



## Current Affairs, 12th to 18th July, 2020

### International

#### Why Divide Along The US-Canada Border, Among the World's Friendliest, Is Growing

→ Since the novel coronavirus first reached North America, it has all but frozen a border that has long been championed as an example of friendly ties between two countries. Since March 21, the world's "longest undefended border" between Canada and the United States has witnessed greater restrictions than in decades – with a fierce debate now raging on how to reopen. Last week, 29 members of the US Congress, belonging to both the Democratic and Republican parties, signed an open letter addressed to Canada's Public Safety Minister Bill Blair to plan a phased reopening of the binational border, whose current closure date ends on July 21. "We are asking that the United States and Canada immediately craft a comprehensive framework for the phased reopening of the border based on objective metrics and accounting for the varied circumstances across border regions," the letter reads. In Canada, however, there is widespread disapproval of a quick opening.

#### The US-Canada Border

At almost 8,900 km in length, this is the world's longest terrestrial border and includes boundaries in the Great Lakes, Atlantic, and Pacific coasts, of which 2,475 km lies along the exclave US state of Alaska in the north-western part of the continent. After China and the United States, the US-Canada bilateral trade is the second largest in the world– at \$718.5 billion in 2018. According to the US State Department, the two nations trade more than \$2 billion in goods and services daily and support lakhs of jobs in both countries. The vast border is crossed by 4 lakh people every day, with citizens of the two countries being able to travel through its 119 crossings by carrying stipulated I.D. such as passport cards, and most do not require a visa for visiting. A vast diaspora of both nations resides on the other side of the border.

#### Amid the Pandemic

On March 21, the two countries closed non-essential border travel for 30 days, bringing in restrictions on movement not seen in decades. Flights remain open, but a 14-day quarantine in Canada is mandatory, as is a minimum stay of 15 days. President Trump had originally planned to place troops along the border to tackle the virus, but the plan was shelved after backlash from Canada. The opening date has since been extended several times, mainly due to markedly different ways in which both nations have tackled the pandemic. While infections and deaths have surged in both countries, Canada has been able to bring daily new cases to levels seen in March. As of July 10, Canada had more than 1 lakh Covid-19 cases (289 per 1 lakh people), compared to around 32 lakh cases in the US (978 per 1 lakh). Deaths in Canada stood at over 8,700 (24 per 1 lakh), as opposed to over 1.3 lakh in the US (41 per 1 lakh). July 10 showed 321 new infections in Canada, and 71,787 in the US. In a survey conducted between June 28 and July 2, 81 per cent of Canadians said that the border should remain closed "for the foreseeable future", The Globe and Mail reported. Only 14 per cent said they would support reopening in regions where infections are low. Last week, Canadian Prime



Minister Justin Trudeau too chose not to travel to the US to attend a meeting celebrating the start of the newly inaugurated **United States-Mexico-Canada Agreement (UCMCA)** – a renegotiated version of the **North Atlantic Free Trade Agreement (NAFTA)** that Trump railed against during his 2016 election campaign. The Mexican president, Andrés Manuel López Obrador, did visit. Even after the open letter by the US Congress members was published, Canada appears resolute in pushing back against a hurried reopening, with Deputy PM Freeland calling the health and safety of Canadians “absolutely priority”.

## How The US’ Trinity Test Led to The Dawn of The Atomic Age

→ At precisely 5.30 am on **July 16, 1945**, the world’s first super bomb – loaded with about 13 pounds of plutonium at its core – exploded in a desert in New Mexico, destroying everything in its vicinity and melting vast swathes of sand into sea-green glass. Minutes later, hundreds of US scientists and military personnel – who had taken cover at bunkers located around 10,000 yards away from the bomb – celebrated the dawn of the nuclear age. Before it detonated, the scientists had placed bets on what could happen. Some believed that the bomb would be a dud and would fail to explode. Others feared a far deadlier consequence – the end of the world. **The super bomb, nicknamed ‘Gadget’, was built by a team of scientists at a top-secret site in Los Alamos, New Mexico. It was developed as part of the US-led Manhattan Project, which sought to build nuclear weapons to give the allied forces an edge over Germany, Japan and Italy in World War 2.** On this day, exactly 75 years ago, the scientists tested Gadget – the world’s first atomic bomb – in what was dubbed the **‘Trinity Test’**. Less than a month later, an identical nuclear bomb called **‘Fat Man’** was dropped on the Japanese city of Nagasaki, killing tens of thousands.

## What Was the Manhattan Project?

Merely a month after Germany initiated World War II by invading Poland, a letter signed by Nobel prize-winning physicist Albert Einstein warned then-US President Franklin D Roosevelt of the potential threat posed by an atomic weapon being developed by Adolf Hitler. Soon after, the United States launched a secret atomic research undertaking, code-named the Manhattan Project, which sought to develop an atomic weapon to end the war. The project brought together some of the country’s leading atomic experts as well as exiled scientists and physicists from Germany and other Nazi-occupied nations. However, the Manhattan Project remained a relatively small-scale initiative for the next two years. It was only after the bombing of Pearl Harbour by the Japanese Navy Air Service in 1941, when President Roosevelt declared that the US would enter the Second World War, that the project was **officially kicked into gear**. US Army Colonel Leslie R Groves was appointed to lead the project. By December, 1942 facilities were established in remote locations across the US, as well as in Canada. However, **the super bomb was finally designed and conceptualised by a team of scientists at a top-secret laboratory in Los Alamos. The team at Los Alamos was headed by J Robert Oppenheimer, a physics professor at the University of California, Berkeley. Oppenheimer later came to be known as the “father of the atomic bomb”.** His team included Danish scientist Niels Bohr, Italian scientists Enrico Fermi and Emilio Segré, Hungarians Edward Teller and John von Neumann, Hans A. Bethe from Germany, as well as American-born scientist Richard Feynman. The Los Alamos team developed two types of bombs – one was uranium based, which was later code-named **‘the Little Boy’** before it was dropped on Hiroshima; the other had a plutonium core. Testing the ‘Little Boy’ was not feasible, as there was not enough uranium available. **The Plutonium bomb was eventually tested at the Trinity site on July 16, 1945.**



## What Happened During the Trinity Test?

A few days prior to the test, parts of the dismantled super bomb were carried to the Alamogordo Bombing Range, which was located around 337 km away from Los Alamos. An army sedan first brought the bomb's plutonium core to the site on July 12. The next day, Gadget's non-nuclear components were brought to the range. By July 15, the bomb was assembled and placed on top of a 100-foot firing tower. In the evening, the team of scientists and military personnel arrived at the test site, where it was pouring rain. The scientists feared that they would not be able to carry out the test at 4 am, the next morning, as planned. As tensions rose, the scientists began placing their bets, a report by the US' Office of Scientific and Technical Information (OSTI) claimed. Oppenheimer bet ten dollars that the bomb would not work. The test was eventually rescheduled to 5.30 am. Early the next morning, the skies cleared just in time for the test. **The Los Alamos team retreated and took cover at bunkers, located about 10,000 yards away from the bomb in all four directions. The scientists ensured that they were all located in different bunkers, in case of an accident. If tragedy struck, they wanted to make sure that someone was left behind to further the research.** At exactly 5.30 am, the bomb went off leaving a mammoth mushroom of smoke and gas in its wake. The firing tower, much like everything else in the area, was destroyed completely. The device exploded with a power equivalent to **21,000 tons of TNT**, the New York Times reported. In an interview with NBC in 1965, Oppenheimer said that a line from the Bhagavad Gita occurred to him at the time of the explosion – "Now I am become death, the destroyer of worlds." After celebrating the success of the test, Colonel Leslie Groves and Oppenheimer began drafting their report to submit to the Secretary of War and the US President.

## What Were the Repercussions of The Trinity Test?

**New Mexico residents were pointedly not warned before the test, to ensure that it was carried out secretly.** Data collected by the New Mexico health department, which showed the **adverse impact of radiation caused by the detonation, was ignored for years after the test.** A sudden rise in infant mortality was reported in the months after the explosion, according to a study published by the Centres for Disease Control and Prevention. Several residents also complained that the **number of cancer patients went up** after the Trinity Test. **It was only in 1990, when the federal government passed the Radiation Exposure Compensation Act (RECA), that residents of North Mexico who contracted Cancer and other illnesses due to radiation exposure received compensation.** **The dust outfall from the explosion was expected to have travelled nearly 100 miles from the test site, posing a serious threat to residents in the area.** Many families complained that their **livestock suffered skin burns, bleeding and loss of hair.** There is more data available on the damage done by the atomic bombs in Japan. The Hiroshima and Nagasaki bombings are known to have killed well over 200,000 people – many of whom succumbed to radiation poisoning in the weeks after the blasts. **The uranium bomb in Hiroshima** on August 6, 1945, destroyed around 70 per cent of all buildings and caused around 140,000 deaths by the end of 1945. **The plutonium bomb explosion over Nagasaki**, which took place three days later, killed 74,000 people that year, according to International Campaign to Abolish Nuclear Weapons (ICANW) data. After seeing the destruction caused to the two Japanese cities, Oppenheimer publicly admitted that he regretted building a bomb that could cause an apocalypse. **"Mr. President, I feel I have blood on my hands,"** he famously told US President Harry Truman later that year.



## How Many Countries Worldwide Now Have Nuclear Weapons?

Seventy-five years after the Trinity Test, **as many as nine countries around the world are currently in possession of nuclear weapons.** These include, **the US, the UK, Russia, France, India, China, Israel, Pakistan and North Korea.** **At least eight countries have detonated over 2,000 nuclear test explosions since 1945,** according to data released by armscontrol.org. The most recent instance of nuclear bomb test explosions conducted by India, were the series of five explosions done as part of the Pokhran-II tests in May 1998. The first test, code-named Smiling Buddha, took place in May 1974.

## Federal Executions Resume in the US: The Debate, The History

→ Hours after the US Supreme Court cleared the way for the resumption of federal executions in a landmark 5-4 overnight ruling, **46-year-old Daniel Lewis Lee became the first federal inmate to be executed in the United States in 17 years.** Lee was put to death by lethal injection Tuesday (July 14) at a prison in Terre Haute, Indiana. "I've made a lot of mistakes in my life, but I'm not a murderer," Lee said before he died. "You're killing an innocent man." Three more federal executions are slated to take place at the Indiana prison complex over the next two months. In its ruling, the Supreme Court noted that all four prisoners – Lee, Dustin Lee Honken, Keith Dwayne and Wesley Ira Purkey – were "sentenced to death for murdering children". The Supreme Court's recent verdict has reignited public debate about death penalty in the United States. Lee's execution has also laid bare the ideological divide within the US' highest court. A dissent written by Justice Stephen Breyer and joined by Justice Ruth Bader Ginsburg questioned the constitutionality of the methods used for executing prisoners. Further, a stinging dissent by Justice Sonia Sotomayor accused the Supreme Court of fast-tracking the executions of death row inmates, "before any court can properly consider whether their executions are unconstitutionally cruel and unusual". US President Donald Trump has long been an advocate of the death penalty. In 2019, the Trump administration announced its plans to resume federal executions -- not carried out since 2003.

## What Are Federal Executions?

In the United States, depending on the severity of the crime they have committed, people can either be tried at a national level in federal courts, or at a regional level in state courts. **While as many as 22 US states – including New York, Hawaii, and Minnesota – have abolished the death penalty at a regional level, it can still be awarded at a federal level in all 50 states. However, it is rarely used.** At present, there are 62 inmates on federal death row, most imprisoned in the Terre Haute prison complex. **In 1972, the US Supreme Court struck down capital punishment both at the state and federal level. However, it was reinstated by Congress over a decade later, in 1988. With the passing of the Federal Death Penalty Act of 1994, the list of crimes that could lead to federal execution grew substantially. In 2014, then-US President Barack Obama ordered an investigation into capital punishment procedures and the use of the lethal injection, after an inmate violently convulsed and suffered a heart attack because of the three-drug cocktail used to carry out his death sentence. US Attorney General William Barr in 2019 ordered the government to abandon the use of the three-drug lethal injection, and to replace it with a single-drug injection. Several states that are yet to abolish capital punishment have imposed moratoriums on executions.** Many leaders, such as the governor of Wyoming, Mark Gordon, have said they see moratoriums as an effective way of saving state money in the face of rampant budget cuts.





## Why Is Daniel Lewis Lee's Execution Significant?

Lee and his alleged accomplice Chevie Kehoe were convicted of torturing and killing a family of three – William Mueller, his wife Nancy and his eight-year-old stepdaughter Sarah Powell – in Arkansas in 1996. Lee and Kehoe allegedly murdered the family as part of a larger plot to establish the US as a whites-only nation. While Kehoe was sentenced to life in prison, Lee was awarded death sentence after being labelled a 'psychopath' by prosecutors, who used a famously unreliable tool called the Hare Psychopathy Checklist Revised (PCL-R). According to Lee's attorneys, he is the only person who has been put on death row solely based on PCL-R results, The Appeal reported. Lee's execution, earlier scheduled for Monday, was postponed following an injunction by a lower court in Washington. However, the Supreme Court's ruling rejected the injunction and cleared the path for several upcoming federal executions, including Lee's. The Supreme Court's ruling comes despite the fact that relatives of Lee's victims have repeatedly appealed to halt the execution. An attorney for the victims' relatives told CNN that the family was "heartbroken" following the execution. Lee's family too, had filed a lawsuit in an Indiana Court, demanding a delay as they would not be able to attend the execution on account of Covid-19. Before Lee, Louis Jones Jr. was put to death in 2003 for the rape and murder of a woman soldier, New York Times reported. Federal executions were rare prior to 2003 too. According to the Federal Bureau of Prisons, 37 executions were recorded in 76 years, between 1927 and 2003. In 2005, several death row inmates filed a lawsuit before a federal court in Washington, in which they challenged the government's execution protocol, which then involved the use of a three-drug cocktail. The next year, the Supreme Court ruled that death row inmates could challenge the use of lethal injection as a method of execution.

## How Are These Executions Carried Out?

Last year, the Trump administration announced its plans to employ a single-drug lethal injection, using a sedative called Pentobarbital. The sedative is known to gradually slow brain activity and the nervous system. In smaller doses, it is often used to cure respiratory arrest and as emergency treatment for seizures. Several inmates, including Lee, challenged the constitutionality of using Pentobarbital. They claimed that its use violates their rights under the eighth amendment of the US constitution, which protects citizens from cruel and unusual punishment. Another problem with Pentobarbital is that it is not readily available in all states. One of its primary manufacturers, a European pharmaceutical company called Lundbeck, has not sold the drug to the US for executions since 2011, NPR reported. States have thus turned to other manufacturers, who have produced similar versions of the drug. There have been instances in the past where the drug has caused pain to inmates. Many states have also faced criticism for using other drugs like Midazolam, fentanyl citrate, and etomidate, which have all been known to have effects like extreme burning, muscle spasms and seizures.

## What Are the Arguments Against Death Penalty?

While many human rights activists and lawyers have argued that the death penalty violates an individual's civil liberties and fundamental rights as citizen of a democracy, some argue that severe punishment will help reduce crime. Attorney General William Barr, appointed by Trump, had argued that federal executions must be carried out as the government owes it to crime victims and their families. On its official website, the American Civil Liberties Union (ACLU) has made an elaborate case against the death penalty. "The American Civil Liberties Union believes the death penalty inherently violates the constitutional ban against cruel and unusual punishment and the guarantees of due process of law and of equal protection under



the law,” the ACLU states in its argument. Several lawyers and activists have also raised the issue of race — data shows that the American justice system is unfairly skewed against people of colour (POC), particularly African Americans. Since 1976, 43% of the executions have been of people of colour. POCs also form 55% of those currently awaiting execution, according to data obtained by ACLU.

### Which Countries Still Have Death Penalty?

As of 2020, at least 53 countries around the world impose death penalty as punishment. Several methods — including hanging, shooting, electrocution and beheading — are used across the globe. Last year, according to Amnesty International, the greatest number of executions took place in **China, Iran, Saudi Arabia, Iraq and Egypt**, in that order. Their data says at least 2,307 death sentences were recorded in 2019, a slight decrease from the previous year. According to a study conducted by Delhi’s National Law University, 755 people have been hanged to death in India since Independence. The most recent death sentence was executed this March, when the four convicts in the 2012 Delhi gang rape and murder case were hanged in Tihar jail.

### Why the Chicago Mayor Called Trump Top Aide ‘Karen’

➔ A search for the hashtag #Karen on Twitter will pull up thousands of results showing photos and videos of white women, mostly in North America, all of whom are engaged in some kind of confrontation with the person recording the footage or another individual on the sidelines. At the receiving end of ‘Karen’s’ wrath is usually a person of colour, who is being subjected to the confrontation for no other reason than the colour of their skin. These ‘Karens’ seem to strike everywhere—sometimes at the supermarket or in a community swimming pool, and sometimes even when a person of colour may be trying to enter their own homes or using the building gym. The confrontation is usually followed by threats of “reporting” the person of colour to the police and harassment. At times, these ‘Karens’ even follow through on their threats, where they call police or security personnel, where the person of colour may be further subjected to targeted racial harassment and even fatalities. This week, it was the turn of White House press secretary Kayleigh McEnany to be called ‘Karen’ by Chicago Mayor Lori Lightfoot. McEnany had called Lightfoot a “derelict mayor” during a recent press briefing to which the Mayor responded by simply tweeting: “Hey, Karen. Watch your mouth.”

### Who is a ‘Karen’?

‘Karen’ is a term for an entitled white woman who can be middle-aged, sometimes younger, who threatens to call the police on people of colour if she doesn’t get her way. The term has come to represent entitled individuals exhibiting racism, entitlement and white privilege in North America. Observers say ‘Karens’ who engage in conduct that is perceived to be racist and discriminatory have always existed in the United States. However, over the past few years, the moniker became synonymous with women in the US calling the police on African-Americans without any just cause. **The ‘Karens’ aren’t always women. When men engage in similar conduct, they’re dubbed ‘male Karens’.** There isn’t any particular significance of the name ‘Karen’ itself. Think of it as a placeholder, similar to ‘Tom, Dick and Harry’; ordinary names, used to refer to a group of nobodies. Only in this case, these nobodies have a very specific set of characteristics and behaviours. According to NPR, the term ‘Karen’ originated sometime in the 2010s in the United States. ‘Karen’, NPR says, is “convinced her way is the right way, whether it’s about charcoal grilling in the park, policing non-white people’s behaviour or demanding to speak to a manager or higher authority who can get her what she



wants. She's the kind of person who posts on Next-door about a "suspicious-looking" person walking around her neighbourhood or demands to be let into a grocery store without wearing a mask."

### Why Are 'Karens' Being Talked About?

In May, a video went viral of a woman in New York City who called the police on a man who had told her to leash her dog in the park. The man recorded the incident and the woman, whom the internet quickly dubbed 'Karen', could be heard saying: "There is an African American man. I am in Central Park. He is recording me and threatening myself and my dog." The video went viral after the man's sister shared it on Twitter and the woman was identified as Amy Cooper, who was accused of using her white privilege, of repeatedly identifying the man by his race, and of demanding that police be sent "immediately", all of which was recorded by the man in the video. After Cooper was identified, she was fired from her job at Franklin Templeton, an investment management company. The incident led to widespread discussions about white privilege and how people of colour are disproportionately, oftentimes unfairly targeted by law enforcement agencies in the US, sometimes fatally, acting on complaints lodged by white people. In this case, there were concerns about **how the man may have faced physical violence, arrest and trauma, had the police acted with aggression without conducting basic investigation.**

### Why Is This Being Discussed Now?

The murder of George Floyd in Minnesota, which led to widespread protests against police violence and brutality against people of colour, has also resulted in a rethinking about white privilege and its manifestations in the everyday lives of people of colour and immigrants in the US. Over the past few weeks, social media platforms have been filled with videos depicting instances where 'Karens' are out and about in action. In May, 'Parking Lot Karen' went viral on TikTok and other social media platforms where she tried to block a driver from getting a preferred spot inside a parking lot and then tried to stop the driver from filming the altercation. In June, a white couple in San Francisco called the police on a man who had stencilled 'Black Lives Matter' in chalk outside his home, accusing him of defacing "private property". The couple went as far as to imply that the man did not live there, and claimed to know the "real" owners. Then there are 'Karens' who refuse to wear masks in the United States following the coronavirus outbreak, implying that wearing one infringes on their "rights". A 'Karen' was filmed coughing on patrons inside a bagel shop in New York City, and another at a bar in an unidentified city in the US. In June, a Twitter user decided to open an account named United Karens of America, collating videos and photos from across social media platforms of Karens in action across the country, and some even from across the border in Canada.

### How A Rape Convict's Appeal Has Resulted in Big Legal Victory for Native Americans?

- ➔ In a landmark judgment, with longstanding implications for the native American tribes of America, the Supreme Court of the United States last week confirmed that large parts of the state of Oklahoma are native Indian territory. The 5-4 decision in *McGirt vs Oklahoma* is seen as a momentous victory of the native tribes of America who have for long been campaigning for their territorial sovereignty and treaty obligations for promises made by the white settlers of America two centuries ago. "Today we are asked whether the land these treaties promised remains an Indian reservation for purposes of federal criminal law. Because Congress has



not said otherwise, we hold the government to its word,” pointed out Justice Neil Gorsuch, delivering the majority opinion of the court.

### What is The McGirt vs Oklahoma Case?

In 1997, Jimcy McGirt, a member of the Seminole Nation of Oklahoma, was convicted in state court of rape and other sexual offences. McGirt (71), has since been serving life imprisonment. His petition to the Supreme Court, which was granted in December 2019, challenged his conviction on the ground that since his crime was committed on the land of the Muscogee (Creek) Nation, which is one among the five tribes of Oklahoma (the four others being Cherokee, Chickasaw, Choctaw, and Seminole), the state does not have the authority to prosecute him. The Creek Nation joined McGirt in the petition as amicus curiae, not in the interests of shielding him, but because his personal interests have far-reaching implications for the tribe.

### What Is the Basis of The Judgment?

“On the far end of the Trail of Tears was a promise. Forced to leave their ancestral lands in Georgia and Alabama, the Creek Nation received assurances that their new lands in the West would be secure forever,” said Justice Gorsuch as he began delivering the majority opinion on the case. **The promise that the judgment upholds can be traced two centuries back when about 125,000 native Indians lived on millions of acres of land in Georgia, Tennessee, Alabama, North Carolina and Florida. This was land that was traditionally presided over by their ancestors for generations. By the 1830s, however, as white settlers kept flooding the territory, they desired this land for growing cotton. Consequently, they drove out the native American tribes from this land by force, looted livestock, committed mass murders and burned down houses. Moreover, the state government joined in the efforts to drive out the tribes. ‘Trail of tears’ is the Cherokee designation given to the forced relocation of the five civilised tribes to a specially designated ‘Indian territory’ across the Mississippi River in the area comprising present-day Oklahoma. In the course of their journey, many lost their lives to deadly diseases and hardships.** “Not only did the Cherokees lose their ancestral home during the 1838-39 campaign, but many also lost their lives,” wrote Amy H Sturgis, a scholar of Native American studies in her book, ‘The Trail of Tears and Indian Removal’. “Traditional estimates suggest more than 4000 of 15000 Cherokees died during or as a result of removal; some recent calculations suggest a higher death toll of approximately 8000 out of 21,500,” she added. **By 1840, as tens of thousands of native Americans were relocated, the federal government promised to ensure that their new land would remain undisturbed. However, with the passage of time as white territory moved westward, ‘Indian territory’ shrank in size and finally in 1906, the Oklahoma Enabling Act enabled Oklahoma and the Indian territory to be merged together.** The appeal made by McGirt rests on the **federal Major Crimes Act (MCA)**, passed in 1885 which says “all Indians committing against the person or property of another Indian or other person any of the following crimes, namely, murder, manslaughter, rape, assault with intent to kill, arson, burglary, and larceny, within any territory of the United States, and either within or without the Indian reservation, shall be subject therefore to the laws of the said territory.” In other words, since McGirt as a native American committed a sexual offence in Indian territory, he appealed that he cannot, therefore, be tried by the Oklahoma state government. The Supreme Court ruling emphasised that since the Congress did not establish the reservations in the Oklahoma Enabling Act, the land that was formerly reserved will have to be considered as ‘Indian territory’, subject to federal laws.





### What Are the Implications of The Judgment?

The judgment is being celebrated not just by the Muscogee (Creek) Nation, but also by other native Indian tribes, since it upholds the historical legacy of the territorial sovereignty that was promised to them centuries back. **The Congress has in the course of the last two centuries, ratified nearly 370 treaties with Native Americans to help the United States expand its territory. Almost each one of them has been broken. In that context, the recent judgment comes as a ray of hope to the tribes.** However, the judgment also puts in doubt several other state convictions of native Americans and **could change the way prosecutions are handled across 11 counties in Eastern Oklahoma. A lot though depends on the negotiations between the state of Oklahoma, the Muscogee (Creek) Nation and the other native Indian tribes.** The five tribes and the Oklahoma state released a joint statement following the verdict announcing that, "The State, the Muscogee, Cherokee, Chickasaw, Choctaw, and Seminole Nations are committed to ensuring that Jimcy McGirt, Patrick Murphy, and all other offenders face justice for the crimes for which they are accused." "We have a shared commitment to maintaining public safety and long-term economic prosperity for the Nations and Oklahoma," it said. Currently, lawyers are also examining if the verdict can have broader implications in terms of taxing, zoning and other government functions.

### The Club of Virus Deniers (Sreeram Chaulia - Dean of The Jindal School of International Affairs)

- **Brazilian President Jair Bolsonaro**, who has managed the pandemic in the most disastrous manner, has tested positive for COVID-19. In Brazil, COVID-19 has affected more than 18,60,600 people and claimed more than 72,000 lives. Mr. Bolsonaro's ostrich-like behaviour towards the unprecedented public health crisis has defied logic. His dismissal of the virus as "a little flu", bragging that people like him who have had an athletic past "have nothing to worry about", refusal to wear a mask in public until ordered by the judiciary, promotion of unproven medicinal cures for the virus, unwillingness to impose lockdown restrictions, active encouragement of mass rallies, and firing of the Health Minister (whose replacement resigned a month into the job) are all astonishingly cavalier actions. They show that the Brazilian President inhabits a parallel world.

### A Hall of Infamy

However, he is not alone. There is a hall of infamy of like-minded world leaders who have deliberately denied or downplayed the dangers posed by the virus. Their callousness is leading to a large number of cases and deaths in their respective countries. **British Prime Minister Boris Johnson** wasted valuable months when the virus was spreading like wildfire and shied away from preventive social distancing measures. He cheerfully insisted on shaking hands in public, then got infected himself, and oversaw a health disaster that the U.K. has not suffered for generations. **U.S. President Donald Trump** famously said the virus will just disappear; his country has the highest number of cases and deaths in the world. **Vice President Rosario Murillo invited Nicaraguans** to participate in a 'Love in times of COVID-19' walk. **Belarus President Alexander Lukashenko** said that drinking vodka and working in fields with a tractor will "heal everyone". **Tanzanian President John Magufuli argued for people to flock to churches as "COVID-19 cannot survive in the body of Jesus"**. **Turkmenistan's Gurbanguly Berdimuhamedow urged that the use of the word 'coronavirus' be censored.** These are all heads of government who have more or less replicated the Bolsonaro and Johnson models and plunged their societies into deep tragedy. Although the above listing of



leaders has a mix of far-right and far-left populists, their common threat is the politics of extremism. They share comparable traits of mistrusting expert knowledge, stoking suspicion about formal institutions, stirring up their social base of hardcore, die-hard loyalists, cultivating a cult of personality around themselves, and maintaining a self-image as the sole guardians of the interests of the ordinary masses.

### Primacy of the Economy

An oft-observed tendency among the virus-denying leaders is the belief in the primacy of the economy as the be-all and end-all of life which should never get disrupted by “psychosis” about human health or environmental protection. These politicians are short-sighted enough to buy into the false dichotomy between livelihoods and lives, and prioritise the right of the working classes and businesses to work over the right of every citizen to receive healthcare and survive. In an abstract sense, the economy or markets shape society and politics, according to these leaders. But as the virus tears into their countries, it is painfully proving the fallacy of their overly materialistic and inhumane world view. The U.S., Brazil and the U.K., to name a few, have been saddled with the proverbial worst of both worlds – mass casualties from the virus and economic depressions not seen in a century. The club of deniers chased narrow, short-term goals of keeping the economy open and ended up with the double whammy of high cases and deaths and no GDP growth to flaunt. Given how obstinate politicians like Mr. Bolsonaro are, they may never learn from their critical mistakes until booted out of power. History will judge them harshly.

### Britain Bans Huawei From Future Role In 5G Network

- Britain’s government backtracked on plans to give Chinese telecommunications company Huawei a limited role in the U.K.’s new high-speed mobile phone network in a decision with broad implications for relations between London and Beijing. Britain said it imposed the ban after U.S. sanctions made it impossible to ensure the security of Huawei equipment, forcing it to start turning to other suppliers for components. The U.S. threatened to sever an intelligence-sharing arrangement with the U.K. because of concerns Huawei equipment could allow the Chinese government to infiltrate U.K. networks. U.K. Culture Secretary Oliver Dowden said the decision would delay the 5G rollout and cost millions of pounds, but that it had to be done.

### No New Purchases

The decision gives British telecom operators until 2027 to remove Huawei equipment already in Britain’s 5G network. The operators must stop buying 5G equipment from Huawei by the end of the year. Critically for telecom operators, the government opted not to order firms to rip out legacy equipment manufactured by Huawei in earlier systems, like 4G. Such a decision might have caused havoc in U.K. telecom systems. Mr. Johnson in January sought to balance economic and security pressures by agreeing to give Huawei a limited role in Britain’s so-called 5G network, excluding the company from core components of the system and restricting its involvement to 35% of the overall project. But the move set up a diplomatic clash with the Americans, who threatened to cut off security cooperation unless Britain dumped Huawei. Huawei called the decision “disappointing” and motivated by politics. Mr. Dowden conceded that Tuesday’s announcement means more Britons will have to wait longer to get full access to the speedy new network. “This means a cumulative delay to 5G roll-out of two to three years and costs of up to £2 billion,” he said.



## Srebrenica Massacre, The Ethnic Cleansing of Bosnian Muslims

→ In July 1995, approximately 8,000 Muslims, mostly men and boys were killed in Srebrenica, a town in Bosnia and Herzegovina in south-eastern Europe, by Bosnian Serb forces led by Commander Ratko Mladić. These killings were later classified as genocide by international tribunals investigating the massacre. The disintegration of Yugoslavia in 1991 threw the south-eastern and central Europe in chaos and led to violent inter-ethnic wars in the region over the next few years. In many ways, the violence perpetrated against Bosniaks or Bosnian Muslims during the Srebrenica massacre was a result of this regional conflict. According to some researchers, this massacre was the worst atrocity against civilians in Europe since the Holocaust. The Bosnian War that occurred between 1992-1995, witnessed a period of displacement and ethnic cleansing of Bosnian Muslims and Bosnian Croats by the **Bosnian Serb army and paramilitary forces**. During the war, the Srebrenica massacre started on July 11, 1995 when Commander Ratko Mladić occupied the town of Srebrenica. Thousands of Bosnian Muslim families sought refuge with the Dutchbat, a Dutch battalion under the United Nations forces that had been deployed following the upheaval during the Bosnia War, believing that the area under their control was a safe zone. This United Nations peacekeeping mission led by the Netherlands failed to stop these murders. **Some researchers say that the failures of this UN peacekeeping mission were so great that not only did it not protect Bosnian Muslims, in some cases, it actively handed over young boys and men to Bosnian Serb forces knowing that they would be killed. This safe zone later fell under the control of the Bosnian Serb forces after the Dutch forces surrendered. Some researchers believe that the 8,000 Muslims who were killed during this massacre were murdered within two weeks of the start of the occupation of Srebrenica. It was not only babies, young boys and men who were subjected to atrocities and killings. The massacre also saw widespread crimes against women, where girls and women were subjected to violence and rape. In their testimonies in the aftermath of the massacre, the victims, including girls and women, said that they had not been given any protection by UN forces, despite the forces having witnessed the violence that was being perpetrated in front of them. There were also testimonies where survivors recounted how Bosnian Serb forces had forced Bosnian Muslims to dig their own graves and later shot them to death. 25 years after the massacre, bodies of victims continue to be found in mass graves. The International Criminal Tribunal for the former Yugoslavia that investigated war crimes that occurred during the conflict in the Balkans in the 1990s, found that efforts had been made by the Bosnian Serb army to remove bodies from these mass graves to other sites in an attempt to conceal the extent of the crimes and killings. This removal of bodies made it difficult to identify victims and investigations by the tribunal showed that in many cases, body parts of the one victim were found in different graves due to this displacement. The tribunal said that this indicated that the killings of the Bosnian Muslims were premeditated and had been extensively planned. In 1995, the International Criminal Tribunal for the former Yugoslavia indicted Ratko Mladić and Radovan Karadžić, the President of the Republika Srpska, for war crimes against Bosnian Muslims in Srebrenica. Then UN Secretary General Kofi Annan submitted his own report on the Srebrenica Massacre in 1999 acknowledging the failures of the UN in preventing the massacre and said: "The tragedy of Srebrenica will forever haunt the history of the United Nations." For the Netherlands, the failures of the Dutchbat and reports of the troop's participation in various forms in the violence perpetrated against the Bosnian Serbs led to an inquiry by the government in 1996. A report published seven years later acknowledged the failures of this peacekeeping mission and the Dutch government admitted some responsibility for their inability to protect victims during the massacre. In March 2003, Bosnia and Herzegovina**



began their own investigations on the Srebrenica massacre, relying heavily on the findings of the International Criminal Tribunal for the former Yugoslavia, which concluded the next year, with the government admitting that crimes had been committed against Bosnian Muslims. Some nationalists in the country have disagreed with the findings of these investigations. An official apology for the massacre was later issued by the government. Ten years after the massacre, in 2005, the US House of Representatives officially passed a resolution, recognising it as the Srebrenica Genocide. In March 2016, Radovan Karadžić, the former president of Republika Srpska, was found guilty by the International Criminal Tribunal for the former Yugoslavia of genocide, war crimes and crimes against humanity, and was sentenced to 40 years' imprisonment. A year later, in November 2017, Ratko Mladić was found guilty of genocide, war crimes and crimes against humanity, and sentenced to life imprisonment. **On July 11, 25 years on, commemoration services were held at the Srebrenica-Potocari Memorial and Cemetery in remembrance of the victims of the massacre.** During this ceremony, bodies of nine victims that were recently identified were buried in the cemetery. Although mourners had gathered for the service, the crowds were limited due to concerns of the spread of coronavirus. World leaders also issued statements in remembrance of the massacre. According to some researchers, **many Serbian politicians and citizens refuse to call it genocide and public buildings continue to hold names of people convicted of war crimes against Bosnian Muslims and others who were in positions of power during the massacre but did little to intervene.** According to a recent Guardian report, while there is some acknowledgement of the atrocities committed against Bosnian Muslims, in Srebrenica today, many reject the label of genocide.

## The Day of Duda

→ **President Andrzej Duda's re-election in close run-off was a critical iteration for Poland's ultra-nationalist government,** which has been mired in a stand-off with the EU over the **country's slide into authoritarianism and erosion of the rule of law.** The renewed mandate for Mr. Duda, a staunch ally of the ruling Law and Justice (PiS) party that seeks to overhaul Polish society and institutions, comes months after it was returned for a second consecutive term. Mr. Duda, a former lawyer, polled 51.2% of the vote, against 48.7% by his rival, Rafał Trzaskowski, the Mayor of Warsaw. The latter, who was backed by the centre-right Civic Coalition, considerably narrowed the 13% lead he conceded in the first round held on June 28. **But that gain could not compensate for the palpable lack of initiative behind the fragmented opposition, as reflected in a multi-cornered contest in the earlier round.** Meanwhile, the conduct of regular elections was itself no small a triumph considering that the government had passed legislation to restrict the franchise to a postal ballot following the pandemic. The impressive 65% voter turnout during both rounds of the election possibly speaks to the stark choices facing the citizens. One was to return to the open and inclusive model of society advocated by the Civic Coalition that underpinned Warsaw's 2004 admission to the EU. The other was to continue down the road the Poles chose in 2015 – the politics of ultra-nationalism with an inward-looking emphasis on the country's Roman Catholic identity espoused by the PiS. Mr. Duda's first term began in 2015 in the backdrop of such a polarised atmosphere. **He rejected the view that Poles should apologise to the Jews for the 1941 Jedwabne pogrom during the Nazi Holocaust, in a reference to the gesture made by the country's President in 2001 during the 60<sup>th</sup> year commemoration of the incident.** During his re-election bid, Mr. Duda made disparaging comments about Poland's former communist rulers and LGBT rights to appeal to his conservative constituency. The government's **partisan coverage of PiS electioneering via the state-owned broadcasting houses also came under**





scrutiny during the campaign. These encroachments on democratic freedoms and the rule of law fall into a broader pattern of political interference with judicial appointments. Now, with Mr. Duda at the helm, Poland's backward march from democracy is likely to continue unabated.

## Why Armenia And Azerbaijan Are at Loggerheads Over Nagorno-Karabakh Again

→ For approximately four decades, territorial disputes and ethnic conflict between Armenia and Azerbaijan in Central Asia have impacted the Nagorno-Karabakh region in the South Caucasus. This past weekend, tensions escalated at the border between the two countries and resulted in the death of at least four Azerbaijani soldiers. Following the killings, Armenia and Azerbaijan were engaged in a verbal spat, accusing the other for having instigated the most recent conflict. On July 6, Azerbaijan's President Ilham Aliyev had said peace talks with Armenia had stalled over the ongoing conflict between the two nations in the Nagorno-Karabakh region.



### What Is This Conflict About?

Conflict in the Nagorno-Karabakh region began following the breakdown of the Soviet Union in the late 1980s and lasted till approximately 1994, with both Armenia and Azerbaijan claiming this strategic territory. At that time, the enclave of Nagorno-Karabakh had held a referendum boycotted by Azerbaijan where the people chose independence over joining either of the two countries. The conflict between ethnic Armenians and ethnic Azerbaijanis in Nagorno-Karabakh reached a particular low with Armenia and Azerbaijan accusing each other of having instigated ethnic cleansing. The situation worsened when the Nagorno-Karabakh Autonomous Oblast, an administrative unit, decided to vote to join Armenia given its large Armenian population. By 1992, the violence had increased and thousands of civilians had been displaced, compelling international bodies to take notice. In May 1994, Russia mediated a ceasefire between Armenia and Azerbaijan, but the conflict has continued for three decades, with instances of ceasefire violations and violence instigated from both sides.

### What Has the Situation Been Like Since the Ceasefire?

Experts say the border between Armenia and Azerbaijan has been tense since 2018, particularly after Azerbaijan moved troops into the area, close to its border with Georgia. In a break from the violence that the disputed region has witnessed for over 30 years, this area has been relatively calm for the past two years. In April 2016, the region was particularly tense because of violent fighting between the two countries in what came to be known as the Four-



Day War. Since then, while there have been sporadic instances of flare-ups in the region, it came nowhere close to the situation in 2016.

### What Happened This Past Weekend?

It was not immediately clear what started this round of fighting over the weekend. Azerbaijan's Ministry of Defence said three Azerbaijani soldiers were killed on Sunday and one on Monday in the artillery fire near the Tavush region, in northeast Armenia. Five other soldiers were injured. Reports suggested that two Armenian soldiers had also been injured during this incident. According to a BBC report, Azerbaijan had said it had destroyed an Armenian fortification and artillery and had inflicted casualties on "hundreds" of Armenian soldiers, a claim that Armenia had denied.

### What is Next for Nagorno-Karabakh?

Observers believe an all-out war between Armenia and Azerbaijan is unlikely due to a number of factors. In this disputed region, there are hundreds of civilian settlements, residents of which would be directly impacted and potentially displaced if any large-scale war were to break out between the two countries. **Although Turkey released a statement following the developments this past weekend that it would back Azerbaijan "in its struggle to protect its territorial integrity", observers believe any military escalation would draw regional powers like Turkey and Russia more deeply into the conflict, something that wouldn't be preferred by either Ankara or Moscow.** There is also the question of the network of oil and gas pipelines and strategic roads to which access might be blocked or interrupted for the region at large should any large-scale fighting ensue. For both Armenia and Azerbaijan, these would create immediate challenges, leading observers to believe that a war would not be in the interest of both countries.

### Series of Mystery Blasts in Iran: What We Know So Far

- A series of unexplained fires and explosions at several different, geographically separated places in Iran since June 26 have given rise to fresh concerns for the stability of the volatile region.

### The Explosions and Fires

**The most serious of these mysterious incidents was on July 2, at Natanz, where Iran's main nuclear facility is located.** Iran initially played down a fire and explosion at the nuclear enrichment plant. Later, it acknowledged that the damage was serious. Behrouz Kamalvandi, a spokesman for the Atomic Energy organisation of Iran, said **it would "slow down the development of advanced centrifuges"**. He said advanced equipment and precision measurement devices at the site were either destroyed or damaged. There were reports of another explosion or missile attack on the morning of July 10 at another location. The other incidents were an explosion at a liquid fuel production facility for ballistic missiles in Prachin near Tehran, and a fire at a power plant in Shiraz, both on June 26; a blast at a medical clinic in Tehran that killed 19 people; a huge fire in Shiraz on July 3; and an explosion and a fire in a power plant in Ahwaz and chlorine gas leak at a petrochemical plant in Mahshahr on July 4.



## The Causes and The Impact

It is not clear if all these incidents were linked, or if all or some of them were the result of sabotage. But many western analysts are of the view that the explosion in the Natanz site was an attack, caused either by a bomb or through a cyber-attack. They also believe that there has been more severe damage at the facility than the Iranians are conceding so far. The New York Times said it occurred inside the centrifuge assembly centre, where Iran is said to be building its most advanced centrifuges to produce nuclear fuel in greater quantities and faster than its previously known capabilities. The online portal The Hill said the facility had been entirely destroyed, likely by a bomb, and that it would be years before Iran could resume its centrifuge project again. The Washington-based Institute for Science and International Security said the explosion had finished Iran's nuclear capabilities for "years to come".

## Who Is Responsible?

After United States President Donald Trump in May 2018 walked out of the nuclear deal negotiated by the previous Obama Administration to limit Iran's nuclear activities and allow inspectors to visit its nuclear facilities, western analysts believe that Iran has doubled down on its nuclear enrichment programme. The Natanz and other incidents come at a time when the Iranian government is under attack from its new hard-line parliament for letting the US get away with breaking up the nuclear deal, plus the killing by the US earlier this year of General Qasem Soleimani of the Iranian Revolutionary Guard Corps. The mystery attacks could also escalate tensions between Iran on the one hand and Israel and the US at a time when the presidential elections are crucially poised, with Trump perceived to be fighting with his back to the wall at this point in the campaign. A group called Cheetahs of the Homeland has claimed responsibility for the attacks. This group is thought to comprise Iranian exiles, but Western analysts are increasingly of the view that the attacks are likely the handiwork of Israel, perhaps acting in concert with the US. Israel has not officially responded to such suggestions. A columnist in the Israeli newspaper Ha'aretz wrote that if the theory that Israel is behind the attacks is accurate, "then Israel, obviously with the knowledge and backing of the United States, has found a roundabout solution to the problem in light of Iran's renewed progress with its nuclear program". Thus, the columnist pointed out, "Instead of an aerial assault with a low signature, a mysterious explosion occurred and the chain of command behind it is not entirely clear. The damage is the same, but the price might be much lower." While "this is certainly not the end of the nuclear program, which is intentionally spread over many sites, some of which are deep underground", the columnist wrote, "a main artery may have been hit". If indeed Israel is behind the attack, one view is that it wants to act quickly against Iran while it has a strong ally in Trump in the White House.

## How Might Iran React?

So far, Iran's reaction to the Natanz incident has been muted. On July 3, the country's Supreme National Security Council said it knew the cause of the incident, but for reasons of security, would disclose it at an appropriate time "later". When Soleimani, a popular military leader, was killed in a missile attack in Iraq, Iran had vowed to avenge his death. There was speculation that Iran would hit out at American targets or interests in the region, including perhaps in Pakistan. But other than missile attacks on a US base in Iraq, Iran remained restrained – either unable or disinclined to carry out its pledge of "severe revenge". But the latest attacks will put pressure on the regime. Soleimani's killing was seen as the reason for the hardliner sweep of the parliamentary elections. The presidential elections are due next



year. Some Iranian officials have said that “if sabotage is proved”, there would be “consequences”. So far though, Iran seems keen to play down the incidents. This, according to Iran watchers, may be an indication that Iran would not like to burn its bridges with the US at this moment – in the hope perhaps, that it can do business a few months down the line with a more predictable occupant of the White House. But the next step in this game may well be decided by the **US, which has said it will prevent four oil tankers heading to Venezuela with Iranian oil for violation of its sanction’s regime.**

## Re-Conquering Constantinople (Mohammed Ayoob - University Distinguished Professor Emeritus of International Relations, Michigan State University)

→ Turkish President Recep Tayyip Erdogan, having lost Istanbul to the Opposition Republican People’s Party (CHP) in local elections held a year ago and aware of his own maxim “Who rules Istanbul, rules Turkey”, has decided to re-enact the Ottoman conquest of Constantinople. The recent announcement that Hagia Sophia, the church-turned-mosque-turned-museum, will once again be converted into a functioning mosque exemplifies that strategy. **Mehmet II, the Ottoman Sultan who conquered Constantinople in 1453 from the Byzantine emperor, had converted the most important symbol of Orthodox Christendom into a mosque to demonstrate who was the new ‘Lord of the Golden Horn’.** This act was part of common practice in medieval times. The Grand Mosque of Cordoba, constructed in 784, was converted into a Catholic cathedral in 1236 when the capital of the Spanish Umayyad Caliphate fell to Christian arms. However, those were different times when the destruction and transformation of religious monuments were used as demonstrations of power and control. Unfortunately, such acts continue to take place even today as instruments either for shoring up the sagging popularity of regimes or acquiring power by advocating revenge for real or imagined historical injustices.

### Demand Since 2002

A part of Mr. Erdogan’s conservative Islamist base had been agitating for converting Hagia Sophia into a mosque ever since his party came to power in 2002. But Mr. Erdogan had ignored the demand as long as the Turkish economy was booming under his leadership and he was receiving credit for dismantling the military dominated authoritarian power structure the Justice and Development Party (AKP) had inherited from its secular Kemalist predecessors. All this changed after his re-election for the second time in 2011 and especially from 2013 when the Gezi Park protests against the government’s decision to change the character of the iconic Taksim Square in Istanbul by building a mosque and installing Ottoman-style buildings brought large numbers of protestors onto the streets. Mr. Erdogan’s decision to change the established parliamentary system to a presidential one passed by a thin majority of 51% to 49% in a referendum in 2017. This was an indication of how the wind was blowing. Mr. Erdogan did win the presidential election held under the new system in 2018, gaining over 52% of the votes. However, in the parliamentary elections held simultaneously, the ruling AKP received only 42% of the votes, down from 49% in the previous elections. These figures do not bode well for Mr. Erdogan for the next round of presidential and parliamentary elections scheduled in 2023. Mr. Erdogan’s authoritarian traits and his disregard for constitutional norms if not the letter of the law (which he constantly rewrites) have been clearly on display since the **failed coup** of July 2016. Thousands of civil servants and academics have been removed from their jobs and many of them imprisoned for their alleged links to the **Gülenist movement**. In recent years, the economy has also taken a





nosedive. From a high of 11% in 2011, GDP growth dipped to less than 1% in 2019. The Turkish lira has fallen to approximately 7 to one U.S. dollar from a high of about 1.5 to one in 2011. These figures express the increasing unemployment and economic distress. Much of this is the result of economic mismanagement and Mr. Erdogan's obsession with massive wasteful projects. The combination of severe economic downturn and Mr. Erdogan's authoritarianism bordering on despotism has had a visibly negative impact on his popularity. Changing the character of Hagia Sophia is a part of his electoral strategy to revive his political fortunes by flaunting his commitment to rectifying perceived historical wrongs. Religio-nationalism is the last refuge of desperate politicians. This strategy has worked in some countries. One has to wait and see if it will work in Turkey as well.

→ Hagia Sophia (literally 'Holy Wisdom') was built by the Byzantine Emperor, Justinian I, in the first half of the sixth century. This was the third cathedral being built at the site. The first one, with a wooden roof, is believed to have been commissioned by Emperor Constantine I in AD 325 on the remains of a pagan temple. This was burned down by rioters in 404. The second church, ordered by Constant I, was also destroyed in a fire during the Nika riots of 532 that saw widespread fire and destruction in Constantinople (today's Istanbul). After establishing order in the city, Justinian found the fire an opportunity to rebuild the cathedral with his stamp on it. The basilica, designed by mathematician Anthemius of Tralles and physicist Isidore of Miletu, was completed in five years by more than 10,000 labourers. The Emperor reopened it in 537. While entering the church, he is reported to have said, "Solomon, I have surpassed you!", in a reference to King Solomon's Great Temple in ancient Jerusalem. The first religious service in the rebuilt Hagia Sophia was held on December 27, 537 in the presence of the Emperor.

### The Ottoman Era

Barring a few years after the Fourth Crusade, Hagia Sophia had been the cathedral of the Ecumenical Patriarchate of Constantinople until the fall of the city in the 15th century. Several earthquakes damaged it partially, leading to restorations. In early 13th century, crusaders looted the building and turned it into a Roman Catholic cathedral. But after the Byzantines recaptured the city from the Venetian crusaders, they restored the cathedral and it continued to remain the seat of the Patriarch until the Ottomans came. On May 28, 1453, when Constantinople was under siege and the Ottomans were making steady advances into the Byzantine defence lines, Emperor Constantine XI entered the basilica to pray. After prayers, he returned to the city walls to coordinate the war efforts. But the Byzantine defence lasted only one day. On May 29, the Ottomans, under the command of Mehmed II the 'Conqueror', entered the city. Mehmed is said to have been mesmerised by the architectural beauty of the basilica. The Sultan decided to turn the basilica into a mosque. The Ottomans later commissioned the renowned medieval architect Sinan to renovate the structure. They built massive buttresses to support the walls. A mihrab (a semi-circular niche on the wall that indicates the qibla, the direction of Mecca) and a minbar (pulpit) were installed. New minarets came up. The Ottomans covered many of the Byzantine mosaics with Islamic calligraphy. The images of Jesus, Mother Mary, saints and angels were either destroyed or plastered over (Some mosaics were restored when the mosque was converted into a museum). The mosque, called **Ayasofya in Turkish**, remained the centre of power throughout the Ottoman rule.



## A Secular Museum

After the collapse of the Ottoman Empire following the First World War, secularists, under the leadership of Mustafa Kemal (who was later called Ataturk, the father of Turks), came to power. Ataturk, who abolished the Caliphate, closed down Hagia Sophia in 1930. Five years later, the building was reopened as a museum. Since then, Hagia Sophia, a UNESCO World Heritage site, has been one of the most visited monuments in Turkey, and more importantly, an emblem of Christian-Muslim co-existence. Turning the monument back into a mosque has been a growing demand from the Islamist sections of Turkish society. A Turkish administrative court cancelled the museum status of the monument. Mr. Erdogan moved fast, issuing a decree, transferring the management of Hagia Sophia from the Ministry of Culture to the Directorate of Religious Affairs. With this, Turkey's Islamist politics has taken a new turn.

- Turkey's Council of State had declared in its ruling that the conversion of the Hagia Sophia from a mosque into the museum by the country's founder was illegal. An hour after the court's verdict was announced, Turkey's President Recep Tayyip Erdogan issued an order stating the Hagia Sophia was open to Muslim worship. The Council of State had unanimously cancelled a 1934 cabinet decision concerning the status of the monument and stated that the Hagia Sophia had been registered as a mosque in its property deeds. Shortly after the court order, Hagia Sophia's verified social media pages that had referred to the structure as a "museum" were taken down. The change in status of the Hagia Sophia comes after repeated warnings from the international community, including UNESCO, to ensure that Turkey did not proceed with these plans.

## What Was the Reaction to The Change in Hagia Sophia's Status?

Local news reports broadcast visuals of people in Istanbul assembling outside the Hagia Sophia after the court announced its decision, in celebration of the verdict. Weeks before the verdict, the Ecumenical Patriarch Bartholomew in Istanbul, the spiritual head of Orthodox Christians, had said that converting the Hagia Sophia into a mosque would "fracture" the East and the West. Following the verdict, Vladimir Legoida, spokesperson for the Russian Orthodox Church stated: "The concern of millions of Christians has not been heard.... Today's court ruling shows that all calls for the need for extreme delicacy in this matter were ignored." Greece's Foreign Ministry had previously issued a strong statement saying this conversion was a violation of UNESCO's 'Convention Concerning the Protection of the World Cultural and Natural Heritage' where a "designated a museum of world cultural heritage" was "being used to promote other purposes". Following the verdict, Greece's culture minister Lina Mendoni said the ruling "absolutely confirms that there is no independent justice" in Turkey and said the move was an "open provocation to the civilised world". "The nationalism displayed by President Erdogan... takes his country back six centuries," Mendoni added. Cyprus condemned the ruling and the European Union said it was "regrettable". The US State Department said it was "disappointed" by the move and indicated that it would observe Turkey's plans for the Hagia Sophia "to ensure it remains accessible without impediment for all." Turkey found support in the Turkish Republic of Northern Cyprus (TRNC), a territory recognised only by the Turkish government. Prime Minister Ersi Tatar said: "Hagia Sophia has been Turkish, a mosque and a world heritage since 1453. The decision to use it as a mosque, at the same time to be visited as a museum, is sound and it is pleasing." Erdogan had faced little opposition to these plans within Turkey, researchers say, because religious minorities had not wished to be involved in what is seen as a polarising subject. Following



the verdict, their stance has mostly remained the same, and few in Turkey have publicly denounced the change in the monument's status.

### What Does This Mean for The Hagia Sophia?

Erdogan stated that the Hagia Sophia would open as a mosque after 85 years on July 24 with Friday prayers. According to local news reports in Turkey, the entrance fee that had been put in place when the monument was a museum will be removed, making it free for all visitors. Despite the change in status, the Hagia Sophia will continue to be open to foreign and local tourists. In a televised address to the country, Erdogan said the conversion would require six months to complete. Throughout his speech, observers noted that the president made no mention of Ataturk, the founder of the Turkish republic, perhaps in a deliberate move to remove that association from the Hagia Sophia. There is no clarity on whether the conversion of the Hagia Sophia will impact the Byzantine artwork and mosaics inside the monument. In 1453, when Constantinople fell to Sultan Mehmet II's Ottoman forces, the Hagia Sophia was ransacked by the invading Ottomans and turned into a mosque shortly after. The structure of the Hagia Sophia was then subjected to several interior and exterior changes where Orthodox symbols were removed or plastered upon and minarets were added to the exterior of the structure. Many of these Byzantine symbols can still be seen today, and many social media users expressed concern over the future of the remaining mosaics and artwork once the mosque reopens. There is also no clarity on whether the monument will continue to hold its UNESCO heritage status following its conversion into a mosque or whether the international organisation will withdraw its designation. It is also not clear whether the ruling in the case of the Hagia Sophia will be used to convert other public places that Ataturk converted into museums, for instance, the Topkapı Palace in Istanbul, the former seat of the Ottoman Empire.

### What Does This Mean for Secularism in Turkey?

In an interview shortly after the verdict, Nobel prize-winning author Orhan Pamuk told the BBC: "There are millions of secular Turks like me who are crying against this but their voices are not heard...To convert it back to a mosque is to say to the rest of the world unfortunately we are not secular anymore." Researchers believe that Erdogan has systematically eroded the secular ideals of Mustafa Kemal Ataturk on which the modern Turkish republic was founded. President Recep Tayyip Erdogan and his AK Party's dominance over Turkey's political sphere for close to two decades has slowly pushed it from a constitutionally secular country to a more religious and conservative nation. On the surface, the AK Party has claimed to be secular but as witnessed in the case of the Hagia Sophia, it appears that the party will not hesitate to alter Ataturk's secular legacy to achieve its own political goals. Observers believe that Erdogan's plans for the conversion of the Hagia Sophia were closely connected with his attempts to score political points and to drum up political support, particularly among conservatives, that he has seen diminishing following his loss in Istanbul's municipal elections in 2019. However, research on secularism in Turkey over the past two years shows that many in the country, particularly younger citizens, are less religious, despite the government's attempts to promote its version of prescribed religious conduct. Erdogan had once stated that he had wished to create "a pious generation". Analysts believe that young Turks are not interested in this brand of religion and have been actively pushing against it.



## Why Ireland Fought for Its Tax Structure, Refusing €13bn From Apple

→ In a blow to efforts by the European Union's executive body to rein in member states that offer tax advantages to large multinationals, the 27-member bloc's second-highest court on Wednesday ruled in favour of the tech giant Apple, holding that the American company did not owe the Irish government €13bn (around Rs 1.1 lakh crore) in back taxes. The General Court was hearing a joint appeal by Apple and the Irish government against a 2016 decision of the European Commission, which found that Ireland had given Apple an unfair tax advantage from 2003 to 2014, and had ordered the island nation to recover €13 billion from the technology company. While the verdict has been welcomed by Apple and the Irish government, critics have denounced it as a setback to the EU's tax collection efforts— which have become increasingly important in the wake of Covid-19's economic fallout.

### What Did the European Commission Say In 2016?

Ireland is the base of Apple's operations in Europe, Africa, and the Middle East. Its office has been in the southern city of Cork since 1980, where it employs around 5,000 people. In August 2016, the European Commission said that the Irish government had been illegally favouring Apple, giving it advantages that it had not offered to other companies. It alleged that Apple's "so-called head office" in the country "only existed on paper", and accused Ireland of allowing the company to pay "substantially less tax than other businesses over many years". The Commission said that by using two shell companies incorporated in the country and with the agreement of Irish tax authorities, the tech giant had been able to pay an effective corporate tax of 1 per cent on profits that it earned from across the EU in 2003. In 2014, its tax payment was as low as 0.005 per cent. Concluding that Ireland had provided illegal aid to Apple, the Commission had ordered the company to repay the Irish government €13 billion in back taxes. In September 2018, Reuters reported that Apple had finished wiring the vast sum, as well as an additional €1.2 billion (around Rs 10,000 crore) in interests. The money was held in an escrow account, its fate awaiting the completion of legal proceedings.

### So, Why Did Ireland Refuse This Money?

Ireland's low corporate tax rate is a key feature of its economic policy. At 12.5 per cent, it is the second-lowest in the EU. It also has a relatively lenient data protection regime. These factors have been instrumental in attracting large tech companies to the island, where American companies like Apple directly or indirectly account for about 20 per cent of all jobs, according to a Bloomberg report. So, to protect its image as an investment destination for large companies, the Irish government took the view that Apple should not be obligated to pay back taxes. Thus, foregoing the massive amount, it jointly appealed with the company against the European Commission's decision.

### What Did the Court Rule?

Annulling the 2016 decision, the Luxembourg-based court said that the European Commission had failed to prove Ireland's breach of EU competition rules, and "did not succeed in showing to the requisite legal standard that there was an advantage". The Irish foreign ministry welcomed the verdict, saying, "Ireland has always been clear that there was no special treatment provided". Apple, too, said, "This case was not about how much tax we pay, but where we are required to pay it." In the next two months, the Commission can choose to appeal the General Court's decision at the European Court of Justice— the EU's highest. According to a Financial Times report, chances of success are low, given that the





Commission has lost the case at the General Court because of not meeting the burden of proof.

### Impact on The EU's Taxation Efforts

Many have called the verdict a setback for the European Commission, which has in the past gone after several large multinationals including Starbucks, Amazon, and McDonald's while scrutinising tax deals by member states that allow companies to declare profits in low tax jurisdictions— such as Luxembourg, the Netherlands, and Ireland. This is also the second time that the Commission's efforts have suffered a jolt; its case against Starbucks getting overturned last year. Critics have said that the ruling exposed the EU's lack of arsenal in dealing with corporate tax avoidance— a problem that is being acutely felt as countries face Covid-19's mammoth economic costs. Some experts believe that the ruling could bring together EU states to crack down on Ireland and other low-tax regimes, as well as bolster resolve within the Union for imposing a digital tax on large tech firms.

### How Twitter Was Hacked and What Questions It Raises

→ It was a bad day even by Twitter standards. In what is being dubbed as one of the “most brazen online attacks in memory”, the most powerful Twitter accounts in America were all tweeting about Bitcoins on Wednesday afternoon. It was a scam, of course, but one that got a social push from the biggest political and entertainment handles in the United States. Twitter tried to regain control and delete the messages, but some of the handles were posting similar messages even after that. Among the affected names are former president Barack Obama, presidential hopefuls Joseph R. Biden Jr. and Kanye West, tech stars Bill Gates and Elon Musk, as well as institutional handles like @Apple. As Twitter tried to regain control, verified handles across the world went mute for a while and were unable to tweet.

### What Was the Twitter Hack All About?

Around 4 pm Wednesday in the US, many high-profile accounts started tweeting a message saying any bitcoin sent to a link in the tweet will be sent back doubled, an offer the tweet said last just for 30 minutes. Apple and Uber handles were among the first to be impacted, followed by those of Musk and Gates. In a couple of hours, it had taken over the handles of Obama, Biden, Mike Bloomberg and Amazon founder Jeff Bezos. Around the time handles of boxer Floyd Mayweather and celebrity Kim Kardashian had been affected, Twitter locked most large verified accounts across the US and rest of the world. However, in the four-odd hours the tweets were live, the Bitcoin wallet promoted in the tweets received over \$100,000 via at least 300 transactions.

### How Did the Twitter Hack Happen?

According to Twitter Support, the “coordinated social engineering attack” was executed by people who “successfully targeted some of our employees with access to internal systems and tools”. “We know they used this access to take control of many highly-visible (including verified) accounts and Tweet on their behalf. We're looking into what other malicious activity they may have conducted or information they may have accessed and will share more here as we have it,” another tweet said. Twitter said that even as it has limited functionality of the affected accounts, it also restricted access to internal systems and tools. Clearly, the vulnerability that has been exploited was within the Twitter systems and not on the user side.



## What Are Implications of This Security Incident?

The implications are huge given the fact that the most powerful and popular accounts have been hacked. Given the influence Twitter has over political conversations globally, and in the US in particular, **the verified handles of so many politicians being compromised at the same time does not augur well for the platform.** The incident is also critical because it has happened in an election year. Last elections, the conversation in the US was also about social media being manipulated for political gain. This new incident has also shown that social media giants could be more vulnerable than before.

## Foreign Affairs

### Who Was Liu Xiaobo, The Chinese Nobel Laureate and Dissident?

- Chinese Nobel laureate and dissident Liu Xiaobo died three years ago on July 13 at the age of 61 from complications arising out of liver cancer. He was arrested from his Beijing residence in 2009 for his involvement in drafting a document called 'Charter 08', which called for political reforms in China. According to The New York Times, Xiaobo was the first Nobel laureate since German pacifist **Carl von Ossietzky** to die in state custody. In 1989, Xiaobo left his position as a visiting scholar at Columbia University in New York City to take part in the pro-democracy protests in China.

### Who was Liu Xiaobo?

Born on December 28, 1955, in China, Xiaobo a writer, activist, literary critic and philosopher was awarded the **Nobel Peace Prize** in 2010 "for his long and non-violent struggle for fundamental human rights in China." One of Xiaobo's central demands from the Chinese authorities was the compliance of Article 35 of the Chinese Constitution, as per which, citizens have the right of freedom of speech, press, assembly, association, of procession and demonstration.

### Why was Xiaobo Arrested?

Xiaobo was arrested several times, the first in 1989 for supporting pro-democracy students during the Democracy Movement. He was jailed for 21 months. In June 1989, Xiaobo along with a few others went on a hunger strike in Tiananmen Square to protest against martial law and appeal for peaceful negotiations between the government and the protesting students. Xiaobo was imprisoned again from 1996-99 for criticising China's policies towards Taiwan and Tibet's spiritual leader, the Dalai Lama. His longest sentence of 11 years came in 2009 for his involvement in drafting Charter 08 that called for Chinese political reforms towards democracy. The document was fashioned after Charter 77, written by Czechoslovakian dissidents in 1977. Charter 08 was issued to coincide with the 60th anniversary of the adoption of the United Nations Universal Declaration of Human Rights. According to a translation of the charter published in The New York Review of Books, the document stated, "The Chinese people, who have endured human rights disasters and uncountable struggles across these same years, now include many who see clearly that freedom, equality, and human rights are universal values of humankind and that democracy and constitutional government are the fundamental framework for protecting these values." It also called into question the Chinese government's approach to "modernisation" and called it "disastrous".



Essentially, the charter – which was perceived by many activists as the most important pro-democracy efforts since the Tiananmen Square protests – called for the ability of Chinese citizens to be able to elect their government. On December 8, 2008, the Beijing police took away Xiaobo from his residence in Beijing, and was found guilty of “inciting subversion of state power” on December 25, 2009. The charter was signed by more than 10,000 supporters.

## China Hits U.S. Lawmakers, Envoy with Sanctions Over Xinjiang

→ China slapped retaliatory sanctions on three senior Republican lawmakers and a U.S. envoy in a deepening row over Beijing’s treatment of Uighurs in the western Xinjiang region. Some of the most outspoken critics of China – Senators Marco Rubio and Ted Cruz along with Congressman Chris Smith – were targeted by the action, as well as the U.S. Ambassador-at-Large for international religious freedom, Sam Brownback. The unspecified “corresponding sanctions” were announced days after the U.S. imposed visa bans and asset freezes on several Chinese officials, including the Communist Party chief in Xinjiang, Chen Quanguo, over rights abuses in the region.

### ‘Wrong Actions’

The move was “in response to the U.S.’s wrong actions”, Foreign Ministry spokeswoman Hua Chunying said at a regular briefing. “We urge the U.S. to immediately withdraw its wrong decision, and stop any words and actions that interfere in China’s internal affairs and harm China’s interests,” she said. “China will make a further response depending on the development of the situation.” Sanctions will also be applied on the U.S. Congressional-Executive Commission on China, an agency that monitors human rights in the Asian country. The two countries have traded barbs and sanctions on a slew of issues since President Donald Trump took office, from trade to more recent spats over the coronavirus pandemic, a security law in Hong Kong, and Chinese policies in the far west regions of Tibet and Xinjiang.

### ‘Horrific’ Abuses

Witnesses and human rights groups say that China has rounded up more than one million Uighurs and other Turkic Muslims in Xinjiang in a vast brainwashing campaign aimed at forcibly homogenising minorities into the country’s Han majority. Secretary of State Mike Pompeo said last week the United States was acting against “horrific and systematic abuses” in the western region including forced labour, mass detention and involuntary population control. China rejects the accusations, but it has acknowledged sending Uighurs to “vocational education centres” to learn Mandarin and job skills in a bid to steer them away from terrorism and separatism following a spate of deadly violence in the fractious region. “I have to point out that Xinjiang affairs are purely China’s internal affairs. The U.S. has no right or basis to interfere,” Ms. Hua said on Monday. China is “unwavering in its determination to fight against forces of violence and terrorism, forces of separatism, and that of religious extremism,” the Foreign Ministry spokeswoman said. “Its determination to oppose any external forces’ interference in Xinjiang affairs and China’s internal affairs is unwavering as well.”



## From Citizenship to Economic Sanctions, How Countries Are Reacting to Hong Kong

### Security Law

→ The enforcement of a sweeping national security law in Hong Kong by China has drawn sharp reactions from several countries, and led to the announcement of a range of countermeasures: from offering city residents a pathway to citizenship, to imposing economic sanctions and suspending treaties. The new law, passed “unanimously” by the Chinese parliament and put into effect on June 30, creates four widely defined offences – secession, subversion, organisation and perpetration of terrorist activities, and collusion with a foreign country or with external elements to endanger national security. **Prepared in secret and promulgated without consulting Hong Kong’s legislature, the law blurs the distinction between the legal systems of semi-autonomous Hong Kong, which maintained aspects of British law after the 1997 handover, and the mainland’s authoritarian Communist Party system.** Here’s a look at some of the major proposals put forth by countries who have taken exception to China’s move.

### United States

Since 1992, Washington had provided Hong Kong with a “special status” by enacting the United States-Hong Kong Policy Act that year. Under the Act, the US treated Hong Kong as a non-sovereign entity distinct from mainland China, and implemented a separate set of policies that included providing **preferential tariff rates for exports** from the city-state. In November 2019, **the US Congress passed legislation allowing the president to chip away at the special status in case Hong Kong is believed to be “not sufficiently autonomous” from Beijing.** This year in May, after China first revealed its designs for imposing a security law, the Trump administration notified the US Congress that it **no longer considered Hong Kong as autonomous from mainland China.** On June 29, a day before the law was passed, it began eliminating the city’s special status, suspending the availability of export license exceptions. After the law was passed, **US lawmakers approved imposing economic sanctions, penalising banks that do business with Chinese officials.** According to Bloomberg Intelligence, the move potentially threatens up to \$1.1 trillion in Chinese funding, while also inviting steep fines. **Visa restrictions have been announced against Chinese Communist Party officials “believed to be responsible for, or complicit in, undermining Hong Kong’s high degree of autonomy”.** Washington is also ending defence equipment sales to Hong Kong (used by its police), and selling sensitive American technology to the city has also been made more difficult.

### The United Kingdom

Hong Kong’s former imperial master has promised 30 lakh of its residents a chance to migrate and eventually apply for British citizenship. 3.5 lakh persons holding British National (Overseas) passports and around 26 lakh others would be eligible in the city of around 70 lakh people. In a major expansion of their rights, BN(O) holders would be able to live and work in the UK for 5 years. There would be no minimum salary requirement, and neither would it be necessary to first secure a job in the UK before migrating. Prime Minister Boris Johnson called the imposition of the security law “a serious and clear breach of the Sino-British Joint Declaration”, and foreign secretary Dominic Raab said his country would not duck its “historic responsibilities” to the people of Hong Kong. The Economist called the UK move its most generous welcoming of foreign workers since the entry of new EU citizens in 2004 – when 10 countries were added to the bloc. Its report, however, said that relatively fewer numbers from the city-state would come to Britain if they have other options, such as Australia.





## Australia

While the country is yet to make an announcement on providing asylum, Prime Minister Scott Morrison has said Australia is “actively considering” offering a safe passage to Hong Kong residents. So far, it has offered a 5-year visa extension for Hong Kongers, providing the chance of acquiring permanent residency for around 10,000 people. Morrison said the offer also extended to Hong Kong businesses if they wanted to relocate to Australia. The country has suspended its extradition treaty with Hong Kong, and issued new warnings to over 1 lakh of its nationals who are in the city. In recent months, relations between Australia and China have soured after Morrison asked for an independent inquiry into the origins of the novel coronavirus in Wuhan. China subsequently imposed tariffs on Australian barley shipments.

## Canada

Prime Minister Justin Trudeau has said that Canada is also exploring measures around immigration. Like Australia, Canada also suspended its extradition treaty with Hong Kong. Additionally, Ottawa has banned the export of sensitive military technology to Hong Kong, home to 3 lakh Canadian nationals. China-Canada relations had hit a setback in 2018, when Canadian police arrested the financial officer of Huawei Technologies on a US warrant.

## Taiwan

Taiwan, which is claimed entirely by China, has relaxed its Covid-19 border closures to enable people from Hong Kong to enter. It has also opened a government office to help Hong Kong residents visit or seek legal residency on the island. Taipei has so far acted cautiously, and not made any announcements on offering asylum, lest it further upsets Beijing— whose officials rail against a conspiracy between democracy activists in Taiwan and Hong Kong. Not many from Hong Kong are expected to migrate here, given Taiwan’s precarious relation with China, and because of better opportunities in the West. Yet, the number of migrants from Hong Kong is growing. According to The Economist, until May this year, Taiwan had given residency permits to 2,383 Hong Kongers, up 150 per cent from the same period last year.

## Iran Ties Need Quiet Diplomacy (Rakesh Sood - Former Diplomat and Currently Distinguished Fellow at The Observer Research Foundation)

- ➔ Recent reports that Iran’s Transport and Urban Development Minister Mohammed Eslami had launched the track laying programme for the 628 km long rail link between Chabahar and Zahidan last week sparked concerns that India was being excluded from the project. Iran has since clarified that it is not the case and India could join the project at a later stage. This keeps the door open for Ircon International Limited (IRCON) which has been associated with the project even as India continues with the development of Chabahar port.



## Connectivity for Afghanistan

Providing connectivity for Afghanistan through Iran in order to lessen its dependence on Karachi port has enjoyed support in Delhi, Kabul and Tehran since 2003. Chabahar port on

Iran's Makran coast, just 1,000 km from Kandla, is well situated but road and rail links from Chabahar to Zahidan and then 200 km further on to Zaranj in Afghanistan, need to be built. With Iran under sanctions during the Ahmadinejad years (2005-13), there was little progress. IRCON had prepared engineering studies estimating that the 800 km long railway project would need an outlay of \$1.6 billion. Meanwhile, India concentrated on the 220 km road to



connect Zaranj to Delaram on the Herat highway. This was completed in 2008 at a cost of \$150 million. Things moved forward after 2015 when sanctions on Iran eased with the signing of the Joint Comprehensive Plan of Action, or the Iran nuclear deal. A memorandum of understanding (MoU) was signed with Iran during Prime Minister Narendra Modi's visit to Tehran in 2016 to equip and operate two terminals at the Shahid Beheshti port as part of Phase I of the project. Another milestone was the signing of the Trilateral Agreement on Establishment of International Transport and Transit Corridor between Afghanistan, Iran and India. In addition to \$85 million of capital investment, India also committed to provide a line of credit of \$150 million for port container tracks. Phase I was declared operational in 2018 and India's wheat shipments to Afghanistan have been using this route. A special economic zone (SEZ) at Chabahar was planned but re-imposition of U.S. sanctions has slowed investments into the SEZ. India was given a waiver from U.S. sanctions to continue cooperation on Chabahar as it contributed to Afghanistan's development. Despite the waiver, the project has suffered delays because of the time taken by the U.S. Treasury to actually clear the import of heavy equipment such as rail mounted gantry cranes, mobile harbour cranes, etc. With regard to the rail-track project, a financing MoU was signed under which India undertook to provide \$500 million worth of rolling stock and signalling equipment including \$150 million of steel rail tracks. In fact, the railway tracks currently being laid are those supplied by IRCON. Iranian responsibility was for local works of land levelling and procurement. The MoU between IRCON and Iran's Construction and Development of Transportation Infrastructures Company (CDTIC) expired last year. Further, Khatab al Anbiya, the Iranian company undertaking some of the works, was listed by the U.S. as special designated entity, leading IRCON to suggest to the Iranians to appoint another contractor. Meanwhile, Iran has ambitious plans to extend the railway line from Zahidan to Mashad (about 1,000 km) and then another 150 km onwards to Sarakhs on the border with



**Turkmenistan**. Another plan is to link it with the **International North-South Transport Corridor** towards **Bandar Anzali on the Caspian Sea**. In 2011, a consortium of seven Indian companies led by Steel Authority of India Limited had also successfully bid for mining rights at **Hajigak mines in Afghanistan** that contain large reserves of iron ore. However, developments at Hajigak remain stalled because of the precarious security situation in Afghanistan continues.

### Why Iran Needs China

In January 2016, just as sanctions were eased, Chinese President Xi Jinping visited Tehran and proposed a long-term comprehensive, strategic partnership programme that would involve Chinese investment in Iranian infrastructure and assured supplies of Iranian oil and gas at concessional rates. Reluctant to be tied into too close a Chinese embrace, Iran kept the negotiations going for years. China patiently permitted a limited barter trade; China Petroleum & Chemical Corporation (SINOPEC) prolonged its negotiations on developing the Yadavaran oilfield while China National Petroleum Corporation (CNPC) pulled out of the South Pars gas project last year, after initially promising to take over the French company Total's stake.

### Advantages and a Lesson

Iran may well be considering a long-term partnership with China, but Iranian negotiators are wary of growing Chinese mercantilist tendencies. **It is true that China has greater capacity to resist U.S. sanctions compared to India but Iran realises the advantage of working with its only partner that enjoys a sanctions waiver from U.S. for Chabahar since it provides connectivity for land-locked Afghanistan. Iran and India also share an antipathy to a Taliban takeover in Afghanistan. This is why Iran would like to keep the door open. Nevertheless, India needs to improve its implementation record of infrastructure projects that it has taken up in its neighbourhood. There are numerous tales of Indian cooperation projects in Nepal, Bangladesh, Sri Lanka, Myanmar, etc suffering delays and cost overruns that only make it easier for China to expand its footprint in India's neighbourhood. The key is to continue to remain politically engaged with Iran so that there is a better appreciation of each other's sensitivities and compulsions.**

### Lost Opportunity

- Right from the beginning of its tenure, the government has underlined the geostrategic importance it attaches to the Chabahar port project. The project, signed in 2003, has been a symbol of traditionally important India-Iran ties. Connected by sea lanes to ports on India's west coast, Chabahar would form the fulcrum of India's outreach to Russia and Central Asia, enhancing connectivity, energy supplies and trade. Given that Pakistan had blocked Indian aid to Afghanistan and all trade over land, Chabahar provided India an alternative to permanently bypass its troublesome neighbour. As a result, the government fast-tracked plans for the project, and in 2016, Prime Minister Narendra Modi was in Tehran to sign a trilateral trade and transit agreement with Iranian President Hassan Rouhani and Afghanistan President Ashraf Ghani. According to the MoUs, India would be granted a 10-year lease to develop and operate two terminals and five berths, access to the Chabahar free trade zone, and the opportunity to build the 628 km rail line from Chabahar to Zahedan, just across the border from Afghanistan. The government acted quickly to develop Chabahar port facilities, sent exports to Afghanistan in 2018, and has moved over half-a-million tonnes of cargo, including grains and food supplies, for Afghanistan again, through the port. However, **the rail line has never taken off for a number of reasons despite a commitment from state-owned**

**Shatabdi Tower, Sakchi, Jamshedpur**



IRCON, to undertake its construction at an estimated \$1.6 billion. While contract changes by the Iranian side and delayed responses from the Indian side were part of the problem, the main hurdle has been the fear of American penalties. Even though India was able to negotiate a sanctions waiver for the Chabahar port and rail line from the U.S., few international construction and equipment partners were willing to sign on to the project; New Delhi has also dragged its feet on the matter. After appeals to India, including one issued by its Foreign Minister Javad Zarif when he visited Delhi in January this year, Iran decided to go on its own, by beginning to lay tracks for the line connecting Chabahar to Afghanistan and Turkmenistan, last week.

Regardless of the reasons for India's inability to join the railway project, the decision can only be seen as an opportunity lost. The impression that India wavered due to U.S. pressure, especially after India cancelled oil imports from Iran, also questions New Delhi's commitment to strategic autonomy. While Iran claims it will fund the railway using its own resources, it seems to have embarked on the Chabahar-Zahedan project with a confidence borne from an imminent deal with China for a 25-year, \$400 billion strategic partnership on infrastructure, connectivity and energy projects. In a world where connectivity is seen as the new currency, India's loss could well become China's gain, and New Delhi must watch this space, created by its exit, closely.

### Deciphering the Dynamics of De-Escalation in Ladakh

→ The process of de-escalation has been underway for several days in eastern Ladakh, where Chinese forces made large scale incursions in the areas of Pangong Tso, Galwan and Depsang in May. Prompt counter-deployment by the Indian Army to check the Chinese intrusions resulted in a serious standoff, marked by violent clashes on June 15. There is lack of clarity in the environment about de-escalation per se; as terms like disengagement, pulling back, and withdrawal are being used concurrently, in the same breath. De-escalation is a complex and time-consuming exercise, as it entails navigating an uncharted course in a graduated manner. To decipher the dynamics of the ongoing de-escalation on the Line of Actual Control (LAC), it is essential to comprehend the genesis of the Sino-Indian border dispute, and the typical 'conflict cycle'.

### Genesis of The Boundary Dispute

While the main reason for the Sino-Indian conflict is apparently the unsettled border issue, there are other factors too – including divergent geopolitical interests and ideological dimensions. In Ladakh, India considered the border to be along the Johnson Line of 1865, which included Aksai Chin. The Chinese on the other hand, initially agreed to the Macartney-MacDonald (M-M) line of 1899, which was west of the Johnson Line. Towards 1959, the Chinese began to establish a series of posts west of the M-M Line, usurping large parts of Aksai Chin, as they had constructed the Western Highway from Kashgar to Lhasa through it, and wanted to consolidate the hold on Tibet. In response, India adopted a forward policy by setting up posts opposite the Chinese to check the latter's expansion. In 1960, the Chinese came out with a map laying claim to almost the whole of Aksai Chin. The main reason why Mao went for war in 1962 was to capture the claimed territories in eastern Ladakh, as also to teach India a lesson. During the 1962 war too, DBO, Galwan, and the Pangong Tso-Chushul areas were scenes of major action. By the time the Chinese declared a unilateral ceasefire, the PLA had almost secured the areas up to the 1960 claim line. At the end of the war, the two sides as per mutual understanding withdrew 20 km from the positions last held by the opposing forces. Subsequently, the Line of Actual Control came to denote the line up to which





the troops on the two sides actually exercised control. However, the LAC was neither delineated on the map nor demarcated on the ground. Hence, both India and China have different perceptions on the alignment of LAC. However, over a period of time, Patrolling Points (PPs) were identified on the ground, setting the limits up to which the two sides could patrol. These PPs became reference points, although these are not bang on the LAC but at some distance on the home side. Hence, it is through patrolling boundaries that the Indian and Chinese troops assert their territorial claims. There were 23 areas which were contested by both sides. Given the potential for clashes, **five major agreements were signed between India and China to ensure peace on the border.**

- ❖ The first one on '**Maintenance of Peace and Tranquillity along the LAC**' was signed in 1993, which formed the basis for the subsequent agreements.
- ❖ In 1996, a follow-up agreement on '**Confidence Building Measures**' along the LAC was inked, denouncing use of force or engaging in hostile activities.
- ❖ In the 2005 Agreement, '**standard operating procedures**' were laid down to obviate patrol clashes.
- ❖ The **Agreement of 2012** set out a process for consultation and cooperation.
- ❖ The '**Border Defence Cooperation Agreement**' was signed in 2013 as a sequel to the Depsang intrusion by the PLA. Its emphasis was on enhancing border cooperation and exercising maximum restraint in case of 'face-to-face' situations. Wherever there was a difference of perceptions in disputed areas termed as 'grey zones', both sides could patrol up to the perceived line, but were not to undertake any build-up.

### The Dynamics of De-Escalation

In the Chinese strategic culture, the use of force is considered perfectly legitimate. Since 1949, the People's Republic of China (PRC) has repeatedly resorted to force against neighbouring countries in the pursuit of its expansionist design. It was in Chinese interest to not define the LAC or resolve the border dispute, so as to use it as leverage against India. The Chinese policy was to keep consolidating its position by building infrastructure, alongside the pursuit of the policy of 'nibbling and negotiating' to make tactical gains, employing unconventional means such as using graziers and border militias. Given the scope and scale, the PLA aggression was well planned, and definitely cleared by the Central Military Commission (CMC), **the highest defence body in the Chinese system. In the process, the Chinese violated all of the above agreements, and once again betrayed India's trust. Beijing's strategic aim apparently was to convey a strong message to New Delhi to kowtow to its interests, and to desist from building border infrastructure so as to maintain status quo, which is at present in China's favour. In tactical terms, it was to make tactical gains through large scale intrusions, undertake a build-up in the grey zones, and seek to shift the alignment of the LAC further westward. The PLA's probable objectives in the Pangong Tso area was to dominate the Chushul Bowl; in Galwan to dominate the Durbuk-DBO road; and in DBO, to posture towards the Depsang plateau to pose a threat to Siachen from the east and ensure the security of the Western Highway.** Given India's strong resolve both at the political and military levels alongside favourable world opinion, the Chinese decided to de-escalate, having achieved their initial aim and to obviate further upsurge.

### The Process of De-Escalation

Every conflict has a cycle – it begins with escalation, and is followed by contact, stalemate, de-escalation, resolution, peace-building and reconciliation. The de-escalation process entails talk at multiple levels, and ground action in various stages. As in this case, there have



been three rounds of talks at the Corps Commander level, simultaneous talks between Joint Secretaries, and at the level of Special Representatives. On the ground, the first step in the de-escalation process is of disengagement – i.e., to break the ‘eyeball-to-eyeball’ contact between the opposing troops on the forward line by pulling back to create a buffer zone. This is currently in progress – the forward troops on both sides are reported to have pulled back by about 1.5 km in the area of PP 14 in Galwan, PP 15 southeast of Galwan Valley, and PP 17A in the Gogra-Hot Spring areas. Similar action will be required to be taken in the Pangong Tso fingers area, where the PLA has reportedly intruded up to Finger 4, as also in the PP 10-11 areas in Depsang-DBO. The next step is the pulling back of the troops in the immediate depth, followed by reserve formations in the rear. In the present case, the PLA created a number of intermediate positions, besides staging forward 4 Motorised and 6 Mechanized Divisions. Even fighter aircraft have been positioned at the forward air bases like Ngari and Hotan. India too, has undertaken the requisite build-up. Withdrawal of all these elements will require many more rounds of talks at various levels. Given the serious trust deficit – as the PLA is known to backtrack – each move will need to be confirmed and verified on the ground, and complemented by other surveillance means. Even the distance of pulling back cannot be sacrosanct, as the PLA is in a better position to build up, given the terrain advantage and better infrastructure. India’s **bottom line at the negotiation table is to restore the April 20 status quo ante**. The Chinese are masters at engaging in marathon talks. Maj Gen Liu Lin, commander of the South Xinjiang Military Region (SXMR), who is currently representing the PLA in the Corps Commander-level talks, has been in the area as Division Commander and Deputy of SXMR. He took over the SXMR last year, and will be around for a couple of years, given the PLA’s long command tenures. Well aware of the ground situation, Liu can be expected to indulge in hard bargaining. Therefore, the de-escalation process is set to be in for a long haul, marked by the ‘going back and forth’ phenomenon. India must have its options in place, should the process of de-escalation get stalled.

### Xi’s Mobilisation Order, Months of Planning Preceded Border Moves

- China’s moves into the Galwan Valley, Pangong Lake area and several other spots along the Line of Actual Control (LAC), starting in early May, were likely planned for months and followed a new mobilisation order issued by President Xi Jinping, according to the assessments of Indian officials. Several Chinese incursions across the LAC took place almost simultaneously in locations several hundred kilometres apart – some even hours apart on the same day – leading to skirmishes in early and mid-May. The timing of the incidents suggested a high level of coordination and planning, the officials said. In Galwan Valley and Pangong Lake, the People’s Liberation Army’s (PLA) deployments appeared to have been aimed at pushing India back from the LAC and redrawing it to more closely align with China’s official borders. **A buffer zone that both sides have temporarily agreed to in Galwan has, on China’s insistence, been structured around Beijing’s new LAC perception, shifting the line around 1 km west. In Pangong Lake, China has thinned its presence from its LAC perception at Finger 4 but moved only to Finger 5, still much deeper inside from the Indian claim line at Finger 8 which is about 8 km from Finger 4.** Starting in late January and early February, the PLA began what was viewed as routine mobilisation for annual exercises in Xinjiang, which borders Ladakh. This year, however, in a major departure from the earlier annual exercises, PLA troops that used to train far inside their territory, while border frontier troops remained in forward areas, for the first time moved close to the border. Due to this, there was huge mobilisation since April and the move was very evident, officials stated.



In Ladakh, it broadly aligns with China's perceived border, while in Arunachal Pradesh it broadly aligns with India's perceived border. There are around 11 spots in Ladakh where there are differing perceptions of the LAC. There are also areas where the LAC differs from China's claimed border, and the Galwan Valley is one of them. While China's official maps show the border passing through the bend in the Galwan river where it turns sharply to meet the Shyok river, known as the Y-nallah, the LAC lies around 1 km east of it. India has been routinely patrolling up to Patrolling Point 14, which is a few hundred metres east of the bend, and was the site of the June 15 clash, which took place around 1 km inside India.

### 'Exaggerated' Claim

The LAC is broadly in alignment with the coordinates China provided India in 1960 regarding its territorial claims in Galwan, although Chinese maps now show its border further west, at the bend, which China calls the 'estuary'. Since May, China has referred to the LAC as running at the estuary in line with its territorial claims, which India has said was an "exaggerated and untenable" claim. Starting in late April, China began objecting to India crossing the Y-nallah and reaching PP14.

### The Spectre Of U.S. Sanctions

→ The 'Countering America's Adversaries Through Sanctions Act' (CAATSA) was passed by a Republican-controlled U.S. Congress in July 2017, in part to tighten the screws on President Donald Trump's ability to lift sanctions on Russia or alter the U.S.-Russia dynamic significantly without Congressional review. Mr. Trump's 2016 presidential campaign was at the time being scrutinised for any Russian links. CAATSA's stated purpose was to provide "congressional review and to counter aggression by the Governments of Iran, the Russian Federation, and North Korea, and for other purposes". Mr. Trump reluctantly signed CAATSA into law in August 2017, calling it "seriously flawed" because it "encroaches on the executive branch's authority to negotiate". The sanctions against Russia, as per Congress, were for its interference in the 2016 U.S. elections, its military aggression against Ukraine, including the annexation of Crimea, as well as for human rights violations. Section 231 of the law provides for secondary sanctions on persons that engage in "significant transactions" with Russian defence and intelligence sectors. In September 2018, the U.S. invoked secondary CAATSA sanctions on a Chinese military department and its head for the purchase of 10 SU-35 Russian combat aircraft in 2017 and S-400 equipment in 2018.

### CAATSA and India

India and the U.S. have had a growing defence relationship — from "near zero" in U.S. arms sales to India in 2008 to \$15 billion in 2019, as per the State Department. India was designated a "Major Defence Partner" of the U.S. in 2016 and it was granted Strategic Trade Authorization tier 1 status in 2018. These designations allowed India easier access to sensitive U.S. defence technology. With this context in mind, then Defense Secretary Jim Mattis, joined by lawmakers from both parties who favoured a close U.S.-India relationship, made a strong case on Capitol Hill for a CAATSA waiver for countries like India (and also Vietnam and Indonesia), which had historically bought Russian arms but were now buying more U.S. arms. At a Congressional hearing in May 2018, Secretary of State Mike Pompeo asked lawmakers to ensure "sanctions don't hit folks that were not intended to be harmed by these sanctions". Consequently, in the summer of 2018, the U.S. Congress passed a CAATSA waiver as part of the John S. McCain National Defence Authorization Act (NDAA) for fiscal year 2019. For it to apply, Congress required the President to certify that the waiver was,



among other things, in the U.S.'s national security interest, the entity in question was reducing its reliance on Russian weapons and that it was cooperating with the U.S. on security matters critical to America's security interests. In the months since then, the U.S. administration, across departments, has reiterated that CAATSA waiver language is not country-specific and that India should not rely on getting a waiver. These comments were made repeatedly in the context of India's October 2018 decision to purchase a \$5.4 billion long-range surface-to-air missile defence shield from Russia, the S-400. Last week, the U.S. put out the same message after the Defence Acquisition Council approved the procurement of 21 MiG-29 fighter jets for the Indian Air Force (IAF), an upgrade for 59 of these and the acquisition of 12 Su-30 MKI jets – with an estimated bill of ₹18,148 crore.

### Example of Turkey

CAATSA can be understood more by examining the case of Turkey. "You can look at the very serious conversation that's taking place with our NATO partner Turkey. And the same concerns will apply should India proceed with an S-400 purchase," a State Department official told media in May 2019. The U.S. had expelled Turkey from its F-35 fighter jet programme following Turkey's receipt of the first shipments of the S-400 in July 2019, over American concerns that system might compromise its F-35 jets. Turkish pilots are no longer allowed to train on the F-35 and the NDAA for fiscal year 2020 prohibited the sale of these jets to Turkey. In December 2019, Chris Van Hollen, a Senate Democrat, and Senate Republican and Trump ally Lindsay Graham urged Mr. Pompeo to invoke CAATSA against Turkey. That has not happened yet.

### India Should Believe in The EU (Stefania Benaglia - Associate Researcher at The Centre For European Policy Studies)

→ In today's fragmented world, the power of any aspiring global player depends on the number and quality of its bilateral and multilateral relationships. In which partner should India invest? The European Union (EU) is one. The EU and India have much in common. Both aim to enhance strategic autonomy and their global standing. Diversifying strategic value chains is also a common interest, as is the urgent need to address climate change. The EU and India can support each other in these endeavours. On purely economic terms, the EU is India's first trading partner and the biggest foreign investor, with €67.7 billion worth of investments made in 2018, equal to 22% of total FDI inflows. But there is still room for improvement – especially when compared to EU investments in China which, in the same year, amounted to €175.3 billion. Enhanced business cooperation can help both the EU and India diversify their strategic value chains and reduce economic dependency – notably on China. India could succeed in attracting EU investment that might be moving out of China, but to do so, it must address the mutual trust deficit. Facilitating people's mobility and connectivity is a good way to improve mutual understanding and create opportunities for innovation and growth.

### Talks on FTA

The EU and India must also tackle the elephant in the room: the stagnating Free Trade Agreement (FTA) negotiations. A new study from the European Parliament assesses the potential impact of an EU-India trade agreement at between €8 billion and €8.5 billion gains from increased trade for both sides, with a more significant increase of trade gains likely to flow to India. The study also refers to additional potential gains from enhanced coordination on the provision of global public goods, such as environmental standards. On climate change,





the EU is building on its ambitious target to render the continent carbon-emission neutral by 2050, through its new industrial strategy, the Green Deal. “Investing in fossil fuel-driven recovery is a wasted opportunity, and we only have one chance to make it right”, says the Executive Vice President of the European Commission, Frans Timmermans. Should both the EU and India succeed in transforming into carbon-neutral economies by 2050, we all would gain from the investment. In geopolitical terms, India finds itself facing increasingly restive, powerful rivals. The Indo-Pacific region is increasingly the focus of attention, so India should capitalise on its geopolitical leverage there. **Stronger cooperation with like-minded, democratic powers can support this effort, especially towards assertive competitors like China.** Even India’s strongest bilateral relations with individual EU member states do not come close to the potential of dealing effectively with the EU as a whole. New Delhi must learn how to maximise benefit from this strategic partnership.

### Should Kuwait’s Draft Expat Bill Worry India?

→ The Kuwait National Assembly (NA) is discussing several proposals to reduce the share of foreigners in the country’s population, which is now pegged at 70%. There are many proposals under consideration, and one is to put country caps on the number of emigrants in the country. In this, the plan is that Indians should not exceed 15% of Kuwaiti citizens, while Egyptians, Bangladeshis and Filipinos among others must not each exceed 10% of Kuwaitis. The head of the Parliamentary Human Resources Development Committee, MP Khalil Al-Saleh, is pushing for a drastic reduction in the number of expatriates. Assembly Speaker Marzouq Al-Ghanim and the government believe that such drastic measures are impossible, though everyone appears to agree in principle that the proportion of foreigners in the population must be reduced. The Speaker has said this week that he and other MPs would submit a new draft law aimed at binding the government to gradually reduce the number of expats, according to Kuwait Times. Kuwait’s Deputy Prime Minister and Minister Of Interior and State For Cabinet Affairs Anas Al-Saleh had also promised last week to send a draft law to the NA within two weeks.

### Where Is the Proposal Headed?

Kuwait’s Prime Minister Sheikh Sabah Al-Khaled Al-Hamad Al-Sabah had said, “the ideal population structure is to have 70 per cent Kuwaitis and 30 per cent non-Kuwaitis”. Said Reaven D’Souza Managing Editor, The Times, Kuwait, currently, it is the other way around. Such a turnaround will require a drastic and impossible reduction in the country’s total population and the concerns about the proposal are overhyped. “It is difficult to foresee any law on this being made during the current term of the NA. If and when it is made, there could be measures to gradually reduce the proportion of foreigners. The concern that there could be mass deportation has no basis.” The full draft of the proposal has not been published.

### Why Has This Proposal Come Up in The Middle of a Pandemic?

Kuwaitis are a minority in Kuwait. Of the total population of 4.3 million, Kuwaitis are 1.3 million, which is less than one third. There are more Indians than Kuwaitis in Kuwait – 1.45 million, according to one account. However, statistics available on the website of the Indian Embassy in Kuwait puts the number at above a million. If Indians cannot exceed 15% of Kuwaitis, the cap would be around two lakhs. Migration studies experts warn that calculations regarding the potential numbers that could be affected by the law are based on estimates which are various. “Gulf countries are not very open about population data because citizens are a minority,” an Indian working with a Gulf Cooperation Council



government said. This has been a lingering concern in all GCC countries – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates – but the ongoing COVID-19 pandemic renewed the debate. Said Ginu Zacharia Oommen, who conducted a post-doctoral field study among Indians in Kuwait, “In the past, high unemployment among the natives, economic crisis and demographic imbalance had triggered movement for nationalisation of the workforce. Arab Spring added a new concern of political stability among the regimes. COVID-19 exposed the huge concentration of certain populations among the expatriates, and the resulting imbalances.” “The current debate in the context of COVID-19 must be distinguished from the nationalisation debate. This one is about diversification of the expatriate community,” the official cited above said.

### What Is the Profile of The Indian Community in Kuwait?

According to the Indian Embassy in Kuwait, besides the million-plus who are in the country as legal workforce, there are about 10,000 Indian nationals who have overstayed their visas. The Indian community in Kuwait has been growing at 5-6% per annum until the economic crisis triggered by the COVID-19 pandemic put an abrupt stop to immigration to the country. Indians are the largest expatriate community and Egyptians are the second largest. Three fourths, or about 7.5 lakh Indians are males as against only 2.5 lakh females. It is estimated that 5.23 lakh Indians are deployed in the private sector, as construction workers, technicians, engineers, doctors, chartered accountants, IT experts, etc. About 1.16 lakh are dependents and there are about 60,000 Indian students studying in 23 Indian schools in the country; about 3.27 lakh are domestic workers (i.e. drivers, gardeners, cleaners, nannies, cooks and housemaids) who are not allowed to bring their spouses/children into the country. About 28,000 Indians work for the Kuwaiti government in various jobs such as nurses, engineers in national oil companies, and a few as scientists. In 2018, India received nearly \$4.8 billion from Kuwait as remittances.

### What Has India's Response Been?

India's Ministry of External Affairs spokesman Anurag Srivastava said the Foreign Ministers of India and Kuwait discussed the issue over the phone. “We share excellent bilateral ties which are deeply rooted in people-to-people linkages. The Indian community in Kuwait is well-regarded in Kuwait and elsewhere in the Gulf region and their contributions are well recognised. We have shared our expectations that Kuwait's decision will take into account,” Mr. Srivastava said.

### What Happens Now?

Around eight million Indians work in the GCC countries. Around 2.1 million of them are from one State – Kerala. Other major contributors to the Indian expatriate communities in GCC countries are Uttar Pradesh, Tamil Nadu, Bihar, West Bengal, Punjab and Rajasthan. A renewed push for nationalisation of jobs and diversification of expatriates is possible. However, the structure of the GCC economies makes any dramatic change unlikely. Nationalisation of government jobs can be achieved to a significant extent, but the private sector will continue to draw the majority of its workforce from abroad. “The costs associated with hiring a citizen are too prohibitive for the private sector, which will leave the country if it is forced to,” an official admitted. There is a social stratification in GCC countries that has natives at the top, followed by white professionals from the U.S. and Europe, immigrants from other Arab countries and then others including workers from India. “There is a division of labour among these classes and that cannot be changed in a hurry. Replacement of Indian



or Asian workers on a large scale is not possible, and **native Arabs will not do certain categories of work**,” said the official.

## The Origin and Evolution of India’s Military Ties with Nepal

→ On July 10, Havildar Sambur Gurung (36), a soldier from Nepal serving in the Gurkha regiment, was killed in cross-border firing along the Line of Control in Nowshera sector of Jammu. Coming amidst the chill in the Indo-Nepal ties, Gurung’s supreme sacrifice is a reminder about the strong ties between the Indian and Nepalese armed forces. Soldiers from Nepal form a significant part of the Indian Army’s legendary Gurkha regiment. Here is a brief explainer on the origin and evolution of these ties:

### The Origin of India’s Military Ties with Nepal

Former Army Chief Gen VP Malik (Retd), who has dedicated a chapter to Nepal in his book ‘India’s Military Conflicts & Diplomacy’, says India’s military connection with the Himalayan country goes back to the **reign of Maharaja Ranjit Singh whose army in Lahore enlisted Nepalese soldiers called Lahure or soldiers of fortune**. British India raised the first battalion of the Gurkha Regiment as the **Nasiri regiment** on April 24, 1815. By the time the First World War started, there were 10 Gurkha regiments in the British Indian Army. When India got freedom, these regiments were divided between the British and Indian armies as per the Britain–India–Nepal Tripartite Agreement signed in November 1947. Six Gurkha regiments with a lakh-odd soldier came to India, which went on to raise another regiment called 11 Gurkha Rifles to accommodate soldiers of 7th Gurkha Rifles and the 10th Gurkha Rifles, who chose not to transfer to the British Army.

### Can Nepali Citizens Join the Indian Army?

Yes, any Nepali can join the Indian Army, both as a jawan and as an officer. A citizen of Nepal can take the National Defence Academy or Combined Defence Services exams and join the Indian Army as an officer. Col Lalit Rai, who received a Vir Chakra for the bravery of his battalion, the 1/11 Gurkha Rifles, during the Kargil war, is one such officer of Nepalese descent. **The Nepalese army also sends its officers for training to India’s military academies and combat colleges. The Gurkha regiments, which have 35 battalions, recruit a large number of troops from Nepal.** Lt Gen DS Hooda (Retd), the Northern Army commander during the surgical strikes of 2016, who was commissioned into 4th Gurkhas, vouches for the strong inter-personal ties between the soldiers and officers of the two countries due to the Gurkha regiments. “Every year, our battalions commission a tour of Nepal. Young officers from India trek to traditional recruiting areas in the rugged Himalayas, meet the locals, and often live in villages with ex-servicemen.” **Both the officers and the troops are fiercely proud of their war cry ‘Jai Maha Kali, Ayo Gorkhali’, the khukri, and their command over Gurkhali language.** Lt Gen Depinder Singh (Retd), former chief of the Indian Peace Keeping Force (IPKF), and an officer of the Gurkha regiment, recalls how **in the initial years after Independence, any officer who could not master Gurkhali in three months was shifted to another regiment.**

### Do the Soldiers from Nepal Enjoy the Same Rights as The Indian Troops?

Yes, they enjoy the same benefits as the India troops both during service and after retirement. They get the same medical facilities as the Indian soldiers, and often medical teams from the Indian Army tour Nepal. Unlike the British, who started giving the Nepalese soldiers pension only a few years ago, the Indian Army has never discriminated against the Nepalese



soldiers, who can avail of healthcare facilities in India as well. The Indian Army also runs welfare projects in Nepal villages, including small water and power projects.

### Is the Indian Chief of Army Staff the Honorary Chief of The Nepalese Army?

Yes, this convention dates back to 1972 when then Field Marshal Sam Manekshaw, a Gurkha regiment officer, fondly called Sam Bahadur by his troops, was made the honorary chief of the Nepalese army. Ever since, the Army chief of India is the honorary chief of the Nepalese army and vice-versa.

### Why Pakistan Govt Must Not Stall Construction of a Krishna Temple In Islamabad

→ The “project” in question is the construction of a Krishna temple – the first-ever in Islamabad. “In 2018, an allotted piece of land for a Shri Krishna Mandir in Islamabad was attacked and occupied by clerical protesters saying a Hindu structure could not be built in a city named after Islam. In June this year, under the government of Imran Khan, the project was restarted with a first funding instalment of \$1.3 million”. But the “protesters” reappeared, egged on by the big seminaries in Karachi, saying Islam would be insulted by it, and disappointing Lal Chand Malhi, a Hindu parliamentarian and member of the ruling party, the Pakistan Tehreek-e-Insaf (PTI). Malhi had thought the Krishna temple would clean up the image of an ideological state guilty of maltreating its minorities. “Sadly, Pakistan Muslim League (Quaid-e- Azam) – a key ally of the ruling PTI – joined the frog-chorus of the pious and forced another halt to the construction of the first-ever Hindu temple in Islamabad,” he writes. Even so, the Capital Development Authority (CDA) had transferred ownership of the plot to the Islamabad Hindu Panchayat; and a small ground-breaking ceremony for the temple construction had taken place at the end of June, attended by the federal minister for religious affairs and representatives of the Hindu community. “Pakistan must recall the golden age when Muslims and Hindus benefited from each other,” says Ahmed, who gives several examples showing that Muslims had treated Hindus with great respect in history.

### ‘Kapoor Haveli’ Faces Demolition Threat

→ The historic ancestral home of the Hindi film industry’s showman, late Raj Kapoor, in Pakistan’s Peshawar city is facing demolition threat as the current owner of the house is adamant on building a commercial complex on the site, which is worth crores. In 2018, the Pakistan government had decided to convert the ‘Kapoor haveli’ in Qissa Khwani Bazar in Peshawar in Khyber Pakhtunkhwa province into a museum, heeding to a request by Raj Kapoor’s son Rishi Kapoor. Rishi Kapoor died recently in Mumbai.

### Poor Condition

The ‘haveli’ has turned into a ghost building, residents of the area said. Due to its dilapidated condition, the building can collapse anytime, they said. The state of the building is deteriorating with each passing day due to ecological impacts, torrential rains, earthquakes and wind storms. The ‘haveli’ is currently owned by Haji Muhammad Israr, a wealthy jeweller in the city. The provincial government wanted to buy it, keeping in view its historic importance and conserve it in its original shape for tourists. Mr. Israr, however, wants to demolish the building and construct a new commercial building at this prime location. There are reports that the provincial government has failed to convert the building into a museum due to differences with its owner over its price. Mr. Israr has denied that he has had any issue with the government over the price of the property, estimated to be over Pakistani Rs. 5 crores.

Shatabdi Tower, Sakchi, Jamshedpur





He says he simply wanted to demolish it and construct a huge commercial market at the site. "It is a matter of concern that the 'Kapoor haveli' which we consider as the pride of our city is in dilapidated condition and is fast heading to the disappearance because of being ignored," said Mujeeb-ur-Rehman, a resident of Dhaki Nalbandi where the palatial house is located. Shakeel Waheedullah, Secretary Cultural Heritage Council Khyber Pakhtunkhwa, expressed regret over the dilapidated condition of the house. The 'Kapoor haveli' was built by Basheswarnath Kapoor, the grandfather of Hindi film industry pioneer Prithviraj Kapoor and father of Raj Kapoor. The Kapoor family, originally from Peshawar, migrated to India after the Partition in 1947.

## What Forecast of Shrinking Populations Means for India And World

→ A new analysis published in The Lancet has projected that the world population will peak much earlier than previously estimated. It projects the peak at 9.73 billion in 2064, which is 36 years earlier than the 11 billion peaks projected for 2100 by last year's UN report World Population Prospects. For 2100, the new report projects a decline to 8.79 billion from the 2064 peak. For India, the report projects a peak population of 1.6 billion in 2048, up from 1.38 billion in 2017. By 2100, the population is projected to decline by 32% to 1.09 billion. The study, led by a team of researchers at University of Washington's Institute for Health Metrics and Evaluation (IHME), analysed population trends in 195 countries. It used data from the Global Burden of Disease Study 2017 to model future population in various scenarios as a function of fertility, migration, and mortality rates.

### The Broad Takeaways

IHME director Dr Christopher Murray, who led the research, said the forecasts highlight huge challenges to the economic growth of a shrinking workforce, the high burden on health and social support systems of an ageing population. The paper suggests that continued trends in female educational attainment and access to contraception will hasten declines in fertility and slow population growth. For a generation to exactly replace itself, the replacement-level total fertility rate (TFR) is taken to be 2.1, representing the average number of children a woman would need to have. In the study, the global TFR is predicted to steadily decline from 2.37 in 2017 to 1.66 in 2100. The TFR is projected to fall below 2.1 in 183 countries. In 23 countries including Japan, Thailand, Italy and Spain, it is projected to shrink by more than 50%.

Key numbers: India

"The total population will increase and peak just before mid-century, followed by significant declines. Similarly, the working-age population will also increase in the first half of the century, and then decline in the second half. These declines are driven by fertility rates, which we forecast will continue declining over the next few decades," Vollset said.

India's TFR was already below 2.1 in 2019. The TFR is projected to have a continue a steep decline until about 2040, reaching 1.29 in 2100.

- ❖ The number of working-age adults (20–64 years) in India is projected to fall from around 748 million in 2017 to around 578 million in 2100. However, this will be the largest working-age population in the world by 2100. In the mid-2020s, India is expected to surpass China's workforce population (950 million in 2017, and 357 million in 2100).
- ❖ From 2017 to 2100, India is projected to rise up the list of countries with the largest GDP, from 7th to 3rd.



- ❖ India is projected to have the second largest net immigration in 2100, with an estimated half a million more people immigrating to India in 2100 than emigrating out.
- ❖ Among the 10 countries with the largest populations in 2017 or 2100, India is projected to have one of the lowest life expectancies (79.3 years in 2100, up from 69.1 in 2017).

### The Road Ahead

In a commentary on the research, Ibrahim Abubakar of University College London's Institute for Global Health, stresses the need for countries to address the **potential catastrophic impact of a shrinking working-age population**, and suggests measures such as **incentives to increase TFR**, and using artificial intelligence as a path towards self-sufficiency. "Wealthy countries such as the UK and the USA could counteract the impact of these changes through net migration of working-age adults from the countries with growing populations. Unfortunately, the election of nationalist rulers, associated decline in multilateralism, and increasing hostility to migration makes this option unlikely in the short term," Abubakar wrote. Professor Usha Ram from the Department of Public Health and Mortality Studies at the International Institute for Population Sciences, Mumbai, who was not involved in the study, too discussed the impact of migration when contacted. "Migration, rather liberal migration policies... could be a solution but not permanent. However, what is more important is to look to invest in **technological advancements that can compensate for the human shortages**. For example, Japan has managed the needs of its greying population with virtually no emphasis on migration," she said. She said the effect of fertility decline on women's reproductive health rights has to be accompanied by greater economic independence. "This would allow women to negotiate with the system on their own terms and for better support services as well."

### National

### Why A Melting French Glacier Has Thrown Up Decades-Old Indian Newspapers

- ➔ The Mont Blanc glacier in the French Alps yields more and more secrets as it melts – this time a clutch of newspapers with banner headlines from when Indira Gandhi became India's first and so far, only woman Prime Minister in 1966. The copies of Indian newspapers The Hindu, National Herald and The Statesman were probably aboard an Air India Boeing 707 that crashed on the mountain on January 24, 1966, claiming 177 lives. "Indira Gandhi to be Prime Minister: 186 vote majority over Desai in leadership contest" – read the main headline on a copy of The Hindu that was found along with other newspapers. The trove was found last week by Timothee Mottin, who runs a cafe-restaurant, La Cabane du Cerro, perched at an altitude of 1,350 m near the Chamonix skiing hub. Once the papers have dried out, they will join a growing collection of found items from the crash that Mr. Mottin has put on display at the Cabane du Cerro. The most stunning find occurred in 2013, that of a box of precious stones – emeralds, sapphires and rubies worth between \$1,45,000-\$2,75,000 – thought to have come from the 1966 crash.
- ➔ The newspapers are among the remains of Air India Flight 101, a Boeing 707 plane that on January 24, 1966, crashed into Mont Blanc ending the lives of all 177 passengers and crew. Among the 177 dead was Homi Bhabha, the founding leader of India's nuclear programme. Flight 101 is not the only Indian plane that met its end at Mont Blanc, Europe's third-highest peak. Sixteen years before that, Air India Flight 245 had crashed at the same spot in



November 1950, killing all 48 on board. While the debris from the two catastrophes remained buried for decades in the high mountains, recent Alpine melting is causing the remains to surface; with many discoveries coming to the fore in the past decade.

### The Ill-Fated Air India Flights

The first, Air India Flight 245 – also called the ‘**Malabar Princess**’ – was on a Bombay-Istanbul-Geneva-London route. Sixteen years after the first crash, Air India Flight 101, named ‘**Kanchenjunga**’ after the Himalayan peak, also met its end only 200 metres away from the previous crash site. **The flight, a Boeing 707, was flying from Bombay to London, with stops at Delhi, Beirut, and Geneva. On the morning of January 24, 1966, while flying from Beirut to Geneva, a miscommunication between Captain JT D’Souza and Geneva Air Traffic Control caused the plane to crash into Mont Blanc. This led to the loss of all 177 on board, including the top scientist Bhabha. After both the 1950 and 1966 crashes, severe weather conditions prevented immediate rescue efforts.**

### Discoveries at Mont Blanc

The Mont Blanc area, which has lost a quarter of its glacial ice due to climate change, has in recent years exposed remains of frozen hikers missing for decades. Since 2012, many finds related to both the Air India crashes have emerged from the melting ice caps. In 2012, a bag of diplomatic mail, stamped ‘On Indian Government Service, Diplomatic Mail, Ministry of External Affairs’, was recovered, while a year later, a French climber found a metal box containing the Air India logo containing emeralds, sapphires and rubies worth between GBP 117,000 and GBP 230,000. In 2017, some human remains believed to be from the two flights were discovered.

### Homi Bhabha’s Death

**Conspiracy theories have called Bhabha’s death – who barely two years before the crash had publicly claimed that India could develop its own nuclear device in less than 18 months – a plot against the country.** According to a report in The Diplomat, the second Air India crash led to a French inquiry commission report in 1967, whose conclusions were accepted by India’s Civil Aviation Department. The flight’s black box was never recovered. As per the report, the flight was carrying classified documents containing Indian assessments of Chinese defences and nuclear weapons. The “Top Secret” documents were discovered in 2016 from the melting Bosse glacier near Mont Blanc, it says. After the accident, another legendary scientist, Vikram Sarabhai, succeeded Bhabha at the Indian Atomic Energy Commission. Subsequently, India tested its first nuclear bomb at Pokhran in 1974.

## The Life, Death and Resurrection of Memory (The Writer Teaches at The Indian Institute of Science, Bengaluru)

### → Gandhi Under Fire

Sadly, popular ire has now claimed what could be its most undeserved victim – Mahatma Gandhi. His statues have been vandalised in Johannesburg, Washington and London, the last two as part of the ongoing #BlackLivesMatter campaign. There is a demand that the one in Leicester be removed, while in Ghana, a statue presented to the University of Ghana in Accra has been taken off its plinth and stashed away. The last is a mystery. Ghana University’s decision to keep a statue of Gandhi, presented by the President of India, on its premises was

Shatabdi Tower, Sakchi, Jamshedpur



consciously taken. As its then Vice-Chancellor, Professor Ernest Aryeetey, recollected, a consensus had been reached within the university community that Gandhi 's early racist ideas had given way to a recognition of the equality of all races, and that placing his statue in the university premises was perfectly in order. While some African thinkers have initiated fresh critiques of Gandhi and his role as a possible proto-racist or colonial collaborator during his early days in South Africa, the writings of Marxist historian Perry Anderson and writer Arundhati Roy, who have selectively interpreted his life and work to cast him as relentlessly racist and casteist despite the existence of evidence to the contrary, have also contributed to this. It has coalesced now into the demand to remove his statues along with those of people whose racism has never been in doubt. It is true that Gandhi made derogatory references to black people while in South Africa. He protested being imprisoned alongside Africans (employing the racist term 'kaffirs' prevalent at the time) and wrote a letter to authorities demanding a separate cell. However, the fact that his views changed, not after he left South Africa but while he was still there, a full seven years before he returned to India, must be acknowledged, as indeed Joseph Lelyveld has in his sensitive yet controversial biography of Gandhi, *Great Soul: Mahatma Gandhi and his Struggle with India* (2011). He writes that Gandhi, speaking at the YMCA in Johannesburg in 1908, "makes it plain that he is speaking of Africans as well as Indians when he states, 'We can hardly think of South Africa without Africans', and that 'they are able-bodied and intelligent', 'entitled to justice' and what he calls 'a fair field'; thus "implicitly acknowledging for the first time that Indians and Africans came into the colonial labour market as equals". There is enough material in Gandhi's writings and speeches to show how he evolved from his early positions to learn and grow as a non-racist thinker as well as to record his deep appreciation for the black cause in the U.S. In his essay, 'Gandhi's West and the West's Gandhi', Professor Vinay Lal of UCLA talks of Gandhi's sustained engagements with black leaders from the U.S. over the years. In fact, there is no doubt that Gandhi inspired black people in America. Lal points out that Howard Thurman led the first African-American delegation to India in 1936 to meet and converse with Gandhi. This was followed by the visits of Benjamin E. Mays of Morehouse College the same year and of Mordecai Johnson, President of Howard College, in 1947. These men were, according to Lal, among many other prominent African-American clergymen, educators and public figures who succeeded in placing before the public a narrative of the freedom struggle in India; and who followed Gandhi's Satyagraha campaigns, fasts, calls for mass mobilisation, and jail terms with unstinting interest.

### [The Ambedkar Connects](#)

In the same essay, Lal also writes of how, in response to repeated requests from the famous black intellectual, W.E.B. Du Bois, to contribute to his journal *Crisis*, Gandhi sent across a "little love message" for African Americans: "Let not the 12 million Negroes be ashamed of the fact that they are the grand-children of slaves. There is no dishonour in being slaves. There is dishonour in being slave-owners." In today's context, Gandhi is best understood through his relationship with Ambedkar. Their acrimonious interactions masked extremely productive outcomes, none more so than the Poona Pact of 1932. At that time, and even later, Ambedkar saw the Poona Pact as a successful blackmail manoeuvre by Gandhi. The Pact's positive impact, however, became obvious only when the Indian constitution – Ambedkar was Chairman of the Drafting Committee – was adopted, giving India's historically marginalised and discriminated-against sections a huge political voice. **Today, 84 seats in the Lok Sabha are reserved for the Scheduled Castes and 47 for the Scheduled Tribes.** That an affirmative action programme, which in range and magnitude is unsurpassed in the world,





matched such political empowerment makes the Poona Pact a foundational document for the empowerment of the underprivileged and a model of its kind.

## Why Have Questions Been Raised About the Move for Delimitation in The Northeast?

- The Election Commission's (EC) former legal eagle, SK Mendiratta, has red-flagged the Union government's order setting up a Delimitation Commission for Arunachal Pradesh, Manipur, Assam and Nagaland, calling it "unconstitutional" and "illegal". When delimitation last took place in the rest of the country in 2002-08, these states had been left out.

### What Is Delimitation and Why Is It Needed?

Delimitation is the act of redrawing boundaries of Lok Sabha and Assembly seats to represent changes in population. In this process, the number of seats allocated to a state may also change. The objective is to provide equal representation for equal population segments, and a fair division of geographical areas, so that no political party has an advantage. The Delimitation Commission's orders cannot be questioned before any court.

### How Often Has Delimitation Been Done?

Delimitation is done on the basis of the preceding Census. The first such exercise in 1950-51 was carried out by the President, with the help of the Election Commission. Following the Delimitation Commission Act in 1952, all such exercises have been conducted by Delimitation Commissions – set up in 1952, 1963, 1973 and 2002. There was no delimitation after the 1981 and 1991 Censuses. This was a fallout of the provision that the ratio between the number of Lok Sabha seats in a state and the population of the state is, as far as practicable, the same for all states. Although unintended, this meant that states that took little interest in population control could end up with more seats in Parliament, while the southern states that promoted family planning could end up with fewer seats. Amid these concerns, the Constitution was amended in 1976 to suspend delimitation until 2001. Another amendment extended the freeze on the number of seats until 2026, by when the country was projected to achieve a uniform population growth rate. So, the last delimitation exercise between July 2002 and March 31, 2008, based on the 2001 Census, only readjusted boundaries of existing Lok Sabha and Assembly seats and reworked the number of reserved seats.

### Why Were These Four States Left Out In 2002-08?

In Arunachal Pradesh, Assam, Manipur and Nagaland, various organisations had moved the Gauhati High Court against the 2002-08 exercise, challenging the use of the 2001 Census for reference. From Assam, an all-party delegation met then Home Minister Shivraj Patil pleading that delimitation be called off because the National Register of Citizens (NRC) was yet to be updated. The Delimitation Act was amended in 2008, and on February 8, 2008, Presidential orders were issued to defer delimitation in these four states.

### So, When and Why Did the Government Decide to Resume Delimitation for Arunachal Pradesh, Assam, Manipur And Nagaland?

On February 28 this year, President Ram Nath Kovind cleared the decks for the resumption of the delimitation exercise in the four states by cancelling the order of February 8, 2008. The fresh order issued by the Legislative Department of the Law Ministry said "it appears that the



circumstances that led to the deferring of the delimitation exercise” in Assam, Manipur, Arunachal Pradesh and Nagaland “have ceased to exist and that the delimitation of the constituencies as envisaged under the Delimitation Act, 2002 could be carried out now”. It noted that there had been a reduction in insurgency incidents, making the situation conducive for carrying out delimitation. Subsequently, on March 6, the Law Ministry notified the Delimitation Commission for the four northeast states and Jammu and Kashmir, which was also left out in 2002-08. Former Supreme Court Judge Justice Ranjana Prakash Desai is its chairperson, and Election Commissioner Sushil Chandra is the EC’s representative on the panel.

### [Will Delimitation Change the Number of Seats in These States?](#)

Not in the four Northeast states. There is a freeze until 2026 on the number of Lok Sabha and Assembly seats in any state. Delimitation will only redraw the boundaries of seats in each state, and can rework the number of reserved seats for SCs and STs. However, because of exceptional past circumstances, Jammu & Kashmir’s Assembly seats will now increase from 107 to 114, which is expected to increase Jammu region’s representation.

### [Why Has EC’s Former Legal Advisor Called the New Delimitation Commission “Illegal” And “Unconstitutional”?](#)

According to SK Mendiratta, the Law Ministry’s notification of March 6 violates the Representation of the People Act 1950. In 2008, after the President deferred delimitation in Arunachal Pradesh, Assam, Manipur and Nagaland, the Parliament decided that instead of creating another Delimitation Commission in future for the limited purpose of redrawing seat boundaries in the four north-eastern states, the exercise there would be carried out by the EC. The Representation of the People Act 1950 was amended, and Section 8A was introduced for this purpose. The Parliament was guided by the fact that there is precedence of the EC being vested with the authority to redraw boundaries of constituencies – including when Delhi was delimited into 70 seats in 1991-92, and Uttarakhand into 70 seats in 2000. Mendiratta wrote a letter to the three election commissioners on June 4 pointing out the contradiction between the Law Ministry’s notification of March 6 and Section 8A of the RP Act 1950. Since the RP Act 1950 clearly states that delimitation in the four north-eastern states, when held, would fall within the EC’s remit, the Centre should not have notified a separate Delimitation Commission for this purpose, Mendiratta wrote in his letter. Hence, any delimitation exercise in Arunachal, Manipur, Assam and Nagaland by the new Delimitation Commission would be “declared void by the courts” and, subsequently, result in “wastage of huge precious public funds”, he told the three election commissioners.

### [Who Is SK Mendiratta And Why Does His Opinion Matter in This Case?](#)

Mendiratta was EC’s legal advisor for over 50 years. He left the poll panel in 2018. He is considered an expert on delimitation and had been an adviser with the 2002 Delimitation Commission, set up under Justice Kuldeep Singh. Mendiratta had also assisted the EC in delimiting Uttarakhand into 70 constituencies under the UP-Reorganisation Act, 2000. His voice is important, and carries a lot of weight.



## Is EC empowered to delay Bihar elections due to Covid-19?

- Political parties are increasingly voicing concerns over holding elections in Bihar amid a pandemic. This week, Lok Janshakti Party (LJP) president Chirag Paswan echoed Rashtriya Janata Dal leader Tejashwi Yadav's demand to postpone state polls till the COVID19 outbreak is contained.

### Is the EC Empowered to Delay Elections at Will?

The Election Commission (EC) is mandated under law to hold elections at any time within six months before the five-year term of the Lok Sabha or Legislative Assembly expires. The polls are timed in a way that the new Assembly or Lok Sabha is in place on the day of the dissolution of the outgoing House. For instance, in the case of Bihar, the EC should normally conduct Legislative Assembly elections before the end of its time on November 29. In the case of early dissolution, EC has to ensure, as far as possible, a new Lok Sabha or Assembly is in place within six months of the dissolution. An election once called usually proceeds as per schedule. However, in some exceptional cases, the process can be postponed or even scrapped after its announcement under extraordinary circumstances. Under Section 153 of the Representation of the People Act, the poll panel can "extend the time" for completing an election, but such extension should not go beyond the date of the normal dissolution of the Lok Sabha or the Assembly. In 1991, the Commission, under this provision read with Article 324 of the Constitution, postponed the ongoing parliamentary elections for three weeks after Rajiv Gandhi's assassination during his campaign in Tamil Nadu. As recently as March this year, elections to 18 Rajya Sabha seats were postponed by the Commission due to the COVID19 pandemic.

### So, Can EC Postpone Elections in Bihar Under Section 153 Of the RP Act?

Powers under Section 153 can be exercised only after an election schedule has been notified. If the EC wants to postpone Bihar elections, it will have to be done through its extraordinary powers under Article 324. The Commission will have to inform the government of its inability to hold polls on time. The government and the President will then decide the future course – to impose President's Rule or allow the incumbent Chief Minister to continue for six months.

### Under What Circumstances Can the EC Decide to Postpone an Election?

There is no specific legal provision that specifies the circumstances under which elections can be deferred, according to EC's former legal advisor SK Mendiratta. "Law and order, natural calamities like earthquake and floods, or any other compelling circumstances that are beyond EC's control would be guiding factors for the Commission to take a decision in the matter," he told The Indian Express. The decision on postponement is usually made after taking inputs from the ground and the central and state governments.

## What Rules the Law Lays Down, And Why They Are Flouted

- The killing of gangster Vikas Dubey by the Uttar Pradesh Police has put the spotlight back on encounters or executive killings. The legality of police action in such circumstances has been debated for long, and a legal framework was put in place with the intention of establishing accountability. The Supreme Court and the National Human Rights Commission (NHRC) have framed guidelines that are to be followed in cases of custodial deaths.



## NHRC Guidelines

In 1993, the Commission had issued general guidelines that every case of custodial death must be intimated to it within 24 hours. Further, the post mortem reports, inquest requests, and other related documentation was to be sent to the human rights watchdog to ascertain its reliability within two months of the incident. The procedure of the Commission was established after a complaint from the Andhra Pradesh Civil Liberties Union alleging a series of fake encounters in the state to eliminate individuals identified as Maoists or members of the People's War Group. If a death is prime facie found to be a case of death that took place unlawfully, the Commission would grant compensation to the victim's kin and penalise the errant state and its officials, it was decided. In 1997, then NHRC chairperson M N Venkatachalaiah, in a letter addressed to chief ministers of all states, had emphasised that a policeman, if found responsible for a custodial death, would have the same defences available in law that are available to the common man, and would have no special protection. Essentially, this meant that for every case of custodial death, the concerned officers would be on trial, and their actions would not constitute an offence in only two circumstances: a) if they have killed the individual in order to protect themselves and, b) if use of force extending to death is necessary for making an arrest. **A FIR is registered under Section 302 of the Indian Penal Code which penalises culpable homicide. The Indian Evidence Act puts the burden of proof on the defence – the police in this case – to prove that the offence was not committed.**

## Interventions by Courts

There have been two landmark interventions by courts in the issue of encounter killings. In 2009, a five-judge Bench of the Andhra Pradesh High Court recognised in the case of 'Andhra Pradesh Civil Liberties Committee v. Government of Andhra Pradesh' that illegal killings by policemen have been taking place with impunity. The High Court made it mandatory to charge policemen with culpable homicide in every case of encounter killing. However, the verdict was immediately stayed by the Supreme Court when the AP government moved in appeal, and was eventually upheld in 2019. While the appeal against the AP High Court verdict was pending, the Supreme Court heard another case, 'People's Union for Civil Liberties & Anr vs State of Maharashtra and Ors'. The verdict in the public interest litigation, which was decided in 2014 by then Chief Justice of India R M Lodha and Justice Rohinton Fali Nariman, mandated that every custodial death would be probed by a magistrate as per Section 170 of the CrPC. The court also issued several guidelines on holding an independent investigation into the encounter. The court said that the investigation shall be conducted by the CID or police team of another police station under the supervision of a senior officer at least a level above the head of the police party engaged in the encounter.

## Lacunae in Implementation

Despite the guidelines that are the law of the land, encounter killings continue. Human rights activists have highlighted several lacunae in the process of an investigation into such cases. The significant issue is that the process – from initiating the case to investigating it – is done by the police, who are the accused to begin with. Political patronage to such incidents also adds to the lack of proper investigation. The Uttar Pradesh government listed the number of encounters as one of its "achievements" that the common man should be made aware of on Republic Day last year. The letter was sent to district magistrates in the state – the same authority responsible for holding an independent inquiry into every case of police killing. The December 2019 encounter of four men accused of the gangrape and murder of a 26-year old veterinary doctor in Hyderabad by the police was lauded by the public and





parliamentarians alike. Magisterial inquiries rarely hold police accountable. In Uttar Pradesh, since 2017, magisterial inquiries have been completed in 74 encounter cases where deaths occurred, and the police have got a clean chit in all. In as many as 61 cases, closure reports filed by the police have been accepted by the court.

## Putting Victims on Trial (Shraddha Chaudhary - Lecturer, Jindal Global Law School, Sonipat)

→ In late June, a single bench of the Karnataka High Court granted anticipatory bail to a man accused of rape. One of the first reasons mentioned for granting bail was that the seriousness of the offence alone cannot be a ground for depriving a citizen of her/his liberty. While this is true, the Court ought to have considered that in cases of rape, the issue in granting bail is not just seriousness of the offence, but the very real possibility of intimidation of the complainant, which would prevent her from being an effective witness in the trial. Furthermore, the Court anchored its reasoning in unsubstantiated, damaging inferences drawn from the behaviour of the complainant. While the contentious remarks were subsequently expunged on an application made by the state, the continued and frequent use of these rape myths and stereotypes deserves discussion. Rape myths or stereotypes are widely held, false and prejudicial notions about rape, rapists, and the survivors of rape. **The underlying assumption of such stereotypes is that 'genuine' victims/survivors can be recognised by the discernibly common patterns of behaviour they exhibit. To begin with, 'genuine' victims/survivors of rape are expected not to put themselves in situations which, it is believed, might lead to rape. These situations may include anything that is seen as a social taboo for women: whether it is drinking, partying, or indeed, as stated by the defence in the infamous Nirbhaya case, simply being out at night. The implication here is either that willingness to participate in such activities is equivalent to consent to sex, or that engaging in social taboo is tantamount to inviting rape.**

### Shifting the Burden onto The Victim

Another common stereotype is that 'genuine' victims/survivors physically resist their assailants or shout for help. For instance, in *Mahmood Farooqui v. NCT of Delhi* (2017), the High Court of Delhi had held that the complainant's 'feeble no', even when spoken, would not be sufficient evidence of lack of consent. This case also repeated the widely held belief of Courts that where the victim/survivor had a past sexual history with the accused, her consent would be assumed, and any 'unwillingness' or 'hesitation' on her part would be disregarded. The greatest evil of rape myths or stereotypes is that they put the victim, rather than the accused and society, on trial. The focus shifts from whether the accused committed the offence to whether the victim/survivor's behaviour met patriarchy's exacting standards. With the narrative that the victim/survivor could have avoided the rape, or indeed, asked for it, the blame is conveniently shifted from large-scale social and systemic failures to the victim/survivor herself. The rape law for adults in India, as amended in 2013, specifically states that failure to resist cannot be taken as evidence of consent. In fact, consent, whether verbal or non-verbal, has been defined to mean 'unequivocal voluntary agreement'. Passive submission (which may arise out of fear or deep-rooted social conditioning) or acquiescence to non-sexual acts such as drinking together, cannot and should not be equated with consent to sex. The 2013 Amendment also laid down that consent would mean willingness to participate in a 'specific' sexual act. Therefore, consent given for a particular sexual liaison cannot be read as ongoing consent, given in perpetuity.



## No Universal Script

It is impossible and unjust to have a universal script against which the behaviour of individual victims/survivors is assessed, because each person and each circumstance is distinct. Unfortunately, however, the reliance on rape myths and stereotypes is painfully common in the Indian criminal justice system. In a country that has abysmally low rates of reporting for sexual offences, and even lower rates of conviction, the continued reliance on such stereotypes raises important questions and concerns. **How can we expect survivors of rape to come forward knowing that they will be doubted every step of the way? What is the purpose of enacting purportedly progressive or 'victim-centric' legislation when those tasked with implementing them continue to put the victim/survivor on trial?** Rape myths and stereotypes echo the deeply entrenched patriarchal biases of the players in our criminal justice system, and of society at large. When used in judgments, they become a permanent part of the legal record. As precedent, they create a chilling effect for all future victims/survivors of rape, making the criminal justice system even more unapproachable than it is. This calls for urgent and renewed efforts towards sensitisation and for the need to make sensitivity in handling sexual offences part of our judicial incentive structure.

## The Padmanabhaswamy Temple Case, And What Verdict Means for Travancore Royal Family

- ➔ Reversing the 2011 Kerala High Court decision, the Supreme Court upheld the right of the Travancore royal family to manage the property of deity at Sree Padmanabha Swamy Temple in Thiruvananthapuram. The court said that, as per customary law, the shebait rights (right to manage the financial affairs of the deity) survive with the members of the family even after the death of the last ruler. The ruling ends the legal battle the temple and members of the royal family have fought with the government for decades over control of one of the richest temples in the world.

### What Is the Case About?

The central legal question was whether Utradam Thirunal Marthanda Varma, the younger brother of Chithira Thirunal Balarama Varma, the last Ruler of Travancore, could claim to be the "Ruler of Travancore" after the death of the ruler in 1991. The court examined this claim within the limited meaning of that term according to the Travancore-Cochin Hindu Religious Institutions Act, 1950 to claim ownership, control and management of the ancient Sree Padmanabha Swamy Temple.

### Who Had the Ownership, Control and Management of The Padmanabhaswamy Temple Before 1991?

All the temples which were under the control and management of the erstwhile Princely States of Travancore and Cochin were under the control of the Travancore and Cochin Devaswom Boards before 1947. However, as per the Instrument of Accession signed between the princely states and the Government of India, since 1949, the administration of the Padmanabhaswamy Temple was "vested in trust" in the Ruler of Travancore. The state of Kerala was carved out in 1956 but the temple continued to be managed by the erstwhile royals. In 1971, privy purses to the former royals were abolished through a constitutional amendment stripping their entitlements and privileges. The move was upheld in court in 1993 and the last ruler of Travancore who died during the pendency of this case continued to



manage the affairs of the temple till then. In 1991, when the last ruler's brother took over the temple management, it created a furore among devotees who moved the courts leading to a long-drawn legal battle. The government joined in; supporting the claims of the petitioner that Marthanda Varma had no legal right to claim the control or management of the temple.

### Is the Temple the Property of The Royal Family?

No. The character of the temple was always recognised as a public institution governed by a statute. The argument of the royal family is that the temple management would vest with them for perpetuity, as per custom. Even though the last ruler Balarama Varma executed a detailed will bequeathing his personal properties, he had not included the Sree Padmanabhaswamy Temple as his personal property or dealt with it in his will.

### What About the Padmanabhaswamy Temple's Property, Including the Riches In The Vaults?

A consequence of who has administrative rights over the temple is whether the vaults of the temple will be opened. In 2007, Marthanda Varma claimed that the treasures of the temple were the family property of the royals. Several suits were filed objecting to this claim and a lower court in Kerala passed an injunction against the opening of the vaults. The Kerala High Court in the 2011 ruling passed an order that a board be constituted to manage the affairs of the temple, ruling against the royal family. The appeal against this verdict was filed by the royal family immediately and the SC had stayed the HC verdict. By appointing two amicus curiae- senior advocate Gopal Subramaniam and former Comptroller and Auditor General of India Vinod Rai to prepare an inventory of items in the vaults. While five vaults were opened of the six, vault B was not opened. The royal family had claimed that a mythical curse is associated with the opening of vault B.

### What Impact Would This Ruling Have?

Since 2011, the process of opening the vaults has led to the discovery of treasures within the Padmanabhaswamy temple, prompting a debate on who owns temple property and how it should be regulated. Despite being a secular country that separates religion from the affairs of the state, Hindu temples, its assets are governed through statutory laws and boards heavily controlled by state governments. This system came into being mainly through the development of a legal framework to outlaw untouchability by treating temples as public land; it has resulted in many legal battles.

## Understanding the Language of Railway Station Signboards

- BJP national vice president Vinay Sahasrabudde retweeted a handle called @SortedEagle that posted a picture purportedly of a new signboard showing the names of Dehradun railway station written in Hindi, English and Sanskrit, with the last having purportedly replaced the Urdu name on the original signboard. "Dehradunam", the new name read. Minutes later, BJP spokesman Sambit Patra tweeted two photos – a signboard with Dehradun written in English, Hindi and Urdu, and the one retweeted by Sahasrabudde. "SANSKRIT," Patra wrote. Naming of railway stations is based on a set of codes and manuals that has evolved over a century. It even prescribes what colour, shape and size the names are to be written in.



### How Is the Change of Name Formalised?

While Indian Railways may own the station, it does not get involved in the business of naming it. This is left to the discretion of the state government concerned. When a state government wants to change the name of a city and wants that to reflect on signboards including in railway stations, it writes to the Ministry of Home Affairs, the nodal ministry for such matters. When the Uttar Pradesh government wanted to change the name of Mughal Sarai station, Railways waited for the Home Ministry and the state government to work out the formalities and notify the transporter. It was only after that the name was officially changed to Pandit Deen Dayal Upadhyaya Junction on station signboards and tickets. The same was the case with Allahabad to Prayagraj.

### How Are the Languages to Be Displayed on The Signboard Decided?

This aspect is governed by what is known as the Indian Railway Works Manual— a 260-odd-page document that codifies everything related to civil engineering construction works. Traditionally, station names were written only in Hindi and English. Over time, it was instructed that a third language, which is the local language, should be included. Even then, the matter is not so simple. Paragraph 424 of the Manual says that Railways should obtain approval of the state government concerned on the spelling of the names (in all three languages) before putting them on its signboards. “The station names shall be exhibited in the following order: Regional Language, Hindi and English, except for Tamil Nadu where the use of Hindi will be restricted to important stations and pilgrim centres as determined by the Commercial Department. Where the Regional language is Hindi, the name boards will be in two languages, Hindi and English...,” the Manual says.

### Which Signboards Include Urdu?

In Uttar Pradesh, Urdu is one of the official languages and inscribed on station signboards. Uttarakhand was once a part of UP, so the Dehradun station continues to have Urdu on the boards. But that is not all. Urdu being a unique language that is not a regional language confined to a particular state, Indian Railways has separate rules for writing station names in this language on its signboards. Paragraph 424 of the Works Manual has a separate section that lists districts across India where all stations are to have names in Urdu along with other languages. This list has been updated over time. It has close to 100 districts from South Indian states to Maharashtra to Bihar. Even after this, if there is a language that locals feel should be represented on station signboards, concerned Railway departments are mandated to include it after discussions with the Zonal Railway Users’ Consultative Committee and the state government.

### Is the Urdu Name Being Replaced with Sanskrit in Dehradun?

A BJP MLA had written to the Railways Ministry to get the name written in Sanskrit, while a local group locally objected to the Urdu script being removed, sources said. Local railway offices wrote to the district authorities to obtain the official Sanskrit name last September and also in February this year. For now, Railways maintains that signboards in Uttarakhand would continue to display names in English, Hindi and Urdu.





## Testing Times

→ The Centre's insistence, based on new University Grants Commission (UGC) guidelines, that final year examinations in all universities and institutions be held in spite of the risk posed by COVID-19 is a needless complication in the national pandemic response. To expect large numbers of students to take a pen-and-paper test, or an online examination, or a combination of the two, as suggested by the UGC, is counterproductive. There is growing concern worldwide that the coronavirus infection is not always mild among young people, and more importantly, youth with mild symptoms might pass it on to older family members who could become seriously ill. The point, therefore, is not that the Centre is legally empowered to order the conduct of examinations by September-end, because higher education is in the concurrent list, but the likely harm that might follow. Also, in the unlock phase, States have been empowered to add restrictions to the Home Ministry's orders on public activity, taking the local situation into account. Many large universities have shown commendable alacrity in devising alternatives to evaluate students in the present circumstances, including some academically rigorous technical universities. They have done away with a final examination and chosen a formula that uses best past performance of students. Given the incalculable risks involved, States such as Punjab, Maharashtra, Odisha, West Bengal and later Delhi decided against holding final year examinations.

As the country with the third highest number of cases in the world – more than 1 million as of July 16 – the situation on COVID-19 in India is worrying. Any move to ram through a final examination scheme could endanger lives. The Centre must take its own advice, of restricting public movement and gatherings during the pandemic, seriously, and leave it to the States to determine the best course. In its defence, the Department of Higher Education has gathered data to show that 454 out of 640 universities had either conducted examinations or planned to do so, and the rest should fall in line because of the legal position. Such a hard-line approach does not cohere with the imperative of a consensus pandemic response. It is relevant to point out that in the most affected nation, the U.S., major universities are placing health and safety first and academic enterprise next. Any decision to reopen institutions and conduct examinations requires careful assessment of local conditions, and is best left to the States.

## For Equal Treatment

→ In holding that people suffering from disability are entitled to the same benefits and relaxations as candidates belonging to the Scheduled Castes, the Supreme Court has recognised the travails of the disabled in accessing education or employment, regardless of their social status. Even though drawn from all sections of society, those suffering from the several categories of disability recognised by law have always been an under-privileged and under-represented section, a fact noticed in official studies in the past. Recently, the top court ruled that the Delhi High Court had correctly decided in 2012 that "people suffering from disabilities are also socially backward, and are therefore, at the very least, entitled to the same benefits as given to the Scheduled Castes/Scheduled Tribes candidates". Therefore, it took the view that when SC/ST candidates get a relaxation of a certain percentage of marks to qualify for admission, the same relaxation shall apply to disabled candidates too. In the 2012 case before the High Court, a university had allowed a 10% concession in the minimum eligibility requirement for SC/ST candidates, and 5% concession for disabled applicants. The High Court ruled against this differential treatment, terming it discriminatory. The larger principle behind this was that without imparting proper education to those suffering from



disabilities, “there cannot be any meaningful enforcement of their rights” both under the Constitution and the then prevailing 1995 legislation on providing equal opportunities to the disabled and protecting their rights. It can only be more applicable, now that a fresh law that aims for a greater transformative effect, the Rights of Persons with Disabilities Act, 2016, is in place.

A counterpoint to the idea of eliminating the distinction between the disabled and the Scheduled Castes and Scheduled Tribes may arise from those questioning the attempt to equate physical or mental disability with the social disability and experience of untouchability suffered by marginalised sections for centuries. For instance, the social background of disabled persons from a traditionally privileged community may give them an advantage over those suffering from historical social disability. However, this may not always be the case. The Delhi High Court had cited the abysmally low literacy and employment rates among persons with disabilities. Educational indicators captured in the 2001 Census showed that illiteracy among the disabled was much higher than the general population figure. The share of disabled children out of school was quite higher than other major social categories. The 2001 Census put the illiteracy rate among the disabled at 51%. There was similar evidence of their inadequate representation in employment too. **The 2016 law sought to address this by raising the quota for the disabled from 3% to 5% and envisaging incentives for the private sector to hire them too.** It is vital that this is fully given effect to so that this significant segment of the population is not left out of social and economic advancement.

### The Politics of Nepotism

- In recent weeks, nepotism has become centre stage in mainstream public discourse. Triggered by speculations over the death of actor Sushant Singh Rajput, the debate was initially confined to the film industry. But it has since spread to other domains. What began as a hashtag about a tragic death has acquired a life of its own? How do we understand this sudden upsurge, given that nepotism is not a new phenomenon? In India, whichever field one may consider, there is no denying the prevalence of influential families that wield nepotistic influence. But does this mean we make peace with nepotism? Certainly not. But a lot depends on how the debate is framed, and the nature of the contingent politics around the nepotism discourse.

### The Current Debate

What is now derisively described as ‘nepotism’ is how things were traditionally done. In pre-modern societies, the realms of domesticity and work were merged, with the family playing a central role in determining an individual’s entry not only into an occupation, but also the public sphere. In insufficiently modernised societies such as India, this tendency remains strong. Second, **traditional social norms still dictate that family comes first, caste/clan second, and everything else, including merit, last.** In India, where upper caste dominance across domains is well documented, nepotism extends beyond the family and operates along the axis of caste as well. **Deep historical inequalities and a dwindling welfare state have made India one of the most unequal societies in the world, with the richest 1% holding more than four times the wealth of the bottom 70%.** It stands to reason, therefore, that anyone concerned about nepotism would want to attack the cause of which nepotism is the symptom: the reproduction of inequality. After all, the more unequal a society, the greater the scope and incentive for nepotism. **In a hypothetical society of perfect socio-economic equality, each individual’s nepotistic reserves would cancel out that of everyone else’s. So, tackling nepotism calls for political mobilisation against socio-economic inequality.** The



most effective means of reducing such inequality are social justice measures such as affirmative action, universal access to public health and education, and redistributive policies such as an inheritance tax. But the theme of inequality is conspicuously absent in the nepotism discourse. Its preferred binary is not 'privileged' versus 'non-privileged' but 'outsider' versus 'insider', with all the outrage reserved for the insiders. The idea is not to call for a level playing field but to stoke the so-called outsider's desire to displace the 'insider' as the new 'insider', without dismantling the insider-outsider structure as such.

### India Registers A Steep Decline in Maternal Mortality Ratio

- The Maternal Mortality Ratio (MMR) in India has declined to 113 in 2016-18 from 122 in 2015-17 and 130 in 2014-2016, according to the special bulletin on Maternal Mortality in India 2016-18, released by the Office of the Registrar General's Sample Registration System (SRS). One of the key indicators of maternal mortality is the MMR, defined as the number of maternal deaths per 1,00,000 live births. The target 3.1 of Sustainable Development Goals (SDG) set by the United Nations aims to reduce the global maternal mortality ratio to less than 70 per 1,00,000 live births. The MMR of various States according to the bulletin includes Assam (215), Bihar (149), Madhya Pradesh (173), Chhattisgarh (159), Odisha (150), Rajasthan (164), Uttar Pradesh (197) and Uttarakhand (99). The southern States registered a lower MMR – Andhra Pradesh (65), Telangana (63), Karnataka (92), Kerala (43) and Tamil Nadu (60). "Maternal mortality in a region is a measure of reproductive health of women in the area. As per the World Health Organization, maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management," noted the bulletin.

### Officer Challenges Army's Facebook Ban Directive

- An Army officer has challenged in the Delhi High Court the recent directive banning the usage of social networking platforms, including Facebook and Instagram, in all ranks. Lt. Col. PK Choudhary said in his petition that the policy issued on June 6, 2020, which banned the usage of 89 applications and websites violated various fundamental rights under the Constitution, including the right to freedom of speech and expression and right to privacy. The plea is listed for hearing on Tuesday. The policy mandates every serving Army man to also delete their respective accounts on the websites and applications. "The orders of banning use and deletion of soldier's profiles and data from social networking websites is characteristic of authoritarian regimes and is against the democratic and constitutional foundation of India", the plea stated. Soldiers served in remote areas, extreme weather conditions, difficult terrain, with the lingering threat of an enemy attack at all times. These professional hazards were a direct cause of soldiers committing suicides and, in some cases, shooting at their fellow soldiers before taking their own lives, it said. "The soldiers rely on social networking platforms like Facebook to address various issues arising in their families while posted in remote locations and often use the virtual connect to compensate for the physical distance existing between themselves and their families, it said. "Facebook and Instagram provide soldiers with a medium to stay connected and informed about the lives of their family and friends". While the Director General of Military Intelligence cited security concerns and risk of data breach as the basis of imposing the restrictions, Lt. Col. Choudhary argued that the purported concerns and risks were not limited to being applicable to only soldiers. "There are several members of the civil administration and political class who possess information of a much higher level of sensitivity than a regular soldier and no restrictions apply to the said



persons”, Lt. Col. Choudhary, who is currently posted in Jammu and Kashmir, argued. The petition sought a direction to the Director General of Military Intelligence to withdraw the June 6 policy.

## What is Non-Personal Data?

→ A government committee headed by Infosys co-founder Kris Gopalakrishnan has suggested that non-personal data generated in the country be allowed to be harnessed by various domestic companies and entities. The nine-member committee, while releasing the draft report, has kept time till August 13 for the public to send suggestions. It has also suggested setting up of a new authority which would be empowered to monitor the use and mining of such non-personal data.

## What Is Non-Personal Data?

In its most basic form, non-personal data is any set of data which does not contain personally identifiable information. This in essence means that no individual or living person can be identified by looking at such data. For example, while order details collected by a food delivery service will have the name, age, gender, and other contact information of an individual, it will become non-personal data if the identifiers such as name and contact information are taken out. The government committee, which submitted its report has classified non-personal data into three main categories, namely public non-personal data, community non-personal data and private non-personal data. Depending on the source of the data and whether it is anonymised in a way that no individual can be re-identified from the data set, the three categories have been divided.

## What Are Public, Community, And Private Non-Personal Data Sets?

All the data collected by government and its agencies such as census, data collected by municipal corporations on the total tax receipts in a particular period or any information collected during execution of all publicly funded works has been kept under the umbrella of public non-personal data. Any data identifiers about a set of people who have either the same geographic location, religion, job, or other common social interests will form the community non-personal data. For example, the metadata collected by ride-hailing apps, telecom companies, electricity distribution companies among others have been put under the community non-personal data category by the committee. Private non-personal data can be defined as those which are produced by individuals which can be derived from application of proprietary software or knowledge.

## How Sensitive Can Non-Personal Data Be?

Unlike personal data, which contains explicit information about a person’s name, age, gender, sexual orientation, biometrics and other genetic details, non-personal data is more likely to be in an anonymised form. However, in certain categories such as data related to national security or strategic interests such as locations of government laboratories or research facilities, even if provided in anonymised form can be dangerous. Similarly, even if the data is about the health of a community or a group of communities, though it may be in anonymised form, it can still be dangerous, the committee opined. “Possibilities of such harm are obviously much higher if the original personal data is of a sensitive nature. Therefore, the non-personal data arising from such sensitive personal data may be considered as sensitive non-personal data,” the committee said.





## What Are the Global Standards on Non-Personal Data?

In May 2019, the European Union came out with a regulation framework for the free flow of non-personal data in the European Union, in which it suggested that member states of the union would cooperate with each other when it came to data sharing. Such data, the EU had then ruled would be shared by member states without any hindrances, and that they must inform the “commission any draft act which introduces a new data localisation requirement or makes changes to an existing data localisation requirement”. The regulation, however, had not defined what non-personal data constituted of, and had simply said all data which is not personal would be under the non-personal data category. In several other countries across the world, there are no nationwide data protection laws, whether for personal or non-personal data.

## Why MP’s Push for Inclusion Into The GI List Of Basmati Can Hurt India Globally

- Following Madhya Pradesh (MP) government’s pressure on the central government for seeking Geographical Indication (GI) tag for Basmati produced in 13 districts of MP, the All India Rice Exporters’ Association (AIREA) has appealed to the government to preserve and protect the integrity of one of the most cherished national produce of India – Basmati rice. India stands tall in the global arena as the only producer of premium Basmati. **No other country (other than 18 districts of Pakistan) can call any of its rice as ‘Basmati’.** AIREA argues that if MP is included in the GI list of Basmati crop then it will not only harm the reputation of Indian Basmati as a whole, but also the national interest.

### What is GI?

According to the **Agricultural and Processed Food Products Export Development Authority (APEDA)**, it is an agricultural, natural or a manufactured product, originating from a specific geographical area due to which it possesses unique characteristics and qualities. GI tag is basically an assurance that the product is coming from that specific area. It’s kind of trademark in the international market.

### When Was Basmati Brought Under GI Tag and Which Is the Area Where GI Tag Is Applicable to The Basmati?

In May 2010, APEDA, a statutory body under the Ministry of Commerce, got this certification for the region located in Indo-Gangetic Plains (IGP) below the foothills of the Himalayas, spread across seven states – Himachal Pradesh, J&K, Punjab, Haryana, Uttarakhand, Western UP (26 districts) and Delhi. According to APEDA, the origin and reputation of Basmati rice as a ‘**long grain, aromatic rice**’ from the IGP is found in tradition, folklore, scientific and culinary literature and political and historical records. They said **Dehraduni Basmati, Amritsar Basmati** and **Tarawari basmati** all have not become famous in one day as they are producing Basmati for hundreds of years.

### When MP Does Not Fall In IGP, Then Why Does It Want Its Rice to Be Included Under the GI List?

MP falls in the Madhya Bharat Pathar and started cultivation of varieties of Basmati rice only around the middle of the first decade of this century. The state claims that this rice possesses the same characteristics and qualities as that of the rice grown in the IGP. It also



claims that nearly 80,000 farmers of the state are growing Basmati in 13 districts and exporting worth Rs 3,000 crore annually.

### Why MP Cannot Be Included in GI Tag?

AIREA said that under WTO's TRIPs (trade-related aspects of intellectual property rights) agreement, physical attributes are not enough for a product to earn GI tag and that reputation linked to the geographical region is essential and imperative. As per GI of Goods (Registration & Protection) Act in 2003, 'reputation' to a geographical area is central to the recognition of a GI product and only seven states have that reputation. Even if the rice grown in MP has all the required characteristics (or maybe even better than Basmati rice grown in the traditional growing areas), the same would not still entitle such rice to qualify as Basmati. Just like sparkling wine produced in Australia or California or Italy cannot be called Champagne and Kancheepuram Silk Sari is a GI product, but a Banarsi sari cannot claim a share of the status though it might be as beautiful as the Kancheepuram Sari. Same goes with Basmati and any rice which is grown outside the designated area cannot be called Basmati.

### What Efforts Are Being Undertaken by The MP To Grab the GI Tag?

Apart from putting pressure on the Centre, MP has appealed in Madras High Court where its plea was rejected in February this year. Earlier too in 2016, Intellectual Properties Appellate Board (IPBA) in Chennai had given the decision in favour of the APEDA, which is not in favour of including MP in the GI list. Despite these orders, MP has been repeatedly agitating and raising banter through political and bureaucratic channels, and even many traders from MP are selling the rice from MP using the IGP imagery on their packages – through MP is far away down south of the IGP, said AIREA.

### Why the Inclusion of MP In the GI List Will Harm National Interest and The Interests of Seven States Which Grow Basmati with GI Tag?

Exporters say that with the inclusion of MP, the ramifications will be disastrous. It had been a tough battle for the country to protect Basmati name from the encroachment of various nations which all came out with their own versions of Basmati. It was only the GI tag that has protected our Basmati, because it has been grown from time immemorial in the IGP area of India and 18 districts of Pakistan's Punjab, said Nathi Ram Gupta, President, AIREA, adding that this indisputable fact alone has enabled India to win the cases across globe. "If MP is allowed to be included, it will nullify APEDA's efforts made earlier to secure and protect Indian Basmati since 1995 by taking up over 1,000 legal actions in nearly 50 countries, spread across all the continents. APEDA has spent over Rs 200/300 crores in promoting Basmati rice, defending its GI status and shaping it into a global brand," said Vijay Setia, the former President AIREA. "The day we give a green signal to MP, Pakistan will grab the opportunity to start sowing Basmati all across the country. China will be equally benefitted. Not to talk about all those 50 and more nations who had been unequivocally restricted from calling any of their aromatic rice's with even "Basmati-like" names," said senior officials at APEDA. "If Basmati loses its premium tag it will deprive over 20 lakh farmers of seven states from the economic premium of growing this unique product. So, the commercial considerations cannot, therefore, be allowed to be sacrificed at the altar of expanding the area of GI," said a senior APEDA official.



## Gains from Rains

→ So far, India appears to be having a good run with the monsoon. As of the most recent data available from the India Meteorological Department (IMD), rainfall during the season has been 14% more than what is usual for this period. The month of June only accounts for about 17% of the monsoon rainfall spanning June-September. It is the month during which the monsoon sets in and that process can sometimes be delayed for as much as a week. June is also when the monsoon begins its journey from two extremities of the country. One branch starts its journey northwards from Kerala and the other wing – called the Bay of Bengal branch – enters India from the southeast. Both branches eventually converge in the north and usually, this merging and strengthening of the monsoon currents over the mainland takes at least until July 15. The IMD never forecasts the possible rainfall likely during June because of the vagaries involved in onset and the pace of the journey. This year, two significant things happened. The monsoon set in at a textbook date of June 1. This was even after concerns that Cyclone Amphan that had ravaged West Bengal would delay the monsoon's entry into India from the Andaman Sea. The second factor was the record pace at which the monsoon covered the country. Along with the monsoon onset this year, **the IMD announced a revision to the onset and withdrawal dates across several cities. According to this, the monsoon covered India's northern and western borders no later than July 8 as opposed to the previous historical date of July 15. This year, however, the monsoon broke even this speed limit and covered the country by June 25 – at a pace that was unprecedented since 2013.**

The net result of all this: more rainy days in June and a fairly even distribution across the country. The IMD's records show that only on four days in that month did daily rainfall drop below its historical normal. Except for northwest India, which is staring at a 3% deficit, the rainfall in east, south and central India has posted surpluses of 13%-20%. While good rains in June signal farmers to prepare the soil and sow kharif crop, **the most important months are July and August. These two months account for two-thirds of the monsoon rain. This is also the time the monsoon goes into so-called 'break' conditions. Prolonged breaks, or an absence of rainfall, can even lead to drought.** In spite of significant improvements in data gathering and technological advancement, meteorological agencies cannot yet reliably forecast the advent of a break or how long it can last. What is critical is that 'normal rains' also obscure the possibility of heavy rains or severe droughts in districts or over larger areas. Therefore, short and medium range forecasts need to be strengthened and effectively communicated to the people.

## Why Annual Floods Are Essential for Survival Of Kaziranga National Park

→ As a fresh wave of floods ravages Assam, killing 73 and affecting nearly 40 lakh people across the state, 85 per cent of the Kaziranga National Park and Tiger Reserve (KNPTR) remains submerged. On Thursday, Assam Chief Minister Sarbananda Sonowal visited the park to take stock of the situation. So far, 125 animals have been rescued and 86 have died, including rhinos, deer and wild boar, in the sixth worst flood since 1988. Yet, the annual **deluge is considered essential for the survival of the UNESCO World Heritage Site.** We explain the role of floods in Kaziranga's ecosystem, how increasing high floods can become a problem, and what can be done to keep it in check.

### What Is the Role of Floods in Kaziranga's Ecosystem?

Assam is traditionally flood prone, and the 1,055 sq. km KNPTR – **sandwiched between the Brahmaputra river and the Karbi Anglong Hills** – is no exception. Among experts there is a



consensus that floods are necessary for Kaziranga by virtue of its ecosystem. “It is a riverine ecosystem, not a solid landmass-based ecosystem,” said P Sivakumar, Director, KNPTR, “The system won’t survive without water.” The entire area of Kaziranga – formed by alluvial deposits from the Brahmaputra and its tributaries – is centred around the river. According to Uttam Saikia, Honorary Wildlife Warden of Kaziranga, this “floodplain eco system” has not only been created by floods but also feeds off it. The regenerative nature of floods helps replenish Kaziranga’s water bodies and maintain its landscape, a mix of wetlands, grasslands and semi-evergreen deciduous forests. Saikia said the floodwaters also function as a breeding ground for fish. “The same fish are carried away by the receding waters into the Brahmaputra – in a way, the park replenishes the river’s stock of fish too,” he said. The waters also help get rid of unwanted plants such as water hyacinth which collect in huge masses in the landscape. “In a herbivore-dominated area like Kaziranga, it is important we maintain its grassland status. If it were not for the annual floods, the area would become a woodland,” said Sivakumar. Many also believe that floods are a way of natural selection. “A number of animals – especially the old, weak – cannot survive the floods. Only the ones with superior genes survive,” said Rabindra Sarma, Wildlife Research Officer at KNPTR since 1998.

### Can the Floods Become Problematic for Kaziranga?

“Now, they happen every other year,” he said, adding that massive deforestation in catchment areas or release of waters by dams upstream may be contributory factors. Climate change models, too, predict that floods will become increasingly devastating with each year. Barring 2018, the years between 2016 and 2020 have all featured high floods (or floods which submerge more than 60 per cent of the park) killing and injuring hundreds of animals. Animals adapt naturally to floods but when the waters hit a certain level, they gravitate towards safer, higher ground in the Karbi Anglong hills. While in the past, Kaziranga and Karbi Anglong were part of the same landscape, the animals now have to cross the bustling National Highway 37 which cuts across the park. “Over the years, the highway is getting increasingly tough to cross. A few of the nine wildlife corridors on the highway – Panbari, Haldibari, Bagori, Harmati, Kanchanjuri, Hatidandi, Deosur, Chirang and Amguri – are choked by traffic,” said Dr Naveen Pandey, Deputy Director and Veterinary Advisor, The Corbett Foundation, Kaziranga. “Mushrooming of hotels, restaurants, shops, and ancillary structures of the tea industry has not helped either.” As a result, animals that venture out of the park, die either under the wheels of speeding vehicles on the highway, or are killed by poachers who take advantage of their vulnerability. In recent years, due to vigilant patrolling, these numbers have decreased. Those that remain in the park – often young or the very old – die by drowning, entangled in the debris under water as they try to swim. According to Dr Varun Goswami, Senior Scientist at Conservation Initiatives, an Assam-based organisation that works in the Kaziranga landscape, wildlife in KNPTR have adapted to the natural flood regime by finding refuge on higher ground south of the park. If their safe passage is not ensured, major floods can cause serious losses. This year four rhinos as well as a number of boar and deer have drowned, and 14 hog deer have died in road accidents so far. The authorities will be able to ascertain the actual number of deaths only once the waters recede.

### What Measures Are Taken to Prepare for The Flood?

Preparedness begins a month before floods hit. The authorities keep a track of updates from the Central Water Commission, and monitor water levels of the Brahmaputra tributaries upstream in Arunachal Pradesh. According to Dr Pandey, the civil administration, park authority, NGOs, and local communities work together to tackle the floods. “To avoid disease





outbreaks, a door-to-door vaccination is organised every year pre-floods,” he said, “Thereafter, camps are organised to create awareness against poaching and harming wild animals that are rendered vulnerable during the floods.” Moreover, when the floods hit, Section 144 is imposed along NH-37, speed limits are enforced and fines levied. Barricades are also placed to help animals cross over to Karbi Anglong. The efforts of the forest department’s frontline staff become crucial during the season.

### How Helpful Are Kaziranga’s Artificial Highlands?

Over the years, another mitigation measure has been artificial highlands (111 in the Nineties, 33 in 2016-17) built inside the park for wild animals to take refuge in during the flood. While these highlands have helped a fair bit in reducing the number of animal casualties during floods, some feel that it is not a ‘permanent solution’. “Animals do take refuge there – especially rhino and swamp deer – but it is not viable to build more highlands since such constructions will ruin the natural ecosystem,” said Sarma, terming the highlands a “temporary refuge.” “These 33 highlands cannot accommodate all animals of Kaziranga, and the older ones are more or less dilapidated,” he said. According to Honorary Wildlife Warden Saikia, some animals do not take to the highlands naturally. “They have been migrating to natural highlands of Karbi Anglong for centuries; suddenly these artificial constructions do not inspire confidence, they do not find it secure,” he said.

### So, What Is the Solution?

Experts believe that emphasis needs to be put on securing animal corridors and ensuring a safe passage to the Karbi hills. To that end, a 35-km-long flyover constructed over NH-37 was proposed by the Centre in September 2019. “While this flyover will help, 35 km is a lengthy stretch and might take time to build,” said Sivakumar, “So the focus should be on doing it quickly, using modern technology that will cause minimal disturbance to the animals during construction.” In April 2019, the Supreme Court banned all types of mining and related activities along the park’s southern boundary and in the entire catchment area of the rivers that originate in the Karbi Anglong hill ranges and flow into Kaziranga, as well as new construction activities in private lands on nine animal corridors. Apart from facilitating safe and unhindered wildlife movement.

### India’s Tiger Census Of 2018 Sets a Guinness World Record

- India’s tiger census of 2018 has set a Guinness record for being the world’s largest camera-trap wildlife survey. The fourth cycle of the All India Tiger Estimation 2018 counted 2,967 tigers, which is about 75% of the global tiger population. The Guinness World Records website said, “The fourth iteration of the survey – conducted in 2018-19 – was the most comprehensive to date, in terms of both resource and data amassed. Camera traps (outdoor photographic devices fitted with motion sensors that start recording when an animal passes by) were placed in 26,838 locations across 141 different sites and surveyed an effective area of 1,21,337 sq.km.” It added, “In total, the camera traps captured 3,48,58,623 photographs of wildlife (76,651 of which were that of tigers and 51,777 of leopards; the remainder were other native fauna). From these photographs, 2,461 individual tigers (excluding cubs) were identified using stripe-pattern-recognition software.” Union Environment Minister Prakash Javadekar tweeted, “The All India Tiger Estimation is now in the Guinness World Records for being the largest camera trap wildlife survey, a great moment indeed and a shining example of Atmanirbhar Bharat.”



## Mizoram Quake Zone Caught Between Two Geological Faults

→ Mizoram's zone of "scary" earthquakes is caught between two subterranean faults, a geologist assigned to make a preliminary study on the frequent tremors said. The State's Champhai district and adjoining areas could experience aftershocks for several months but the people there have nothing to worry if their magnitude does not measure above 5 on the Richter scale, he assured. Mizoram experienced at least eight moderate earthquakes between June 21 and July 9. The tremors ranged from 4.2 to 5.5 on the Richter scale. The epicentre of most of these quakes was beneath Champhai district bordering Myanmar, including the last one of magnitude 4.3 and about 10 kilometres deep. A few were beneath the adjoining Saitual and Serchhip districts. "Earthquakes have happened and will happen in that part of Mizoram because it is caught between two geological faults. These are the Churachandpur Mao Fault and the Mat Fault," said Dr. Saitluanga who teaches geology at the Pachhunga University College in State capital Aizawl. Faults are discontinuities or cracks that are the result of differential motion within the earth's crust. Vertical or lateral slippage of the crust along the faults causes an earthquake. The Churachandpur Mao Fault is named after two places in Manipur and runs north-south into Myanmar along the border of Champhai. The Mat Fault runs northwest-southeast across Mizoram, beneath river Mat near Serchhip.

## The Language of The Tangams, With Just 253 Speakers

→ Arunachal Pradesh Chief Minister Pema Khandu released a book titled Tangams: An Ethnolinguistic Study of The Critically Endangered Group of Arunachal Pradesh. "Language loss is the reason for cultural erosion," CM Khandu had said, emphasising how the book will help the future generations of the Tangam community, which has reportedly 253 speakers concentrated in one small hamlet of Arunachal Pradesh. But who are the Tangams and why is their case reflective of the larger issue of eroding languages across linguistically diverse Arunachal Pradesh?

### Who Are the Tangams?

The Tangams are a little-known community within the larger Adi tribe of Arunachal Pradesh and reside in the hamlet of Kugging in Upper Siang district's Painedem circle. For long, the only account of the Tangams could be found in bureaucrat Tarun Kumar Bhattacharjee's book, Tangams (1975) where the community's population was pegged at 2,000 spread across 25 villages. From 2016 to 2020, a team from the Centre for Endangered Languages (CFEL) of Rajiv Gandhi University (RGU), carried out extensive field research and documented the community. "Our survey revealed that Tangams were now concentrated in only one village (Kugging), with 253 reported speakers," said Lisa Lomdak, Assistant Coordinator, CFEL and Assistant Professor, Arunachal Institute of Tribal Studies (AITS), RGU.

### Why Are There Only 253 Speakers?

As per the UNESCO World Atlas of Endangered Languages (2009), Tangam – an oral language that belongs to the Tani group, under the greater Tibeto-Burman language family – is marked 'critically endangered'. Kugging is surrounded by a number of villages inhabited by Adi subgroups such as Shimong, Minyongs, as well as the Buddhist tribal community of Khambas, among others. To communicate with their neighbours over the years, the Tangams have become multilingual, speaking not just Tangam, but other tongues such as Shimong, Khamba and Hindi. "They rarely speak their own language now since their population is restricted to a single village. Their neighbours are various Adi subgroups, so they have picked



up other Adi languages and their own is slowly disappearing – even if a few still continue to speak Tangam,” said Kaling Dabi, Senior Research Fellow CFEL, who is doing a PhD on the Tangam community. Moreover, the Tangams are relatively unknown – even within Arunachal Pradesh. “The village lacks proper infrastructure in all basic sectors of education, health, drinking water facilities, road and electricity. Roads have reached Kugging only in 2018. Not a single person from the community has gone to university,” said Lomdak.

### What About Other Languages in Arunachal Pradesh?

The languages of Arunachal Pradesh have been classified under the Sino-Tibetan language family, and more specifically under the Tibeto-Burman and Tai group of languages, such as Lolo-Burmish, Bodhic, Sal, Tani, Mishmi, Hruishh and Tai. While the education system has introduced Devanagari, Assamese and Roman scripts for most tribal languages, new scripts such as Tani Lipi and Wancho Script have been developed by native scholars. According to Professor S Simon John, Director AITS & Coordinator, CFEL, RGU, there has been no systematic, scientific or official survey on the number of languages in Arunachal Pradesh till recently. An official linguistic survey by the state government began only in 2018, which is currently underway. Before that, People’s Linguistic Survey of India was published in 2017. Still, experts peg the number of languages at 32-34, with a disclaimer that it is not a conclusive figure. “If we list the various linguistic varieties or dialects embedded within these languages, then the list can go up to 90,” said Lomdak. Simon said that despite there being a plethora of languages in the state, almost all are endangered. According to the UNESCO Atlas of the World’s Languages in Danger (2009) more than 26 languages of Arunachal Pradesh have been identified as endangered. The degrees range from ‘unsafe’, ‘definitely endangered’ to ‘critically endangered’.

### Why Are the Languages at Risk?

The diversity of languages has led various communities to depend on English, Assamese and colloquial variety of Hindi called Arunachalee Hindi as the link languages. Many believe this shift has led to loss of native languages of the tribal communities. “Even the numerically larger tribes like Nyishi, Galo, Mishmi, Tangsa etc. whose population exceed the ten thousand mark are also not safe from endangerment, hence marked unsafe,” states a 2017 CEFL research newsletter. “The classification implies that the younger generation of these tribes especially in the urban areas have mostly discarded the use of their mother tongue” it further states.

### Will the New Book Help?

Yes, the 350-page book, with photographs, becomes relevant for the future generation of Tangam people. “The significance of the present study is the multidisciplinary approach as it takes into account not only language, but also rituals, folklore, food habits, belief systems etc,” said Simon. According to Lomdak, the book attempts to cover “every aspect of Tangam life and culture” that will help the future children retain their unique identity as an ethnolinguistic group. “Though there are some excellent contemporary works on language of Tangams written by renowned linguists in collaboration with native speakers, this book will appeal to those interested in ethnolinguistics, anthropology and folkloristics of lesser studied tribes,” she said, adding the book has valuable data on endangered oral narratives like ritual songs, lamentation songs, lullabies and festival songs.



## IAF On A Buying Spree

- On July 2, the Defence Acquisition Council (DAC) chaired by Defence Minister Rajnath Singh approved defence deals worth ₹38,900 crore which includes procurement of 21 MiG-29 fighter jets for the Indian Air Force (IAF) along with upgradation of 59 existing MiG-29 jets in the IAF inventory and procurement of 12 Su-30MKI aircraft from Russia.

### What Are the Major Deals Approved?

The Defence Ministry said the MiG-29 procurements and upgradation from Russia are estimated to cost ₹7,418 crore while the 12 Su-30 MKIs, which will be licence-produced by Hindustan Aeronautics Limited (HAL), are estimated to cost ₹10,730 crore. Other deals approved by the DAC include Pinaka rocket ammunition, long-range land attack missile system of over 1,000 km range and close to 250 Astra Beyond Visual Range (BVR) air-to-air missiles for the IAF. The Astra Mk-1 has been integrated on the Su-30MKI jets and is being inducted into the force. An ungraded variant, the Astra Mk-II is under development by the Defence Research and Development Organisation (DRDO).

### What Are the New Fighter Jets For?

The Defence Ministry said in a release after the DAC meeting that these decisions will address the long-felt need of the IAF to increase its fighter squadrons. **The IAF currently has 30 fighter squadrons against a sanctioned strength of 42 squadrons and is set to phase out its MiG-21 fighters in the next few years further reducing the strength.** As seen during the Balakot air strikes (Pakistan) in February 2019, air power will be key to swiftly respond to any short escalations and especially relevant amid the ongoing stand-off with China on the Line of Actual Control (LAC). The 21 MiG-29s to be procured from Russia have already been manufactured for an unfulfilled order and will now be upgraded and delivered to India. These will add to the three MiG-29 squadrons in service with the IAF which are already undergoing an upgrade. The 12 Su-30 MKIs are meant to make up for the gaps in the Su-30MKI squadrons caused due to crashes over the years. India has contracted 272 Su-30 jets from Russia in different batches, a majority of which are being licence-manufactured by HAL.

### What About Budgetary Allocations?

The defence budget has been going down as a percentage of the GDP, and the novel coronavirus pandemic has put further budgetary constraints on military modernisation. For instance, the defence allocation for 2020-21 is pegged at ₹3.37-lakh crore excluding defence pensions which accounts for 1.5% of the GDP. There is a steep rise in defence pensions, 13.5%, from ₹1.18-lakh crore in revised estimates of last year to ₹1.34-lakh crore this year. The ₹3.37-lakh crore allocated is 5.67% higher compared to the budget estimate of last year and just 1.8% higher compared to the revised estimates of 2019-20 which stood at ₹3.31 lakh crore. Of the total capital allocation of ₹1.13-lakh crore, the IAF got 38% which comes to ₹43,281 crore, but in real terms the capital allocation for IAF has gone down from the revised estimates of 2019-20 which was ₹44,869 crore. In comparison, last year, the IAF had committed liabilities, payments for deals already signed for, of over ₹47,000 crore which was more than its entire capital allocation. The IAF has signed several major deals which include 36 Rafale jets from France, S-400 air defence systems from Russia, Apache attack helicopters and Chinook heavy lift helicopters from the U.S. among others.





## It's Time to Flatten the Pandemic Stereotyping (George Kandathil, Rama Mohana R. Turaga And Joshy Jacob (The Third Writer) Are Faculty Members at The Indian Institute of Management Ahmedabad)

→ A simple search for the phrase “super spreader” in the LexisNexis database of Indian news sources (from March 1 to June 1, 2020) brings up more than 650 articles. It is an indicator of the relevance of this word during the COVID-19 pandemic. Broadly speaking, the term means an individual who transmits infection to many others than is typical. It emerged in the context of the research on transmission of a wide range of infectious diseases such as tuberculosis, Ebola, and Severe Acute Respiratory Syndrome (SARS), which shows that 80% of the infections in a population are transmitted by only 20% of those infected – the so-called 20/80 rule.

### Challenge of Containment

Why some individuals tend to be super spreaders is a question epidemiologists continue to grapple with, more so in the context of COVID-19, the science around which continues to evolve. Initial evidence indicates that factors such as the mode of transmission through finer aerosols that can be suspended in the air for long, an individual's ability to shed higher loads of virus than is typical of others, and the presence of an infected individual in indoor, closed spaces could make such persons super spreaders. A particularly challenging aspect of this pandemic has been the large proportion of asymptomatic infected patients who can shed high virus loads before experiencing symptoms and can spread infection to many contacts without their knowledge. Because of this complexity, practices such as universal masking, social distancing, and hand hygiene have become key to containing the pandemic.

### Varied Mix of Profiles

Our review of the news articles brings up an interesting mix of individuals labelled as super spreaders across geographies. They include a Sikh religious guru in Punjab returning from an affected country, a person who runs a private technical school in Odisha, an employee of a reputed firm in NOIDA, a fruit vendor in Vadodara, a police officer in Jammu, a truck driver in Vijayawada, and a housekeeping staff at a hotel in Bengaluru. More interestingly, as opposed to the focus of epidemiologists on individuals as super spreaders, a number of groups are labelled super spreaders. Prominent examples of such groups include those who attended the Tablighi Jamaat religious congregation in Delhi, workers providing essential services (vegetable/fruit vendors, pharmacists, garbage collectors, grocery and milk sellers, bus conductors), and migrant workers returning to their hometowns. In the category of essential workers, the vegetable vendors in Ahmedabad city and the Koyambedu vegetable market in Chennai have received significant media attention. **The labelling of a group – as Howard Becker in his book published in 1963 argued – can lead to stereotyping of the group based on oversimplified images attached to the label and shared widely among the other sections of society.** For example, as vegetable vendors are labelled widely as super spreaders, the implicit meaning attached to the label (i.e., an infected individual capable of infecting those the person comes in contact with) becomes a shared belief among sections of the society. This belief creates an image of a vegetable vendor as an infectious super spreader. Subsequently, **in evaluating the vegetable vendor, the image associated with the stereotype (i.e., a super spreader) becomes more salient than the image of a vegetable vendor as a service provider.** Going further, one may attach the images of the stereotype to



a random person whose perceived characteristics match that of a member of the stereotyped group. Research also shows that mass media plays a significant role in creating, and often perpetuating, negative stereotypes, with severe consequences. **Stereotyping a group will have undesirable consequences for its individual members, if the label carries negative evaluation. In the discourse on COVID-19 in India, there are signs of super spreader becoming such a negative label.** In response to a question in his press conference on May 21, 2020, the Kerala Chief Minister expressed concerns over rising infections in Kerala after the State borders were reopened, but suggested that “it was wrong to dub expatriates as super spreaders”. A local newspaper in Ahmedabad had a headline, “Ahmedabad, beware of super spreaders” while reporting that the number of vegetable vendors and kirana store owners testing positive for COVID-19 in Ahmedabad had been on the rise. The Dadra and Nagar Haveli and Daman and Diu administration banned vegetable vendors from Gujarat to enter the Union Territory with the fear of vegetable vendors being super spreaders.

### The Fallout

Research documents a range of negative consequences (direct and indirect) associated with negative stereotyping, such as discrimination and hostility, negative attitudes, and a lingering effect of lack of self-control and aggression. Such outcomes are already visible in India. Incidents of people, particularly Muslims, being harassed for their suspected affiliation with Tablighi Jamaat have been reported. The Orissa High Court, in its order early May (which was stayed by the Supreme Court), required migrants, returning from other parts of the country, test negative before they were allowed to enter the State, without specifying who would pay for the cost of tests and the fate of those who would test positive. The groups labelled super spreaders represent some of the most vulnerable groups in Indian society. Vegetable vendors and others that supply essential services during this crisis are not only more vulnerable for infection because of the nature of their profession but are also more likely to face adverse outcomes, if infected, because of their marginality. These groups are less likely to have access to good health care, more vulnerable to economic shocks caused by the illness, and little voice in the political process to defend their rights.

### Government Support Is Key

The Ministry of Health and Family Welfare had urged the citizens to “not label any community or area for the spread of COVID-19”. State and local governments are undertaking testing drives to identify the infected among these groups. But by simply excluding them from their livelihoods, if found positive, and providing them no other form of support, they are failing to protect them from the consequences of negative stereotyping and marginality. Beyond exhortations and free testing, the governments should develop a supportive infrastructure for these groups. For example, the governments could provide them cost-free masks and sanitisers and support the families of infected individuals. Public officials and the media could also refrain from the indiscriminate use of the term super spreaders, when referring to these groups, to avoid the resultant negative stereotyping and its adverse effects on these groups.



## Business & Economics

### How Covid-19 Pandemic Has Changed Consumer Behaviour

→ In the initial days of India's first lockdown in March, consumers responded to the Covid-19 crisis with anxiety and fear, leading to panic buying of staples and hygiene products. As cases continue to increase and the economy shrinks, the consumer is adapting. A recent report on the impact of Covid-19 on consumer sentiment and behaviour by Mckinsey & Co, published on July 8, after conducting weekly, bi-weekly and monthly surveys in 12 countries, said that 91 per cent Indians changed their shopping behaviour due to the crisis. **Many urban consumers, increasingly working from home and reluctant to deal with crowded public places, are moving online for their shopping needs. If demonetisation compelled people to shift toward cashless payments, Covid-19 has made them adopt online shopping. There has been more than 10 per cent growth in online shopping across categories during the pandemic globally, according to Mckinsey, and it is expected that consumers will continue with this practice even if brick-and-mortar stores reopen.** Globally, one in five consumers who ordered their last groceries online did so for the first time. For consumers aged 56 years and above, this figure was one in three, said Accenture, in a similar research report published in April. These days, people are buying larger pack-size products or multiple units at once. **Falling incomes coupled with low optimism about the economy is making Indian consumers spend more on essentials, such as grocery and household supplies, and cutting back on categories like apparel, footwear, and travel.** The Mckinsey & Co survey indicated that about 61 per cent of Indians are more mindful of where they spend their money, and 45 per cent are shifting to less expensive products. Apart from groceries and household supplies, Indians continue to spend on entertainment at home (from TV to streaming websites). The shift towards remote learning and aiding personal fitness and wellness through online resources is expected to accelerate. "Consumers are caring for themselves using virtual tools (such as fitness and meditation apps). Half of those we surveyed are spending more time on self-care and mental wellbeing," said Accenture.

### Inflation Alert

→ The last thing that India's pandemic-hit economy needs is accelerating inflation. And, yet, that is precisely what the latest data point to. June's retail inflation reading of 6.1% is worrying, particularly since it was the first month when the economy reopened from the crippling lockdowns of the preceding two months. While the disruptions caused to the supply of goods and services as a result of the nationwide shutdown can to an extent explain the acceleration in price gains, that this happened despite depressed demand is cause for disquiet. With inflation already above the RBI's 6% target upper bound, monetary policy makers face an unenviable choice. A further rate cut to help revive economic momentum risks fanning faster price gains and putting the economy on a path to stagflation.

### How Different Is the Centre's Farm Trade Ordinance from Punjab's Amended APMC

#### Act?

→ Punjab CM Amarinder Singh has closed ranks with state's farmer unions to oppose three farm ordinances recently brought by the Centre. Among these, the **Farmers' Produce Trade and Commerce (Promotion and Facilitation) Ordinance** will **end the state's Agriculture**

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Produce Market Committee (APMC) Act. The Punjab government and farmer unions are opposing this on the pretext that it will not only privatise the entire sale/purchase system, but will also end the MSP regime. Opposition SAD, however, argues that the Amarinder Singh government had already amended APMC Act in 2017 to allow private mandis to operate. But how similar or different are state's amended APMC Act and Centre's ordinance.

### What Is the Difference Between State's APMC Act (Amended In 2017) And Centre's Farmers' Produce Trade and Commerce (Promotion and Facilitation) Ordinance?

As per the state Act, only a licence holder from the government after meeting the provisions laid under the APMC Act can do trade, while in Centre's ordinance, no licences from the state government are required and any PAN cardholder can do trade.

### Where Can Trade Be Done?

As per the state's amended APMC Act, trade will be allowed in both the mandis – state-owned mandis under Punjab Mandi Board (PMB) and the private mandis allowed under the amended Act. In private mandis, trade is allowed in the notified yards by the government and the farmers can sell their product in private or PMB mandis as per their wish. The PMB charges a fee/cess which is used for the development of the mandis and the rural areas. Under the Centre's ordinance, neither state owned nor the private mandis are needed and trade can be done at any place which includes at farmers' doorstep, traders' own premises or at farmer's fields anywhere beyond the notified market yard. Also, farmers can sell their product anywhere in the country. Renowned Economist Sardara Singh Johal said: "Providing selling facility to the farmers outside APMCs is acceptable, but the state government should ensure that even if the farmers are selling their crop outside the APMC yards than purchase tax and market fee is charged from the buyers. Further, such funds must be shown in the budget of the state and be used for the development works of the state.... If the government will not make any such provision then it will face a major blow in its income."

### What Type of Private Market Committees Can Be Set Up Under the State Act?

Apart from 1,852 big and small mandis under PMB across the state, there is a provision of setting up of private market yards demarcated by the government under the amended Act. These mandis can be of three types, owned by the private players and can be set up in 10 acres, 3-acre and one-acre areas where only trade of fruits, vegetables, flowers, wood and livestock is permitted. The government will have full control over it. The owners of these private yards and their relatives cannot engage in trading activities and they can work as operators of these mandis. Taxes and other duties decided by the government will be levied on the sale and purchase of farmers' produce. Centre' ordinance, meanwhile, has no such provision. Trade can take place anywhere without charging any fee as the state government will not have no control on such trade. The state had also provided for setting up of 'kisan mandis' and 'special mandis' where farmers can sell their produce directly to the consumers. The Abohar kinnow mandi, Ludhiana's fish market and Balachaur's (Nawanshahr) 'green peas' market are examples of these. But there is no provision of setting up any such mandi as per the ordinance.





### What If There Is A High Fluctuation of Prices?

As per state Act, there is a provision of setting up of 'Price Stabilisation Fund' by the government which can be used to facilitate farmers in case of high fluctuation of the crop prices. There is no such provision under the Ordinance.

### What About the Market Fee/Cess Which Is Charged By The PMB On The Sale/Purchase Of Farmers' Produce In Its Mandis?

The state APMC Act says that cess/fee like RDF (Rural Development Funds) would be levied on sale/purchase in the notified private market yards, but there is no such provision in the ordinance.

### What About Payment to Farmers Who Will Sell Their Produce to The Traders?

State APMC makes the provision that farmers will be paid for selling their products within 48 hours. The sale/purchase is regulated by the government because only licence holders can do trade in such mandis. And if the trader fails to pay farmer on time then the matter can also be resolved through Market Committee of the PMB or by presenting the case to Secretary, Agriculture. The concerned Deputy Commissioner (DC) also has the power to sell any property of the trader to pay the dues of farmers. Finally, the matter can also reach the court for settlement. As per the Centre's ordinance, the farmers will be paid either on the same day or within three working days. In traders does not pay, the matter can be resolved through mutual compromise, or they can present their respective case to SDM or Deputy Commissioner (DC). No provision under the ordinance provides for taking the matter to court.

### What is The Status of e-Trading?

Only licence holding dealer can do e-trading, but as per the ordinance, any PAN cardholder can do it and no fee would be charged.

### How Big Companies Can Enter the Trade of Crops, Food Processing?

The state government had introduced a Unified Licence System, so that big companies in the food processing to take steps in the interest of farmers. But in case of the ordinance, there is no need for a licence for big companies. "We are totally against the ordinance which will allow big companies to enter into the agriculture purchase market and loot the farmers as per their wish without any control on them," said BKU (Dakunda) General Secretary Jagmohan Singh.

### How Many Private Yards Were Opened in Punjab Under the Provisions of The APMC Act Of 2017?

According to the GPS Randhawa, General Manager, PMB, **not a single private mandi could be opened under it till date** because agricultural ventures are not much profitable these days.

### What Happened to The MSP Regime After the APMC Amendment?

"After the APMC was amended three years back, the MSP regime continued in the state as it was before. Even now, major agricultural products like wheat and paddy are brought only in the PMB owned markets where state and Centre's procurement agencies purchase it from the farmers on fixed MSP. The ordinance's provisions may end the MSP regime soon," claimed Randhawa.



## Govt's Proposal for A Unified Gas Price System

→ The government is aiming to cut down the cost of transportation of natural gas by setting a fixed tariff for the transportation of natural gas for longer distances to boost gas consumption. Union Minister for Petroleum and Natural Gas, Dharmendra Pradhan has said that the government is planning to rationalise tariffs for the transportation of natural gas to boost its consumption in the country. The Petroleum and Natural Gas Regulatory Board (PNGRB) has also published a discussion paper on moving from a system where buyers of gas are charged for every pipeline, they use in the system to a single charge across a pipeline network. The proposal, the government says, is part of a larger effort by it to boost the share of natural gas in India's energy basket from around 6 per cent currently to 25 per cent by 2030.

### How Are Tariffs Decided Currently?

Currently, tariffs for transportation of gas are set by the PNGRB separately for each pipeline based on the assumptions of volume of gas transported on the pipeline and its operating life aimed at providing the operator a pre-tax return of 18%. Tariffs for pipeline usage are divided into zones of 300km, with the tariff increasing for zones further away from the point where gas is injected. Further, if a buyer needs multiple pipelines even from the same operator, that transport tariff would increase. These tariffs increase the cost for buyers of gas further away from the point of injection of natural gas. All of India's imported natural gas arrives at terminals on the west coast leading to costs for buyers increasing, the further east they are located. "A consumer in Bihar or West Bengal has to use 2-3 pipelines of GAIL to get natural gas from Hazira and the tariff becomes additive," said Vivekananda Subbaraman, analyst at Ambit Capital. An expert noted that transport cost accounts for as much as 10% of the final cost of gas to an industry currently because of low international prices but usually accounts for around 2-3% of the price of natural gas. The expert also noted that this cost would increase significantly for buyers of gas in far flung areas of the country because of the current gas transport tariffs.

### What Is the Proposed Move?

The government is aiming to cut down the cost of transportation of natural gas by setting a fixed tariff for longer distances to boost consumption. The government is proposing a unified price system with one price for those transporting gas nearby within 300 km and one price for those transporting gas beyond 300km. The move would fix tariff prices within an integrated pipeline network such as that of GAIL, which has India's largest gas transportation pipeline network in the country preventing buyers from having to pay charges for the use of multiple pipelines. "Such a move would help connect new markets and would benefit consumers in parts of the country far from the western coast," said Subbaraman.

### Who Then Pays?

The cost of gas transportation for oil marketing companies such as Indian Oil corporation and fertiliser plants that are closer to the points of gas injection may go up if the government lowers rates for transportation of gas to areas farther away from points of supply. GAIL would hope that the average tariff per unit of gas transported will not be very different from current tariffs, and experts say that the company would hope for increased utilisation as demand for gas increases. GAIL had also proposed a system with a unified tariff to boost gas consumption. The government is also expecting that as India boosts gas imports, it will be



able to negotiate better prices on gas imports, Subbaraman noted. “We are sub-scale importers, as we have a lot of latent demand which is not getting unlocked. We may get better rates on imported gas if we become larger importers”, he said.

## How Does the Rewa Solar Power Plant Match Up to Similar Plants in India And Abroad?

→ The 750- megawatt Rewa solar Power Plant in Madhya Pradesh was dedicated to the nation by Prime Minister Narendra Modi on Friday (July 10). The solar plant was set up by the **Rewa Ultra Mega Solar Limited**, a joint venture between **Madhya Pradesh Urja Vikas Nigam Limited** and the Centre’s **Solar Energy Corporation of India (SECI)**. The project has also received Rs 138 crore financial assistance from the central government. The plant consists of three solar power generating units that are located on a 500-hectare plot of land inside a 1,500-hectare solar park. Mahindra Renewables Pvt, Arinsun Clean Energy Pvt, and ACME Jaipur Solar Power Pvt are the three companies that bagged the mandate to build the three generating units, with a bulk of the equipment for it coming from China.

### Is It the Largest Solar Plant in Asia?

The 750-MW solar plant is quite large in terms of scale, and is expected to reduce the country’s emission drastically, by an amount equivalent to 15 lakh tonne of carbon dioxide annually. But while it is one of the largest single-site solar power plants in India, it is not the largest in Asia. The distinction of the world’s second largest photovoltaic power station goes to the Bhadla Solar Park, with a capacity of 2,245 MW, in Jodhpur district in Rajasthan, and the Pavagada Solar Park in Tumkur district, Karnataka, which has a capacity of 2,050 MW. According to data from Bloomberg New Energy Finance, there are nine solar plants that are bigger than the one at Rewa.

### What Are the Components of The Plant?

The project has three units of 250 MW each. The process of reverse auction in bidding for projects was tried for first time in India for this project, with Mahindra Renewables, ACME Solar Holdings, and Solengeri Power emerging as the winners for the project’s three units at tariffs of Rs 2.979, Rs 2.970, and Rs 2.974, respectively, for the first year. **International Finance Corporation**, a World Bank group company, has invested close to \$440 million or Rs 2,800 crore in the project and Power Grid Corporation of India has developed the 220/400 KV inter-state transmission system under green corridor to facilitate evacuation of power from the project site to consumers.

### Who Will Buy Power from The Project?

This is the first solar project in India where different categories of customers have contracted to buy power – Madhya Pradesh Power Management Company Limited (which will get 76 per cent of the power from the plant) and the Delhi Metro Rail Corporation (DMRC being an open access consumer). It is also the first project to get funding from The World Bank and Clean Technology Fund in India.



## Sure Power

→ India's installed base of this green power source is about 35 gigawatts (GW), and its projected addition of capacity until 2024 in a COVID-19 affected future is estimated by the industry to be of the order of 50 GW. Viewed against the goals set five years ago for the Paris Agreement on climate, of installing 100 GW of solar power by 2022, there could be a sharp deficit. Combined with low domestic cell manufacturing capacity at 3.1 GW last year, and heavy reliance on China, high ambition must now be supported by aggressive official policy. The Chinese story is one of a steady rise from insignificant manufacturing capability in the 1990s, to virtual dominance through active government support in identifying and acquiring top technologies globally, importing critical raw materials such as polysilicon, acquiring solar manufacturers abroad, and investing in third countries with ready capability. Importantly, the domestic market was treated with great importance while promoting exports. The pandemic presents a critical opportunity for India to plan a green deal, on the lines of what the EU has committed itself to: that future growth and employment should align itself to environmental and sustainability objectives, particularly in energy production, away from dirty fuels such as coal. There is no better time than now to make solar energy a strategic sector, giving it as much importance as defence. **As the architect of the International Solar Alliance, which attracted about 120 nations at its launch, India needs to show leadership to advance the manufacture and absorption of solar photovoltaic infrastructure in low- and middle-income countries.** The key requirements are integrated policies fully supported by States. Industry must get help to set up facilities and avail low cost financing – both important elements in China's rise – and be able to invest in intellectual property. A forward-looking programme should also look at emerging trends in deploying solar innovatively. These include newer technologies such as aesthetic photovoltaic window and roof tiles for buildings, multi-role urban structures, and greater use of residential and commercial buildings to deploy more panels. Rapid progress requires a strategic shift to aid competitive domestic manufacturing.

## Why Is Yes Bank Launching an FPO Today?

→ In order to boost its capital levels in line with regulatory norms, Yes Bank is launching its **Follow-on Public Offer (FPO)** to raise Rs 15,000 crore from the market. The price band for the issue has been fixed at Rs 12 to Rs 13 per share – which is substantially lower than market price of Rs 25.60 at close at the National Stock Exchange Friday. The discount is likely to make the offer attractive for new investors, making capital raising easier for the lender and reducing the burden on the consortium of banks to infuse further capital. A State Bank of India-led consortium of banks infused nearly Rs 10,000 crore in Yes Bank in March in a reconstruction plan approved by the Reserve Bank of India. SBI, the largest shareholder in Yes Bank, approved further investment of up to Rs 1760 crore in Yes Bank. The bank was placed under a moratorium by the RBI in March and a new management and board were appointed.

## What Are the Issue Details?

The FPO opens for **anchor investors** on July 14. For all other investors, the offer period is July 15-17. **The lender has kept retail portion** for investment at a minimum of 35 per cent of the offer size, while for non-institutional investors a minimum of 15 per cent of shares have been reserved. **Qualified institutional buyers (QIB)** can buy up to 50 per cent of the total issue size. A maximum of Rs 200 crore worth of shares have been reserved for Yes Bank employees,





who will also get a discount of Rs 1 per share. An investor needs to bid for a minimum of 1000 shares and in lots of similar quantity for higher subscription. Yes, Bank chose the FPO route as it offers freedom in pricing the issue, as compared a Qualified Institutional Placement (QIP) route that requires pricing around recent market prices as per a SEBI formula.

### What About Yes Bank's Capital Levels and Profitability?

Spurt in NPAs and consequent provisioning has led to Yes Bank breaching the capital adequacy requirements as mandated by the Reserve Bank of India. At March-end 2020, Tier 1 capital ratio for the bank was 6.5 per cent, much below the RBI requirements of 8.875 per cent, necessitating the fund-raising plan. Yes Bank reported a net profit of Rs 2,629 crore after the private lender wrote down additional tier-1 bonds as part of its reconstruction scheme. Excluding the write-down, the bank has posted a loss of Rs 3,668 crore for the fourth quarter ended March 2020, as against a loss of Rs 1,507 crore in the same period of last year. The bank had reported a record loss of Rs 18,560 crore in the December quarter, as it made provision of Rs 15,422 crore during the quarter against NPAs. The bank's gross NPAs were at Rs 32,878 crore (16.80 per cent of advances) this March as against 3.20 per cent in March 2019 and 18.87 per cent in December 2019.

### What Does the Solution Mean to Reliance and Its Users?

- Reliance Industries CMD Mukesh Ambani Wednesday announced that the company's telecom venture Jio has designed and developed from scratch, a complete indigenous 5G solution ready for deployment. The announcement, made at the company's Annual General Meeting, will enable Jio to export 5G solutions to other telecom players globally, Ambani said.

### Where Does India Stand on The Deployment Of 5G?

Companies, both telecom service providers and their equipment vendors, have completed lab trials of 5G network components but are yet to commence field trials, which were initially scheduled to happen last year. For the same, telecom companies are awaiting allocation of test spectrum from the Department of Telecommunications (DoT). The service providers have already tied up with equipment makers like Nokia, Ericsson, etc for deploying their 5G networks.

### What Does Jio's 5G Solution Comprise?

Jio is said to have a complete end-to-end 5G solution prepared by the company itself that is ready for deployment once the networks are in place. This solution can also be deployed by other telecom operators as a complete managed service. When Reliance announced investment by American chipmaker Qualcomm into Jio, it had said that the investment will deepen the ties between Qualcomm and Jio Platforms, "to support Jio Platforms on its journey to rollout advanced 5G infrastructure and services for Indian customers". Additionally, with Google's partnership, Jio plans to develop affordable smartphones using an optimised Android-based operating system. Experts peg that developing an Android 5G app ecosystem focused on emerging markets would also be an area of focus for Google from a medium-term perspective.



## What is 5G?

5G or fifth generation is the latest upgrade in the long-term evolution (LTE) mobile broadband networks. The first generation of networks allowed only mobile voice calls to be made, while the second generation allowed mobile voice calls as well as sending of short text messages. It was the third generation or 3G network which allowed web browsing on mobile devices, the speed and latency of which improved with fourth generation or 4G networks. The 5G networks will have even faster speeds with latency down to between 1-10 milliseconds. Latency is the time a device takes to communicate with the network, which stands at an average of up to 50 milliseconds for 4G networks across the world.

## How Does 5G Work?

All 5G networks chiefly operate on three spectrum bands. The low-band spectrum has been proven to have great coverage and works fast even in underground conditions. However, the maximum speed limit on this band is 100 Mbps (Megabits per second). In the mid-band spectrum, though the speeds are higher, Telco's across the world have registered limitations when it comes to coverage area and penetration of telephone signals into buildings. The high-band spectrum offers the highest speed but has extremely limited network coverage area and penetration capabilities. The Telco's using this band rely on the existing LTE networks and will need to install a number of smaller towers to ensure adequate coverage and high-speed performance.

## What Does It Mean to Be 5G Ready?

Globally, companies like AT&T, T-Mobile, and Verizon have been deploying 5G networks across their service areas. While AT&T had started rolling out the service as early as 2018, other providers in the US have caught up and are starting to provide limited services on a test case basis to customers. Not only the network, the devices will also have to be 5G ready for customers to be able to enjoy maximum benefits of the latest upgrade in mobile broadband. One of the major improvements in 5G is the use of beam tracking to follow all devices on the network to ensure consistent connection in real-time for the device. 5G networks are also designed to multiple-input multiple-output (MIMO) efficient which improves signal throughput for all devices on the network.

## What The \$10 Billion Investment Means for Google, And India

- Tech-giant Google announced plans to invest \$10 billion in India over the next 5-7 years by way of equity investments, partnerships and other arrangements to "accelerate digitisation" in the country. The announcement assumes particular significance given the impending gap in the country's tech investment ecosystem following the Centre's clampdown on Chinese technology firms.

## How Will Google Invest from the \$10-Billion Fund?

Google said its \$10-billion fund would focus on areas such as enabling affordable access to the Internet and to information for every Indian in their own language; building new products and services in segments like consumer tech, education, health and agriculture; empowering businesses, especially small and medium ones, to transform digitally; leveraging technology and artificial intelligence for digital literacy, outbreak predictions, and support for rural economies. These investments will be made through a mix of equity investments, partnerships, operations, infrastructure and ecosystem investments. These include Google's

Shatabdi Tower, Sakchi, Jamshedpur



existing projects such as Internet Saathi for spreading awareness of the Internet in rural villages and an artificial intelligence-based flood forecasting system, among others.

### Is This A Reaction to The Curbs on Chinese Companies?

While the fund may have been in the works since before the clampdown on Chinese companies, the development did present an opportunity for tech majors like Google to grow their share in India's internet pie. Big technology companies like Google, Facebook, Netflix and Twitter are, in any case, prohibited from doing business in China. Potential hurdles for Chinese companies investing in India could provide better prospects for American giants to strengthen their position in a market which has the **second-most Internet users in the world**.

### What Are Google's Top Investments in India So Far?

Google has invested in various start-ups and ventures in India through several of its investment vehicles. On November 1, 2013, the company invested Rs 3.13 crore in Sana Ventures in the seed funding round, and Rs 3 crore in Agastya International Foundation. Since then, it has invested in \$45,000,000 in Dunzo and Rs 39 crore in the online education portal CueMath. In its latest investment on June 24, Google put \$27,500,000 in the Series E funding of a Gurugram-based company Aye Finance.

### How Does This Compare with Google's Global Investments in Tech Ventures?

Compared with its global investments, investment in India dwarves, but the \$10 billion as part of the 'Google for India Digitization Fund' will boost Indian companies in Google's portfolio. Between January 1, 2010 and July 13 this year, Google and its venture capital arms have invested in more than 900 companies globally. Among these, it has the maximum investments of \$1.5 billion in Indonesian multi-service startup Gojek, \$1 billion in ride-sharing firm Lyft, \$1.4 billion in its rival Uber, and \$1 billion in Elon Musk's SpaceX.

### How Does This Announcement Figure in Big-Tech's Outlook on India?

Google's investment plan is in line with big-tech's bullish outlook on India. Earlier this year, Amazon said it would invest an additional \$1 billion in India. This was followed by a marquee investment announcement of \$5.7 billion by Facebook in the country's largest telecom company Reliance Jio. Last month, Microsoft's venture fund M12 said it would open an office in India to pursue investment opportunities focusing on B2B software start-ups.

### Amid China Chill, US Tech Giants Warm Up to Jio

- ➔ Google's investment of Rs 33,737 crore, or \$4.5 billion, in Jio Platforms takes the total money pumped into India's largest telecom company by US-based investors to more than \$16.7 billion – almost half of what India received from the US as foreign direct investment (FDI) over the last two decades. Jio's fundraising spree this year has also left behind the cumulative investments made in India's technology sector in the whole of 2019, which stood at \$9.36 billion. Between April 2000 and April 2020, cumulative FDI inflows from the US stood at \$29.78 billion, according to Department of Commerce data (not including investments by US-based companies routed through other jurisdictions such as Mauritius, British Virgin Islands etc.). With Google on board, Jio now has business arrangements with five US technology giants – Facebook for a partnership of its messaging platform WhatsApp with Jio's e-commerce venture JioMart; Microsoft for its cloud computing platform Azure; Google for building an Android-based smartphone operating system; and Intel and Qualcomm for



developing new products. With the exception of Microsoft, all other firms have a stake in Jio Platforms. In effect, 27.61% of Jio is now owned by US firms. This assumes significance when the Indian government has signalled curbs on Chinese technology investments while banning 59 mobile apps with links to Chinese Internet majors such as Alibaba – one of the largest Chinese investors in Indian start-ups. The first one to step in was Facebook that purchased a 9.99% stake in Jio back in April for Rs 43,573.62 crore, or \$5.7 billion, becoming the biggest minority shareholder in the company. This was followed by a series of US-based private equity firms like TPG Capital, L Catterton, General Atlantic, Silver Lake, and West Asian sovereign funds like Mubadala and ADIA of the UAE and PIF of Saudi Arabia picking up minority stakes in Jio Platforms. Reliance Industries, of which Jio Platforms is a unit, has so far divested 32.97% stake in the telecom company for Rs 1.52 lakh crore. In addition to Jio, other large companies in India's Internet sector have also been flooded with American money. Seattle-based Amazon has invested \$5 billion in India, with a plan of investing an additional \$1 billion in its India operations announced earlier this year. US-based retail behemoth Walmart announced funding of \$1.2 billion in its Indian e-commerce unit Flipkart, in which Walmart purchased a majority stake in 2018 for \$16 billion.

### Life & Science

#### Sending the Right Message (Sujatha Byravan - Scientist Who Studies Technology, Science and Development Policy)

→ Miscommunication has rocked numerous aspects of the response to COVID-19. Sometimes, scientists who ought to provide clear, unambiguous public health information have failed to do so because of political interference. At other times, even when key public health messages were clearly articulated, some reporters misperceived grey areas and ongoing debates as scientific chaos and not as open questions that may simply require more evidence to resolve. There has also been mistrust in the efficacy of medical management and cynicism among those who follow public health messages from governments regarding the pandemic.

#### Communicating Vital Information

Some people are seen removing their masks to speak to others in close proximity or even to cough, but otherwise wear them diligently in public as a badge of civic honour. The message that is entirely lost is that even simple masks can largely stop expelled droplets from a person's nose or mouth; thus, we protect one another from infection when we wear masks. **People suspected of having flu-like symptoms are shunned or, worse, physically assaulted.** On the other hand, there seems to be little or no awareness that asymptomatic cases may be everywhere. **U.S. President Donald Trump has been one of the worst possible communicators of vital information during the crisis. A few Americans reportedly drank bleach in response to his suggestion that it would perhaps work inside the body.** There were also open disagreements between Mr. Trump and medical experts who shared the stage with him during daily media briefings. In any crisis where science matters, messages that ask people to change their behaviour have to be very clear to be understood and followed. **Providing instructions on medication, treatment choices, physical distancing, testing and wearing masks requires elaborating on the reasons, so that people understand the logic.**





Instead of trying to manage the news, providing sufficient funding for public health research and allowing scientists to work freely and give independent reports to the press without censorship are vital to a good health system. Transparency and clarity on what public health proposals are being considered would build faith and confidence in the government. The social vetting of scientific claims is necessary and can only happen with transparency. People do not expect infallibility from their governments, but they do seek accountability. Instead, all but a few countries have misled people on numbers of cases and testing protocols.

### Climate Change Communication

Some commentators have wondered whether COVID-19 and climate change communication matters are alike. While some aspects seem similar, I believe they are quite different, although there are insights to be learned from experience with the latter. For several years, a few scientists and the fossil fuel and petrochemical industry have deliberately muddied the facts and the messaging on climate change. Although the science is clear – that rising greenhouse gas concentrations in the atmosphere mainly due to the burning of fossil fuels have raised average global temperature over more than a century – that message has been deliberately and systematically eroded in some quarters through funds from private parties and corporations that are merely concerned about their profits. For instance, in the U.S., the Koch Brothers are major sponsors of smokescreens concerning climate change. The Koch Family Foundations are reported to have spent over \$125 million to finance 92 groups that have attacked climate change science and policy solutions, from 1997 to 2017. In an article in The New York Times (July 10, 2019), one learns that funds even from corporations, like Google and Amazon, which have publicly committed themselves to supporting climate change action, were funnelled into groups like the Competitive Enterprise, a Washington-based think tank that challenges anthropogenic climate change. Lawyers and experts who previously worked with the tobacco industry and helped them lie about tobacco being seriously harmful to health have been funded by conservative think tanks like the George C. Marshall Institute to support the climate change denial industry. In Merchants of Doubt, Naomi Oreskes and Erik Conway argue that these groups have operated by sowing doubt although scientific consensus has already been reached. Their strategy has been to maintain the controversy and therefore keep any fake confusion alive. By roping in scientists, establishing research groups and appointing spokespersons who maintain doubt, they are co-opting scientific trappings without deploying scientific logic and methods. The same approach has been applied to tobacco smoking, DDT, acid rain, the ozone hole and some nutrition studies. These activities therefore end up looking and sounding like legitimate science. While the focus of the confusion in the case of climate change is deliberate and planned, in the case of COVID-19, scientists did not know much about the SARS-CoV-2 virus when the pandemic broke. There appears nothing to be gained from deliberately obfuscating the message. But those who consider economic losses to be a graver danger than lost lives through COVID-19 are protesting. Will elite interests then try to muddle the science deliberately?

### Responsibility Towards the Public

Communicating science means explaining details to the public without condescension, admitting mistakes, promptly rebutting pseudo-science, being guided by data and interpreting the logic for policies undertaken. Instructions provided by scientists may be inconvenient and fail to take note of election cycles. Even when the situation is long-drawn-



out, as in the COVID-19 pandemic, listening to scientists and putting their advice into practice can lead to better management of the pandemic, as seen in New Zealand and some Southeast Asian countries. It is essential that those who can influence decisions, such as civil servants and scientists, along with the politicians making decisions, be guided by a sense of responsibility towards the public.

## NASA Research Says the Moon Is More Metallic Than Thought Before. What This Means

- In a new milestone in lunar exploration, NASA this week said that its **Lunar Reconnaissance Orbiter (LRO)** spacecraft had found evidence that the Moon's subsurface might have greater quantities of metals such as iron and titanium than thought before. The metallic distribution was observed by the **Miniature Radio Frequency (Mini-RF)** instrument aboard the LRO. Published on July 1 in *Earth and Planetary Science Letters*, the finding could aid in drawing a clearer connection between Earth and the Moon, the press release said.

### What NASA Has Found

In order to understand the origins of the Moon, scientists have for years explored the presence of metal deposits on the satellite comparative to Earth. As more data has become available over time, researchers have been able to further refine their hypotheses. The new discovery by NASA is expected to challenge some of their past beliefs. Out on a mission to look for ice in polar lunar craters, the LRO's Mini-RF instrument was measuring an electrical property within lunar soil in crater floors in the Moon's northern hemisphere. The property, known as the **dielectric constant**, is the **ratio of the electric permeability of a material to the electric permeability of a vacuum**. To their surprise, the Mini-RF team observed that the level of this property increased as they surveyed larger craters, and kept rising in crater sizes up to 5 km in diameter. Beyond that size, the value of the dielectric constant levelled off. Essam Heggy, the lead author of the published paper and coinvestigator of the Mini-RF experiments, called the observation "a surprising relationship that we had no reason to believe would exist."

### What the Discovery Means

According to the NASA press release, the findings **raise the possibility that the dielectric constant increased in larger craters because the meteors that created them dug up dust containing iron and titanium oxides from beneath the Moon's surface. Dielectric properties are directly linked to the concentration of these metal minerals.** If true, this logic would imply that **beyond a few meters of the Moon's upper surface— which relatively has lower metal deposits— lie large unknown quantities of iron and titanium oxides.** The Mini-RF findings were backed by metal oxide maps from the LRO Wide-Angle Camera, Japan's Kaguya mission and **NASA's Lunar Prospector spacecraft**, which showed that larger craters with their increased dielectric material were also richer in metals. The maps suggested that more quantities of iron and titanium oxides were dug up from 0.5 to 2 km below the Moon's surface as compared from the first 0.2 to 0.5 km. NASA has now undertaken further research to find whether the same relation between metal deposits and crater size holds true on the southern hemisphere of the Moon.

### The Moon Formation Hypothesis

The most popular theory about the Moon's creation is that a Mars-sized protoplanet collided with newly formed Earth around 4.5 billion years ago, breaking off a piece of our planet that



went on to become its satellite. The hypothesis is also backed by substantial evidence, such as the close resemblance between the Moon's bulk chemical composition with that of Earth. However, it is also known that Earth's crust has lesser amounts of iron oxide than the Moon—a finding that scientists have been trying to explain. Now, the new discovery of even greater quantities of metal on the Moon makes their job even more difficult. "It really raises the question of what this means for our previous formation hypotheses," Heggy notes. According to an article in ScienceAlert, a possible reason could be that the Moon was created from a material much deeper beneath Earth's surface than was believed before, or that the newly found metal presence could be the result of molten lunar surface cooling down gradually.

## How Stars Provided the Carbon That Makes Life Possible

→ Carbon is essential for life: It is the simple building block of all the complex organic molecules that organisms need. It is known that all the carbon in the Milky Way came from dying stars that ejected the element into their surroundings. What has remained debated, however, is what kind of stars made the major contribution. Now, a study has provided new insights on the origins of the carbon in our galaxy. Published in 'Nature Astronomy' by an international team of researchers, the study is an analysis of white dwarfs – the dense remnants of a star after its death.

### How Does Carbon Come from Stars?

Most stars – except the most massive ones – are doomed to turn into white dwarfs. When the massive ones die, they go with a spectacular bang known as the supernova. Both low-mass and massive stars eject their ashes into the surroundings before they end their lives. And these ashes contain many different chemical elements, including carbon. "Both in low-mass stars and in massive stars carbon is synthesised in their deep and hot interiors through the triple-alpha reaction, that is the fusion of three helium nuclei," the study's lead author, Paola Marigo of the University of Padua in Italy, told The Indian Express, by email. "In low-mass stars the newly synthesised carbon is transported to the surface [from the interiors] via gigantic bubbles of gas and from there injected into the cosmos through stellar winds. Massive stars enrich the interstellar medium with carbon mostly before the supernova explosion, when they also experience powerful stellar winds," she said. What astrophysicists' debate is whether the carbon in the Milky Way originated from low-mass stars before they became white dwarfs, or from the winds of massive stars before they exploded as supernovae. The new research suggests that white dwarfs may shed more light on carbon's origin in the Milky Way.

### So, What Did the Study Find?

Between August and September 2018 at the Keck Observatory in Hawaii, the researchers analysed a few white dwarfs belonging to open star clusters of the Milky Way. They measured the masses of the white dwarfs, derived their masses at birth, and from there calculated the "initial-final mass relation" – a key astrophysical measure that integrates information of the entire life cycles of stars. They found that the relationship bucked a trend – that the more massive the star at birth, the more massive the white dwarf left at its death. "... We were struck by an unexpected and, in a certain way, bizarre result: the masses of those white dwarfs were notably larger than what hitherto astrophysicists believed. Even more surprising, we realized that their inclusion broke the linear growth, introducing a sort of small ripple in the relationship, a little kink peaking at initial masses around 2 solar masses," Marigo wrote for 'Nature' in an article about the research paper. So far, stars born roughly 1.5 billion of



years ago in our galaxy were thought to have produced white dwarfs about 60-65% the mass of our Sun. Instead, they were found to have died leaving behind more massive compact remnants, about 70-75% solar masses.

### What Explains This?

In their interpretation, Marigo and colleagues pose stringent constraints on how and when carbon was produced by stars of our galaxy, and ended up trapped in the raw material from which the Sun and its planetary system were formed 4.6 billion years ago. In the last phases of their life, stars that were about 2 solar masses produced new carbon atoms in their hot interiors, transported them to the surface, and finally spread them into the interstellar medium through gentle stellar winds. "Our detailed stellar models indicate that the stripping of the carbon-rich outer mantle occurred slowly enough to allow the central cores of these stars, the future white dwarfs, to grow considerably in mass," Marigo wrote. From an analysis of the initial-final mass relation around the little kink, the researchers drew their conclusions about the size range for the stars that contributed carbon to the Milky Way. Stars more massive than 2 solar masses, too, contributed to the galactic enrichment of carbon. Stars less massive than 1.65 solar masses did not. "In other words, 1.65-Msun [1.65 times the mass of the Sun] represents the minimum mass for a star to spread its carbon-rich ashes upon death," Marigo wrote.

### How Does This Compare with The Existing Theories of Carbon Enrichment?

"Actually, our study is not in favour of either scenario," Marigo told The Indian Express. "Both sources (low-mass and massive stars) likely contributed, in different proportions (still uncertain). Having fixed the minimum initial mass for the production of carbon in low-mass stars is a valuable result since it helps putting the puzzle pieces together," she said.

## A Forty-Year-Old Puzzle About Production of Lithium in Stars Is Solved

→ A forty-year-old puzzle regarding the production of lithium in stars has been solved by Indian researchers. Stars, as per known mechanisms of evolution, actually destroy lithium as they evolve into red giants. Planets were known to have more lithium than their stars – as is the case with the Earth-Sun pair. However, leading to a contradiction, some stars were found that were lithium-rich. The new work by Bharat Kumar, currently a post-doctoral fellow at the National Astronomical Observatories of China, Beijing, and an international team of co-workers shows that, in fact, when stars grow beyond their Red Giant stage into what is known as the Red Clump stage, they produce lithium in what is known as a helium flash and this is what enriches them with lithium. The study was published in the Nature Astronomy on July 7. The Sun, for instance, has about a factor of 100 lower amount of lithium than the Earth. About 40 years ago, a few large stars were spotted that were lithium-rich. This was followed by further discoveries of lithium-rich stars, and that posed a puzzle – if stars do not produce lithium, how do some stars develop to become lithium-rich? "The planet engulfment theory was quite popular. For example, Earth-like planets may increase the star's lithium content when they plunge into [their] star's atmosphere when the latter become Red Giants. I was not comfortable with this idea," said Professor Eswar Reddy, Director of India Thirty Meter Telescope Centre, Indian Institute of Astrophysics, Bengaluru, who led the study. Prof. Reddy has been working on this puzzle for nearly 20 years now, and had, along with his students, devised a method of measuring lithium content using low-resolution spectra in a large number of stars, with facilities provided at the Indian Institute of Astrophysics. For the present study, the group studied over 200,000 stars using the Galactic Archaeology survey

Shatabdi Tower, Sakchi, Jamshedpur





of the Anglo-Australian Telescope. This is the first study to demonstrate that lithium abundance enhancement among low mass giant stars is common. Until now, it was believed that only about 1% of giants are lithium rich. Secondly, the team has shown that as the star evolves beyond the Red Giant stage, and before it reaches the Red Clump stage, a helium flash produces an abundance of lithium. Lastly, they set a lower limit for helium abundance which will classify the star as “lithium-rich”. This value is about 250 times lower than the previous limit. The study challenges the present understanding of nucleosynthesis in stars.

## What Is Hope, UAE’s First Mission to Mars?

→ The launch of the United Arab Emirates’ (UAE) first mission to Mars has been delayed by two days due to bad weather conditions. The UAE’s Hope spacecraft was scheduled to take off from its launch site, Tanegashima Space Center, in Japan on July 14. The mission is now scheduled for July 16 launch. The spacecraft must blast off from the Earth during a brief launch window in July, since Earth and Mars orbit the Sun at different rates and are aligned at their closest points only once every two years.

### What Is the Mission?

The Emirates Mars Mission called “Hope” was announced in 2015 with the aim of creating mankind’s first integrated model of the Red planet’s atmosphere. Hope weighs over 1500 kg, and will carry scientific instruments mounted on one side of the spacecraft, including the Emirates eXploration Imager (EXI), which is a high-resolution camera, the Emirates Mars Ultraviolet Spectrometer (EMUS), a far-UV imaging spectrograph, the Emirates Mars InfraRed Spectrometer (EMIRS), and FTIR scanning spectrometer. The spacecraft will orbit Mars to study the Martian atmosphere and its interaction with outer space and solar winds. Hope will collect data on Martian climate dynamics, which should help scientists understand why Mars’ atmosphere is decaying into space. In 2017, NASA’s MAVEN spacecraft revealed that solar wind and radiation had stripped the Martian atmosphere from the planet, which could have supported life billions of years ago. In 2015, MAVEN team members showed how the planet’s atmospheric gas is being lost to space. This meant that Mars’ atmosphere is too cold and thin to provide stability to liquid water, which is essential for life. But evidence, in the form of features resembling dry river beds and minerals that can only be formed in the presence of liquid water, indicates that the ancient Martian atmosphere was much warmer, allowing water to flow on its surface. Therefore, scientists want to study the past environments that would have existed on Mars to understand how a planet’s habitability can change over time.

### What Does the Mission Plan to Achieve?

Once it launches, Hope will orbit Mars for around 200 days, after which it will enter the Red planet’s orbit by 2021, coinciding with the 50th anniversary of the founding of UAE. The mission is being executed by the Mohammed bin Rashid Space Centre, UAE’s space agency. “It will help answer key questions about the global Martian atmosphere and the loss of hydrogen and oxygen gases into space over the span of one Martian year,” the mission’s website says. The spacecraft will gather data– 1000 GBs of it, according to UAE’s Ministry of Cabinet Affairs–and information enabling scientists to build a model of Martian atmosphere, giving them clues about why the atmosphere changed, to search for a connection between current weather on Mars and the one that existed, study the loss mechanisms of Mars’ atmosphere and to investigate how the lower and upper levels of the planet’s atmosphere are connected.



### But Why Mars?

It mostly boils down to the possibility that the atmosphere of Mars was once warm enough to allow water to flow through its surface, which could mean life existed there too. What makes scientists curious about Mars is the “defining question” of the existence of life on the planet, because of the possible presence of liquid water on it, either in the past or preserved in its subsurface. This question makes the planet more intriguing for scientists since “almost everywhere we find water on Earth, we find life,” as NASA puts it. Further, **if Mars harboured a warmer atmosphere enabling water to flow in its ancient past (3.5-3.8 billion years ago), and if microbial life existed on it, it is possible that it exists in “special regions” even today. But regardless of life having existed on Mars or not,** there is the idea that humans themselves might be able to inhabit the planet one day. Hope is the Arab world’s first mission to Mars. Apart from the UAE, US, China and the European Space Agency have future missions to Mars planned. According to the Planetary Society, Mars has historically been “unfriendly” to Earth’s attempts to visit it and more missions have been planned to reach Mars than any other planet or place in the solar system, barring the Moon. But 1996, the society notes, marked a Renaissance for Mars exploration, with data from four orbiters and four landed missions developing a revolutionary view of Mars as an Earth-like world. **NASA is set to launch its Perseverance rover, part of its Mars 2020 mission between July 30-August 15 from Cape Canaveral Air Force Station in Florida. The rover will explore ancient habitability, seek signs of ancient life, gather rock and soil samples that could be returned to Earth and demonstrate technology for future robotic and human exploration.**

### Has Any Human Set Foot on Mars Yet?

No human has set foot on Mars yet because the atmosphere on Mars is very thin, consisting of mostly carbon dioxide with no breathable oxygen, making it difficult for astronauts to survive there. Further, the landscape of Mars is freezing, with no protection from the Sun’s radiation or passing dust storms. Therefore, more research, technology and testing are required to be able to send humans to Mars. NASA plans to do so by the 2030s.

### What is Comet C/2020 F3 Neowise, one of the brightest comets in decades passing Earth?

- The recently discovered comet called C/2020 F3, also known as NEOWISE after the NASA telescope that discovered it, will make its closest approach to the Earth on July 22. On the day, the comet, which takes 6,800 years to complete one lap around its orbit, will be at a distance of 64 million miles or 103 million kilometres while crossing Earth’s outside orbit. On July 3, the comet was closest to the sun at 43 million km. On this day, the comet cruised inside Mercury’s orbit and, due to its proximity to the sun, its outer layer was released creating an atmosphere – referred to as coma – of gas and dust from its icy surface. This atmosphere sometimes leads to formation of a bright tail of debris that can extend for thousands or millions of kilometres.

### What Are Comets?

Comets or “dirty snowballs” are mostly made of dust, rocks and ice, the remnants from time the solar system was formed over 4.6 billion years ago. In the distant past, people thought of comets as “long-haired” stars that would appear unpredictably in the sky. In fact, Chinese astronomers kept extensive records of these comets for centuries, including the time of their



appearance, disappearance and their celestial positions, NASA says. The word comet comes from the Latin word “Cometa” which means “long-haired” and the earliest known record of a comet sighting was made by an astrologer in 1059 BC. Comets can range in their width from a few miles to tens of miles wide. As they orbit closer to the sun, like in the case of C/2020 F3, they heat up and release debris of dust and gases that forms into a “glowing head” that can often be larger than a planet. The debris forms a tail that can stretch out to millions of miles. Each time a comet passes the sun, it loses some of its material and it will eventually disappear completely as a result. This is what NASA meant when it referred to C/2020 F3 and said, “The comet survived its recent closest approach to the Sun (on July 3), and is now headed back toward the outer solar system...”, since many comets don’t survive their close proximity to the sun. While there are millions of comets orbiting the sun, there are more than 3,650 known comets as of now, according to NASA.

### Why Do They Get Close to The Sun?

Comets may be occasionally pushed into orbits closer to the sun and the Earth’s neighbourhood due to forces of gravity of other planets. The appearance of some comets, like those that take less than 200 years to orbit around the sun is predictable since they have passed by before. These may be referred to as short-period comets and can be found in the Kuiper belt, where many comets orbit the sun in the realm of Pluto, occasionally getting pushed into orbits that bring them closer to the sun. One of the most famous short-period comets is called Halley’s Comet that reappears every 76 years. Halley’s will be sighted next in 2062. The less-predictable comets can be found in the Oort cloud that is about 100,000 AU from the sun, or 100,000 times the distance between the Earth and the sun. Comets in this cloud can take as long as 30 million years to complete one rotation around the sun.

### Why Do Astronomers Study and Track Comets?

Astronomers study comets since they believe that they hold important clues about the formation of the solar system and it is possible that comets brought water and other organic compounds, which are the building blocks of life to Earth. Further, NASA tracks all Near Earth Objects (NEOs) that includes comets and asteroids using telescopes placed all around the Earth, as part of its NEO Observation Program. This program has a congressionally directed objective to find, track and characterise NEOs that are 140 meters or larger in size since they can pose a risk to the Earth because of the devastation a potential impact can cause.

### What Does It Mean to Be Able to See A Comet?

Comets do not have light of their own and what humans are able to see from Earth is the reflection of the sun’s light off the comet as well as the energy released by the gas molecules after it is absorbed from the sun. The visibility of a comet cannot be precisely predicted since a lot depends on the way the “outbursts” of gas and dust play out determining how much of a “good show” the comet will put out for observers. According to a 2007 article written by retired planetary scientist Donald Yeomans, only a few comets are virtually impressive so as to be called “great comets”. Yeomans added emphasising that great comets should be viewed in dark skies. But even this is not enough for a comet to become great, since the comet must also make a particularly close approach to the sun for it to produce “enormous quantities” of gas and dust or it should make a relatively close approach to the Earth so that it is easily viewed.



### How Can One View Comet C/2020 F3?

It is possible to view Comet C/2020 F3 NEOWISE through binoculars or a small telescope. According to NASA, it was possible to see the comet through binoculars as of July 7 and some observers were able to view it unaided. "The good news is that right now, the comet is relatively easy to observe with binoculars or a small telescope, provided you have a clear view toward the horizon," NASA said on its website.

### Can A Diet of Fish Protect the Brain from Air Pollution?

- New research has suggested that eating fish may help protect the brain from the effects of air pollution. The circumstances are specific, however: The study was conducted on a group of older women who ate more than one to two servings a week of baked or broiled fish or shellfish. Fried fish is not thought to bring the same benefits. The study is published in the journal *Neurology*, published by the American Academy of Neurology.

### What Is the Connection Between Fish and Air Pollution?

Previous research had found that air pollution can affect the brain. Fish are known to be a source of omega 3 fatty acids. These fatty acids play an important role in the human diet and in human physiology, and have several health benefits. The research investigated whether regular consumption of omega 3 fatty acids counteracts the effect of air pollution on the brain. Specifically, they measured omega 3 fatty acid levels and brain volumes of participants, and correlated these with their fish intake as well as PM2.5 levels in their home areas. "Omega-3 fatty acids have been shown to fight inflammation and maintain brain structure in ageing brains. They have also been found to reduce brain damage caused by neurotoxins like lead and mercury. So, we explored if omega-3 fatty acids have a protective effect against another neurotoxin, the fine particulate matter found in air pollution," study author Ka He of Columbia University said in a statement released by the American Academy of Neurology.

### What Were the Findings of The New Study?

Among women who lived in areas with high air pollution and had the lowest levels of omega-3 fatty acids, the researchers found more brain shrinkage than among those with higher levels of omega-3 fatty acids. In other words, **women with higher levels of omega-3 fatty acids had greater volumes of white matter and hippocampus.** "Our findings suggest that higher levels of omega-3 fatty acids in the blood from fish consumption may preserve brain volume as women age and possibly protect against the potential toxic effects of air pollution," said He.

### What Does It Mean for The Brain to Shrink?

Ageing causes the brain to shrink in volume in humans and also tends to affect cognition. According to an article in the *Postgraduate Medical Journal*, as humans age, the chances of stroke, white matter lesions and dementia also rise, along with a level of memory impairment. Other factors such as stress may also cause certain areas of the brain to shrink in size. A 2011 study published in *PNAS* said that while some age-related changes in the brain were observed in other species, a decrease in brain volume, particularly of the hippocampus and the frontal lobe, could be associated with humans alone. Researchers found that some areas of the brain shrunk by almost 25% by age 80.





### What Are the Limitations of The Findings?

The researchers have cautioned that their study has only established an association between levels of omega-3 fatty acids and brain volumes. It does not directly prove that eating fish preserves brain volume. Among other limitations, most participants were older white women, so the results cannot be generalised to others. Also, researchers were only able to examine exposures to later-life air pollution, not early or mid-life exposures. The researchers have suggested that future studies look at exposures to air pollution across a person's lifespan.

### Have the Benefits of Fish Consumption for The Brain Not Been Studied Previously?

A study published in March 2020 in the Frontiers of Aging Neuroscience said that fish intake may improve cognitive ability and affect the brain structure in healthy people. In 2008, another study in Neurology reported that eating tuna and other types of fish may help in lowering cognitive decline and stroke in healthy older adults. This study found that people who ate broiled or baked fish high in omega-3 fatty acids three times or more per week had a nearly 26% lower risk of having silent brain lesions that can lead to stroke or dementia, compared to people who did not eat fish regularly.

### How does PM2.5 impact the brain?

A 2019 study published in Ecotoxicology and Environmental Safety reported PM2.5's effects on the central nervous system which it can reach through a variety of pathways. For instance, PM2.5 can destroy the integrity of the blood-brain barrier and reach the central nervous system. Alternatively, PM2.5 could enter the brain through the olfactory nerve.

### Indigenous Bugs Help Tackle Invasive Pest

- Two types of ladybird beetles are among the three indigenous bugs found to be the biological weapons against a Caribbean-origin enemy of Indian fruit farmers – the woolly whitefly. According to the Indian Council of Agricultural Research (ICAR), pests damage 30-35% of crops in the country annually. Among the newest of 118 exotic pests troubling farmers in India, particularly fruit growers, is the woolly whitefly first described from Jamaica in 1896 and noticed in Florida, U.S. in 1909. This whitefly (*Aleurothrixus floccosus*) is invasive and polyphagous, meaning a creature that feeds on various kinds of food. ICAR's National Bureau of Agricultural Insect Resources in Bengaluru had in 2019 reported the spread of the pest from the Caribbean island through transportation of infested seedlings.

### Guava at Risk

That year, the pest was recorded from guava plantations in Kozhikode district of Kerala, Ramanagara, Mandya and Bengaluru Rural districts of Karnataka and Coimbatore district of Tamil Nadu. In what could provide relief to fruit farmers, a team of entomologists from the Centre for Plant Protection Studies at the Coimbatore-based Tamil Nadu Agricultural University zeroed in on three indigenous bugs that can control the pest by devouring them. The research by K. Elango, S. Jeyarajan Nelson, S. Sridharan and A. Aravind was published in the latest edition of Bionotes, a journal for research on life forms. "Management of exotic pests is crucial for India's farm economy, but it is important to employ economically viable and environmentally sound measures. So we focussed on native predators for natural control of the woolly whiteflies," Mr. Elango told The Hindu. The entomologists found some



indigenous bugs feeding on this whitefly in a guava orchard near Coimbatore. The bugs were collected and studied in the laboratory. **“Two of these indigenous predators were ladybird beetles of the Coccinellidae family and one was the green lacewing fly from the Neuroptera order,”** Mr. Elango said. These insects having four life stages – egg, grub, pupa and adult – complete their life cycle in 30-40 days. The bugs fed on the woolly whiteflies during the active grub stage for 10-12 days, devouring more of the flies as they grew.

## How the Body Develops Immunity Against an Infection

- A longitudinal study by the researchers from **King’s College London** – first reported by The Guardian on Sunday – has suggested that immunity to Covid-19 might be lost in months. The suggestion is based on a steep drop in patients’ antibody levels three months after the infection. A look at the findings, implications and limitations of the new study, and the broader question of how the body develops immunity against an infection:

### Does A Drop in Antibodies Result in Losing Immunity Against the Virus?

Not necessarily. Antibodies are like fingerprints that give us evidence that a pathogen (the coronavirus in this case) has caused an infection and that the immune system has responded. The antibodies usually remain in the blood for a period of time and quickly activate the immune system when the body is exposed to the pathogen again. Some antibodies not only recognise when the pathogen returns, but also protect the body for a lifetime from re-infection, as in the case of measles. However, in the case of seasonal flu, the antibodies give protection for a very small period. In the case of the novel coronavirus, it is not yet clear how long the antibodies provide a recovered person protection. “Further studies are needed to determine the longevity of the antibody response and what level of antibodies is required to protect against re-infection,” the researchers said in a statement. Until then, the presence of antibodies only gives us the evidence that a person was exposed to the virus. The researchers flagged the fact that antibodies are just one of the ways in which the body can fight a virus such as SARS-CoV-2.

### So, What Is the Other Way?

The researchers make an observation: “... the role T-cell responses generated through either infection or vaccination play in controlling disease cannot be discounted in these studies”. **T cells are a key component of the immune response against a virus. A human body has two mechanisms of immunity response within the adaptive immune system.** First is the **humeral immune**, which is also called **antibody-mediated immunity** and has been discussed above. However, **when a virus enters a cell and can no longer be detected by antibody-mediated immunity, a cell-mediated immune response can take over to kill the virus. Cellular immunity occurs inside the infected cell, and are mediated by cells called T lymphocytes. These are the T cells, which recognise the infected cell. Before that, these cells have to be activated by interacting with an antigen (virus)-presenting cell. Once the T cells are activated, they clone themselves generating numerous T cells, and destroy the infected cells. During the process of activation, some of the T cells remain inactive as memory cells. These produce more T cells if the infection returns. Therefore, memory plays a crucial role in providing cell-mediated immunity. There are also helper T cells, which function indirectly by communicating to other immune cells about potential pathogens.**



## What Is the Evidence So Far on Cell-Mediated Immune Response to Infection With SARS-CoV-2?

AIIMS Director Dr Randeep Guleria said data emerging on immune response shows that cell-mediated immunity is also activated in some cases and is giving protection through T cells in the blood. In a study published in the journal Cell, researchers from Germany found that **T cell clusters emerge over the course of disease in recovering patients**. It said **T cells reactive to SARS-CoV-2 have been identified in "individuals exposed to other common cold coronaviruses"**, therefore suggesting that **T-cell response detected in healthy individuals is likely to be activated from the memory T cells derived from this earlier exposure**. In a commentary published in Nature on July 7, researchers from the US said **T-cell reactivity against SARS-CoV-2 was observed in unexposed people**. "However, the source and clinical relevance of the reactivity remains unknown. It is speculated that this reflects T cell memory to circulating 'common cold' coronaviruses. It will be important to define the specificities of these T cells and assess their association with Covid-19 disease severity and vaccine responses." In another article, published in the journal Immunity, researchers from the US reviewed the immunology of Covid-19 and posed two questions relating to T-cell response: first, what is the contribution of T cells to initial virus control and tissue damage in the context of Covid-19; and second, how do memory T cells established thereafter contribute to protective immunity upon reinfection. **The researchers wrote: "While the induction of robust T cell immunity is likely essential for efficient virus control, dysregulated T cell responses may cause immunopathology and contribute to disease severity in Covid-19."**

### Revealing Correlations

One of the ways of ascertaining the role of pre-existing immunity in protecting against SARS-CoV-2 virus is by measuring such immunity and correlating with infection and severity of disease in such people when they are exposed to the virus. The relationship between infections by common cold coronavirus and age is not well established and so, too, the immunity caused by infections by the four coronaviruses that cause the common cold. This becomes particularly important as children do not show severe symptoms, while older people often do. "The reasons for both are unclear," they write. "These considerations underline how multiple variables may be involved in potential pre-existing partial immunity to COVID-19", they say. They also caution that it is important to "avoid over-generalizations or conclusions in the absence of data".

### Vaccination Outcomes

There is a possibility that pre-existing T cell memory might influence vaccination outcomes. Pre-existing immunity could help elicit better immune responses against novel coronavirus, and these responses can manifest faster. Meanwhile, **pre-existing immunity could be mistaken as enhanced efficacy of the vaccine in eliciting immune responses**. This could be particularly confusing in Phase-1 trials where the vaccine is tested on a small group of healthy participants. "This could be avoided by considering pre-existing immunity as a variable in trial design. Thus, we recommend measuring pre-existing immunity in all COVID-19 vaccine phase I clinical trials," they write. This could also have drawbacks. For instance, the pre-existing immunity can reduce the immune responses that the vaccine causes through a mechanism called the "**original antigenic sin**". It can also lead to **antibody-mediated disease enhancement**, where antibodies present at sub-neutralising concentrations can actually augment virus infection and cause more severe disease. This is seen in chikungunya and dengue. In the Philippines, post vaccination with a dengue vaccine, people with no prior



infection with the virus came down with severe illness when they were later exposed to the virus.

## A Common Molecular Feature in Antibodies That Fight Coronavirus

- Scientists have reported the discovery of a common molecular feature found in many of the human antibodies that neutralise the novel coronavirus SARS-CoV-2. Led by scientists at Scripps Research, the team has reported its scientists in the journal Science. They reviewed data on nearly 300 anti-SARS-CoV-2 antibodies that their labs and others have found in convalescent Covid-19 patients over the past few months. They noted that **a subset of these antibodies is particularly powerful at neutralising the virus—and these potent antibodies are all encoded, in part, by the same antibody gene, IGHV3-53.** The scientists used X-ray crystallography to image two of these antibodies attached to their target site on SARS-CoV-2. They said the resulting atomic-structure details of this interaction should be useful to vaccine designers and scientists hoping to develop antiviral drugs that target the same site on SARS-CoV-2.

## How Will A Nasal Covid-19 Vaccine Work, Which Firms Are Developing It?

- While most of the 160 Covid-19 vaccine candidates under various stages of development are conventional intramuscular injection, several research groups and firms, including in the United States, Canada and India, are working on nasal coronavirus vaccines. Instead of a jab into the upper arm, these types of vaccines will be delivered to the respiratory tract, either via a nasal spray or aerosol delivery. Since coronavirus is a respiratory infection and invades the airway, scientists from the UK's Oxford University and Imperial College and US' Yale University have said **administering a vaccine at the entry points would train the mucosa to identify Covid-19 and block it from getting through.** Scientists have identified two specific types of cells in the nose as the likely initial infection points for SARS-CoV2. **Mucous membranes are squishy tissues that line the surfaces of internal organs like lungs and respiratory tract and catch pathogens that try to get into the body.** "The hope is that mucosal vaccines will do all that their intramuscular competitors can and more, mounting a multi-pronged attack on the coronavirus from the moment it tries to breach the body's barriers," the New York Times quoted Deepta Bhattacharya, an immunologist at the University of Arizona, as saying.

### What Is A Nasal/Mucosal Vaccine?

Intranasal vaccines are delivered to the respiratory tract, spritzed through the nose or mouth, to target the immune cells that are found around the mucosal tissues. While an intramuscular vaccination mainly induces an antibody response, a nasal vaccination is beneficial as it triggers mucosal, as well as systemic immunity. Moreover, intranasal vaccination may also offer protection at other mucosal sites such as the lungs, intestines and genital tract.

### How Will Covid-19 Nasal Vaccines Work?

T cells and B cells are the major cellular components of the body's immune response. In normal circumstances, upon vaccination, B cells would provide antibodies – called IgG – to search for pathogens. Other cells, called T cells, either helps B cells produce antibodies or seek out and destroy infected cells. In case of intranasal vaccination, the B cells that reside around mucosal tissues can make another type of antibody – called IgA – that plays a large





role in healing gut and airway pathogens. Nearby T cells can then memorise the features of specific pathogens and patrol the places they first encountered them.

### ICMR Caution on Itolizumab, Tocilizumab

→ There is yet no evidence from trials that itolizumab and tocilizumab, two drugs, one of which has been developed by Bengaluru-based Biocon Biologics, reduce death in severely ill COVID-19 patients, Director-General of the ICMR Balram Bhargava said at a Health Ministry press briefing on Tuesday. Both drugs are lab-cloned antibodies, and work at thwarting or reducing a rush of chemicals called pro-inflammatory cytokines that are released by the immune system to counter the coronavirus attack on lung cells. Cytokines prime the immune system to send special cells to neutralise virus particles. However, a 'cytokine storm' that is manifested usually as an Acute Respiratory Distress Syndrome (ARDS) ends up causing inflammation and aggravating lung damage and harm to other organs and is said to be responsible for killing a large fraction of the 3%-5% of COVID-19 patients that die. Tocilizumab has a history of use in immune-system-disorder diseases such as rheumatoid arthritis, and itolizumab in acute psoriasis. The ICMR last month approved the use of tocilizumab on patients who need to be externally oxygenated and those who need ventilators but are not benefiting from steroids.

In response to a question from The Hindu on whether the jury on itolizumab's efficacy was still out, Kiran Mazumdar-Shaw of Biocon replied via a tweet that "...Pivotal data did show mortality reduction but there was a need for larger Phase 4 trials to support this". The drug regulator allowed the medicine – that cost ₹8,000 a vial – to be allowed for Restricted Use Emergency Authorisation.

### Severe Lung Damage, Blood Clots: Covid-19 Signatures That Linger

→ As the number of novel coronavirus infections in India surges in the fifth month of the outbreak – going past the 1 million mark on Thursday (July 16) – doctors have been increasingly reporting several relatively new conditions associated with Covid-19. Among these conditions are lung damage, known as lung fibrosis, and blood clots in the pulmonary artery – Pulmonary Thrombo Embolism or PTE – which are seen in persons who have recovered from very severe cases of the disease. Pulmonologists across the world have been flagging these conditions over the past few weeks as persons who have recovered from Covid-19 are going back to hospitals with breathing problems due to lung damage.

#### Lung Fibrosis

Pulmonologists say people with severe symptoms of the coronavirus could be dealing with lung complications for years after recovery. The damage caused by the infection leads to scarring of the lungs, which has long-term impact on the quality of life. Lung fibrosis requires home oxygenation support even after discharge and recovery. In some cases, the cardiac health of the patient may be affected – causing 'cor pulmonale' or failure of the right ventricle of the heart, which is a known complication of chronic severe lung disorders. The severity of the complications depends on the extent of fibrosis.

#### Pulmonary Thrombo Embolism

Pulmonary Thrombo Embolism (PTE) is another pulmonary issue which is affecting people post-Covid-19 recovery, Dr Kanth said. PTE refers to a blockage or clot in the pulmonary artery, thus preventing the blood flow through the lungs. Its prevalence has increased due to



immobility and restricted activity during the course of treatment and the disease process itself

Covid-19 is causing a lot of systemic effects like inflammation of the inner lining of blood vessels leading to narrowing of their area, Dr Guleria said. A lot of inflammatory markers entering the blood is also being seen, which caused a hypercoagulable state that promotes clotting.

### Prevention and Treatment

The methods of taking care of these conditions include the administering of medications such as **anticoagulants** and **anti-fibrotic drugs** along with **home oxygenation**, if required. Anticoagulants usually help in preventing the formation or enlargement of blood clots, whereas anti-fibrotics reduce the risk of acute respiratory degradation. General preventive measures including chest physiotherapy are recommended for Covid-19 patients.

### Move to Map COVID-19 After-Effects

→ Even as the fight against the pandemic continues, data is now being collected from across India on the medical complications that recovered patients are suffering from, including COVID-19-induced diabetes, impaired lung, heart, liver and brain functions along with acute fatigue and dyspnea, after doctors and hospitals indicated this trend. The Directorate General of Health Services (DGHS) is collecting data from leading Central government hospitals, including Safdarjung, Ram Manohar Lohia and AIIMS, and across India.

### Care Strategy

The Health Ministry said the data would help them come out with guidelines on further care and treatment of those who had recovered. The Ministry pointed out that 86% of the COVID-19 cases in the country were reported from 10 States, with Maharashtra and Tamil Nadu accounting for 50%; the overall recovery rate had climbed from 47.6% (May 31) to 63.02% currently. Leading physicians from across the country have indicated that they are seeing some worrying medical complications among the recovered patients. Cardiologist Dr. Balbir Singh stated that **patients were taking a "long time to fully recover and they often complain of feeling lethargic, completely drained out, mentally depressed with the inability to concentrate. In those who developed pneumonia, lung function improves within some months of recovery but some may not normalise due to the fibrosis."** Dr. Ambuj Roy from the Department of Cardiology of All India Institute of Medical Sciences (AIIMS), Delhi, said that there were possibilities of long-term lung function deterioration and vascular diseases. Diabetologist Dr. V. Mohan observed that there were indications of COVID-induced diabetes among recovered patients. There was a move to collect the data on this globally to understand the effect of this relatively new and evolving virus. The stress on the body associated with this virus could lead to long- and short- term complications.