive infrastructure projects in the Indian Ocean island. Bangladesh is clearly miffed at the Citizenship (Amendment) Act, 2019. When Afghanistan is undergoing a major transition, India is out of the multi-party talks. Iran has inaugurated a railway link project connecting the



Chabahar port, on the Gulf of Oman, to Zahedan (which India was to have constructed) without India. How did we get here? Specific reasons can be found for these setbacks. Also, foreign policy need not be static. There will be ups and downs depending on the changes in policy as well as the changes in global politics. But what makes the current downturn serious is that there is a relative decline in India's smart power, especially in the neighbourhood and the extended neighbourhood, which demands a deeper perusal of the foreign policy trajectory itself. And when we dig deep, three problems can be found which are more or less linked to this decline – a closer alignment of policy with the U.S. line, coupling of foreign policy with domestic politics and hubris.

The U.S. Lines

India's official policy is that it is committed to multilateralism. Even after India started moving away from non-alignment, which it calls irrelevant in the post-Cold War world order, New Delhi maintained that strategic autonomy would remain the bedrock of its policy thinking. But there has been a steady erosion in India's strategic autonomy, which predates the current government. When India started deepening its partnership with the United States (which was a historical necessity), New Delhi began steadily aligning its policies with U.S. interests. The case of Iran is the best example. The agreement to develop the Chabahar port was signed in 2003. But India, under pressure from the U.S., was moving slowly, despite the fact that the project offered India an alternative route to Central Asia bypassing Pakistan. India voted against Iran at the United Nations; scuttled an ambitious gas pipeline project and cut down trade ties drastically. After the Iran nuclear deal was signed in 2015, India immediately stepped up oil purchases and expanded works at Chabahar. In 2016, Prime Minister Narendra Modi travelled to Tehran and signed a trilateral connectivity project with Afghanistan and Iran. But when U.S. President Donald Trump pulled the U.S. out of the Iran deal in 2018 and reimposed sanctions on the country, India toed the U.S. line, bringing down its oil imports to zero. This dilly-dallying to the tunes of policy changes in Washington co-existed with India's deepening defence and military ties with the U.S. Washington wants India to play a bigger role in the Indian Ocean and the Pacific region to contain China's rise. While India has been cautious of becoming an ally, it has steadily deepened military-to-military cooperation in the recent past – the Logistics Exchange Memorandum of Agreement (LEMOA) is one example. These developments probably altered Beijing's assessment of India. The border aggression at different points on the LAC could not be a localised conflict; it is part of a larger strategic move, initiated by the top brass of the People's Liberation Army (PLA). One of the reasons for the shift could be Beijing's assessment that India has already become a de facto ally of the U.S. The forceful altering of the status quo on the border is a risky message as much to New Delhi as it is to Washington.

Domestic Politics

At least two decisions taken by the government mainly keeping its domestic audience in mind have had foreign policy consequences. First, the passing of the CAA. The official narrative has been that India is offering citizenship to the persecuted minorities of select countries in its neighbourhood. There were two problems. One, this is regionalisation of the domestic problems of the countries in India's neighbourhood, some of which are its long-time friends. These countries are genuinely upset with India's move. Two, Muslims, including those sub-sects persecuted in neighbouring countries, were by design excluded from the citizenship programme. This drove new wedges between India and the countries that had a Muslim majority and were friendly to India in the neighbourhood. Forget Pakistan, which is a



traditional rival. Bangladesh took offence at the CAA and the National Register of Citizens (from which the government has temporarily backed off) and the political rhetoric in India against the “termites” from other countries. Bangladeshi media reported recently that the Indian envoy in Dhaka had tried to fix an appointment with Bangladesh Prime Minister Sheikh Hasina for four months but did not get one. There were anti-India protests even in Afghanistan. Second, the **abrogation of the special status of Jammu and Kashmir**. This was another popular move among those who form the support base of the ruling party. But it led to the suspension of fundamental rights in the Kashmir Valley for a prolonged period that **damaged India’s reputation as a responsible democratic power and gave propaganda weapons to Pakistan**. The move **did not help India quell militancy either as the Valley continues to see violence nearly a year after the decision**. More importantly, the change of status quo in Jammu and Kashmir, including the bifurcation and reduction of the erstwhile State into Union Territories, could be another factor that prompted the Chinese to move aggressively towards the border in Ladakh.

The Perils of Hubris

Misplaced confidence does not do good for rising powers. Great powers wait to establish their standing before declaring that they have arrived. The Soviet Union started acting like a superpower after it won (with allies), the Second World War. China bided its time for four decades before it started taking on the mighty U.S. Since the 1970s, its focus has almost entirely been on its economic rise. **India should learn from at least these modern examples. If it did, it would not have used high-handedness in Nepal during the country’s constitutional crisis and caused a traditional and civilisational ally to turn hostile. The updated political map which India released in November rubbed salt into the wound on the Nepal border.** To address the current crises, India has to reconsider its foreign policy trajectory. It is a big power with one of the world’s biggest militaries. It is a natural naval force in the Indian Ocean. It does not lack resources to claim what is its due in global politics. What it lacks is strategic depth.

The Confluence of Four Powers and Two Seas

- Parallel exercises in the Indo-Pacific this week, including a trilateral exercise between the U.S., Australia and Japan in the Philippines Sea, and an Indo-U.S. naval exercise in the Indian Ocean have fuelled speculation that Quadrilateral (Quad) exercises will be launched soon between all four navies. All eyes are on a decision by New Delhi, to accept Australia’s request that has been pending for four years now, to join the annual Malabar exercises with India, the U.S. and Japan. The decision has not been an easy one, given China’s fierce opposition to the militarisation of a coalition seen as a counter to its claims in the Pacific and inroads in the Indian Ocean. India has also been wary of joining any exercise that could be construed as an alliance, something External Affairs Minister S. Jaishankar said this week India will “never be” a part of. In 2018, at the Shangri-La Dialogue, Prime Minister Narendra Modi had said that India sees the Indo-Pacific as a “geographical concept”, not a “strategy or a club of limited members”. Also, India is the only country in the Quad that shares a land boundary with China, and the militarisation of the Quad will not help India deal with that threat. Fourthly, **unlike the U.S., Japan and Australia, which are tied by military alliances, India is a member of other strategic forums, such as the Shanghai Cooperation Organisation with China, Russia and Central Asia, BRICS and RIC, which appear to be at cross purposes with a Quad alliance.**



The China Factor

Even so, many contend that China's recent moves, including its aggression in the South China Sea and transgressions and deadly clashes across the Line of Actual Control (LAC), may in fact prove to be the tipping point that makes India take the plunge, pushing the countries of the Quadrilateral Security Group, called the **Quad for short**, into a **military embrace that will have far-reaching implications for regional and global security**. Ironically, the Quad, which today involves such laboured and slow-paced discussions, was originally born in an instant: from the crisis that followed the tsunami in December 2004. Within days of the disaster, India had mobilised an impressive fleet, and demonstrated to the world that it would not just manage its own rescue effort in Tamil Nadu and the Andaman and Nicobar Islands but could also provide assistance to its maritime neighbours: Sri Lanka, the Maldives and Indonesia. In all, about 32 Indian ships and 5,500 troops were pressed into India's international efforts. The humanitarian and disaster relief effort were coordinated in the next few weeks with three other naval powers engaged in the rescue effort: the U.S., Australia and Japan. The then Foreign Secretary, Shyam Saran, spoke every day to his counterparts about what was needed next. Eventually, the "Quad" effort was handed over to the UN, but the idea of the Indo-Pacific as a larger maritime strategic community, and the Quad as an effective instrument in it, had been planted in the minds of all four members. Japanese Prime Minister Shinzo Abe, who had been promoting the idea of an "arc of prosperity and freedom" that brought the Quad countries closer together, was happy to develop the concept, and Prime Minister Manmohan Singh discussed it with him during a summit in December 2006. In 2007, when the annual India-U.S. 'Malabar' exercises were held in the Indian and Pacific oceans, first off Okinawa and a few months later, off Visakhapatnam, they included Japan, Australia and Singapore. The exercises and the strategic coordination in what Mr. Abe had called "the confluence of two seas" rattled Beijing and Moscow, who termed it an attempt to build "an Asian NATO". China's Navy had not at the time undergone its massive modernisation drive towards a blue water navy (it only commissioned its first aircraft carrier, Liaoning, in 2012), and the effort by the Quad countries was clearly an impetus to hasten the process. But at the time, China's demarches to the Quad countries paid off. Contrary to the currently popular lore, it was not India that cancelled the "Quad" exercises in 2008: the U.S., which was trying to gain China's support in the six-party talks on North Korea, dampened enthusiasm for a Quad Foreign Ministers' meeting, and the Kevin Rudd government in Australia then pulled out of the exercises. The Quad was shelved for the next decade. In 2017, the Quad returned, now named Quad 2.0, coinciding with the revision in Washington's assessment of the challenge from China, and similar reassessments in New Delhi, Tokyo and Canberra. In November 2017, just months after the Doklam stand-off between the Indian Army and the PLA, officials from all four countries met in Manila for the **'India-Australia-Japan-U.S.'** dialogue. The name of the new Quad was innocuous, in an effort to dispel the notion this was a "gang-up", and they did not even issue a common joint statement. In fact, differences within the group went deeper, and while India defined the "Indo-Pacific" region from Africa and the U.S. west coast, the U.S. limited it to the Indian coast (in 2020, the U.S. aligned its definition with India's).

Alternatives to BRI

Subsequent meetings have closed many of the gaps they have, and the Quad grouping has met biannually since then, discussing "connectivity, sustainable development, counter-terrorism, non-proliferation and maritime and cyber security, with a view to promoting peace, stability and prosperity in an increasingly inter-connected Indo-Pacific region". The emphasis on connectivity has seen the Quad challenge China in another sphere: a coordinated effort to



provide financing and sustainable alternatives to China's Belt and Road Initiative (BRI), which has led many nations to take loans and accept infrastructure bids from Beijing. **The counter has not yet made much headway, but each of the Quad countries is coordinating their responses on infrastructure projects in their spheres of influence, including India and Australian efforts in the Pacific islands, India-U.S. coordination in South Asia and the Indian Ocean region, and India-Japan joint efforts to develop projects in Sri Lanka, Bangladesh and Myanmar. The military aspect of the Quad has also grown: India has strengthened its naval ties with each of the other Quad countries, and there have been more interactions, formal and informal at the official, political and military levels. Eventually, the question over the next step in the Quad – whether India invites Australia to the next Malabar exercises or not – will be secondary to how India develops its own strategic vision, especially given the stand-off with China.** Will India revert to traditional positions of non-alignment, enlisting China's ally Russia in its attempt to manage the threat from Beijing? Or will India pursue "multi-alignment", inviting middle powers such as the EU, the U.K., France, Russia, and partners such as Brazil, the UAE and South Africa into its Indo-Pacific strategy? Or does India's course lie in a closer coalition with China's adversaries, and being drawn into choosing its corner in the new Cold War that is developing between the U.S. and China? India's moves with the Quad will be closely watched, as they bear more meaning than ever before on the path it will take to realise its strategic future.

Nation

Abetment of Suicide, And How the Court Determines If It Took Place

- The controversy surrounding the death of actor Sushant Singh Rajput took a new turn as the actor's father filed a FIR against actor Rhea Chakraborty and five others, for abetment of suicide. Following the FIR in Patna, Chakraborty moved the Supreme Court seeking to transfer the case to Mumbai where Rajput's death occurred.

What Is the Crime Of 'Abetment of Suicide'?

The Indian Penal Code, 1860 makes abetment of suicide a punishable offence. Section 306 of the IPC prescribes either a jail term of up to ten years or a fine or both. "If any person commits suicide, whoever abets the commission of such suicide shall be punished with imprisonment of either imprisonment for a term which may extend to ten years, and shall also be liable to fine." Generally, the fine is paid to the kin of the deceased. **The IPC also has a separate chapter on abetment and describes who is an abettor under Section 108. Abetment is defined as including instigating, engaging in a conspiracy or assisting in committing the offence.**

How Serious Is the Offence of Abetment?

Abetment of suicide is a serious offence that is tried in a Sessions court and is cognizable, non-bailable and non-compoundable. A **cognizable offence** is one in which a police officer can make an arrest without a warrant from a court. A **non-bailable offence** means bail is granted to the accused at the discretion of the court, and not as a matter of right. A **non-compoundable** offence is one in which the case cannot be withdrawn by the complainant even when the complainant and the accused have reached a compromise. The court cannot



allow withdrawal of a case involving a non-compoundable offence, and every such complaint is necessarily followed by a trial where evidence is held against the accused.

So, Does That Mean Abetment of Suicide Is the Same as Murder?

No, it does not. The Supreme Court clarified this issue in 1997 in the case of 'Sangarabonia Sreenu v State of Andhra Pradesh'. **Despite the intention of the accused to drive a person to commit suicide, abetment of suicide is not the same as murder.** Although in both cases, causing the death of another person is a common factor, the two are distinct offences. In the case of a murder, the final 'act' of causing the death of a person is committed by the accused which is not the case in abetment of suicide.

How Will A Court Determine If the Accused Has Abetted the Suicide?

There are two primary ingredients of the crime of abetment of suicide. First is a suicidal death. The second ingredient is the intention of the accused to abet such suicide. Legally, whether a death is a suicide or not is a determination of a fact, which means evidence has to be evaluated to pronounce that death is a suicide. In common parlance, the word suicide is liberally attributed to every case of self-destruction, but suicide is never presumed. **A determination of suicide is made when the deceased person is understood to have known the probable consequence of what the self-harm is about to do to the person and yet, does so intentionally.** Once such a determination is made, then the intention of the person accused of abetment of suicide is looked into. **The only exception to this is the abetment of the suicide of a woman married for seven years or less.** Through an amendment in 1983 in the Code of Criminal Procedure, the law was changed to presume that the husband is guilty if his wife commits suicide within seven years of the marriage. The amendment was made to curb rising dowry deaths that were categorised as suicides.

How Is the Intention to Drive A Person to Suicide Determined by The Court?

The intention is discerned from acts of the accused in proving any crime. Multiple rulings of the Supreme Court, including a 2002 ruling in the case of 'Sanjay Singh v State of Madhya Pradesh', have held that **a comment or a statement uttered in haste, anger would not amount to abetment of suicide.** In a recent 2017 ruling, the apex court also said that **instigation, involvement of the accused must be connected strongly and any remoteness in these features would be insufficient to charge the accused with the offence.** Suppose, Person A says "go, die" to Person B and B happens to hang herself to death subsequently, Person A cannot be charged with abetment to suicide. Firstly, A did not intend to instigate B to commit suicide and merely uttered the words in a fit of anger. In such a case, the court would look into Person A's general behaviour towards B and determine the intention. In the same case, if a husband and his family have subjected the wife to continuous physical abuse since the marriage and drove her to commit suicide, they can be held liable for the offence. **Instigation has to have certain continuity, happen continuously over a reasonable period of time. The suicide must also be a direct consequence of the instigation and cannot be a mere coincidence or very remote to the committing of suicide.** Additionally, if the deceased person is found to be very sensitive compared to a reasonable person, the court has said that the charge of abetment to suicide would weaken.



Scandalising As Contempt

→ The initiation of proceedings for criminal contempt of court against lawyer-activist Prashant Bhushan has once again brought under focus the necessity for retaining the law of contempt as it stands today. In an era in which social media are full of critics, commentators and observers who deem it necessary to air their views in many unrestrained and uninhibited ways, the higher judiciary should not really be expending its time and energy invoking its power to punish for contempt of itself. While it may not be reasonable to expect that the courts should ignore every allegation or innuendo, and every piece of scurrility, there is much wisdom in giving a wide latitude to publicly voiced criticism and strident questioning of the court's ways and decisions. **Mr. Bhushan is no stranger to the art of testing the limits of the judiciary's tolerance of criticism. He has made allegations of corruption against judges in the past, and has been hauled up for it. The latest proceedings concern two tweets by him, one a general comment on the role of some Chief Justices of India in the last six years, and another targeting the current CJI based on a photograph.** How sensitive should the country's highest court be to its outspoken critics? What would be more judicious – ignoring adverse remarks or seeking to make an example of some principal authors of such criticism to protect the institution? The origin of this dilemma lies in the part of contempt law that criminalises anything that “scandalises or tends to scandalise” the judiciary or “lowers the court's authority”. It may be time to revisit this clause.

Few would disagree that contempt power is needed to punish wilful disobedience to court orders (civil contempt), as well as interference in the administration of justice and overt threats to judges. The reason why the concept of contempt exists is to insulate the institution from unfair attacks and prevent a sudden fall in the judiciary's reputation in the public eye. However, **it has been recognised by jurists that each time the offence of 'scandalising' the court or lowering the court's authority is invoked, some tend to believe that the court has something to hide.** It was believed in 18th century England that it was necessary “to be impartial and universally thought so”, so that the “blaze of glory” around judges would stay undiminished. However, the contempt doctrine fell into disuse, and **England abolished the offence of “scandalising the court” in 2013.** In contemporary times, it is more important that courts are seen to be concerned about accountability, that allegations are scotched by impartial probes rather than threats of contempt action, and processes are transparent. Unfortunately, in a system in which judges are not expected to disclose the reason for recusing themselves, and even charges of sexual harassment are not credibly investigated, it is only the fear of scandalising the judiciary that restrains much of the media and the public from a more rigorous examination of the functioning of the judiciary.

The Chilling Effect of Criminal Contempt (Justice A.P. Shah - Retired Chief Justice,

Delhi And Madras High Courts, And Former Chairperson, Law Commission of India)

→ These are strange times we are going through right now. The pandemic has brought all activities to a virtual standstill. Even as workplaces and institutions are slowly and tentatively getting back on their feet, the focus is on ensuring that the more important things get done first. Priorities are being identified accordingly. For the Supreme Court of India, identifying priority cases to take up first (in a pandemic-constricted schedule) ought not to be very difficult: there are dozens of constitutional cases that need to be desperately addressed, such as the constitutionality of the Citizenship (Amendment) Act, the electoral bonds matter, or the issue of habeas corpus petitions from Jammu and Kashmir. **It is disappointing that instead of taking up matters of absolute urgency in these peculiar times, the Supreme Court**



chose to take umbrage at two tweets. It said that these tweets “brought the administration of justice in disrepute and are capable of undermining the dignity and authority of the institution... and the office of the Chief Justice of India in particular....” Its response to these two tweets was to initiate Suo motu proceedings for criminal contempt against the author of those tweets, the lawyer and social activist, Prashant Bhushan. This need to “respect the authority and dignity of the court” has monarchical origins from when the King of England delivered judgments himself. But over the centuries, with this adjudicatory role now having been handed over to judges, showing extreme deference to judges does not sit well with the idea of a democracy. The U.K. Law Commission in a 2012 report recommending the abolition of the law of contempt said that the law was originally intended to maintain a “blaze of glory” around courts. It said that the purpose of the offence was not “confined to preventing the public from getting the wrong idea about judges... but that where there are shortcomings, it is equally important to prevent the public from getting the right idea”.

A Wide Field in India

The objective for contempt is stated to be to safeguard the interests of the public, if the authority of the Court is denigrated and public confidence in the administration of justice is weakened or eroded. But the definition of criminal contempt in India is extremely wide, and can be easily invoked. Suo motu powers of the Court to initiate such proceedings only serve to complicate matters. And truth and good faith were not recognised as valid defences until 2006, when the Contempt of Courts Act was amended. Nevertheless, the Delhi High Court, despite truth and good faith raised as defences, proceeded to sentence the employees of Mid-Day for contempt of court for portraying a retired Chief Justice of India in an unfavourable light. It comes as no surprise that Justice V.R. Krishna Iyer famously termed the law of contempt as having a vague and wandering jurisdiction, with uncertain boundaries; contempt law, regardless of public good, may unwittingly trample upon civil liberties. It is for us to determine what is the extent of such trampling we are willing to bear. On the face of it, a law for criminal contempt is completely asynchronous with our democratic system which recognises freedom of speech and expression as a fundamental right. An excessively loose use of the test of ‘loss of public confidence’, combined with a liberal exercise of Suo motu powers, can be dangerous, for it can amount to the Court signalling that it will not suffer any kind of critical commentary about the institution at all, regardless of how evidently problematic its actions may be. In this manner, the judiciary could find itself at an uncanny parallel with the executive, in using laws for chilling effect. Besides needing to revisit the need for a law on criminal contempt, even the test for contempt needs to be evaluated. If such a test ought to exist at all, it should be whether the contemptuous remarks in question actually obstruct the Court from functioning. It should not be allowed to be used as a means to prevent any and all criticism of an institution.

Obsolete Abroad

Already, contempt has practically become obsolete in foreign democracies, with jurisdictions recognising that it is an archaic law, designed for use in a bygone era, whose utility and necessity has long vanished. Canada ties its test for contempt to real, substantial and immediate dangers to the administration, whereas American courts also no longer use the law of contempt in response to comments on judges or legal matters. In England, too, from where we have inherited the unfortunate legacy of contempt law, the legal position has evolved. After the celebrated Spycatcher judgment was delivered in the late 1980s by the House of Lords, the British tabloid, the Daily Mirror, published an upside-down photograph of



the Law Lords with the caption, “You Old Fools”. Refusing to initiate contempt action against the newspaper, one judge on the Bench, Lord Templeton, reportedly said, “I cannot deny that I am Old; It’s the truth. Whether I am a fool or not is a matter of perception of someone else. There is no need to invoke the powers of contempt.” Even when, in 2016, the Daily Mail ran a photo of the three judges who issued the Brexit ruling with the caption “Enemies of the People”, which many considered excessive, the courts judiciously and sensibly ignored the story, and did not commence contempt proceedings. But Indian courts have not been inclined – or at least, not always – to display the same maturity and unruffled spirit as their peers elsewhere. An exception lay in Justice S.P. Bharucha’s response to Arundhati Roy’s criticism of the Supreme Court for vacating the stay for constructing a dam: although holding that Ms. Roy had brought disrepute to the Court, nothing further was done, for “the court’s shoulders [were] broad enough to shrug off [these] comments”. But this magnanimity was sadly undone when contempt proceedings were initiated against the author for leading a demonstration outside the court, and filing an affidavit, where she said “it indicates a disquieting inclination on the part of the Court to silence criticism and silence dissent, to harass and intimidate those who disagree with it. By entertaining a petition based on a FIR that even a local police station does not see fit to act upon, the Supreme Court is doing its own reputation and credibility considerable harm”. For “scandalising its authority with mala fide intentions”, she was punished for contempt of court, and sentenced to a day’s imprisonment, with fine. It is regrettable that judges believe that silencing criticism will harbour respect for the judiciary. On the contrary, surely, any efforts to artificially prevent free speech will only exacerbate the situation further. As was pointed out in the landmark U.S. case of *Bridges v. California* (1941), “an enforced silence would probably engender resentment, suspicion, and contempt for the bench, not the respect it seeks”. Surely, this is not what the Court might desire.

Two Observations and A Link

Simultaneous with the Indian Supreme Court’s decision to commence contempt proceedings against Mr. Bhushan, the Pakistan Supreme Court hinted at banning YouTube and other social media platforms, for hosting what it termed ‘objectionable content’ that ‘incited hatred’ for institutions such as the army, the judiciary, the executive, and so on. The eerie similarity between the two sets of observations raises concerns about which direction the Indian Supreme Court sees itself heading. One can only hope that these fears are unwarranted.

Supreme Court Hearings on Maratha Quota

- ➔ From July 27, the Supreme Court will commence daily final hearing on a batch of petitions challenging the reservation granted to the Maratha community in education and jobs in Maharashtra. A bench of Justices L Nageswara Rao, Hemant Gupta and S Ravindra Bhat is hearing the Special Leave Petitions (SLPs) on a daily basis through video-conferencing. The petitions challenge the June 2019 Bombay High Court decision, which upheld the constitutional validity of the Maratha quota under the Socially and Educationally Backward Classes (SEBC) Act, 2018. The top court will also hear a petition challenging admission to postgraduate medical and dental courses under the quota in the state.

Who are the Marathas?

The Marathas are a group of castes comprising peasants, landowners among others. While most Marathas are Marathi-speaking, not all Marathi-speaking persons belong to Maratha community. A politically dominant community in Maharashtra, it comprises nearly one-third of the population of the state. Historically, Marathas have been identified as a ‘warrior’ caste

Shatabdi Tower, Sakchi, Jamshedpur



with large land-holdings. Since the formation of the Maharashtra state in 1960, of its 19 chief ministers, 11 have been from the Maratha community. While division of land and agrarian problems over the years have led to a decline of prosperity among middle class and lower middle-class Marathas, the community still plays an important role in the rural economy.

What Did the Bombay High Court Rule?

On February 6 last year, a division bench of Justices Ranjit More and Bharati Dangre commenced hearing in petitions filed by advocate Jishri Laxmanrao Patil and others. In April last year, the court closed the petitions for the verdict. While ruling that the 16 per cent quota granted by the state was not 'justifiable,' the Bombay High Court on July 27 last year reduced it to 12 per cent in education and 13 per cent in government jobs, as recommended by the Maharashtra State Backward Class Commission. The bench of Justice Ranjit More and Justice Bharati H Dangre said: "We hold and declare that the limit of reservation should not exceed 50%. However, in exceptional circumstances and extraordinary situations, this limit can be crossed subject to availability of quantifiable and contemporaneous data reflecting backwardness, inadequacy of representation and without affecting the efficiency in administration." The Court had said that while the backwardness of the community was not comparable with SCs and STs, it was comparable with several other backward classes, which find place in the list of Other Backward Classes pursuant to the Mandal Commission.

What Did the HC Rely On?

The court relied heavily on findings of the 11-member Maharashtra State Backward Class Commission (MSBCC) headed by retired Justice G M Gaikwad. The Committee surveyed about 45,000 families from two villages from each of 355 talukas with more than 50 per cent Maratha population. The report submitted on November 15, 2018, said that the Maratha community is socially, economically and educationally backward. In social backwardness, the Commission found that around 76.86 % of Maratha families are engaged in agriculture and agricultural labour for their livelihood and nearly 70% reside in Kachha dwellings, and only 35- 39 % have personal tap water connections. Moreover, the report said that in 2013-2018, a total of 2,152 (23.56%) Maratha farmers died by suicide, against total 13,368 farmer suicides. The Commission also found that 88.81 % Maratha women are involved in physical labour for earning livelihood, besides physical domestic work they perform for the family. In educational backwardness, it found that 13.42 % of Marathas are illiterate, 35.31 % primary educated, 43.79 % HSC and SSC, 6.71 % undergraduates and postgraduates and 0.77 % technically and professionally qualified. In economic backwardness, the Commission found that 93 % Maratha families have an annual income of Rs 1 lakh, which was below average income of middle-class families. Moreover, it found that 37.38% families were Below Poverty line against the state average of 24% and 71% own less than 2.5 acres land, whereas only 2.7% big farmers own 10 acres of land. The HC expressed satisfaction over the data and observed that the Commission had conclusively established the social, economic and educational backwardness of the Maratha community. It had also established inadequacy of representation of the Maratha community in public employment in the state.

What Is the Existing Total Reservation in Maharashtra Post HC Verdict?

A nine-judge bench of the Supreme Court, in the 1993 Indra Sawhney case, which is known as Mandal Commission case, had ruled that total reservation for backward classes cannot go beyond the 50%-mark. Maharashtra is one of the few states that are an exception to this. In the state, following the 2001 State Reservation Act, the total reservation was 52 per cent.



This included quotas for Scheduled Caster (13%), Scheduled Tribes (7%), Other Backward Classes (19%), Special Backward Class (2%), Vimukti Jati (3%), Nomadic Tribe B (2.5%), Nomadic Tribe C-Dhangar (3.5%) and Nomadic Tribe D-Vanjari (2%). The quotas for Nomadic Tribes and Special Backward Classes have been carved out of the total OBC quota. **With the addition of 12-13 per cent Maratha quota, the total reservation in the state is 64-65 per cent. The 10 % Economically Weaker Sections (EWS) quota announced by the Centre last year is also effective in the state.**

How Challenges to Maratha Quota Have Been Dealt by The HC And the SC So Far

The Bombay High Court on July 11 last year dismissed a petition filed by a group of aspiring medical students challenging the constitutional validity of a June amendment to the Socially and Educationally Backward Classes (SEBC) Act, allowing Maratha reservation for 2019-2020 admissions to MBBS courses. The Supreme Court on July 12, 2019 refused to stay the June 27 Bombay High Court judgement, which had upheld the validity of the reservation. The SC had clarified that the reservation will not have retrospective effect. Thereafter, time and again, the Apex Court has refused to put an interim stay on the quota. Recently, the top court refused to grant interim stay on a plea by medical students, seeking a direction that the 12 % quota not be made applicable for admissions in post graduate medical and dental courses for academic year 2020-21.

How India's Education Ministry Became 'HRD Ministry', And Then Returned to

Embrace Education

- ➔ The Union Cabinet on Wednesday (July 29) approved the renaming of the Ministry of Human Resource Development (HRD) to the Ministry of Education to more clearly define its work and focus. With the renaming, the Ministry got back the name that it had started out with after Independence, but which was changed 35 years ago when Rajiv Gandhi was Prime Minister.

Who Were Some of India's Early Education Ministers?

The Ministry, which was focussed on education from the primary classes to the level of the university, was headed by some of the stalwarts of Indian politics in its early years. For more than a decade after Independence, the Ministry was led by Maulana Abul Kalam Azad. He was followed by Kalulal Shrimali and the eminent jurist M C Chagla, with the poet-educationist Humayun Kabir holding the portfolio for a short while in between. Later Education Ministers of India included Fakhruddin Ali Ahmed, who went on to become President, educationists Triguna Sen and S Nurul Hasan, economist and educationist VKRV Rao, the later-day Chief Minister of West Bengal Siddhartha Shankar Ray, scholar-politician Karan Singh, and senior leaders B Shankaranand and S B Chavan. The last Education Minister of India was K C Pant, who served in the post in 1984-85, after which the name of the Ministry was changed.

Under What Circumstances Did the Ministry of Education Become HRD?

Upon becoming Prime Minister in 1984, Rajiv Gandhi, who had surrounded himself with a new crop of advisers, showed a restlessness for change and innovation in a number of areas. He accepted a suggestion that all departments related to education should be brought under one roof. On September 26, 1985, the Ministry of Education was renamed as the Ministry of Human Resource Development, and P V Narasimha Rao was appointed Minister. Related



Departments such as those of Culture and Youth & Sports were brought under the Ministry of HRD, and Ministers of State were appointed. Even the Department of Women and Child Development – which became a separate Ministry with effect from January 30, 2006 – was a Department under the Union HRD Ministry. There was some opposition from academic circles who complained that the country no longer had a Department with ‘education’ in its name. Some newspapers wrote editorials criticising the change of name. But the decision had been made, and subsequently, in 1986, the government cleared a new education policy – the second in the country’s history, and one that was to survive until now.

Were Changes Made in The Ministry Even Afterward?

Yes, changes were made from time to time. After Atal Bihari Vajpayee became Prime Minister in 1998, the government decided to separate the Department of Culture from the Ministry of HRD. In October 1999, a new Ministry of Culture came into being, with the late Ananth Kumar in charge. The Department of Youth too, was separated from the Ministry of HRD, and Ananth Kumar was given charge of this new Ministry as well. With these decisions of the Vajpayee government, the HRD Ministry remained ‘HRD’ only in name – for all practical purposes, it was back to being a ministry for education.

What Is the Background of The Return To ‘Education Ministry’?

RSS circles have long been in favour of going back to the Ministry’s original name, but the Vajpayee government, which was in controversy over allegations of rewriting textbooks, did not take steps in this direction. Sources in the RSS say that the idea of renaming had been discussed in the meetings of the Shiksha Samooh of the Sangh (a group of affiliated organisations working in the education sector) on a number of occasions over the last six years of the Modi government – and that some of these organisations had also made written submissions in this regard.

Diluting the EIA Process Spells A Path of No Return (Suhrit Parthasarathy - Advocate

Practising At the Madras High Court)

- On July 12, Fridays for Future India (FFF), a collective of young environmental campaigners, received a notice from the Delhi police that accused it of committing offences under the Unlawful Activities (Prevention) Act. Its alleged crime: “sending too many emails” to the Minister for Environment, Forest and Climate Change, Prakash Javadekar, with subjects tagged “EIA 2020”. Over the last few weeks, the FFF has organised a sustained protest against a proposed new notification, which aims to replace the existing model of conducting environmental impact assessments (EIA) in India. The notice the group received claimed that the campaign’s details published on its website contained “objectionable contents” and constituted “unlawful activities or terrorists act[s]” which were “dangerous for the peace, tranquillity and sovereignty of India”. Even though the notice was eventually withdrawn, after the police cited a “clerical” error, that the country’s anti-terror law can be invoked with such facile ease is a shuddering thought. But equally this must also make us wonder what it is about the FFF’s campaign that drew such ire out of the government. Is the new draft EIA policy so critical to the state’s programme that even the slightest acts of dissent are to be quashed with maximum force?
- The Union Ministry of Environment has been in the spotlight on more than one occasion during the pandemic, as it worked to push through retrograde environmental decisions in an atmosphere of general paralysis. In April, Environment Minister Prakash Javadekar used a



virtual conference to ensure that the National Board for Wildlife's Standing Committee stamped its approval on several projects, with serious implications for conservation. He now wants to hurriedly make a fundamental change to the process of project approvals, by introducing a new **Environment Impact Assessment (EIA)** Notification. **Now in draft, it seeks to replace the existing EIA notification of 2006.** The proposed provisions show that the Ministry has gone to great lengths to reduce or even remove public participation, and by extension independent expert opinion, from the process of granting environmental clearances; public reporting of violations may also not be taken cognisance of. While there can be no argument about the importance of development projects, it has resorted to sophistry in classifying activity for exemptions. **Section 26 provides a list of projects that would not attract environmental clearance or permission, including coal mining and seismic surveys for oil, methane and shale gas on some lands. Section 14 provides exemption for these and some other projects from public consultation, also limiting the scope of public involvement to the districts concerned, in the case of national parks and sanctuaries where pipeline infrastructure will pass. Roads and highways get liberal concessions. Further, it retains the clause that if a public agency or authority considers the local situation not conducive to participation by citizens, the public consultation need not include a public hearing.**

In spite of the far-reaching nature of its proposed actions, the Centre has displayed unseemly haste to get them in place and **Mr. Javadekar has not aided credibility by trying to shut down public responses to the draft early. It took a Delhi High Court order to extend the deadline to August 11.** The exercise has been further muddied by the mysterious blocking of some activist websites calling for the EIA proposal to be dropped, and demanding a new approach towards conserving natural resources for future generations. Clearly, the Centre's attempts at weakening checks and balances are not new. **A study of coal mining clearances shows that 4,302 hectares of forest were diverted during 2014-18, favouring extraction over conservation.** COVID-19 has powerfully demonstrated the value of nature for well-being: of lost forests and captured wildlife bringing virus reservoirs closer to humans and foul air destroying their health. While there might be a case for some changes, much of the proposed EIA system can only make things worse, and should not be pushed through.

How Ghazipur Landfill's Height Was Reduced and If It Can Be Permanently Cleared

- ➔ Two people were killed and four vehicles fell into a drain after a part of a landfill site collapsed in Delhi's Ghazipur area in 2017. The landfill site, commissioned in 1984 and overflowing since 2002, exceeded its capacity at least a decade ago but garbage continued to be dumped here in the absence of any alternate option. At the last count in 2019, the landfill had crossed 65 metres (213 feet), just eight metres short of the iconic Qutub Minar, which is 73 metres high. The Ghazipur landfill site rises by nearly 10 metres a year and was expected to surpass the height of Qutub Minar and other vertical structures in the country. On the contrary, the landfill site has reduced in height in the past several months. East Delhi Member of Parliament Gautam Gambhir Thursday claimed in a tweet: "Had promised that if I don't deliver, I will never contest elections again. Asia's largest garbage mountain in Ghazipur East Delhi down by 40 feet in 1 year!"

How Has the Height of The Landfill Reduced?

Over 140 lakh tonnes of waste collected since 1984 lie in the Ghazipur landfill leading to hazardous living conditions with toxic air, contaminated water for people living in nearby areas like Kaushambi, Khoda, Gharoli, Kalyanpuri, Ghazipur and Kondli. In October 2019, the

[Shatabdi Tower, Sakchi, Jamshedpur](#)



EDMC began using **trommel machine-cum-ballistic separators**, which are mechanical screening machines used to separate solid-waste and inert materials. Currently, eight such machines with a combined capacity of 1,200 tonne per day are segregating and lifting waste from the site. These trommels have processed 13,000 MT of wastes till date.

What Happens to The Waste After Segregation by These Machines?

The trommel machine divides waste into three parts: construction and demolition wastes; plastic and combustible wastes for use as fuel, and enriched soil and inert, which is around 50 per cent. **Around 15 per cent of the waste is used as Refuse Derived Fuel (RDF) and sent to energy plants in Ghazipur for producing electricity. Nearly 20 per cent waste is sent to construction and demolition waste plants of EDMC for making bricks, tiles and sand. While soil-like material, which comprises over half of the waste derived, is sent to NTPC's eco-park where so far 8,000 tonnes of waste has been sent. The remaining waste was sent to parks of EDMC.**

Can the Landfill Be Permanently Removed?

Theoretically yes, but practically challenging given that 2500 mt tonnes waste is dumped at the landfill site every day. **The answer lies in segregation of waste and use of technology to set up plants for further segregation and transportation. Currently, there is hardly any colony where segregation happens, which makes producing electricity and making compost and gas more challenging from waste. For instance, only biodegradable elements are needed for making gas and only non-bio degradable things for making electricity. "Today what looks easy is also because a lot of waste is very legacy waste which is very old so a lot of moisture has gone and become soil with passage of time, but the same cannot be done with fresh waste," said Kumar. These wastes if recycled at home easily be sent to different facilities for composting, power production and other uses. And if rotten or mixed with metal or other dirt becomes useless.**

What Are Other Challenges Before EDMC?

The perception that the recycled materials are of inferior quality has led to several recycled items such as sand, stones, bricks and tiles lying unused at its plant causing losses. Even some government agencies have backed out from purchasing recycled materials for road construction. In the second stage, the EDMC plans to increase the number of trommel machines and set up an integrated waste processing plant with a capacity of 2000 metric tonnes of separation per day. But there is also opposition from locals and activists against the proposed facility that has to come up at Ghonda Gujran in north-east Delhi. The argument is that it could destroy the aquifers present in the river's flood plains.

Why Heritage Activists Are Opposing Demolition of Osmania General Hospital

- The Telangana government has proposed to demolish the iconic Osmania General Hospital (OGH) building and construct a new, modern hospital in its place. Heritage activists, however, have opposed the move saying the government should preserve the main building as it is part of Hyderabad's heritage. The activists have suggested that other buildings can be demolished and existing vacant land can be used to build a new hospital.



Why Has the Government Proposed to Demolish A Hospital Amid the Pandemic?

Last week, as heavy rainfall lashed Hyderabad, the ground floor general wards of OGH were flooded due to water seepage from the roof as well as a choked underground storm water drain system. Visuals of patients sitting on beds while the ward was filled with ankle deep water went viral triggering outrage among health professionals, citizens and politicians. Parts of the ceiling of the hospital have also been giving way for the past several years. Amidst this outrage, the government announced that the OGH building will be demolished and a new one constructed. Two days after the announcement, rain water flooded the empty wards forcing the government to seal the building. All the patients were shifted to wards in other buildings within the complex. "The main OGH building is not in use anymore," Dr Ramesh Reddy, Director of Medical Education, said.

Why Are Activists Opposed to The Demolition?

The iconic OGH building is over 150 years old and is considered a heritage structure. The last Nizam of Hyderabad Osman Ali Khan had commissioned the hospital built on 26.5 acres of land abutting the river Musi, and it was designed by British architect Vincent Jerome Esch. The three-storey building was completed in 1925 and is regarded as a classic example of Indo-Saracenic style of architecture with the third floor having Jack Arch roof. The building has a grand dome on its central tower with smaller cupolas and domed pavilions on its corners and stair wells. Located at Afzal Gunj, the building is part of the city's heritage and skyline. Heritage activists want the main building to be repaired and persevered, and a new hospital constructed around it.

Speed to Weapon Capabilities of India's Rafale Fighter Jets

- The five Rafale fighter jets that land in Ambala will resurrect the **Number 17 Golden Arrows squadron** of the Indian Air Force. It will take the IAF's squadron strength to 31. When all the 36 Rafale jets are delivered by 2022, it will take it to 32 squadrons, still well below the 42 squadrons of the sanctioned strength. The state-of-the-art 4.5 Generation Rafale jet can reach almost double the speed of sound, with a top speed of 1.8 Mach. With its multi-role capabilities, including electronic warfare, air defence, ground support and in-depth strikes, the Rafale lends air superiority to the Indian Air Force. While China's J20 Chengdu jets are called fifth generation combat jets, compared to 4.5 generation Rafale, the J20 have no actual combat experience. Whereas the Rafale is combat proven, having been used by the French Air Force for its missions in Afghanistan, Libya and Mali. It has also been used for missions in Central African Republic, Iraq and Syria. Rafale can also carry more fuel and weapons than the J20. Each aircraft has 14 storage stations for weapons. The jets come with one of the most advanced **Meteor air-to-air missiles**. The 190-kg missile has a **Beyond Visual Range (BVR) of over 100 km**, traveling at a top speed of **Mach 4**. The F16 jets, used by Pakistan, carry the AMRAAM missile, which has a BVR of 75 km. Rafale can also outperform F16 in dogfights. The Rafale jets also come with **SCALP, the air-to-ground cruise missile with a range over 300 km**. It is a long-range deep strike missile. The **MICA air-to-air missile on Rafale is for both, close-quarter dogfights, and for BVR**. At the last-minute, India has also asked for **HAMMER (Highly Agile and Manoeuvrable Munition Extended Range)**, which is an air-to-ground precision guided missile produced by French conglomerate Safran, and can be used against bunker-type hardened targets within the range of 70 km.



What Was the Secret of Shakuntala Devi's Calculating Abilities?

→ Shakuntala Devi (1929-2013), the subject of a new film released on Amazon Prime on Friday, has always been associated with an element of mystery. She was not formally educated, and was far from exceptional in cognitive tests, and yet she could perform calculations with large numbers in a few seconds, sometimes instantly. A look at her skills, and what is known about how she cultivated them:

So, What Were Her Skills?

- ❖ **Cube Roots:** It began with extracting cube roots of large numbers, which she could do in her head rapidly while still a child in the 1930s. Then in 1988, in a test of her abilities conducted by the psychologist Arthur Jensen at the University of California-Berkeley, Shakuntala Devi mentally calculated the cube roots of 95,443,993 (answer 457) in 2 seconds, of 204,336,469 (answer 589) in 5 seconds, and of 2,373,927,704 (answer 1334) in 10 seconds.
- ❖ **Higher.....Roots:** She calculated the 7th root of 455,762,531,836,562,695,930,666,032,734,375 (answer 46,295) in 40 seconds. This means that 46,295 multiplied by itself seven times yields that number of 27 digits; Shakuntala Devi worked backwards from the 7th power to derive the root. This too was recorded in the test at Berkeley in 1988.
- ❖ **Long Multiplication:** This is the skill that got her into the Guinness Book of Records in 1982. At Imperial College on June 18, 1980, Shakuntala Devi was asked to multiply two 13-digit numbers:
 $7,686,369,774,870 \times 2,465,099,745,779$.
She got the answer in 28 seconds – 18,947,668,177,995,426,462,773,730.
- ❖ **Calendar Calculations:** Given any date in the last century, she could instantly say which day of the week that date fell on. For example, if you gave her the date July 31, 1920, she would immediately tell you that it was a Saturday. If the date was stated in the order month, day, year (for example, July-13-1920), her average response time was about 1 second. But when the dates were stated to her in the order year, month, day (for example 1920-July-31), "her answers came about as fast as one could start the stopwatch", the 1988 test at Berkeley found.
Where did she learn these skills?
By all accounts, Shakuntala Devi was entirely self-taught. Daughter of a circus performer, she travelled with her parents since she was three years old, and is said to have cultivated her calculating abilities while performing card tricks. Once she began to extract cube roots rapidly in her head, she became a performer exhibiting her skills. By the time she was a teenager, she was already travelling around the world, usually before audiences in colleges and universities.

Beyond Her Numerical Skills, How Much Mathematics Did She Study?

Shakuntala Devi authored several books, including at least half a dozen on calculations, mathematical puzzles, and grooming children in mathematical skills. The books show she was familiar with certain mathematical concepts that one usually learns during a formal education. For example, in some of her writings she discusses trigonometry and logarithms. It is most likely that she learnt these concepts from extensive reading, but there is not much literature available on this aspect of her life. Even the film does not throw any light on this.



While it is full of glimpses about her extraordinary calculating abilities, the film dwells very little on the mental processes these abilities were based on.

So, what explains her calculating abilities?

One of the most comprehensive accounts is the report on the tests at University of California-Berkeley in 1988. The psychologist Jensen, who died in 2012, published his findings in the journal *Intelligence* in 1990. The short answer: Jensen could not figure out the secret of her skills: “[None] of the objective test results begins to explain why or how Devi is able to perform feats with numbers that are so far beyond what most of us can do in this sphere as to seem incredible. Her peculiar ability is indeed rare, perhaps one in hundreds of millions,” he wrote in his report. Jensen noted a marked contrast between Shakuntala Devi’s calculating abilities and her “rather unexceptional reaction times” in elementary cognitive tasks. “Some kind of motivational factor that sustains enormous and prolonged interest and practice in a particular skill probably plays a larger part in extremely exceptional performance ...,” he wrote.

[Did the Tests Provide Even A Hint on The Processes She Followed?](#)

In his report, Jensen speculated that most of the basic operations involved in her performance probably became automatised during her childhood. “Devi ‘perceives’ large numbers differently from the way most of us ordinarily do. When she takes in a large number (and she must do this visually), it undergoes some transformation, almost instantly – usually some kind of simplification of the number,” Jensen wrote.

[Are There Any Other Accounts of Her Mental Processes?](#)

Some clues can be found in Shakuntala Devi’s own writings. In ‘Figuring: The Joy of Mathematics’, she described methods for mental multiplication, as well as a method for working out the day of the week for any date in the previous century. Both of these are long processes that fill up pages. And yet she could give her answers in seconds, if not instantly. It would require a genius as rare as herself to emulate her skills at her speed – if one were to follow the methods she described. Or possibly, as Jensen wrote in his report, “Devi obviously does not go about her calculations in the same way that most of us would do.”

[If These Skills Remain Unexplained, What Is the Film About?](#)

Directed by Anu Menon, with Vidya Balan playing the title role, the film focuses more on Shakuntala Devi’s personal life. Beyond her mathematics books, Shakuntala Devi also wrote a book on homosexuality, indulged in astrology, contested against Indira Gandhi in Medak during the 1980 Lok Sabha elections (she managed 6,514 votes against Gandhi’s 3 lakh-plus), and has a daughter living in London. The film dwells on some aspects more extensively than others.

[‘Whitening’ Undergoes A Makeover but Colourism Stays](#)

- The world’s biggest cosmetics companies have been selling a fairy tale that often goes something like this: if your colleagues dismiss you at work, if your talents are ignored, whiten your skin to turn your love life around, boost your career and command centre stage. No company has had greater success peddling this message across Asia, Africa and West Asia than Unilever’s Fair & Lovely brand, which sells millions of tubes of skin lightening cream annually. The 45-year-old brand earns the Anglo-Dutch conglomerate Unilever more than \$500 million in yearly revenue in India alone, according to Jefferies financial analysts. Following decades of pervasive advertising promoting the power of lighter skin, a re-branding



is hitting shelves globally. But it's unlikely that fresh marketing by the world's biggest brands in beauty will reverse deeply rooted prejudices around "colourism," the idea that fair skin is better than dark skin.

'Glow & Lovely'

Unilever said it is removing words like "fair", "white" and "light" from its marketing and packaging, explaining the decision as a move toward "a more inclusive vision of beauty." Unilever's Indian subsidiary, Hindustan Unilever Limited, said the **Fair & Lovely brand will instead be known as "Glow & Lovely."** French cosmetics giant L'Oreal followed suit, saying it too would remove similar wording from its products. Johnson & Johnson said it will stop selling Neutrogena's fairness and skin-whitening lines altogether. The makeover is happening in the wake of mass protests against racial injustice following the death of George Floyd. At the Skin and Body International beauty clinic in South Africa, owner Tabby Kara said she sees a lot of people inquiring about going one or two shades lighter. "It's a general demand in Africa," she said. "People do want to be a bit fairer simply because society expects or is more interested in the fairness of a person." **India's cultural fixation with lighter skin is embedded in daily matrimonial ads. The Hindu caste system has helped uphold some of the bias.**

Japanese, Korean Brands

In Japan, pale translucent skin has been coveted since at least the 11th Century. So-called "bihaku" products, based on the Japanese characters for "beauty" and "white," remain popular today among major brands. The high-end Tokyo-based skin care brand Shiseido says none of its "bihaku" products contain ingredients that bleach skin, but do reduce melanin that can lead to blemishes. The company says it has no plans to change its product names, including the "White Lucent" line. In South Korea, the words "whitening" or "mibaek" have been used in about 1,200 kinds of cosmetics products since 2001, according to the Ministry of Food and Drug Safety. Alex Malouf, a Dubai-based marketing executive, said companies had been playing to different audiences around the world but are now paying attention to the societal changes happening in the U.S. and Europe, where shareholders are primarily based. L'Oreal tweeted last month it "stands in solidarity with the Black community and against injustice of any kind." Its products in the U.S. include the Dark & Lovely brand, aimed at black women. Outside the U.S., however, the company was marketing its "White Perfect" line for a "fair, flawless complexion."

Antibiotics in Livestock A Worry

→ **Antibiotics are extensively misused in the dairy sector and its residues remain largely untested in milk, noted a recently published survey report by the Centre for Science and Environment (CSE).** The organisation held an online meeting on antibiotic use in the dairy sector on Wednesday. "We are concerned. While we continue to struggle against COVID-19, we are staring at another pandemic-like situation – that of antibiotic resistance fuelled by the way we are producing our food, which has become chemical-intensive," CSE director-general Sunita Narain said. The meeting was attended by a wide spectrum of experts and participants from the Food Safety and Standards Authority of India (FSSAI), the National Dairy Development Board (NDDB); the World Health Organization (WHO), the Department of Animal Husbandry and Dairying, the Central Drugs Standard Control Organisation and representatives from specialised educational and research institutions, civil society bodies, and departments concerned from States.

Shatabdi Tower, Sakchi, Jamshedpur



Crisis of Resistance

The CSE's assessment shows that dairy farmers indiscriminately use antibiotics for diseases such as mastitis (infection/inflammation of the udder), a common ailment in dairy animals. Often, these include critically important antibiotics (CIAs) for humans – the WHO has warned that they should be preserved in view of the growing crisis of antibiotic resistance. India is the world's largest milk producer – it produced a massive 188 million tonnes in 2018-19. Urban areas consume 52% of it, and the unorganised sector, comprising milkmen and contractors, caters to 60% of this consumer base; the remaining demand is met by dairy cooperatives and private dairies which represent the organised sector. "The abused antibiotics – despite a law against it – are easily available without the prescription of a registered veterinarian and stocked at farms. Farmers often inject animals based on their own judgment of signs and symptoms of a disease without any veterinary supervision," noted the CSE in its latest report.

Inadequate Focus

The CSE researchers also point towards inadequate focus on testing for antibiotic residues in the milk collected by some State federations, which process it and sell packaged milk and dairy products under popular brands. "Farmers often sell milk while the animal is under treatment, which increases the chances of antibiotic residues. While milk sold directly to consumers is not tested, contrary to what one would expect, processed milk sold in packets is also largely unchecked for antibiotic residues," says Amit Khurana, programme director, food safety and toxins programme, CSE.

High Levels of Ammonia in Yamuna Water: The Cause, Effect and Possible Solution

- For the second time in a week, the Delhi Jal Board (DJB) on Monday had to reduce water production capacity by 25 per cent after high levels of ammonia were detected in the Yamuna river. Raghav Chadha, the vice-chairman of the DJB, said the concentration of the pollutant was high in raw water released from Haryana, due to which supply was affected in parts of the city. The situation was brought under control later in the day. The level of ammonia in raw water on Monday morning was 1.8 parts per million (ppm). This was significantly less than 3 ppm recorded on Friday. The acceptable maximum limit of ammonia in drinking water, as per the Bureau of Indian Standards, is 0.5 ppm. The DJB presently has the capacity to treat approximately 0.9 ppm.

What Is Ammonia and What Are Its Effects?

Ammonia is a colourless gas and is used as an industrial chemical in the production of fertilisers, plastics, synthetic fibres, dyes and other products. Ammonia occurs naturally in the environment from the breakdown of organic waste matter, and may also find its way to ground and surface water sources through industrial effluents or through contamination by sewage. If the concentration of ammonia in water is above 1 ppm it is toxic to fishes. In humans, long term ingestion of water having ammonia levels of 1 ppm or above may cause damage to internal organs.

How Does It Enter the Yamuna?

The most likely source is believed to be effluents from dye units, distilleries and other factories in Panipat and Sonapat districts in Haryana, and also sewage from some unsewered colonies in this stretch of the river. Water used from the Yamuna for supply to the

Shatabdi Tower, Sakchi, Jamshedpur



city is taken before the Wazirabad barrage. Officials of the Delhi Pollution Control Committee (DPCC) claim discharge from industries in Delhi begins after this point. On Monday, a DJB official pointed to high concentration of pollutants being carried by Drains 8 and 4, which bring potable raw Yamuna water to Delhi from Haryana. Drain 8 is also infamous for running alongside another drain carrying industrial waste and sewage in certain stretches of Sonapat district. In some areas here, sandbags are used to prevent the two drains from mixing. However, on days of heavy rain, both the drains overflow, according to residents in the area and experts from the South Asia Network on Dams, Rivers and People (SANDRP).

How is it Treated?

The DJB at present does not have any specific technology to treat ammonia. The only solution it adapts is to reduce production at three water treatment plants – Wazirabad, Chandrawal and Okhla – which are largely affected by the pollutant. In addition to this, the board mixes raw water that carries high concentration of ammonia with fresh supply from Munak canal, which brings Yamuna water from Munak area in Haryana to Delhi. The amount of chlorine added to disinfect raw water is also increased when high levels of ammonia are detected. With the completion of a new unit of the Chandrawal water treatment plant by 2022, fitted with advanced technologies and filters, the DJB expects it can treat ammonia levels up to 4 ppm.

What Is the Long-Term Solution to The Problem?

Stringent implementation of guidelines against dumping harmful waste into the river, and making sure untreated sewage does not enter the water are two things pollution control bodies are expected to do. However, neither Haryana nor Delhi have been able to ensure the same. But, a more organic method agreed upon by environmentalists and experts is to maintain a sustainable minimum flow, called the ecological flow. This is the minimum amount of water that should flow throughout the river at all times to sustain underwater and estuarine ecosystems and human livelihoods, and for self-regulation. It is, however, a sore point between the two state governments. With Delhi dependent on Haryana for up to 70 per cent of its water needs, it has approached the courts several times over the past decade to get what it calls an equitable share of water. Haryana, with a large number of people involved in agriculture, has water paucity issues of its own. Both states have argued over maintaining 10 cumecs (cubic meter per second) flow in the Yamuna at all times. The lack of a minimum ecological flow also means accumulation of other pollutants. After water is extracted from the river for treatment in North East Delhi, what flows is mostly untreated sewage and refuse from homes, run off from storm water drains and effluents from unregulated industry.

How Aerial Seeding Is Helping Plantation in Hard-To-Access Aravalli Regions

- ➔ The Haryana Forest Department has started aerial seeding across the state on a pilot basis, with the drive touching the Aravalli region of Faridabad district Wednesday. Officials say this technique will allow plantation in sections of the Aravallis that are either difficult to access or inaccessible altogether, and the pilot project will help determine the effectiveness of the technology and the dispersal mechanism. Before Faridabad, this method has been put to use in Yamunanagar and Mahendragarh earlier this month. Plantation on 100 acres will be undertaken using this method during the pilot project.



What Is Aerial Seeding?

Aerial seeding is a technique of plantation wherein seed balls – seeds covered with a mixture of clay, compost, char and other components – are sprayed on the ground using aerial devices, including planes, helicopters or drones.

How Does This Technique Work?

Seeds balls or seed pellets are dispersed in a targeted area by the low-flying drones, falling to the ground with the help of the coating of clay, compost, char and other material, that provides the required weight for seeds to drop on a predetermined location rather than disperse in the wind. These pellets will then sprout when there is enough rain, with the nutrients present within them helping in the initial growth.

What Are the Advantages of This Technique?

Areas that are inaccessible, have steep slopes, are fragmented or disconnected with no forest routes, making conventional plantation difficult, can be targeted with aerial seeding. Furthermore, the process of the seed's germination and growth is such that it requires no attention after it is dispersed – the reason why seed pellets are known as the **"fire and forget"** way of plantation. They eliminate the need for ploughing and digging holes in the soil and the seeds do not need to be planted, since they are already surrounded by soil, nutrients, and microorganisms. The clay shell of these pellets along with the other items in the mixture also protects them from birds, ants and rats.

What Kind of Species Can Be Dispersed Using Aerial Seeding?

The species selected have to be native to the area and hardy, with seeds that are of an appropriate size for preparing seedballs, and have to have a higher survival percentage. Officials also say that it is critical that the timing of the seeding be correct in order for the plantation to be successful.

At 2,967 Tigers, India's Capacity at Peak

- ➔ A detailed survey reveals that nearly a third of India's tigers are living outside tiger reserves and nearly 17 of the 50 reserves are approaching the peak of their capacity at sustaining their populations. India hosts 70% of the world's tigers. At 2,967, experts say, India may slowly be approaching its peak carrying capacity of tigers. For the first time, said a scientist associated with the survey, there was an attempt to segregate how many tigers were largely present within the reserves and how many flitted in and out and were dependent on the core reserve for sustenance. This was to guide conservation policy. The reserves, by definition, are a "source" and suitable for nourishing a growing tiger population because of prey availability and territory. However, when they get too crowded, tigers venture out further from "sources" and form "sinks" and much of wildlife population dynamics is about understanding this source-sink relationship. "Generally, there's a 60-40 split in tigers from source-sink, but this can vary. However, we are approaching the maximum capacity of several good reserves, and the focus should be on developing under-utilised reserves and not over-nourish those that have a good population," said Rajesh Gopal, secretary general, Global Tiger Forum.



Why States Can't Deny Community Transmission Anymore

→ Though there still seems to be a great reluctance to admit the fact that the novel Coronavirus epidemic in India was well into the stage of community transmission, more and more states seem to be realising that it was becoming increasingly untenable to outrightly deny the possibility. In the last one week, at least three states have hinted that community transmission was going on. Kerala was the most forthright, with the chief minister Pinarayi Vijayan himself saying that community transmission could be happening, though only in a few coastal areas. A few days ago, Telangana, which has seen rapid rise in its number of cases in recent weeks, also hinted at the same, though it too was guarded in its statement. And now, the Maharashtra health secretary also seems to be dropping hints. In an interview with this newspaper, the official did not deny community transmission, but said **it was not in the domain of the state government to decide on this, that this was within the "purview" of the Indian Council of Medical Research, and that everyone was just following the ICMR guidelines.** To independent scientists and health experts, this reluctance to admit to community transmission has been baffling, as has been reported earlier by this newspaper and also other media organisations. **For these scientists, community transmission is a reality that had arrived in India much earlier. And they have expressed concerns about inherent dishonesty and lack of transparency in matters related to science, when there are refusals like this to admit fairly straightforward facts. Not that it matters. An admission of community transmission would change nothing, as pointed out by the Maharashtra official as well. It would make no difference to the ongoing work of health administrators, local governments, doctors and other medical staff, or to the general public. It is a largely academic question, with a rather obvious answer at a stage when the country is adding almost 50,000 cases every day.**

An Opportunity to Reshape Health Care (Dr. Akshay Baheti - Radiologist Practising In Mumbai. Dr. Sanjay Nagral - Surgeon Practising In Mumbai)

→ **The COVID-19 pandemic has massively disrupted our lives. Besides direct devastation of health, the epidemic and the lockdown have had myriad indirect effects, be it on the environment, livelihoods, or supply chains.** There has been a lot of discussion around the lack of capacity of our health-care system to fight this epidemic. But the impact of COVID-19 and the lockdown on the 'businesses of health care have not been examined. This has an important bearing on the larger arena of health care for our citizens in the near future.

Care and The COVID Impact

Indian health care has been increasingly privatised over the last few decades. This has led to intense market competition. A uniquely unregulated form of health care has thrived. It has also been marked by several questionable practices. These have been under the media and public glare leading to a huge trust deficit. Will the changed milieu have an impact on this? How will this affect care of other conditions? COVID-19 has led to a dramatic reduction in the numbers of patients seeking care. This is especially true of planned, non-urgent problems including procedures and surgeries. **Many patients are scared to visit health facilities fearing COVID-19. While this has caused collateral damage, with the condition of some patients worsening or taking an unfortunate turn, there may indeed be those who have avoided interventions without any deleterious impact. In other words, they have been spared of procedures for debatable indications. For example, the large number of women who undergo**



an unnecessary hysterectomy has reduced. The incidence of Caesarean sections is reported to have gone down. Similarly, procedures such as coronary stents, knee replacements or cosmetic surgery which reflect supplier-induced demand have almost stopped. 'Routine' admissions for 'observation' or 'insurance claims' have got curtailed. Strangely, even emergency medical cases have declined during the lockdown, with a decrease in the cases of heart attacks or strokes presenting to hospitals. While some of these may have been true emergencies involving those who suffered at home, perhaps the unpolluted air, decreased work stress, or home-cooked food has had a bigger impact on health than we assume. Or maybe we were over-diagnosing and over-treating certain emergencies. Investigating these important questions and critically analysing their answers may make future health care more beneficial to patients. The cartelisation of health care has been naturally curbed during the pandemic. 'Cut practice', with doctors and hospitals prescribing tests, drugs, referrals and procedures in return for commissions, is entrenched in India. This leads to significant negative consequences, be it increased patient expenses, patients not reaching the right doctor or not getting the appropriate investigation, and also an erosion in the doctor-patient relationship and the image of the fraternity. It puts ethical doctors in a quandary, making them cynical about their profession. However, during the pandemic, the availability of doctors, beds and proximity are now the chief drivers for patient referrals, rather than the commission route. Most practices have had to take a forced 'detox' of sorts from this addiction. Like in life, there are several grey areas in treatment decisions, where doctors are not sure of the best way forward for the patient. For example, terminal patients with widespread cancers are often prescribed chemotherapy, which can cause side-effects worse than the disease, without impact on life span or quality of life. Oncologists often end up prescribing chemotherapy to such patients instead of symptomatic treatment to alleviate the pain and weakness because of the urge to 'do something', or even financial imperatives. The dangers of chemotherapy with COVID-19 lurking in the air has made everyone weigh its pros and cons with more caution than usual. The widely prevalent practice of a 'health check-up' which does not have proven public health value but is a tactic which targets health-obsessed 'clients', has also got derailed. The focus has instead fortunately moved back to the basics of preventive health such as diet, exercise, good sugar control, and quitting smoking and tobacco. The pandemic may have finally taught our population the importance of not coughing or spitting in the open. These may indeed have more far-reaching benefits in a much larger population.

The Two Sides to The Churn

The COVID-19 epidemic has centre-staged the need for a robust public health system and increased investment. While disrupting care, it may have unwittingly led to some 'desirable' changes by the circumstantial curb on unwarranted medical practices. This churning may even lead to genuine reflection among health-care providers. The question is whether this effect will linger on. Will lessons learnt during the epidemic nudge us towards rational and ethical care? However, there are dangerous fallouts of the disruption as well. The breakdown of overburdened health-care facilities, negative impact on the morale of health-care workers, and the collapse of private sector institutions (under financial strain) are all real. With hospital and doctors' incomes falling during the pandemic, there may be a resurgence of unethical practices with a vengeance as the industry tries to make up its losses. This is already evident in the huge bills that patients with COVID-19 are being slapped with, often by creating additional billing heads. Though prices in the private sector have been capped, loopholes in the system may be found, such as profiteering on personal protective equipment. Artificial demand maybe created in an effort to increase footfall. Thus, the epidemic's 'positive' impact



on unnecessary practices may get washed away as 'normalcy' is restored. In general, the medical fraternity in India has risen admirably to the challenge of COVID-19. The call of duty has led many to don Coronavirus warrior outfits and set aside commerce for now. It has forced them to consider alternative paradigms. Public respect for the profession has also improved. If we can seize this chance to correct undesirable practices, which have become an albatross around our neck, it may help the return of trust in the doctor-patient relationship, which was under severe threat before the pandemic. In the middle of gloom, this is a window of opportunity. Is this just wishful thinking or a genuine possibility? We should know soon.

Business & Economics

Digging Deeper

→ Four months into FY2020-21, the Centre has finally managed to pay States the compensation due to them for the previous year under the GST regime. This may come as a breather for States seeking to finance efforts to ramp up public health-care capacity and contain COVID-19's detrimental effects on vulnerable sections. The last instalment of ₹13,806 crore for March 2020 was paid out recently, taking the total payments for the year to ₹1,65,302 crore. To refresh, States were guaranteed compensation from the Centre for the first five years of the new indirect tax regime introduced in July 2017, for the revenues they lost after the shift from the earlier system where States had the power to levy some indirect taxes on economic activity. This compensation assumed a 14% annual growth rate in a State's revenue, with 2015-16 as the base year, and was to be paid out from a compensation cess levied on top of the specified GST rate on luxury and sin goods. With growth down over the previous fiscal year even before the pandemic waylaid the economy, the assumptions of the not-too-distant past are beginning to hurt. Compensation cess under GST last year was almost ₹70,000 crore less than the payments due to States.

This gap is likely to enlarge further this year with expected economic contraction denting GST collections as well. Compensation cess inflows could shrink even more with people curbing discretionary spending on luxury goods in order to conserve capital or stay afloat in the pandemic-hit economy. A little over half of the shortfall in last year's cess kitty has been plugged by tapping cess balances from the first two years of GST implementation. The rest has been conjured up from the Consolidated Fund of India by debiting Integrated GST (IGST) funds that were lying with the Centre. IGST is levied on inter-State supply of goods and services and some of this levy collected in 2017-18 – the first year of GST when systems were still a tad ad-hoc – had not yet been allocated to States. Having thus drawn on these unintended contingent reserves, paying compensation to States this year is going to be even more daunting for the Centre. At the last GST Council meeting in June, Finance Minister Nirmala Sitharaman had said the Council would convene again in July just to discuss the possible alternatives to deal with this particular conundrum. The chief solution officials have been fleshing out is for the Centre to raise special loans against future GST cess accruals in order to help meet its compensation promise to States. There is no sign of that meeting being scheduled yet. That the pandemic's economic havoc has thrown up multiple challenges for North Block mandarins is understandable. But with a third of the fiscal year almost over, it would help the Centre and the States to battle the virus more effectively if they had more certainty and clarity on the cash at their disposal.



What Are Pre-Packs Under the Present Insolvency Regime?

- The Ministry of Corporate Affairs (MCA) has set up a committee to look into the possibility of including what are called “pre-packs” under the current insolvency regime to offer faster insolvency resolution under the Insolvency and Bankruptcy Code (IBC), while maintaining business continuity and thereby preserving asset value and jobs. Slow progress in the resolution of distressed companies has been one of the key issues raised by creditors regarding the Corporate Insolvency Resolution Process (CIRP) under the IBC with 738 of 2,170 ongoing insolvency resolution processes having already taken more than 270 days at the end of March. Under the IBC, stakeholders are required to complete the CIRP within 330 days of the initiation of insolvency proceedings.

What is a Pre-Pack?

A pre-pack is an agreement for the resolution of the debt of a distressed company through an agreement between secured creditors and investors instead of a public bidding process. This system of insolvency proceedings has become an increasingly popular mechanism for insolvency resolution in the UK and Europe over the past decade. In India’s case, such a system would likely require that financial creditors agree on terms with potential investors and seek approval of the resolution plan from the National Company Law Tribunal (NCLT). This process would likely be completed much faster than the traditional CIRP which requires that the creditors of the distressed company allow for an open auction for qualified investors to bid for the distressed company. “The process needs to be completed within 90 days so that all stakeholders retain faith in the system,” said Dinkar Venkata Subramanian, partner and national leader, restructuring and turnaround services, EY adding that cases that take more than this time should be taken through the normal CIRP. Venkata Subramanian also said that pre-pack would act as an important alternative resolution mechanism to the CIRP and would help lower the burden on the NCLTs.

What Are the Other Key Benefits of a Pre-Pack?

In the case of pre-packs, the incumbent management retains control of the company until a final agreement is reached. Venkata Subramanian noted that transfer of control from the incumbent management to an insolvency professional as is the case in the CIRP leads to disruptions in the business and loss of some high-quality human resources and asset value.

What Are Some of The Drawbacks of Pre-Pack?

The key drawback of a pre-packaged insolvency resolution is the reduced transparency compared to the CIRP as financial creditors would reach an agreement with a potential investor privately and not through an open bidding process. Experts said this could lead to stakeholders such as operational creditors raising issues of fair treatment when financial creditors reach agreements to reduce the liabilities of the distressed company. “There may be questions of whether secured lenders have been fair to other creditors,” said Manoj Kumar, partner at law firm corporate professionals while also noting that bankers themselves may hesitate to restructure liabilities outside of an open bidding process for fear of their decisions leading to investigations by agencies. Kumar also noted that unlike in the case of a full-fledged CIRP which allows for price discovery, in the case of a pre-pack the NCLT would only be able to evaluate a resolution plan based on submissions by the creditors and the investor.



What Mechanisms Would Protect Unsecured Operational Creditors Like Suppliers of Goods and Services?

The proposed pre-packaged resolution would likely be subject to approval by the NCLT. Notably, even under the CIRP financial creditors make up the committee of creditors which votes to decide the distribution of the proceeds of any resolution plan. Venkata Subramanian noted that as pre-packs would mostly be used for businesses that are running, the investors would likely need to maintain good relations with operational creditors. "You can't run a business without operational creditors. If you have to continue to buy from raw material providers and service providers, you have to give them a fair deal," said Venkata Subramanian noting that operational creditors tend to get worse recoveries in cases where the company is no longer operational.

Why Everyone Expects NPAs to Rise in India

→ This was a week dominated by the Reserve Bank of India and its Governors. In particular, we heard a lot about the growing threat of Non-Performing Assets (NPAs) in the Indian economy. First came the comment from Raghuram Rajan, former RBI Governor, highlighting the limits of the RBI monetising government debt. In other words, the RBI cannot be expected to directly or indirectly fund government borrowings without risking a sharp spike in inflation. Rajan also said that once economies like India open up fully, a lot of damage wrecked on the corporate sector by the lockdowns will be uncovered. In other words, Rajan suspects many firms may default on paying back their loans. Then came the news of Rajan's successor at RBI, Urjit Patel, launching his book, titled "Overdraft". Here, too, the issue of defaults dominated. According to Patel, the Insolvency and Bankruptcy Code (IBC), which was supposed to speed up and simplify the resolution of defaulting firms, created a rift between the RBI and the central government, as the latter sought to dilute the IBC. In Patel's view, resolution of firms failing to pay back their dues will be adversely affected. "Since the time-bound threat of insolvency application is not credible anymore, it is unclear what threat points will compel resolution in 180 days (or, for that matter, even 365 days)," Patel has written in his book. Alongside came the news a new book by Viral Acharya, former deputy Governor of RBI. "Attempts to alter the governance structure of the RBI to institutionalise such outcomes in future would have meant crossing the Rubicon and had to be foiled. As a result, the RBI lost its governor (Patel) on the altar of financial stability," stated Acharya. Then came the release of the Financial Stability Report by the RBI. The RBI comes out with the FSR twice each year – once in June or July and the next time in December. The FSR provides one of the most authoritative accounts of the state of India's financial stability. In the latest FSR, Patel's successor and current RBI Governor, Shaktikanta Das, stated that Gross NPAs could rise from 8.5% (of gross loans and advances) at the end of March 2020 to as much 14.7% by March 2021 – a two-decade high. The FSR is a veritable goldmine of information across various sectors. Each FSR also carries with it the results of a Systemic Risk Survey (SRS). This SRS – this one is the 18th in the series – was conducted during April-May 2020 to capture the perceptions of experts, including market participants, on the major risks faced by the financial system. According to the survey results, all major risk groups viz., global risks, risk perception on macroeconomic conditions, financial market risks and institutional positions were perceived as 'high' risks affecting the financial system. A detailed rendering of the SRS explains why all the RBI Governors – past and present – have cautioned about a rise in NPAs in the economy.



- India's central bank has much on its plate. Many have argued that the RBI's autonomy and independence have been undermined in the past few years. Others question the wisdom in the RBI solely targeting retail inflation level. Shouldn't the RBI be targeting growth or unemployment levels instead, they ask. Then, of course, there is the challenge of NPAs that simply refuses to go. Between August 2 to 4, the RBI's Monetary Policy Committee will come together to answer some of these questions, albeit in their own way.

The Majority Cannot Afford A Balanced Diet (Madhura Swaminathan - Professor And Head Of The Economic Analysis Unit, Indian Statistical Institute, Bengaluru)

- New analysis from the Food and Agriculture Organization (FAO) shows that hundreds of millions of people in India above the international poverty line of \$1.90 purchasing power parity (PPP) per person per day cannot afford a healthy or nutritious diet. This analysis confirms the fact that the problem of poor nutrition in India is largely on account of the unaffordability of good diets, and not on account of lack of information on nutrition or tastes or cultural preferences. The large majority of Indians cannot afford a balanced diet. Every year, the FAO, in partnership with other United Nations organisations, publishes a report on food security across the world. This year, the State of Food Security and Nutrition in the World 2020 (SOFI 2020) was released on July 13. A new feature of SOFI 2020 is a detailed analysis of the "cost and affordability of healthy diets around the world".

Types of Diets

Three types of diet are defined. The first is termed a "basic energy sufficient" diet. This is one in which the required calorie intake is met by consuming only the cheapest starchy cereal available (say, rice or wheat). A requirement of 2,329 Kcal for a healthy young woman of 30 years is taken as the standard reference. The second is a "nutrient adequate" diet, one where the required calorie norms and the stipulated requirement of 23 macro- and micro-nutrients are met. This diet includes least cost items from different food groups. The third diet is a "healthy diet". This is one which meets the calorie norm and the macro- and micro-nutrient norm and also allows for consumption of a diverse diet, from several food groups. Defining a healthy diet is more complex than the other two diets, and the FAO uses actual recommendations for selected countries. The Indian recommendation includes consumption of items from six groups: starchy staples, protein-rich food (legumes, meat and eggs), dairy, vegetables, fruits, and fats. Using data on retail prices of commodities in 170 countries, linear programming techniques are used to identify the cost of each of these diets. The following are the findings for South Asia. First, the energy-sufficient diet or eating only cereals to meet your calorie requirement costs around 80 cents a day in South Asia, and is thus affordable to a poor person or one defined as having an income of \$1.9 a day. In short, the poor in India and other South Asian countries can get their calories by sticking to rice or wheat alone. Second, the nutrient-adequate diet costs \$2.12 a day. This is more than the international poverty line. If a person with income just above the poverty line spent her entire daily expenditure on food (ignoring fuel, transport, rent, medicines or any other expenditure), even then she would not be able to afford the nutrient-adequate diet. No one can, of course, survive by spending their entire income on food. The SOFI Report assumes that a person cannot spend more than 63% of total expenditure on food (that is, 37% would be required for non-food essentials). Third, the healthy diet costs \$4.07 a day, or more than twice the international poverty line. In other words, a healthy diet is totally unaffordable for those with incomes at even twice the poverty line. And what is this healthy diet? It includes 30 gm of



cereal, 30 gm of pulses, 50 gm of meat/chicken/fish and 50 gm of eggs, 100 gm of milk, 100 gm of vegetables and fruit each, and 5 gm of oil a day. In short, a balanced and healthy meal but not excessive in any way. How does this translate into numbers of people? The SOFI Report estimates that 18% of South Asians (numbering 586 million people) cannot afford the nutrient-adequate diet and 58% of South Asians (1,337 million people) cannot afford the healthy diet.

Affordability of Healthy Diets

These eye-opening and shocking numbers have got lost in the daily news of the pandemic. If anything, the number of people who cannot afford a healthy diet will have risen in the last three months, as employment and incomes collapsed for the majority of workers in the informal sector. Note that the Indian poverty line of 2011-12, as defined by the Tendulkar Committee, amounted to ₹33 per day in urban areas and ₹27 per day in rural areas, and corresponded roughly to \$1 a day at international PPP prices. The Indian poverty line (there has been no redefinition in the last decade) is thus lower than the international poverty line used in the SOFI Report. Whatever the limitations of the SOFI methodology, there are some clear and simple messages. First, those we officially count as poor in India – with a cut-off that is lower than the international norm of \$1.9 a day – cannot afford a nutrient-adequate diet let alone a healthy diet. This result is completely contrary to the view of scholars such as Arvind Panagariya that the poverty line in India “may not permit a comfortable existence, including a balanced diet, (but) allows above subsistence existence.” Second, even those with incomes of twice the international poverty line cannot afford a healthy diet. If we want to reduce malnutrition and food insecurity, we have to address the problem of affordability of healthy diets. Should not at least one nutritious meal (with protein, fruits and vegetables) be ensured for the majority of our people, and particularly in this time of crisis? The Pradhan Mantri Garib Kalyan Anna Yojana offers, up to November 2020, an additional 5 kg of wheat or rice and 1 kg of gram or lentils a month free of cost to all households with ration cards. This is welcome, of course, but utterly inadequate to address the massive and growing problem of malnutrition.

What Is the Production Linked Incentive Scheme For Electronics Manufacturers?

- Global electronics giants such as Samsung, Pegatron, Flex, and Foxconn among others are looking to either set shop or expand their presence in India. These companies are in final stages of negotiations to benefit from the Ministry of Electronics and Information Technology's (MeitY) production linked incentive (PLI) scheme for making mobile phones and certain other specified electronic components.

What is the PLI Scheme?

As a part of the National Policy on Electronics, the IT ministry had on April 1 notified a scheme which would give incentives of 4-6 per cent to electronics companies which manufacture mobile phones and other electronic components such as transistors, diodes, thyristors, resistors, capacitors and nano-electronic components such as micro electromechanical systems. According to the scheme, companies that make mobile phones which sell for Rs 15,000 or more will get an incentive of up to 6 per cent on incremental sales of all such mobile phones made in India. In the same category, companies which are owned by Indian nationals and make such mobile phones, the incentive has been kept at Rs 200 crore for the next four years. The scheme, according to officials, will on one hand attract big foreign investment in



the sector, while also encouraging domestic mobile phone makers to expand their units and presence in India.

What Is the Tenure of The Scheme?

The PLI scheme will be active for five years with financial year (FY) 2019-20 considered as the base year for calculation of incentives. This means that all investments and incremental sales registered after FY20 shall be taken into account while computing the incentive to be given to each company. For the first year, the total incentive to be given has been capped at Rs 5,334 crore, while for the second and third year it has been kept at Rs 8,064 and Rs 8,425 crore, respectively. In the fourth year, the incentive will be hiked substantially to Rs 11,488 crore, while in the fifth and final year, the incentive to be distributed has been capped at Rs 7,640 crore. The total incentives over five years has thus been kept at Rs 40,951 crore.

Which Companies and What Kind of Investments Will Be Considered?

All electronic manufacturing companies which are either Indian or have a registered unit in India will be eligible to apply for the scheme. These companies can either create a new unit or seek incentives for their existing units from one or more locations in India. Any additional expenditure incurred by companies on plant, machinery, equipment, research and development and transfer of technology for manufacture of mobile phones and related electronic items will be eligible for the incentive scheme. However, all investment done by companies on land and buildings for the project will not be considered for any incentives or determine eligibility of the scheme.

Which Companies Have Shown Interest So Far?

Unlike the previous electronics manufacturing schemes, there has been considerable interest in the PLI scheme so far. According to government officials, South Korean company Samsung Electronics, Taiwan's Pegatron, and Singapore's Flex are in the final stages of discussions to either set up new units or expand the existing units to avail benefits under the scheme. Apart from that, companies such as LG India, which already have manufacturing units in India have also shown interest in the scheme. In the budget-category phone segment also, companies such as Lava, Dixon, and Karbonn have applied, government officials said.

Why Private Firms Are Being Invited to Run Trains in India, And How the Model Will

Work

- To upgrade the country's railway system, the NDA government has laid the roadmap for long-term partnerships with the private sector. The government envisages around Rs 50 lakh crore of investment in rail projects up to 2030, but as per the Union Budget 2019, only a part of it can be financed through government coffers, and public-private partnerships are needed for faster development. The decision to allow private players to run passenger trains stems from that policy.

Why Private Players

It is estimated that almost 70 per cent of freight trains, which now jostle for space with passenger trains on the overcrowded Indian Railway network, will shift to the two upcoming Dedicated Freight Corridors from December 2021. This will free up a lot capacity to introduce more passenger trains with better services and higher speeds. In the normal course, demand



for train seats is much more than available, on all busy routes. The result – waiting lists, overcrowded trains, and even losing business to other modes like air and road. Introducing new, modern trains requires heavy investment in rolling stock like coaches and engines. And then there is the cost of operations, which includes electricity, manpower and all other paraphernalia. In such a scenario, giving upgraded facilities, such as better onboard services and faster trains, would entail a huge modernisation expense for Indian Railways. As it is, **running of passenger trains is a loss-making business for Indian Railways. It recovers only around 57 per cent of the cost through tickets on an average.** The rest is cross-subsidised through earnings from its freight operations. In this context, to cut its losses and convert that opportunity into a money-making enterprise, the government has decided that some of the trains to be introduced in the future will be run by private companies, in a business model never tried in India before. **This move envisages a total investment of around Rs 30,000 crore into the railway system through rolling stock and other expenditure, to be borne by the private players. The only precondition is that the trains introduced by private players are a definite upgrade from what Indian Railways offers. The idea is to give passengers an option of superior train services without the Railways having to spend any money for it.**

How Many Trains Will the Private Players Operate and When?

The government has identified 109 busy routes across India to run 151 private trains for 35 years. These are routes with huge waiting lists and offer a potential to earn. The 151 trains represent only around 5 per cent of total trains run in India. For the project, the routes are divided into 12 clusters based out of major city centres, such as Patna, Secunderabad, Bengaluru, Jaipur, Prayagraj, Howrah, Chennai, Chandigarh, and two each for Delhi and Mumbai. **In other words, trains to and from Mumbai, Chandigarh and the like.** Each cluster is an independent business project, inviting a private player to manage. The indicative project cost of the Delhi-2 cluster is Rs 2,329 crore. It has 12 origin-destination pairs as routes, and the average distance of the routes is around 925 km. Each cluster has an indicative project cost and average train distance of 900-1052km. **The contract period of 35 years is based on the fact that trains and engines are usually in service for around three decades. The bidding process will conclude by the end of this financial year. After that, the first set of 12 trains is estimated to roll out by 2022-23, thereafter 45 trains in 2023-2024, 50 in 2025-26, and finally the remainder 44 in 2026-27.**

What Kind of Companies Are Expected to Run the Trains?

Since the business of running passenger trains in India has been a monopoly of Indian Railways, no private company in the country has any experience in this sector. Additionally, the invitation is extended to anyone in the world, with or without any experience in train operations. However, Railways has set certain financial eligibility for companies. Therefore, any company with a minimum net worth of Rs 1165 crore in the last financial year can apply. This is different for different clusters depending on how much Railways estimates a cluster is worth. But the range is between Rs 1,165 crore and Rs 1,600 crore. There is no bar on the number of clusters a company can bid for. Companies can also bid as consortiums. Therefore, such diverse business houses like GMR, Bombardier, the Vedanta group, Bharat Heavy Electricals, Bharat Forge, Titagarh Wagons, RK Associates (which is a prominent player in the railway food business), IRCTC, some international equity investment firms are among those that have shown participation intent so far. Railways estimates the list to grow. A second pre-application meeting of prospective bidders is scheduled on August 12. How will private companies make money running passenger trains when Indian



Railways Suffers Loss from The Same Business?

As per internal studies by Railways, private investors may see between 17 and 27 per cent Equity Internal Rate of Return (IRR), translating into very healthy profits. The project IRR is between 14 and 20 per cent, signifying a moderate to high feasibility. This is because it is estimated that the operators will be free to fix their fares and non-fare revenue models, and fares of these trains are expected to be higher than conventional trains, as they will offer better services. However, investors do their own calculations, and experts have said that any company venturing into this new business will have to have some risk appetite.

What Kind of Service Is Expected from Private Trains?

The trains have to be technologically superior to what Indian Railways has. **They have to run at a maximum speed of 160 kmph.** They can be either trainsets (like the Vande Bharat) or hauled by locomotives. They have to satisfy all safety preconditions on the Indian network. They have to be certified by bona fide certifying agencies. **Each train will have a minimum of 16 coaches and the maximum length of trains permitted on any route.** They will undergo trials in India before commercial rollout. **As for on-board services and tickets, the private operator has a free hand. It can decide the price of its services and what kind of add-on facilities it wants to provide. It has all the freedom to earn from fares as well as non-fare revenue. It will create its client base depending on its business model.**

What Will Indian Railways Get from The Private Players?

In this business model, the private operator is supposed to share revenues with Railways. The qualifying company that agrees to share the maximum percentage of the yearly revenue with Railways will win the bid. Besides, Railways will also get a standard haulage charge, akin to track access charge on a per-km basis. Earlier, it was worked out to be around Rs 512 per km, but Railways has not made the final figure public yet. **This charge is levied as the cost of using railway terminals, physical transportation of the train, track maintenance, signalling and overheads. The cost of the energy used by the trains will be paid in actual.** Railways has also set **certain key performance indicators for the private player, like punctuality, reliability, and maintenance of trains.** In this, punctuality is the biggest parameter, carrying around 95 per cent weightage. The service reliability means there should not be more than one failure – like a breakdown – in every one lakh km of distance travelled. Lapse in maintaining the key performance indicators will invite a penalty, to be built into the haulage charges.

What Will Railways Give to The Private Players?

In return, Railways will be contractually bound to provide “non-discriminatory access” to private trains. This means that even though its own trains on the same route will, theoretically, be in competition with the private trains, Railways being the owner of the network, cannot give unfair advantage to its own trains. It will also meet its end of the bargain by ensuring that its systems and infrastructure are kept well-oiled for private trains to operate in an **enabling environment.** If the private player fails to meet its key performance indicators due to lapses on part of Railways, then the transporter will also be liable to pay certain damages, all defined in the agreement. **As part of the deal, it will give land to private players to set up maintenance facilities for the trains, and let them use washing lines to wash, clean and periodically inspect the trains in its facilities. After completion of 35 years, the maintenance facilities will belong to Railways. The tickets to these trains will be booked through the current railway reservation system but the money will be kept in an escrow account.**



How Is This Exercise Different from The Two Tejas Express Trains Run By IRCTC?

That is not private operation simply because IRCTC is owned by the Railways. The terms of the deal are tailor-made specifically for this operation. That's why the IRCTC Tejas can at best be described as "corporate trains" and not private trains.

Are Private Players New in The Railway System?

Not in the freight business, where Indian Railways has been courting private players for a while now, through joint ventures and Special Purpose Vehicles etc. **The container cargo business has been opened up for private players to the extent that they can decide their own rolling stock and even develop their own business models.** In the general-purpose wagons business, freight customers have been given the freedom to get their own rolling stock if they so wish. But the passenger train operations have always been a government monopoly.

Is This Privatisation Of Indian Railways?

Both the Opposition as well as Railway unions have opposed this move, alleging it was the precursor to privatising the railway system. The unions have protested as well as parlayed with the Railway ministry on several occasions. Citing examples of other countries, notably Britain, the unions have argued that private operations of passenger trains have been a failure. Defending the move, Chairman Railway Board VK Yadav has called this a public-private partnership. The government has on the floor of both Houses of Parliament on different occasions maintained that there was no plan to privatise Indian Railways. "I want to make it crystal clear that there is no plan or proposal to privatise Indian Railways, it will not happen. Indian Railways belongs to the people of this country, it will remain so," Railway Minister Piyush Goyal told the Rajya Sabha this year.

Life & Science

How Sea Level Rise Could Impact Millions of People, Cost Billions of Dollars

- ➔ In a study published in the journal Scientific Reports, researchers predict that by 2100, the global population potentially exposed to episodic coastal flooding will increase from 128-171 million to 176-287 million. The value of global assets exposed to these episodes is projected to be between \$6,000-\$9,000 billion, or 12-20 per cent of the global GDP.

What Are the Findings of The Study?

The researchers note that sea-level rise (SLR) is a "well accepted" consequence of climate change. **Their study has found that globally, of the 68 per cent area that is prone to coastal flooding; over 32 per cent can be attributed to regional SLR. This, they say, will significantly increase coastal flooding by 2100.** Their results indicate **by the year 2100, for most of the world, flooding incidents that are typically associated with a 1 in a 100-year event could occur as frequently as 1 in 10 years,** "primarily as a result of sea level rise." As per this assessment, 0.5-0.7 per cent of the world's land area is at a risk of episodic coastal flooding by 2100, impacting 2.5-4.1 per cent of the population, assuming there are no coastal defences or adaptation measures in place.



How Much of a Threat Is Sea Level Rise?

Last year in September, Indonesia's President Joko Widodo announced that the country's capital would be relocated from Jakarta to the province of East Kalimantan on the lesser populated island of Borneo. The relocation was meant to reduce the burden on Jakarta, which has been facing problems such as poor-quality air and traffic gridlocks, and is particularly prone to flooding. It is also the largest Indonesian city with a population of 1 crore. It is located on the North West coast of the **most populous island in the world, Java**. The combination of climate change and heavy congestion continues to bury Jakarta, the **"world's fastest-sinking city"**, by about 25 cm into the ground every year. The situation looks grim for India's financial capital Mumbai as well. As per some projections, climate change is **expected to inundate significant sections of Mumbai by 2050, impacting millions of people. Other cities that regularly feature in the lists endangered by climate change include Guangzhou, Jakarta, Miami, and Manila.** IPCC projections too maintain that SLR is going to accelerate further and faster in the coming years. Some of the expected impacts of SLR over the course of the century include habitat contraction, loss of functionality and biodiversity and lateral and inland migration.

What Are Some Ways of Protecting Against Sea Level Rise?

Indonesia's government launched a coastal development project called a Giant Sea Wall or "Giant Garuda" (Garuda is the name of a bird from Hindu mythology and is Indonesia's national symbol) in 2014 meant to protect the city from floods. In a paper that was accepted for publication earlier this year in the Bulletin of the American Meteorological Society, researchers proposed an extraordinary measure to protect 25 million people, and important economic regions of 15 Northern European countries from rising seas as a result of climate change. They suggested a mammoth **Northern European Enclosure Dam (NEED)**, enclosing all of the North Sea. The idea involved construction of two dams of a combined length of 637 km to protect Northern Europe against "unstoppable" SLR. They also identified other regions such as the Persian Gulf, the Mediterranean Sea, the Baltic Sea, the Irish Sea, and the Red Sea that could benefit from similar mega enclosures. A Special Report on the Ocean and Cryosphere in a Changing Climate, published last year by the IPCC, noted that "well-designed coastal protection" could both "reduce expected damages" and "be cost efficient for urban and densely populated... areas".

Hurricane Hanna Hits Texas: How Hurricanes Are Formed, How Severe This One Is

→ Texas, which is one of the largest hotspots for Covid-19 in the US, is now facing another threat, as Hurricane Hanna made landfall here on Saturday (July 25). Officials have warned about a life-threatening storm surge and strong winds, at a time when Texas has more than 380,000 Covid-19 cases and has recorded over 5,000 deaths.

How Intense Is Hurricane Hanna?

Hanna reached wind speeds of up to 90 mph. The hurricane is expected to produce heavy rains across portions of southern Texas and north-eastern Mexico, which will result in "life-threatening" flash flooding and isolated minor to moderate river flooding. As per the latest update issued by the National Hurricane Centre (NHC), the centre of Hanna has moved into north-eastern Mexico and the storm surge warning for Texas has been discontinued. **There are five categories of tropical cyclones, depending on the wind speeds. Hanna is category one. When winds in the rotating systems reach 39 mph, the storm is called a tropical storm**



and when they reach 74 mph, the tropical storm can be classified as a tropical cyclone or a hurricane and is also given a name. Once tropical cyclones make landfall, they become weaker since they are no longer fed by the heat of the ocean, but before dying out completely, they move far inland dumping inches of rainwater and causing wind damage. In May, the National Oceanic and Atmospheric Administration (NOAA) announced that this year, an “above-normal” hurricane season is expected in the US. One reason for this is the warmer-than-average sea surface temperatures in the tropical Atlantic Ocean and the Caribbean Sea, along with weaker tropical Atlantic trade winds and an enhanced west African monsoon.

What Are Hurricanes and How Do They Form?

Tropical cyclones or hurricanes use warm, moist air as fuel and therefore form over warm ocean waters near the equator. As NASA describes it, when the warm, moist air rises upward from the surface of the ocean, it creates an area of low air pressure below. When this happens, the air from the surrounding areas, which has higher pressure, enters this space, eventually rising when it becomes warm and moist too. As the warm and moist air continues to rise, the surrounding air will keep entering the area of low air pressure. When the warm air rises and cools off, the water in the air forms clouds and this system of clouds and winds continues to grow and spin, fuelled by the ocean’s heat and the water that evaporates from its surface. As such storm systems rotate faster and faster, an eye forms in the centre. Storms that form towards the north of the equator rotate counter clockwise and those that form south of the equator spin clockwise because of the rotation of the Earth on its axis.

How Are Tropical Cyclones Named?

Since 1953, Atlantic tropical storms have been named according to lists by the National Hurricane Center (NHC). In 1978, it was decided that the NHC will use alternating men and women’s names, on the lines of the practice adopted by Australia’s bureau of meteorology three years earlier in 1975. These names are maintained and updated by an international committee of the World Meteorological Organisation (WTO). The WTO represents over 120 countries and uses pre-determined lists of names for each ocean basin of the world. Typically, the names should be short and should be readily understood when broadcast. There are six such lists of names with 21 names each (each starting with one alphabet except Q, U, X, Y and Z because names beginning with these letters are in short supply) that are used in rotation, which is to say that the list of names attributed to Atlantic tropical storms in 2019 will also be used in 2025. However, names of storms that caused particular damage and deaths are retired and in case there are more storms than names in the list, NHC names them using the Greek alphabet. Some of the retired names include Erika (2015), Irma (2017) and Florence (2018) among several others. Further, the only time that a storm may be renamed is when it dissipates to a tropical disturbance and reforms.

Why Is It Important to Name Tropical Cyclones?

Adopting names for tropical storms makes it easier for people to remember, as opposed to numbers and technical terms. Apart from the general public, it also helps the scientific community, the media, disaster managers etc. With a name, it is easy to identify individual cyclones, create awareness of its development, rapidly disseminate warnings to increased community preparedness and remove confusion where there are multiple cyclonic systems over a region. “Experience shows that the use of short, distinctive names in written as well as spoken communications is quicker and less subject to error than the older, more cumbersome latitude-longitude identification methods. These advantages are especially



important in exchanging detailed storm information between hundreds of widely scattered stations, coastal bases, and ships at sea," the NOAA website says.

What Is the Difference Between A Hurricane and A Tropical Storm?

There is no difference. Depending on where they occur, hurricanes may be called typhoons or cyclones. As per NASA, the scientific name for all these kinds of storms is tropical cyclones. The tropical cyclones that form over the Atlantic Ocean or the eastern Pacific Ocean are called hurricanes and the ones that form in the Northwest Pacific are called typhoons.

Meet The 'Tiny Bug Slayer', Ancient Relative of Dinosaurs and Pterosaurs

- ➔ If Jurassic Park taught you that dinosaurs and gigantism are synonymous, it is time to update your knowledge. A newly described species from Madagascar suggests that dinosaurs and pterosaurs (extinct flying reptiles) had extremely small ancestors – just 10 centimetres tall. It was named Kongonaphon kely which roughly translates from the Malagasy language as 'tiny bug slayer' – a reference to its insect diet. The fossils were discovered in 1998 as part of an expedition by an American–Malagasy crew.

Small Bones

"The site that produced Kongonaphon had already yielded a number of other fossils, so they were exploring it carefully, and in doing so were able to find even very small bones. Dr. Kammerer adds that during the time Kongonaphon was alive (around 237 million years ago), Madagascar was directly attached to India as part of the supercontinent Gondwana. "Triassic vertebrate fossils of similar age have been found in a band of rocks extending across Madhya Pradesh, Chhattisgarh and Odisha, but thus far nothing like Kongonaphon has been found there. I am confident that future work by Indian paleontologists will recover relatives of Kongonaphon." The paper notes that such tiny ancestral body size may help explain the origins of flight in pterosaurs. Dr. Kammerer details: "All flying animals seem to have evolved from very small ancestors. A smaller, lighter body is more conducive to aerial locomotion such as gliding, which seems to be an important intermediary step in the origin of flight. Extensive studies on the origins of birds have shown there was also a miniaturisation event there, with the gigantic theropod dinosaurs becoming progressively smaller in size and the first birds (such as Archaeopteryx) being only around the size of a pigeon or a myna."

Body Size

Analysis of body size throughout the history of dinosaurs and relatives shows that ancestrally medium-sized animals evolved into very small animals, such as Kongonaphon, which would have been around 10 cm tall and about 30 cm long. This then evolved into dinosaurs and pterosaurs which could reach enormous sizes. Dr. Kammerer adds that they are currently analysing many other fossils previously collected at the same site as Kongonaphon was. The team is also studying prehistoric ecosystems and the evolution of Triassic animals.

How Young Asian Elephants Learn to Bend Their Trunks Left or Right

- ➔ Most people are either left-handed or right-handed. They are consistent in this laterality. Similarly, adult Asian elephants consistently use their trunks either preferring the left side or the right side. Fascinated by the question of when and how this laterality develops in young



elephants, a group of researchers from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) studied free-ranging, individually identified Asian elephants from the Nagarhole and Bandipur National Parks and Tiger Reserves. The researchers found that calves develop a laterality in the way they use their trunks from three months onwards. They are more or less fixed in this laterality by the time they are a year old. This study, tracing out how this behaviour develops as the calf grows, is a first-of-its-kind study of free-ranging Asian elephants (*Elephas maximus*). The results have been published in The International Journal of Developmental Biology.

Equally Likely

Unlike humans, where right-handedness dominates, elephants do not show a bias in this behaviour at the population level: Asian elephants are equally likely to show left-handedness as they are to show right-handedness. In a prior study by Keerthipriya and coworkers led by TNC Vidya in JNCASR, such a lateralisation was seen in a calf of less than two months in captivity. However, due to the small number of young ones studied then, the gradual development of the behaviour could not be observed. As Dr. Vidya says, "During that study, we had sampled a single young calf and saw that even that had some lateralisation. So, in this study, we systematically checked if calves, in general, showed trunk lateralisation." Elephant calves show handedness very early. She further explains that this suggests that the elephant calves don't seem to start out trying out different sides and then settling on one side randomly, later becoming left-handed or right-handed through practice. "Instead, the side preference seems innate." In this study, T. Revathe, a PhD student, and S. Anvitha, MS-PhD student, at JNCASR, observed 30 calves (less than a year old) and juveniles (between one and five years old). Among these there were 16 females and 14 males from nine different clans. The study throws open several questions. From their previous observations of adult and young elephants, the group deduced that the laterality was not inherited from the mother. Further studies may explore if it is inherited from the father.

How A Black Woman Saved Lives – Without Her Consent or Due Acknowledgement

➔ In the coming week (on August 1) is the birth centenary of Henrietta Lacks, an African American woman who made one of the most significant contributions to modern medical science – without her knowledge or consent. The story of Lacks and the HeLa cell line that was harvested from her – and which still forms the basis of a lot of medical research – is important for an understanding of the ethical issues in medical research on human subjects. This is especially so right now, given the urgency to develop an effective COVID-19 vaccine, which requires that it be tested on human cells.

Who was Henrietta Lacks?

Henrietta Lacks was an African American woman, who, according to *The Immortal Life of Henrietta Lacks* (2010, Crown) by Rebecca Skloot, grew up on a tobacco farm in rural Virginia. She was married to David Lacks and had five children. On January 29, 1951, she visited the Johns Hopkins Hospital in Baltimore, Maryland, for the diagnosis and treatment of a lump in her abdomen. It turned out to be an aggressive form of cervical cancer. Lacks died at the age of 31 on October 4, 1951.



What is HeLa and What's So Special About It?

When Lacks was at Johns Hopkins, her tumour was biopsied and tissues from this were used for research by Dr George Otto Gey, the head of the Tissue Culture Laboratory at the hospital. The cells were found to be growing at a remarkable rate, doubling in count in 24 hours. Their astonishing growth rate made them ideal for mass replication for use in medical research. Prior to this, researchers had attempted to immortalise human cells in vitro, but the cells always eventually died. The HeLa cells – named after the donor – were the first ones to be successfully immortalised.

How have HeLa Cells Advanced Medical Science?

The HeLa cell line is one of the most important cell lines in the history of medical science and has been the foundation for some of the most significant advances in this field. HeLa cells were the first human cells to be successfully cloned and were used by Jonas Salk to test the polio vaccine. Significantly, they helped in identifying the human papilloma virus (HPV) as being the main cause of many forms of cervical cancer – including the one that killed Lacks – and were instrumental in the development of the HPV vaccine, which won its creator, Harald Zur Hausen, the Nobel Prize for Medicine in 2008. They've been used widely in cancer research and were used to establish that human cells contain 23 pairs of chromosomes, not 24, as previously thought.

When Was Lacks Recognised as the Donor of the HeLa Cells?

Lacks was an unwitting donor; neither she, nor her family were aware that her cells had been extracted and were to be used for medical research. Lacks was a poor, uneducated Black woman and her consent was not considered necessary by the medical establishment at the time. While thousands of studies and developments worth many billions of dollars happened due to the HeLa cells, Lacks herself was only acknowledged as their source in the 1970s when researchers sought blood samples from her family. Moreover, her descendants had no control over the cell line until 2013, when the National Institutes of Health arrived at an agreement with them, granting them a degree of control over how Lacks' genetic material was to be used.

Race and Non-Ethical Medical Research

In 1947, during the Nuremberg Trials, the Allied forces developed what came to be known as the Nuremberg Code, a set of 10 ethical principles for human experimentation. The code was created in response to the German experiments on human subjects during World War II and the first principle it enshrined was that voluntary consent was essential in human experimentation. By the time Lacks' cells were harvested and used without her consent, the code had been in existence for four years. Unfortunately, the violation of Lacks' consent was only the latest chapter in a long history of medical research which has scorned ethics as far as non-white bodies are concerned. Take the case of J Marion Sims, the 19th century physician who is often called the "father of modern gynaecology". He pioneered the surgical treatment of the **vesicovaginal fistula**, a common complication of childbirth in which a tear develops between the bladder and vaginal wall, causing pain, infection and urine leakage. Sims performed his surgical experiments on Alabama slaves, without their consent and without the benefit of anaesthesia. Or consider the infamous Tuskegee Syphilis Study, conducted by the US Public Health Service, from 1932 to 72, which examined how untreated syphilis progressed through African American men and how different it was from the way it affected white men. Alabama's Tuskegee Institute (now Tuskegee University) was recruited



for the study and the subjects – 399 were infected patients and 201 uninfected control patients – were all poor sharecroppers. While treatment with arsenic, bismuth and mercury was initially part of the study, the subjects were later given no treatment at all. Even after penicillin began to be widely available for use in treatment of syphilis in the 1940s, it was withheld from the subjects of the Tuskegee study. More than 100 are believed to have died; the study finally ended only after public exposure in the Washington Star. Unethical, non-consensual experiments on human subjects took place elsewhere too; in 2013, food historian Ian Mosby revealed highly unethical nutritional experiments conducted by the Canadian government on Aboriginal children in six residential schools between 1942 and 52. *As part of the study, malnourished children were denied adequate nutrition; parents were neither informed, nor was their consent sought. In 2004, a senate inquiry into the experiences of Australian Aboriginal children forced into state care similarly revealed their use in medical experiments and trials, from the 1920s till as late as 1970.*

What Is African Swine Fever That Has Hit Assam After China, What Has Been Its

Impact?

- The porcine industry in Assam suffered major losses during the COVID-19 lockdown, which was followed by an outbreak of African Swine Fever (ASF) that has killed more than 17,000 pigs in Assam and over 4,500 in Arunachal Pradesh. Assam has also opposed the Centre's recent decision to transport pigs from Punjab and Haryana to the Northeast, maintaining that the free movement of pigs from outside the state will undermine the steps taken to control the spread of the disease so far.

What is African Swine Fever?

African Swine Fever (ASF) does not affect humans but can be catastrophic for pigs. The current outbreak of ASF in India is the first time that the disease has been reported in the country. In September 2019, the outbreak of the disease swept through pig populations in China – which is the largest exporter and consumer of pork – leading to large-scale cullings. As a result, the prices of pork shot up by over 50 per cent in the country over pre-outbreak levels. ASF is a severe viral disease that affects wild and domestic pigs typically resulting in an acute haemorrhagic fever. The disease has a case fatality rate (CFR) of almost 100 per cent. Its routes of transmission include direct contact with an infected or wild pig (alive or dead), indirect contact through ingestion of contaminated material such as food waste, feed or garbage, or through biological vectors such as ticks. The disease is characterised by sudden deaths in pigs. Other manifestations of the disease include high fever, depression, anorexia, loss of appetite, haemorrhages in the skin, vomiting and diarrhoea among others. It is important that determination of ASF is made through laboratory testing and it is differentiated from Classical Swine Fever (CSF), whose signs may be similar to ASF, but is caused by a different virus for which a vaccine exists. Even so, while ASF is lethal, it is less infectious than other animal diseases such as foot-and-mouth disease. But as of now, there is no approved vaccine, which is also a reason why animals are culled to prevent the spread of infection. Any country with a pig sector is at risk of the spread of the disease and its spread is most likely via meat arriving aboard ships and planes, which is incorrectly disposed of and by meat carried by individual travellers. The ASF causing virus is believed to have entered Europe for the first time in 1957 when it was introduced into Portugal from West Africa.



How Did the Current Outbreak Start?

Officials believe ASF came into India through Tibet into Arunachal Pradesh and then into Assam, the state with the highest population of pigs in the country. Even so, the route of infection remains unconfirmed. Late last month, the Assam government decided to ban the slaughter and sale of pork awaiting test results of samples that were sent to the National Institute of High Security Animal Diseases (NIHSAD) in Bhopal. It was later confirmed that the samples were positive for ASF. According to the World Organisation for Animal Health (WOAH), between 2018 and 2019, the disease spread was notified in three countries in Europe and 23 countries in Africa.

What Has Been the Impact of The Outbreak?

The Indian Express reported in May that for pig farmers in Assam, the disease has come as a “double whammy”, where their sales were already affected by the lockdown only to become worse with ASF since it ruined any prospects of establishing the north-eastern states as a hub for the export of pork. Globally as well, the situation is similar. According to an assessment published in the journal Nature Foods in April, **economic models predict a global rise in pork prices in the range of 17-85 percent. The unmet demand of pork is also likely to drive up the prices of other meats.** According to this assessment, the decline in pork production in China represents cuts in global production of pork to the tune of 9-34 per cent. Further, other than consumers and producers of pork, the disease outbreak will also have secondary effects as consumers try to substitute their pork consumption with alternative meats and foods, impacting their production and prices.

What Is the Antitrust Trial Against Big Tech in the US?

- The US Congress grilled the top bosses of the big four technology companies, Google, Facebook, Amazon, and Apple and sought to know if they had become too big to fail and if they were stifling the competition from other smaller companies.

What Is the Antitrust Trial All About?

Technology companies such as Google, Facebook, Amazon, and Apple have been under the radar of governments in many countries for being big spenders and trying to steamroll competition by either buying them or pushing other vendors to avoid working with their competitors. In June last year, the US Congress and an antitrust panel of the House Judiciary Committee began a probe into the nature and working of four biggest names in technology space. The panel collected documents and testimonies from workers of these firms and from rivals on whether the big four had in any way tried to push them out of the market using unfair means. For example, the US Congress wanted to know from Apple if it had, in a bid to promote its own app which allows parents to limit the screen time for kids, thrown out a rival app on the pretense of it not being safe. Similarly, US senators asked the companies if they had not allowed other smaller players to make way into the digital payments space by citing the lack of one security feature or the other. Search engine giant Google has often been asked about its dominance on the service, and whether it promotes its own products on its platform instead of rivals, even if the latter provides better service.

What Did the Top Four Companies' Bosses Say?

The hearing on Monday saw Amazon founder Jeff Bezos face the house panel for the first time. In his statement to the Congress, Bezos defended the company as American and said



that they did not just hire “highly educated computer scientists and MBAs (Master of Business Administration) in Seattle and Silicon Valley” but also trained “hundreds of thousands of people in states across the country” for entry-level jobs. On a specific question which sought to know whether Amazon had ever used seller data for its own benefit, Bezos said that though the company had a policy against the same, he could not guarantee that the policy had never been violated. On the other hand, Tim Cook, when grilled about why had some of the apps with features similar to those of Apple’s apps, been booted out of the iOS store, took the privacy and security line and said that the company had worries about the data of small, underage kids being misused. Google CEO Sundar Pichai made a commitment to the house panel that it will not tilt or skew the searches in favour of one candidate or another before the upcoming elections in November. Pichai also said that this had never been practiced at the company and the same would continue in future also. Facebook founder Mark Zuckerberg, whose companies had bought Instagram and WhatsApp in some of the biggest deals in technology space, had been accused of using money power to outright buy competition and then push them aggressively against other competitors in the market. Zuckerberg, however, said that the company had got clearances from the Federal Trade Commission. The Facebook founder also said that no one could have back in 2012, when his company bought Instagram for \$1 billion, predicted that the app would become as big a platform as it has eight years later.

What Happens Now?

Beginning last year, the panel has talked to various employees working at these organisations, their rivals, and collected as many as 1.3 million documents from public hearings and such interviews. Following the deposition by the top bosses of the big four, the House panel will take into account the statements made by them and then come out with a report on whether these companies had avoided all liability of following fair trade practices. The house panel has also looked into the use of data by these companies and whether they had followed the sensitive data protection norms set in place by various states across the US.

Why Is Spyware, Stalkerware Gaining Traction During the Pandemic?

- Global cyber-security leader Avast has in a note warned that there was a 51 per cent increase in the use of spyware and stalkerware during the lockdown period from March to June. The usage of these apps, the company had in its note said, increased during lockdown in the backdrop of heightened domestic violence cases.

What Is Spy and Stalkerware Apps?

Spy and stalkerware apps, like viruses and other malware, infect devices that are connected to the internet. While viruses and malware can be detected by anti-virus software, spyware and stalkerware apps disguise themselves as useful and send out stolen data to central servers without the knowledge of the users. Ironically, most spyware and stalkerware apps disguise themselves as anti-theft applications that can be used to track in case the device is stolen or gets lost, cyber-security experts warn. A spyware app, which can also be installed remotely, accesses the data usage pattern of the device, gains access to photos and videos as well as other personal information of the user, and then passes it off to a central server. On the other hand, in most cases, a stalkerware app can be installed only when someone has physical access to the digitally connected device. Though the app works in a manner similar to spyware apps, it goes a step ahead and also gives out the location of the device to a master



device which controls the stalkerware app. "Most stalkerware apps work in stealth mode with no trace of the app having ever been installed. Once installed, such apps can allow the master device to control, intercept, and even change your emails, text messages and your communication on social media platforms," a Pune-based cyber-security expert said.

How Do Such Apps Work?

There are two of three-types of spyware and stalkerware applications. For spyware apps, the easiest method is to disguise the **spying code inside the unauthorised versions of premium apps**. "For example, someone can claim to have a cracked version of a premium app such as Spotify. Now, whoever installs such apps can be remotely tracked easily. **Since the code of the application (inside which the spyware codes are hidden) do not spy on the users, such codes pass the scrutiny of anti-virus programmes**". Stalkerware apps on the other hand, seek explicit permissions at the time of their installation. Once the app is installed in the phone, it can be hidden from the Apps menu into the background, from where they continue functioning. "There are some dedicated apps which people install on their partners' or their kids' phones. When you install such apps, it asks for permissions such as access to gallery locations, call logs among other things. Once you do that, the master device which has a dashboard can see whatever is going on with the other device,".

Why Has the Usage of Such Apps Increased During Lockdown?

One of the main reasons, experts said, is the increased usage of internet by everyone due to various lockdown measures in place. "With apprehensions around Covid still in place, everything has gone online. Anything and everything which could be bought offline from a market is now at your doorstep. But bringing that to the doorstep requires going online, which is where the opportunities for cyber criminals come," the Pune-based expert said. Another reason, highlighted by the UN Women in a report in April, was "security, health, and money worries" which was further accentuated by "cramped and confined living spaces". "Emerging data shows that since the outbreak of COVID-19, reports of violence against women, and particularly domestic violence, have increased in several countries as security, health, and money worries create tensions and strains accentuated by the cramped and confined living conditions of lockdown," the UN women had said in its report.

Women Are Sharing Black-And-White Photos Of Themselves On Social Media

- ➔ Over the past few days, women, including celebrities, have been posting black-and-white images of themselves on Instagram and other social media platforms as a sign of women's empowerment. These images are accompanied by the caption **#challengeaccepted**, and is a part of a campaign called "women supporting women".

What Is This Campaign?

As of today, there are more than 53,00,000 images on Instagram under the hashtag, "challenge accepted". **Women part of this campaign are supposed to post a black-and-white photograph of themselves and nominate other women to do the same**. Celebrities including American film director Ava Duvernay took the challenge. Duvernay posted a black and white image of herself on Instagram with the caption, **From India, actress Anushka Sharma and politician Priyanka Gandhi Vadra also participated in the challenge**. Vadra posted a photograph of herself with her daughter and mother on the social media on Wednesday with



the caption, “Nothing can be braver, nothing can be stronger, nothing more fun than #womensupportingwomen

How Did It Start?

According to a report in The New York Times, the earliest photograph associated with this challenge was posted over a week and a half ago by Brazilian journalist Ana Paula Padrao. As more women started posting such images, the trend caught on and gained momentum with celebrity figures such as Jennifer Garner, Eva Longoria and Kristen Bell joining in. On the other hand, there are those that claim that the challenge started in Turkey, where the campaign is associated with raising awareness about femicide in the country. Critics of the challenge, however, have called the campaign as supporting a “vague cause” and users from Turkey have called out people for participating in the challenge “without knowing its meaning”, causing many to misrepresent its purpose.

How Covid-19 Lockdowns Caused A Drop in Seismic Noise Levels Worldwide

- The ongoing Covid-19 pandemic has brought the world to a grinding halt and ushered in a “wave of silence” as high frequency noise generated by industrial plants, traffic and other human activities fell sharply during a period marked by lockdowns and social isolation. A team of seismologists from universities around the world including the Imperial College, London, studied the impact of the coronavirus pandemic on noise-levels worldwide and found that **high frequency noise caused by human activities dropped by as much as 50 per cent between March and May, this year**. The period of quiet induced by this global health crisis is the longest and most prominent noise reduction on record, the scientists said. The team analysed data collected from 268 seismic sensors located across 117 countries, and found that human-generated noise had fallen significantly in 185 of them. The most substantial declines were observed in highly-populous urban areas like Singapore and New York as well as tourist hotspots like Barbados and in European ski resorts. “You can almost see it as a wave,” Stephen Hicks, a seismologist who worked on the study said. “You can see the seismic quietening spread over time, starting in China in late January and then moving on to Italy and beyond in March and April.”

What Is Seismic Noise?

Seismic noise refers to vibrations within the Earth, which are triggered by natural and man-made phenomena like earthquakes, volcanoes and bombs. Seismometers, specialised devices that record ground motions, also capture seismic noise. Everyday human activity – such as road traffic, manufacturing in factories, the sound produced by planes roaring overhead, or simply people walking down the street – also generate seismic noise, which is recorded as a near-continuous signal on seismometers. **The sound signals created by human beings is often referred to as anthropogenic seismic noise**. Seismic noise acts almost like background sound for seismologists – it is the unwanted component of signals recorded by a seismometer. With human activity at a minimum due to the pandemic, anthropogenic seismic noise has been silenced to a large degree.

Why Is This Important?

Due to this, scientists say they will be able to spot weaker signals, which were otherwise masked by the din produced by human activity. This means that scientists will have a better shot at monitoring a whole range of seismogenic behaviour, including the smallest



earthquakes or the early signs of a volcanic eruption. This will further help by making seismic hazard assessment more accurate. "Low noise levels during COVID-19 lockdowns could thus allow detection of signals from new sources in areas with incomplete seismic catalogs," the study states. After the lockdown was imposed in Mexico, a low-frequency earthquake at 15 km depth was detected southwest of Petatlan. According to the researchers, it would have been highly unlikely for the quake to have been registered outside of Mexico's urban environments before the pandemic. "It's important to see those small signals because it tells you if a geological fault, for example, is releasing its stress in lots of small earthquakes or if it's silent and the stress is building up over the longer term," Hicks told The Guardian.

[Why Are Re-Purposed Medicines Expensive? \(Sharmila Mary Joseph - Secretary, Department Of Ayush, Government Of Kerala, And James J. Nedumpara - Professor And Head, Centre For Trade And Investment Law, Indian Institute Of Foreign Trade, New Delhi\)](#)

- The quest for developing a vaccine and finding a definitive treatment for COVID-19 treatment is reportedly making good progress. However, with the number of infections around the globe having crossed 14.7 million, there is no easy containment of this pandemic. Clinical trials with re-purposed antivirals and biologicals have been approved in different geographical settings. These medicines are believed to have some potential in shortening the recovery time in COVID-19 patients. Recently, the Drugs Controller General of India (DCGI) issued approval to Glenmark Pharma to manufacture and market Favipiravir tablets for 'restricted emergency use'. It also issued approvals to Hetero and Cipla to manufacture and market injectable formulations of Remdesivir, and to Biocon Limited to market injectable formulations of Itolizumab.

[Pricing of Medicines](#)

Remdesivir is an antiviral originally developed by Gilead to treat the Ebola virus infection. Favipiravir is a generic version of an anti-influenza medicine developed by Toyama Chemical in Japan. Gilead has entered into royalty-free voluntary licensing agreement with companies including Hetero and Cipla to provide technology transfer to manufacture Remdesivir for distribution in 127 countries. The free royalty period is valid until the World Health Organization (WHO) declares the end of the pandemic or until another medicine or vaccine is approved to treat or prevent COVID-19. Hetero has priced Remdesivir at ₹5,400 for a 100 mg injection vial, and Cipla at ₹4,000 per vial. A five-day treatment course with Remdesivir would work out to ₹24,000-32,000 per patient. Glenmark claims to have developed the active pharmaceutical ingredient and formulation of Favipiravir through its in-house research team and has priced Favipiravir 200 mg tablet at ₹103, with a course of treatment costing ₹12,566 per patient. Both these medicines inhibit viral RNA-dependent RNA polymerase, thereby retarding viral replication in host cells. Itolizumab, incidentally used in the treatment of psoriasis, reportedly shows therapeutic effects in severe COVID-19 infections progressing to acute respiratory distress syndrome. Treatment with Itolizumab is also not inexpensive by any means with the medical costs amounting to ₹32,000 per patient. The critical question is whether the above pricing would exclude a majority of the patients from the benefits of these re-purposed medicines.



Question of Affordability

The updated clinical management protocol of the Ministry of Health and Family Welfare (MHFW) lists Remdesivir as a potential medicine for investigational therapy in moderate COVID-19 infections without underlying contra-indications. The protocol does not mention Favipiravir, which nevertheless finds a place in the WHO Clinical Management Protocol. Itolizumab figures neither in the MHFW nor in the WHO protocol. The question that begs an answer from pharmaceutical companies marketing re-purposed medicines for restricted emergency use is whether these medicines can be made available at affordable prices to patients. The current pricing does not indicate this. Andrew Hill et al in their study published in the Journal of Virus Eradication determined the price of 'final finished product' (FFP) or medicine ready for use, by adding the costs of the active pharmaceutical ingredient, excipients, formulation, packaging and a reasonable profit margin. Their calculations have estimated the cost for a treatment course with Remdesivir to be \$9 and the estimated production cost for a course with Favipiravir to be \$20 per patient. Itolizumab has not been subjected to a costing analysis in their study. Affordability of medicines is a matter of particular concern. When companies attempt to recover the fixed costs or sunk costs that went into the investment and development of the medicine, the final price becomes unreasonable. This is distressing for the patient, especially when the therapeutic results or clinical benefits have not been fully established.

Various Laws

Akin to the flexibilities in the TRIPS agreement which helped in making antiretrovirals affordable during the AIDS crisis, some countries are resorting to enabling legislation and procedural modifications of existing regulations to address affordability of anti-COVID-19 medicines. Israel issued a compulsory licence to Hetero for production and import of the Lopinavir-Ritonavir combination from India, following which the innovator AbbVie decided not to enforce its patent right. Canada passed the COVID-19 Emergency Response Act and Germany, The Prevention and Control of Infectious Diseases in Humans Act. Chile's Lower House of Parliament and Ecuador's National Assembly passed resolutions allowing TRIPS flexibilities in the pandemic. Prompted by Costa Rica, WHO opened a voluntary patents pool, for compiling and sharing information and technological know-how for the development of medicines, vaccines and diagnostics for COVID-19. Indian patent laws too are armed with sufficient powers to ensure reasonable pricing for pharmaceutical products. India has used compulsory licensing only once in 2012 for Sorafenib. Section 92 of the Act enables grant of compulsory licensing in circumstances of national emergency or extreme urgency. Compulsory licences may not be the solution in all such situations. Nevertheless, the pricing will have to reflect the magnitude of the crisis and the socioeconomic realities in individual countries. Many innovator companies, perhaps to escape or avoid any coercive move or legal action by governments, agree upon voluntary licences with generic companies. Such tie-ups can cause substantial reduction of medicine prices, as was seen in the case of Sofosbuvir, the \$1,000 anti-hepatitis C medicine. Its price went down to approximately \$10 per tablet in India, subsequent to the innovator's voluntary licences with Indian generic companies in 2014. The terms and conditions of such agreements are generally wrapped in secrecy and may have clauses detrimental to public interest. Besides, as allegations of cartelisation between innovators and generic companies were raised in the case of antidiabetics Sitagliptin and Vildagliptin in the past, such arrangements are generally viewed with suspicion. The prices announced for the re-purposed medicines appear to be high, especially given the rate of spread and the public health crisis in India. Economies of scale will ensure



that the companies recoup their investment costs, and still generate profits. The burden of a global pandemic will have to be borne by governments and pharmaceutical companies alike. Unprecedented public health crises call for situation-specific decisions from pharmaceutical companies and profit maximisation should take a back seat. At least there is a strong case for reconfiguring the pricing strategies of the re-purposed medicines for COVID-19 treatment.

Protein Identified as Potential Achilles' Heel of Coronavirus

→ When the coronavirus SARS-CoV-2 enters a human cell, it hijacks the cell mechanism. One of its proteins, called PLpro, is produced by the human cell itself after the virus hijacks the cell mechanism. PLpro is essential for replication of the virus. A new study in Nature has found that pharmacological inhibition of PLpro blocks virus replication and also strengthens our immune response. When SARS-CoV-2 infects us, the infected body cells release messenger substances known as type 1 interferons. These attract our killer cells, which kill the infected cells. SARS-CoV-2 fights back by letting the human cell produce PLpro. This protein suppresses the development of type 1 interferons, which would have attracted our killer cells. Researchers have now been able to monitor these processes in cell culture. If they blocked PLpro, virus production was inhibited, and the innate immune response of the human cells was also strengthened.

How Coronavirus Tricks Immune System with Camouflage

→ Like an intruder deactivating an alarm before entering a building without bells going off, the coronavirus SARS-CoV-2 has been found to have the same advantage entering cells. A new study in Nature Communications describes how the coronavirus achieves this. The virus produces an enzyme called nsp16, which it then uses to modify its messenger RNA cap. In lay terms, messenger RNA can be described as a deliverer of genetic code to worksites that produce proteins. The modifications by the virus serve as a camouflage, the researchers explained. "Because of the modifications, which fool the cell, the resulting viral messenger RNA is now considered as part of the cell's own code and not foreign," lead author Yogesh Gupta of the University of Texas Health Science Center at San Antonio (UT Health San Antonio) said in a statement. Researchers found this when they resolved the structure of nsp16. Deciphering the 3D structure of nsp16, Dr Gupta said, paves the way for rational design of antiviral drugs for Covid-19 and other emerging coronavirus infections. The new small molecules in the drugs would inhibit nsp16 from making the modifications. The immune system would then recognise the virus as foreign, and target it.

Immunoprotein Found to Impair Coronavirus-Cell Interaction

→ A new study has found that an endogenous protein (one that originates within the body's systems) prevents coronaviruses, including SARS-CoV-2, from fusing with host cells. The protein, called LY6e, is produced by the human immune system. Tests with different cell cultures have shown that LY6e affects the ability of the virus to fuse with the host cells. This was validated in an animal model. Mice lacking Ly6e in immune cells were found highly susceptible to a normally non-lethal mouse coronavirus and succumb to infection.



Is SARS-CoV-2 a Latent Virus Which Can Recur?

- Ever since cases of 'reinfection' – people who had tested negative for COVID-19 testing positive again after a while – emerged in early January, the question of latency of the SARS-CoV-2 virus is being hotly debated. The first such cases emerged in the east (China, South Korea) where scientists were puzzled over why or how individuals who had tested negative twice for the virus, had, after a few weeks or months, tested positive, the second time around albeit with milder symptoms. A latent infection is when the virus in the body is dormant and does not replicate within the host. It however possesses the capacity to be reactivated at some point, causing a flare-up of the disease much later.

What Is A Latent Viral Infection?

A latent viral infection is an infection that is inactive or dormant. "As opposed to active infections, where a virus is actively replicating and potentially causing symptoms, latent infections are essentially static which last the life of the host and occur when the primary infection is not cleared by the adaptive immune response,". Examples are Herpes simplex viruses type 1 and 2, varicella-zoster virus, HIV, Epstein-Barr virus (human herpesvirus 4), and cytomegalovirus. They are known to cause typical latent infections in humans. They go on to explain that "latent viral infections can be reactivated into a lytic form (the replication of a viral genome). The ability to move back and forth from latent to lytic infections helps the virus spread from infected individuals to uninfected individuals". Viruses fall into two broad categories: chronic and acute; while a chronic virus will infect its host for extended periods of time, often through the lifetime of the host. An acute infecting virus, such as influenza and rotavirus, is cleared from the body after a few days or weeks. "A chronic virus can go into latency. This is when a virus is present within a cell, but not actively producing more infectious virus particles. For example, when a herpes virus infects a cell, its genome can remain in that cell as long as that cell is alive,". The reactivation to the lytic state, when the production of new virus particles occurs, he calls an 'intentional strategy by the virus to promote its survival'. A perfect example of this would be chickenpox, caused by the human herpesvirus 3 – after infection, "the body responds and the virus goes into latency. Decades later, it can re-activate, resulting in shingles". What causes reactivation is not very clear in this case. HIV can also go into latency after infection. It integrates itself into the host chromatin (a substance within the chromosome), and can reactivate upon stimulation such as inflammation induced by co-infecting pathogens. This can lead to uncontrolled HIV replication and clinical AIDS.

Covid-19 Risk Doesn't Depend (Much) On Blood Type

- Early in the COVID-19 pandemic, researchers found preliminary evidence suggesting that people's blood type might be an important risk factor – both for being infected by the virus and for falling dangerously ill. But over the past few months, after looking at thousands of additional patients with COVID-19, scientists are reporting a much weaker link to blood type. Two studies – one at the Massachusetts General Hospital and the other at Columbia Presbyterian Hospital in New York – did not find that Type A blood increases the odds that people will be infected with COVID-19. The new reports do find evidence that people with Type O blood may be slightly less likely to be infected. But the effect is so small that people shouldn't count on it.



No Indication Virus Is Seasonal

- The spread of the novel coronavirus does not appear to be impacted by seasonality, the World Health Organization said, warning against false beliefs that summer is safer. She pointed out that some of the hardest-hit countries are currently in the midst of different season. While it is summer in the U.S., which with nearly 1,48,000 deaths and close to 4.3 million cases is the hardest-hit country, the second most affected country Brazil, which counts more than 87,000 deaths, is in winter. And yet, she said, there “seems to be this fixed idea about this virus being seasonal”, and that COVID-19 will come in waves.

‘Flu Lens’

This is because people are mistakenly viewing the pandemic through “a flu lens, because that is the way the flu behaves.” “What we all need to get our heads around is this is a new virus... and even though it is a respiratory virus and even though respiratory viruses in the past did tend to do these different seasonal waves, this one is behaving differently.”. Instead of expecting the virus to behave like other viruses that are more familiar, she said people should look at what is actually known about how to stop transmission of COVID-19.



DreamIAS