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INTERNATIONAL

THE WSJ PIECE ASKING JILL BIDEN TO DROP HER 'DR' TITLE, AND THE OUTRAGE IT CAUSED

An opinion piece by writer-editor Joseph Epstein, 83, in the Wall Street Journal that urged educator and incoming First Lady Jill Biden to stop using the 'Dr' title led to outrage on social media. Many, including public figures and women in academia, found the suggestion sexist. A doctorate in education from the University of Delaware, Biden has been a professor of English at the Northern Virginia Community College since 2009. Called "Dr B" by her students, she is also the first Second Lady to hold a paying job during her husband's tenure and plans to do the same for the next four years.

How is Jill Biden different from previous First Ladies?

It is unusual for a First Lady in the United States to hold a paying job with official duties. Biden had broken the mould by teaching at a community college when she was the Second Lady, and has announced that she will continue to do the same as the First Lady.

History of the title doctor

Responding to the controversy, Merriam Webster published the "English language history" of the word doctor. First used in the early 14th century, the word was applied to select eminent theologians who had a special approval from the Roman Catholic Church to talk about the doctrines of the Church. They were teachers of a kind, and the word's origin makes this connection. Doctor comes from the Latin word for teacher, from *docere meaning to teach*. By the end of the century's, it was also used for accomplished academics and medical practitioners. In the 19th century, the title was widely contested, and people were sued for using doctor on calling cards or advertisements if they hadn't graduated from a recognised medical school. Since then the title has been used by both doctorate holders and medical professionals. However, the expansion of professional doctorates in clinical fields has led to further disputes between physicians and other medical professionals over who can use the title in a clinical context.

DIVIDED STATES OF AMERICA (MOHAMMED AYOOB - UNIVERSITY DISTINGUISHED PROFESSOR EMERITUS OF INTERNATIONAL RELATIONS, MICHIGAN STATE UNIVERSITY)

The Electoral College is expected to ratify Joe Biden's election to the U.S. presidency on Monday. However, this is unlikely to end the sordid episode initiated by President Donald Trump's refusal to accept the result that has polarised the nation even further while eroding its democratic ethos. Mr. Trump's legal team and his Republican supporters filed close to 60 petitions demanding that results in the battleground States be declared null and void. Each of these petitions was thrown out but that did not deter Mr. Trump from continuing to fantasise that he had won the election but was deprived of victory as a result of fraud. Matters came to a head last Friday after the Supreme Court summarily dismissed a petition by the Texas Attorney General supported by 17 other Republican States asking for an emergency order to invalidate the ballots of millions of voters in four battleground States — Georgia, Wisconsin, Michigan and Pennsylvania. Following the Supreme Court's unanimous decision Mr. Trump tweeted: "The Supreme Court really let us down. No Wisdom, No Courage!" Reaction from some of his supporters, encouraged by his defiant



posture, was more extreme. For the first time since the Civil War there was a call that bordered on secession. The chairman of the Texas Republican Party declared, "Perhaps law-abiding states should bond together and form a Union of states that will abide by the constitution." What is equally worrisome is the attitude of the Republican leadership, including the large majority of Republican Senators and members of the House, most of whom have gone along with Mr. Trump's self-delusional stance despite clear evidence, including from Mr. Trump's Justice Department, to the contrary.

A perilous game

This an extremely perilous game as it panders to the basest instincts of Mr. Trump's far-right supporters, many of them white supremacists, who have been out on the streets protesting against the "stolen election". Some cities, such as Washington, D.C., and Olympia, Washington, have witnessed violence generated by these elements. What is more dangerous is the perception among a large majority of Republican voters that Mr. Biden's victory was fraudulent. Surveys show that around 40% of Americans believe this baseless conspiracy. This is likely to encourage Republican Senators to put every possible obstacle in the path of Mr. Biden's legislative agenda as well as hold up ratification of his cabinet nominees.

Fear of the white population

There are many reasons for this stark division among the American people. President Trump's nihilistic rhetoric is one. But Mr. Trump's claims have only accentuated a division whose main cause has little to do with economics or political ideology and much to do with race. It reflects the insecurity of the white population. *Whites constituted about 73% of the total in 2017. But if one excludes the Hispanic whites, most of whom identify as Latinos rather than whites, this ratio falls to 60.7% of the population. It is expected to fall below 50% by 2045 as a result of immigration and low birth rates. The anti-immigration attitude of many Republicans is a product of this fear of whites becoming a numerical minority, a feeling that Mr. Trump shares as depicted by his virulent anti-immigrant attitude. The election of President Barack Obama and now Vice President-elect Kamala Harris has increased the apprehension that white Americans are being deprived of their patrimony. The support for Mr. Trump's fabricated claims is largely a product of the anxiety that the U.S. is changing 'colour'.* In this sense it is a rerun of the scenario preceding the Civil War of the 1860s. One of the main drivers of that was the emancipation of black slaves that was seen as threatening white privilege. One fervently hopes history will not repeat itself either as tragedy or as farce.

JUDGE ORDERS U.S. GOVERNMENT TO REINSTATE DACA PROGRAMME

A U.S. judge ordered the Trump administration on Friday to fully reinstate a programme that protects from deportation immigrants who came to the country illegally as children. The administration must allow newly eligible immigrants to apply to the so-called DACA programme, Judge Nicholas Garaufis of the U.S. District Court in Brooklyn wrote. Over the summer, the administration had issued a memo limiting the programme to those who were already enrolled. Former President Barack Obama instituted DACA by executive order in 2012 to help some of the more than 10 million people estimated to be living in America without documentation. DACA protected an estimated 7,00,000 people known as Dreamers, offering protection at renewable two-year periods, including authorization to work. It applied to people who were brought into the United States illegally as children and then grew up here. For many it is the only country they have ever known.



DACA stands for *Deferred Action for Childhood Arrivals*. As part of his crackdown on all kinds of immigration, *Mr. Trump moved to end the programme in 2017, calling it unconstitutional. The case ended up in the U.S. Supreme Court, which ruled in June that the Trump administration had not followed proper administrative procedures to end the policy.* But in response, the Department of Homeland Security reinstated it only partially. It limited DACA to those already enrolled, rather than allow new applicants as well. And it cut the length of DACA permit renewals to one year, rather than the two years the programme had allowed. Judge Garaufis said Homeland Security must announce the full reinstatement of DACA on its website by Monday. More than 3,00,000 new applicants could now be eligible for DACA, the Center for American Progress think tank said. “This is a really big day for DACA recipients and immigrant young people,” said Karen Tumlin, director of the Justice Action Center, who litigated the class-action case. *Immigration is a hot button issue in the US, and Congress over the years has failed repeatedly to pass reform legislation dealing with the millions of people living in the country without authorization.* Prospects for Dreamers to live and work in the US permanently, rather than just with renewable permits, remain unclear. President-elect Joe Biden has vowed to restore DACA when he takes office in January.

TRUMP ORDERS ALL AMERICAN TROOPS OUT OF SOMALIA

US President Donald Trump, pressing his end-of-term troop withdrawals from conflicts around the world, will pull US forces out of Somalia, where they have been trying to push back advances by Islamic insurgents in the Horn of Africa. The Pentagon announced Friday that virtually all of the approximately 700 troops in Somalia — most Special Operations troops who have been conducting training and counter terrorism missions — will be leaving by Jan15, five days before President-elect Joe Biden is scheduled to be inaugurated. The withdrawal from Somalia followed Trump’s orders to reduce the US presence in Afghanistan and Iraq. The debate over the value of counter terrorism and training missions like the one in Somalia, is growing — among the public, in Congress and even the Pentagon. But Trump’s push to leave Somalia before he leaves office comes at a delicate time for the East African nation: It is preparing for parliamentary elections next month and a presidential election scheduled for early February. The removal of American troops could complicate any ability to keep election rallies and voting safe from al Shabab bombers.

CAATSA SANCTION ON TURKEY

On December 14, the U.S. imposed sanctions on Turkey, a NATO ally, over its procurement of the *S-400 Triumf* long-range air defence system from Russia. Announcing a series of measures under the *Countering America’s Adversaries Through Sanctions Act (CAATSA)*, Assistant Secretary for International Security and Non-proliferation, Christopher Ford, also cautioned other countries: “We hope that other countries around the world will also take note that the U.S. will fully implement *CAATSA Section 231* sanctions and that they should avoid further acquisitions of Russian equipment.” *In October 2018, India had signed a \$5.43 billion deal with Russia for five S-400 regiments. S-400 (NATO name SA-21 Growler) is considered one of the world’s most advanced air defence systems that can simultaneously track and neutralise a range of incoming objects spanning aircraft, missiles and Unmanned Aerial Vehicles (UAVs) over very long ranges. It is especially suited to take down strategic aerial platforms like bombers, mid-air refuellers, reconnaissance aircraft and Advanced Early Warning and Control Systems (AWACS). It is the most dangerous operationally deployed modern long-range surface-to-air missile system (SAM) (MLR SAM) in the world, considered much ahead of the US-developed Terminal High Altitude Area Defense*



system (THAAD). It represents the fourth generation of long-range Russian SAMs, and the successor to the S-200 and S-300. The S-400's mission set and capabilities are roughly comparable to the famed US Patriot system.

Given their capabilities, the S-400 has emerged as one of the most controversial arms exports of Russia and a major point of contention between Washington and Moscow. According to the Center for Strategic and International Studies (CSIS) missile defence project, development of the S-400 began in 1993 and eventually the testing of the system started in 1999. Designed by Almaz-Antey Central Design Bureau, the S-400 is a successor to the S-300 system and entered operational service in 2007. In 2015, it was deployed in Syria by Russia to protect its military assets and has also been deployed in Crimea.

Fully mobile

The S-400 is fully mobile and each system has a 3D phased array acquisition radar, which can track around 300 targets up to 600 km, a command-and-control centre, automatic tracking and targeting systems, launchers and support vehicles. Each system has four different types of missiles for up to 40 km, 120 km, 250 km and a maximum range of 400 km and up to 30km altitude. The different ranges and varying altitudes create a layered air defence net. An S-400 battalion has eight missile launchers, typically with four missiles each. India's S-400 deal is well under way and initial issues over payment channels have been resolved. Russian officials have stated that deliveries would begin by 2021-end. *The system would complement India's indigenous Ballistic Missile Defence system developed by the Defence Research and Development Organisation and create a multi-tier air defence over the country.* Indian Air Force (IAF) officials have stated that the S-400 would be seamlessly integrated into the country's existing air defence network. Given its long range, the system, if deployed towards the western borders, can track movements of Pakistan Air Force aircraft as soon as they take off from their bases. For the IAF, the high-end technology S-400 would give a fillip and make up for its falling fighter aircraft squadrons in the medium term. Former Chief of Air Staff Air Chief Marshal B.S. Dhanoa had on several occasions termed the S-400 air defence systems and Rafale fighter jets "game changers" for the IAF. Globally, there has been a growing interest for the S-400 with several countries expressing interest in the system. *In addition to Turkey, in July 2018, China became the first export customer to receive the S-400 and got sanctioned by the U.S. under CAATSA. India, in addition to S-400, has signed several other major defence deals with Russia. India is also acquiring several high-end military platforms from the U.S., which includes P-81 maritime reconnaissance aircraft, AH-64E Apache attack helicopters and CH-47(I) Chinook heavy lift helicopters, and recently leased two MQ-9B Predator high altitude long endurance drones.* In addition, negotiations are in an advanced stage for procurement of the National Advanced Surface to Air Missile System. While Trump administration has not invoked CAATSA sanctions so far, it is not clear if the U.S. would continue to do so. The issue would come up before the incoming Joe Biden administration most likely when India starts taking the deliveries next year.

Earlier, the U.S. had suspended Turkey from its F-35 fighter jet programme which Washington feared would be undermined by the Russian system. President Recep Tayyip Erdoğan has called the sanctions "an attack on Turkey's sovereignty". The U.S. decision will have implications for India as well, which has also ordered the S-400. The Trump administration has been non-committal on giving India a sanctions waiver. *In the case of Turkey, Washington had said it would not invoke sanctions if Ankara did not activate the system. But why would Turkey have purchased this anti-missile system for billions of dollars if it did not want to activate it?* In October, Turkey test-



fired the system and in two months, sanctions are in place. *The U.S.'s decision to suspend Turkey from the F-35 programme was well within its rights.* It is up to Washington who it should sell the weapons to. But From a geopolitical point of view, the U.S.'s actions could drive Turkey further into the hands of Russia, despite their serious disagreements over crises such as Syria, Libya, and now Nagorno-Karabakh. That Mr. Erdoğan still chose to buy Russian weapons shows that there is a paradigm shift in Ankara's strategic thinking. *The U.S.-Turkey tensions, coupled with the war of words between French President Emmanuel Macron and Mr. Erdoğan and the Greece-Turkey spat over the Eastern Mediterranean region, point to cracks in NATO.* The U.S. should ask itself whether it wants to widen these further or take a broader view of the changes that are under way in the global order. The 1990s unilateralism has already paved the way for a new multilateralism. There are many rising powers and their demands may no longer be dictated by the wishes of Washington.

Sanctions were imposed on Turkey's main defence procurement agency, the *Presidency of Defense Industries (SSB)* for "knowingly engaging in a significant transaction with *Rosoboronexport (ROE)*, Russia's main arms export entity" the office of the U.S. State Department spokesperson said in a statement.

Ban on loans

These SSB sanctions comprise a ban on granting specific U.S. export licences and authorisations for any goods or technology, a ban on loans or credits by U.S. financial institutions totalling more than \$10 million in any 12-month period, a ban on U.S. Export-Import Bank assistance for exports and mandated U.S. opposition to loans by international financial organisations to SSB. Additionally, sanctions will include full blocking sanctions and visa restrictions on SSB president Ismail Demir and other officials.

Concerns over system

Last year, the U.S. had removed Turkey from its F-35 jet programme over concerns that sensitive information could be accessed by Russia if Turkey used Russian systems along with U.S. jets. *U.S. President Donald Trump and Turkish President Recep Tayyip Erdoğan have an apparently close relationship and Mr. Trump has pushed back on Congressional demands for sanctions against Turkey. The administration has now had to face a \$740 million National Defense Authorization Bill (NDAA) 2021 from the U.S. Congress, which mandates sanctions against Turkey within 30 days of the Bill's passage (December 11). Mr. Trump has threatened to veto the Bill.* "The biggest winner of our new defense Bill is China! I will veto!" Mr. Trump had tweeted days ago.

From India's point of view, China is also buying the system. In 2015, Beijing signed an agreement with Russia to purchase six battalions of the system. Its delivery began in January 2018. China's acquisition of the S-400 system has been viewed as a "game changer" in the region. However, its effectiveness against India is limited. According to experts, *even if stationed right on the India-China border and moved into the Himalaya mountains, Delhi would be at the limit of its range.* India's acquisition is crucial to counter attacks in a two-front war, including even high-end F-35 US fighter aircraft. *In October 2015, Defence Acquisition Council considered buying 12 units of S-400 for its defence needs. But, on evaluation, in December 2015, five units were found adequate.* The deal is worth about USD 5 billion. The deal is near fruition, and negotiations are at an "advanced stage", and now it is expected to be signed before a summit meeting between Prime Minister Narendra



Modi and Russian President Vladimir Putin. Turkey and Saudi Arabia are negotiating a deal with Russia, while Iraq and Qatar have expressed interest.

What is CAATSA, and how did the S-400 deal fall foul of this Act?

Countering America's Adversaries through Sanctions Act (CAATSA) was passed unanimously by the US Congress and signed reluctantly by US President Donald Trump. Enacted on August 2, 2017, its core objective is to counter Iran, Russia and North Korea through punitive measures. Title II of the Act primarily deals with *sanctions on Russian interests such as its oil and gas industry, defence and security sector, and financial institutions, in the backdrop of its military intervention in Ukraine and its alleged meddling in the 2016 US Presidential elections.* Section 231 of the Act empowers the US President to impose at least five of the 12 listed sanctions — enumerated in Section 235 of the Act — on persons engaged in a “significant transaction” with Russian defence and intelligence sectors. As part of Section 231 of the Act, the US State Department has notified 39 Russian entities, dealings with which could make third parties liable to sanctions. These include almost all of the major Russian companies/entities such as Rosoboronexport, Almaz-Antey, Sukhoi Aviation, Russian Aircraft Corporation MiG, and United Shipbuilding Corporation which are active in manufacturing defence items and/or their exports. However, mere naming of 39 Russian entities by the US authorities or dealings by any country with these entities does not automatically lead to the imposition of sanctions under the CAATSA provisions. The key determinant for imposing sanctions is “significant transaction” between the named Russian entity and an outside agency. CAATSA, if implemented in its stringent form, would have affected India's defence procurement from Russia. Russian maker of S-400s — Almaz-Antey Air and Space Defense Corporation JSC — is on the list of 39 Russian entities. *Apart from the S-400 air defence system, Project 1135.6 frigates and Ka226T helicopters will also be affected. Also, it will impact joint ventures, like Indo Russian Aviation Ltd, Multi-Role Transport Aircraft Ltd and Brahmos Aerospace. It will also affect India's purchase of spare parts, components, raw materials and other assistance.*

But why does the US have a law like CAATSA to begin with? And what does it mean for India's defence landscape?

Following the US elections and allegations of Russian meddling – some call it collusion – in the US elections, the strain between Washington and Moscow has reached a new level. Angry with Moscow's actions around the world, US lawmakers are hoping to hit Russia where it hurts most, its defence and energy business, through CAATSA. “As per the Stockholm International Peace Research Institute (SIPRI) Arms Transfer Database, during the period 2010-17, Russia was the top arms supplier to India. Accounting for about 15 per cent, the United States is the second biggest supplier of arms to India during the five year period ending 2017. Between 2000-2009 and 2010-17, US arms deliveries to India have increased by a whopping 1470 per cent. Most of India's weapons are of Soviet/Russian origin – nuclear submarine INS Chakra, the Kilo-class conventional submarine, the supersonic Brahmos cruise missile, the MiG 21/27/29 and Su-30 MKI fighters, IL-76/78 transport planes, T-72 and T-90 tanks, Mi-series of helicopters, and Vikramaditya aircraft carrier,” an exhaustive paper on “Implications of CAATSA for India's Defence Relations with Russia and America” by Laxman K Behera, a Research Fellow at Institute for Defence Studies and Analyses (IDSA), said in April '2018.



So, is India off the hook?

India hopes that Washington understands New Delhi's security imperatives, especially with a hostile China along the border. This is more important since Indian and Chinese soldiers have been in a face-off situation for more than six months now, with no resolution in sight. In January this year, a senior US official had said that the US administration does not want to make a decision that "degrades the defence capabilities" of India which is its 'Major Defence Partner'. The official was referring to the potential sanctions under CAATSA which prohibits countries from purchasing significant military equipment from Russia. How the Biden administration acts will also be reflective of how much it appreciates and understands India's concerns on China, and whether it is going to support New Delhi against a belligerent Beijing. It could well turn out to be the litmus test.

OVER 5 LAKH UIGHURS INVOLVED IN XINJIANG COTTON COERCED LABOUR

Hundreds of thousands of ethnic minority labourers in China's north-western Xinjiang region are *being forced to pick cotton through a coercive state-run scheme*, a report has said. The research published on Monday by Washington-based think tank the *Centre for Global Policy* is *likely to heap more pressure on global brands such as Nike, Gap and Adidas, which have been accused of using Uighur forced labour in their textile supply chains*. Rights activists have said Xinjiang is home to a vast network of extrajudicial internment camps that have imprisoned at least one million people, which China has defended as vocational training centres to counter extremism. The report — which referenced online government documents — said the total number involved in three majority-Uighur regions exceeds a 2018 estimate of 5,17,000 people forced to pick cotton as part of the scheme by hundreds of thousands. Researchers warned of the "potentially drastic consequences" for global cotton supply chains, with *Xinjiang producing more than 20% of the world's cotton and around a fifth of the yarn used in the United States coming from the region*.

CHINA USING HUAWEI FACIAL RECOGNITION TO ALERT AUTHORITIES OF UIGHURS

In further disclosures about China's artificial-intelligence surveillance programme, a report by The Washington Post has revealed that tech giant Huawei reportedly tested facial recognition software that could send automated alarms when they identify members of the persecuted Uighur community. Since Chinese authorities started mass detentions of Uighurs in 2017, there have been several reports about these kinds of technological developments in China that have been used to monitor and target the community.

What does the report reveal?

According to the Washington Post report, *the programme involves the use of a facial recognition software that send alerts to Chinese government authorities when its cameras identify members of the Uighur community*. There are *two Chinese firms involved in the operation and execution of this software, the report says. One is Huawei and the other is Megvii, another Chinese tech company that designs image recognition software*.

Is this surveillance new?

This surveillance of the Uighur minority is not new and investigations have shown it happening in various countries around the world where members of the community are living or seeking



refuge. Various kinds of surveillance technologies used by China to specifically monitor the Uighur community have been in existence since at least 2017. *The Chinese government has claimed that these artificial intelligence technologies are being used to curb terrorism in Xinjiang and to monitor and reward what it considers good social behaviour in the country.* In November last year, an investigation by The New York Times had highlighted how China had engaged in a mass detention of Muslims and the role of surveillance programmes in the crackdown and persecution.

What has the international community said about this?

China's surveillance technologies have been heavily scrutinised by Western powers for the past few years. *Huawei and Megvii, both multi-billion dollar companies, have seen a pushback from US authorities who have called them out for representing threats to national security and for human rights violations, particularly in Xinjiang. In 2019, Megvii was among the eight Chinese tech giants to have been hit with sanctions by the US government for their role in contributing to the persecution of Uighur Muslims in China. China has already started exporting this technology to countries like Uganda, where government agencies are using it to crackdown on dissent, critics and protestors.* Human rights groups are concerned that the use of such technologies may not just be limited to Xinjiang, but may slowly become the norm for governments seeking more control, particularly authoritarian regimes.

PAKISTAN, CHINA VIOLATE RELIGIOUS FREEDOM: U.S.

The U.S. has designated Pakistan and China among eight other countries that are of particular concern for violation of religious freedom, Secretary of State Mike Pompeo has said. *Pakistan and China along with Myanmar, Eritrea, Iran, Nigeria, North Korea, Saudi Arabia, Tajikistan and Turkmenistan were placed in the list for engaging in or tolerating systematic, ongoing, egregious violations of religious freedom,* Mr. Pompeo said in a statement. The State Department placed the *Comoros, Cuba, Nicaragua and Russia on a Special Watch List (SWL)* for governments that have engaged in or tolerated severe violations of religious freedom. "Religious freedom is an unalienable right, and the bedrock upon which free societies are built and flourish. Today, the United States — a nation founded by those fleeing religious persecution, as the recent Commission on Unalienable Rights report noted — once again took action to defend those who simply want to exercise this essential freedom, Pompeo said. *The U.S. also designated al-Shabaab, al-Qaida, Boko Haram, Hayat Tahrir al-Sham, the Houthis, ISIS, ISIS-Greater Sahara, ISIS-West Africa, Jamaat Nasr al-Islam wal Muslim in and the Taliban as 'Entities of Particular Concern'.*

MICROWAVE ENERGY LIKELY MADE U.S. OFFICIALS ILL

A new report by a National Academy of Sciences committee has found that "directed" microwave radiation is the likely cause of illnesses among American diplomats in Cuba and China. The study commissioned by the State Department and released is the latest attempt to find a cause for the mysterious illnesses that started to emerge in late 2016 among U.S. personnel in Havana. The study found that "directed, pulsed radio frequency energy appears to be the most plausible" explanation for symptoms that included intense head pressure, dizziness and cognitive difficulties. It found this explanation was more likely than other previously considered causes such as tropical disease or psychological issues. The study did not name a source for the energy and did not say it came as the result of an attack, though it did note that previous research on this type of injury was done in the former Soviet Union. In its report, the 19-member committee noted



that it faced significant challenges in trying to get to the bottom of the medical mystery. Among them, not everyone reported the same symptoms and the National Academy of Sciences research did not have access to all the previous studies on the illnesses, some of which are classified. The health effects were experienced by about two dozen Americans affiliated with the U.S. Embassy in Cuba as well as Canadian diplomats and personnel at the U.S. consulate in Guangzhou, China, in early 2017. Some of the Americans have been critical of the U.S. government's response to their health complaints and at least one has filed suit against the State Department. *Between late 2016 and May 2018, several U.S. and Canadian diplomats in Havana complained of health problems from an unknown cause. One U.S. government count put the number of U.S. personnel affected at 26.*

WHAT WILL CHANGE FOR UK WITH THE NEW POST-BREXIT DEAL?

*The 11-month transition period during which the UK and the European Union were supposed to negotiate the nature of their post-Brexit economic relationship will come to an end on December 31. Just days before this period ends, the two sides struck a trade and co-operation deal—which will affect the relationship between the two parties in the years to come—after months of negotiations. The new agreement which was unanimously approved by the EU nations will come into effect from January 1. Even so, the deal is not yet law and *needs to be ratified by the parliaments of the UK and EU*, a process which will likely take a few more weeks. *Until the agreement is formally approved and signed, it will be applicable on a provisional basis.**

So what will change from January 1 onward?

*At 23:00 GMT on December 31, the UK will leave the EU Single Market and Customs Union (under the customs union the UK could not negotiate with other member nations of the EU separately), all EU policies and international agreements. This means that the free movement of goods, people, services and capital will stop from January 1 onwards as the EU and UK will become two separate market spaces, with distinct regulations. When the UK was a member of the EU (UK's biggest trading partner), it could not hold trade negotiations with countries such as the US and Australia, but now it will be able to set its own trade policy. As part of the agreement, which is a free trade agreement the UK and EU have agreed to a 100 per cent tariff liberalisation, which means that there will be no tariffs or quotas on goods that move between the UK and EU. **No tariffs** mean there will be no taxes on goods that move between the borders and **zero quotas** means there will also be no limit on the quantities of goods that can move between the borders. *This will be the first time that the EU has agreed to zero quotas and zero tariffs with a trading partner. Without a free trade agreement such as this, businesses would have to pay taxes on goods, which would have increased their costs.* However, despite these benefits, from January 1 onwards *there will still be barriers to trade in goods and services, something that did not exist before.* For instance, businesses are anticipating *increased paperwork* once the new trade agreement is in effect. For people travelling between the UK and EU, it means that *while their entry will still be visa-free, they may be subject to screening and will no longer be able to use the biometric passports.* Further, the *UK will have sovereignty over its fishing waters*, one of the major sticking points during negotiations. There are other aspects of the trade deal as well, such as mobile roaming. People travelling to EU countries and vice versa may have to *pay roaming charges* if their mobile network operators choose to do so. The agreement mentions that operators should charge reasonable roaming rates. Further, from January 1 onwards tax-free airport sales of electronics and clothing will stop, *pet passports issued in Great Britain will not be valid in the EU and travellers from the UK will be subject to travel restrictions imposed on passengers coming from non-EU countries*, the BBC reported. Lastly, *the agreement is**



based on international law and not on EU law. This means the European Court of Justice can no longer play a role and the UK does not have to follow EU law.

When did the Brexit process start and why did it take so long?

The first public vote on Brexit happened on June 23, 2016, when 52 per cent of voters chose to leave the EU. David Cameron, who was the prime minister at the time, had announced he will hold a referendum on the UK's membership of the EU if his party won the 2013 general elections. After Cameron was voted in for a second term, the European Union Referendum Act, 2015 was passed and the referendum was held in June 2016. Cameron resigned a day after the referendum since he supported the UK staying in the EU. He was succeeded by Theresa May. Brexit was meant to happen on March 29, 2019, two years after May had triggered Article 50, which officially signified the decision of the UK to leave the EU. These two years were given to May's government to come up with a deal to leave the EU. The March 29 deadline was delayed twice after MPs rejected the withdrawal deal negotiated by May with the EU. After the MPs rejected the deal for a third time, May resigned and was succeeded by Boris Johnson. One of the most crucial sticking points for MPs was the Irish backstops that govern the nature of the border between Northern Ireland (which is a part of the UK) and the Republic of Ireland (part of EU). The backstops were the most contentious issues at the time and are a measure in the withdrawal agreement meant to ensure that there is no hard border between Northern Ireland and the Republic of Ireland. Under Johnson, the backstops were removed and instead, an Irish Sea border was created. Now, starting January 1, there will be a new trade border between Northern Ireland and the rest of the UK, which means that the former will still be under the EU's single market and will follow EU's customs rules.

Why is fishing such a big deal?

While fishing is a relatively small part of the economy on both sides of the English Channel (fishing was just 0.02 per cent of the overall economy both in the UK and in the EU), the issue is extremely emotive and its political consequences far outweigh the economic impact on both sides.

Fisheries in the EU – which effectively includes the UK until December 31 – are governed by the bloc's Common Fisheries Policy (CFP). Under the CFP, fleets from every EU member state can fish in the Exclusive Economic Zones (EEZs) of all the other members, meaning the part of the sea that stretches up to 200 nautical miles from a nation's coast, excluding its territorial waters – which end at 12 nautical miles from the coast. The EU as a bloc, and not individual countries, decides every December the volume of fish from each species that can be caught from the combined EEZs of its members, which are together considered a common resource. Fishing rights are then divided as per national quotas. But the volume of fish, depending on the species, are to be claimed by each country as per a complex national quota regime that has been formulated using historical data going back to the 1970s. As long as the UK has remained a part of the EU, the CFP has allowed fleets from the rest of the bloc to trawl in British waters, known for their bountiful marine resources. The British fishing industry has maintained that it got a raw deal in this quota distribution.

The British government wants to divide its fishing resources with the EU based on a system that other non-EU coastal countries, such as Norway, use while sharing their waters with the bloc. This system, called "zonal attachment", requires the EU to hold annual meetings with the non-EU country to decide the share of fish that each side can catch in the other's waters. This is also an emotive topic



for Brexiteers, who argue that gaining such rights would mean restoring British sovereignty over its EEZ.

The UK will leave the EU's Common Fisheries Policy on December 31, *but the current rules will remain largely in place during the transition period that will last over five years.* This means *European boats will continue to get more access to the UK's fishing waters and the two parties will jointly manage the fish stocks in EU and UK waters.*

What is a European 'Pet Passport'?

Under the EU's Pet Travel Scheme, a pet passport is a universal document that includes the animal's details such as identification, ownership and medical information. It can only be issued for a cat, dog and ferret, and is obtained from authorised veterinarians in EU member states. EU nationals can freely travel with their animal companions throughout the 27-member bloc with a pet passport that includes details of valid vaccinations, and do not need to place the animals in quarantine. Non-EU countries can also become a part of the Pet Travel Scheme, if the bloc decides to award them with "listed" status, based on factors such as the robustness of their veterinary systems or incidence of rabies. If a country gets listed, it is either placed in Part 1– a group which is subjected to the same rules as EU member states, or Part 2– where some additional requirements also apply, such as taking out a temporary health certificate for pets before every visit to the EU. The Part 1 list currently consists of a small group of nations, including Switzerland, Iceland and the Vatican City State. Part 2 is a considerably larger group, and includes the US, Singapore, Australia, Hong Kong and Mauritius.

When the UK was a member of the EU, travellers from the country could take their pets to the EU and come back without having to place the animals into quarantine by carrying a valid pet passport and ensuring that the pet was microchipped — inserted with an RFID implant under the skin that helps identify its true owner and serves as a tracking tool. *From January 1, however, pet passports issued in Great Britain — England, Wales and Scotland — will no longer be valid for travel to the EU or to the fourth UK country of Northern Ireland, which is going to serve as an entry point to the EU.* As per a Reuters report, Britain had sought to be included among Part 1 countries, so as to ensure that its people could continue travelling to the EU with pets under the same rules that are applicable to them until December 31. However, the *EU has added Britain—including the Isle of Man and the Channel Islands– to its Part 2 pet travel list, burdening visitors from these places with greater barriers.* According to a UK government webpage, in addition to the requirements that were in place until December 31, travellers from the three Great Britain countries would now be required to carry a special Animal Health Certificate (AHC) every time they travel to the EU or Northern Ireland. Apart from the AHC, pet dogs will also have to be treated against a type of tapeworm (*Echinococcus multilocularis*) before travelling, a BBC report said. The rules remain unchanged for travellers from the EU visiting Britain with pets, as *the UK will continue to accept pet passports issued in the EU even after 2020*, the same report said.

- The eleventh hour agreement averts a catastrophic 'no deal' scenario. This is borne out by the findings from the UK Office for Budget Responsibility. *The country now faces a potential 4% loss of GDP over 15 years, compared to remaining in the EU. Leaving without any agreement would have led to a potential loss of 6% of GDP*, estimates the fiscal watchdog. Moreover, given the U.K.'s reliance on the EU for about 75% of food product imports, the significance of zero duty trade for consumers and the retail economy cannot be exaggerated.



- Brexit's biggest trade-off for the ordinary citizen is perhaps the restrictions on the right to free movement and work.
- The tariff-free access to Europe's single market has been realised in exchange for guarantees that Britain would not undercut EU competition rules and environmental regulations.
- The biggest stumbling block was the access for EU fisheries to British seas, which London was keen to reclaim as demonstration of wresting sovereignty after Brexit. There is now a five-and-a-half-year transition period that guarantees continued access for the affected EU states.
- Prime Minister Boris Johnson has predictably claimed victory for restoring the nation's sovereignty that had supposedly eroded under its 47-year EU membership. His Conservative party's massive parliamentary majority would enable its automatic approval early next week. The Opposition Labour party has announced its backing for the agreement.

WHAT'S IN FRANCE'S DRAFT LAW AGAINST 'ISLAMISM'

The French cabinet presented a draft law that targets "radical Islamism"— although the word "Islamist" is not part of the text. Called a law "to reinforce Republican principles", the Bill will go to the National Assembly, the lower chamber of Parliament, in January. Prime Minister Jean Castex has said it is "not a text against religion, nor against the Muslim religion", but against radical Islamism, whose objective, he said, is "to divide French people from one another." The Bill comes in the wake of a series of terror attacks in recent years. Although in the pipeline for sometime, it is being seen as a response to the October beheading of school teacher Samuel Paty. It has raised concerns that it could stigmatise France's Muslim community, the largest in Europe.

What does the proposed law aim to do?

It envisages a range of measures, including school education reforms to ensure Muslim children do not drop out, stricter controls on mosques and preachers, and rules against hate campaigns online. Once the law comes into force, French mosques could see increased surveillance of their activities, such as financing. The government would be able to exercise supervision over the training of imams, and have greater powers to shut down places of worship receiving public subsidies if they go against "republican principles" such as gender equality. Moderate community leaders targeted by an extremist "putsch" could receive protection. *Under French secularism laws, or laïcité, there is already a ban on state employees displaying religious symbols that are "conspicuous", such as the crucifix or hijab. This ban would now be extended beyond government bodies to any sub-contracted public service,* as per The Economist. There would also be a clamp down on home-schooling for children over age three, with parents from to be dissuaded from enrolling them in underground Islamic structures, according to France 24. *Doctors who issue "virginity certificates" would be fined or jailed.* Officials would be banned from granting residency permits to polygamous applicants. Couples would be interviewed separately by city hall officials prior to their wedding to find out if they have been forced into marriage. Stricter punishments would be introduced for online hate speech. This is seen as a direct response to the killing of Paty, who was targeted in an online campaign before he was killed.



What has been the reaction?

The sharpest criticism of the Bill has come from abroad. Turkish President Recep Erdogan, who has been strongly criticising French President Emmanuel Macron in recent months, has called the proposed law an “open provocation”. The Grand Imam of Al-Azhar, Egypt’s top cleric has called Macron’s views “racist”. For his part, Macron said recently, “I will not allow anybody to claim that France, or its government, is fostering racism against Muslims.” At home, experts say that Macron largely enjoys the support of a French electorate that has hardened its position on terrorism, which has claimed more than 200 lives in the past eight years. In a recent nationwide survey, 79% of respondents agreed that “Islamism is at war with France”. Critics have expressed alarm that the Bill could lead to the conflation of the Islamic religion with Islamism, a political movement, and lead to the alienation of French Muslims. Nevertheless, there have been members of the community who have come out in support of the law, such as the leader of the French Council of the Muslim Faith.

Why is it significant politically?

Macron faces re-election in 2022, and experts say he is appealing to France’s right wing voters after facing a series of electoral losses this year. The President has also been facing protests over a proposed “global security” legislation. In May this year, a group of left-wing MPs from his La République En Marche! (LREM) party defected, costing the party its absolute majority in the National Assembly. Then in June, the LREM performed poorly in local elections. Macron, who describes his politics as “neither right nor left” — he was with the Socialist Party until 2009— faces a challenge from right-wing politician Marine Le Pen, whom he defeated in the 2017 election, and who has led the charge against him for not cracking down hard enough against Islamism.

GHANA ELECTION

In mid-December, Ghana’s incumbent President Nana Akufo-Addo won a second term as president. Akufo-Addo had come into power in a landslide victory in 2016, promising to rid the country of corruption. But since then, critics have accused him of political interference, and of failing one of his major campaign promises of installing hospitals in each of Ghana’s 216 districts. But in his last term, Akufo-Addo had also fulfilled his promise of abolishing fees for high school education. The victory comes at a time when the coronavirus pandemic has hit the country’s economy hard and eastern Ghana’s Volta region is witnessing renewed separatist upheaval, with separatists demanding the independence of Western Togoland.

Ghana, which has just concluded its eighth successive general election since the end of military rule in 1992, is regarded a kind of gold standard for political stability in the region. The election commission took justified pride when it announced that this would be the first election that would be financed without external assistance. The country was the earliest in Sub-Saharan Africa to win freedom from colonial rule in 1957, when the nation’s first Prime Minister and President Kwame Nkrumah championed the cause of pan-African unity. That vision has since enlarged into the current African Union of 55 member states, which recently launched a fledgling free trade area across the continent. The heralding of multi-party democracy in the country, alongside other nations in the continent in more recent years, has been described as Africa’s second liberation.



WESTERN SAHARA ON EDGE AFTER ISRAEL-MOROCCO DEAL

Morocco has become the fourth Arab country to normalise ties with Israel in five months. On December 10, U.S. President Donald Trump announced the deal, claiming that the series of normalisation agreements between Arab countries (the UAE, Bahrain, Sudan and now



Morocco) and the Jewish state was bringing peace to West Asia. In return for Morocco's decision to establish formal ties with Israel, the U.S. has recognised Rabat's sovereignty over Western Sahara, a disputed territory in north-western Africa, which has been under Moroccan control for decades. Morocco has long been campaigning internationally, using economic pressure and diplomacy, for recognition of its claims to Western Sahara. It got what it wanted from the deal with Israel, a country with which it had developed covert ties for decades.

The dispute

*This large, arid and sparsely populated region that shares borders with Morocco, Algeria and Mauritania and has a long Atlantic coast was a Spanish colony. The region is home to the Sahrawi tribe. In the 1970s, when international and local pressure mounted on Spain to vacate its colonies in Africa, Libya and Algeria helped found a Sahrawi insurgency group against the Spanish rule in Western Sahara. The Popular Front for the Liberation of Saguia el Hamra and Rio de Oro, known as the **Polisario Front**, started guerilla warfare against Spanish colonialists. In 1975, as part of the Madrid Accords with Morocco and Mauritania, Spain decided to leave the territory, which was then called Spanish Sahara. According to the accords, Spain would leave before February 28, 1976 and until then, the Spanish Governor General would administer the territory, with help from two Moroccan and Mauritanian Deputy Governors. The Polisario Front and Algeria opposed the agreements. Both Morocco and Mauritania moved troops to Western Sahara to assert their claims. Polisario, backed by Algeria, continued the guerilla resistance, demanding their withdrawal. On February 27, 1976, a day before Spain ended its presence, the Polisario Front declared the Sahrawi Arab Democratic Republic (SADR) in Western Sahara. The SADR has been recognised by several African countries and is a member of the African Union.*

Morocco's claim



Morocco and Mauritania had laid claims to Western Sahara even when it was a Spanish colony. In 1974, the International Court of Justice was asked by the UN General Assembly to look into the legal ties, if any, that existed between Western Sahara and Morocco and Mauritania at the time of its colonisation by Spain in the 19th century. The court found no evidence “of any ties of territorial sovereignty” between the Western Sahara and either Morocco or Mauritania, but stated that there were “indications” that some tribes in the territory were loyal to the Moroccan Sultan. In its conclusion, the court endorsed the General Assembly Resolution 1541 that affirmed that to ensure decolonisation, complete compliance with the principle of self-determination is required. *But King Hassan II of Morocco hailed the court's opinion as a vindication of Rabat's claims and moved troops across the northern border to Western Sahara. Mauritania joined in later. It set the stage for a three-way fight with the Polisario Front resisting both countries.*

Current status

The three-way conflict lasted for almost four years. *In August 1979, Mauritania signed a peace treaty with Polisario, bringing the country's military involvement in Western Sahara to an end.* When Mauritanian forces withdrew from the southern part of the desert that they had occupied, Morocco swiftly advanced troops. The war continued between Moroccan troops and the Polisario Front. *In 1991, when a ceasefire was finally achieved, upon the promise of holding an independence referendum in Western Sahara, Morocco had taken control of about 80% of the territory.* The war had forced almost 200,000 Sahrawis to flee the territory to neighbouring Algeria, where Polisario is running squalid refugee camps. *The SADR is operating largely from the eastern flank of Western Sahara.* Moroccan troops have built a huge sand wall called Berm, from the Atlantic coast to the mountains of Morocco, dividing the territories they control from that of Polisario. “It’s Africa’s last colony”, according to Polisario fighters.

Impact of the deal

The normalisation deal between Morocco and Israel itself will not have any direct bearing on Western Sahara. But the concession the U.S. has given to Morocco — Washington’s recognition of Moroccan occupation of Western Sahara — could flare up the conflict. The independence referendum, promised in the 1991 ceasefire, is yet to take place. *Last month, Morocco launched an offensive into the UN-controlled buffer zone between the two sides, and in return, Polisario said it would resume armed conflict. After the Trump administration's recognition of Morocco's claim, Polisario said it would keep fighting until Moroccan troops are forced to withdraw.* The U.S. move would upset Algeria, the biggest backer of Polisario. Among the nations that condemned the U.S. decision is Russia, which said the recognition of Moroccan sovereignty over Western Sahara “is a violation of international law”.

ISRAEL SET TO OPEN UP PARTS OF HEROD'S PALACE

Israeli authorities are set to unveil previously off-limits structures within King Herod's palace-fortress, Herodium, which the tyrannical Roman-era leader interred as his enormous burial plot. Herodium, a popular tourism destination, is near Bethlehem in the occupied West Bank but falls in an area where Israel exercises military and civilian control. Archaeologists say Herod decided towards the end of his life to bury his palace, using ground from below the hill it was perched upon, until the outline of the structure was no longer visible. Israel's Nature and Parks Authority plans to open the revamped site on Sunday, allowing visitors to see for the first time Herodium's



arched stairway, foyer and private theatre. The Judean desert complex was built by the Roman-appointed king known both for his brutality and the magnificent structures built during his reign over Judea from 37 to 4 BC.

TEN YEARS ON, ANGER IN TUNISIAN TOWN WHERE 'ARAB SPRING' BEGAN

Ten years ago, a fruit seller set himself ablaze in the central Tunisian town of Sidi Bouzid after an altercation with a policewoman about where he had put his cart. He drenched himself in petrol and killed himself in front of the local governorate office. That night, as hundreds of people gathered outside the governorate and chanted slogans, he heard the words "the people want the fall of the regime" - soon to be the catch phrase of Tunisia's revolution - for the first time. Word of Mohammed Bouazizi's fatal act of defiance quickly spread, sparking nationwide protests that eventually toppled Tunisia's long-serving leader and helped inspire similar uprisings across the region - the so-called "*Arab Spring*". In Egypt the crowds forced Hosni Mubarak from power after 30 years as president. Uprisings shook Libya, Syria, Bahrain and Yemen. Hope for a new democratic future soon turned to bloodshed, particularly in Syria, Yemen and Libya, where civil wars pulled in major powers fearful their regional foes would gain an advantage. Though Tunisia's path to democracy has been far smoother, its economy has deteriorated and political leaders appear paralysed. Last year's election delivered a bitterly fragmented parliament unable to produce a stable government, with parties bickering over cabinet seats and putting off big decisions. More Tunisians are trying illegally to leave the country than ever, while visions of jihad lure alienated, jobless youth. Both dynamics were evident in the recent attack in Nice by a young Tunisian migrant who killed three people in a church.

MADURO'S WIN

The sweeping victory Nicolás Maduro and his allies secured in Sunday's legislative elections in Venezuela has allowed the oil-rich country's President to tighten his grip on power. The outgoing National Assembly, in which the opposition has a majority, has remained outside his influence. Last year, the Assembly Speaker, Juan Guaidó, declared himself acting President after the opposition refused to recognise Mr. Maduro's 2018 re-election. But despite Mr. Guaidó's call for revolt and the support he got internationally, including from the U.S., all other major institutions, including the judiciary and the military, remained loyal to Mr. Maduro — he has emerged stronger with his United Socialist Party and allies winning 67% of the vote.



But the results are unlikely to resolve the political crisis. The Guaidó-led main right-wing opposition bloc had boycotted the election. It claimed that the Supreme Court's decision earlier this year to appoint a new election commission without participation from the National Assembly was illegal. The opposition has also rejected the results. It points out that only 31% of registered voters cast their ballots — less than half of the turnout in the 2015 legislative election which the opposition won — questioning the legitimacy of the whole process. The U.S. and several EU countries too have refused to recognise the vote.

Venezuela has for long been embroiled in crises. *When oil prices fell, its ambitious Bolivarian welfare schemes, launched by Mr. Maduro's charismatic predecessor, Hugo Chávez, began showing cracks. Coupled with American sanctions, the economic crisis led to food, fuel and medicine*



shortages, triggering protests and forcing at least 4.5 million to flee. The 2015 legislative election was an early warning to the ruling socialists. But they failed to fix the economy. To override the opposition from the Assembly, Mr. Maduro convened a Constituent Assembly, which even passed laws. The opposition, on the other side, could have used its mandate to mobilise the people and build a bigger movement. But it chose the easier path: *Mr. Guaidó declared himself the President without even a semblance of legitimacy, and joined hands with foreign powers, including Colombia and the U.S., whose antipathy towards the socialists in Caracas is hardly a secret.* In effect, the Venezuelan right-wing opposition abandoned its political fight and, by taking American help to unseat President Maduro, strengthened the regime's narrative that the opposition leaders are being used by "Yankee imperialists". By boycotting the election, the opposition has, in practice, made it easier for Mr. Maduro to win it. If the opposition wants to challenge the government effectively, it should build a political movement at home, tapping the grievances of the public, not on the support that may or may not come from abroad.

TREASURE WASHES UP ON VENEZUELA'S SHORE, BRINGING HOPE TO A VILLAGE

Hundreds of pieces of precious gold and silver jewellery items have washed up on the shore of a small Venezuelan fishing village, intriguing people across the world. Since late September, villagers have found hundreds of pieces of gold and silver jewellery, ornaments, and golden nuggets that washed up on the shore. It was in September that 25-year-old Yolman Lares found a gold medallion with an image of the Virgin Mary in Guaca and couldn't believe his luck. Soon, 2,000 villagers joined in a frenzied treasure hunt, and searched and combed every area of the beach to find the fortune. Dozens of villagers said they had found at least one precious object, with one finding a gold ring and many have even sold their discoveries for as much as \$1,500. So far, no one has any idea as to where the gold came from and how it ended up scattered along a few hundred feet of the narrow beach. A chemical test commissioned by The New York Times on a link of gold chain discovered on Guaca's beach indicated the piece was likely manufactured in Europe in recent decades. Guaca is located on the Caribbean Sea, which has historically made fishing and fish processing the center of its economy.

WHY IRAN EXECUTED JOURNALIST RUHOLLAH ZAM

Iranian dissident and journalist Ruhollah Zam was executed early on Saturday morning for his role in sparking nationwide anti-government protests in 2017, Iran's state television reported. Zam's execution comes four days after the Iranian Supreme Court upheld his death sentence, despite facing widespread condemnation. Earlier this year, a court sentenced Zam to death after he was found guilty of "corruption on earth" — a charge that is often invoked for cases that involve espionage or an attempt to overthrow the Iranian government.

Who is Ruhollah Zam?

Ruhollah Zam was an Iranian activist and journalist who was best known for running an online opposition news website, called AmadNews, as well as a thriving channel on messaging app Telegram, where he had garnered over a million followers. He is the son of a reformist Shiite cleric, named Mohammad Ali Zam, who used to serve in a government policy position in the 1980s, according to AP. In a letter published by local media in July 2017, his father said he did not support his son's journalism and the messaging he was sending through Telegram.



What was Zam's role in the anti-government protests of 2017?

Zam's website and Telegram feed played a central role in the anti-government protests that broke out across Iran in 2017 in response to a flailing economy, soaring inflation and an overall lack of opportunity for thousands of the country's citizens. Around 5,000 people were detained and as many as 25 killed in the demonstrations that year. The 2017 protests grew to become the biggest political challenge faced by Iranian President Hassan Rouhani and even Supreme Leader Ayatollah Ali Khamenei since the pro-democracy Green Movement protests that spread through the country in 2009. Information about the timings and locations of the protests as well as inflammatory content about Iran's leadership was constantly shared on Zam's Telegram news feed. *At one point, Telegram even shut down his channel after the Iranian government complained that the journalist was teaching his followers how to make petrol bombs — an allegation that Zam denied. However, a little while later the channel was launched yet again under a new name.* But Zam already had a target on his back for challenging Iran's Shia theocracy. In October 2019, Iran's Revolutionary Guards Corps announced that they had arrested Zam. But the details of his arrest are unclear, as he had been granted political asylum in France, and was living there ever since he was imprisoned in Iran following a disputed presidential election in 2009.

Why was Ruhollah Zam executed?

Authorities alleged that the journalist was in close contact with agents from the US' National Security Agency (NSA) and a number of other foreign intelligence services. "This individual committed criminal and corrupt acts against the security and livelihoods of the Iranian people through running the antagonist AmadNews Telegram channel and espionage communication with elements linked with foreign services that are against the Iranian people's security," an article in Mizan, the official news website of Iran's judiciary, read. The crime of "spreading corruption on Earth" or "Mofsed fel-Arz" is a vague charge often wielded by the Islamic state against those who oppose it. Under the Iranian penal code, the punishment for crimes involving violating national security or spreading lies is a maximum of 10 years in prison. But according to Article 286 of the country's penal code, a person who spreads lies or violates national security at a "large scale" may face execution. However, no criterion is set out to define what would qualify as a crime committed on a "large scale".

What has the response been to Zam's execution?

Several activists and advocacy groups across the world have condemned Zam's execution. According to Reporters Without Borders, Iran has been "one of the world's most repressive countries for journalists for the past 40 years." At least 860 journalists have been arrested or executed in the country since 1979. "RSF is outraged at this new crime of Iranian justice," the organisation tweeted, blaming the country's supreme leader Khamenei for Zam's execution. According to a Reuters report, the Supreme Court's decision to uphold the death sentence was condemned by France and several human rights groups.

THE AFTERMATH OF IRANIAN SCIENTIST'S KILLING

The assassination of Mohsen Fakhri-zadeh, a top Iranian nuclear physicist, on November 27 on the outskirts of Tehran has turned the spotlight back on Iran's nuclear programme as Joe Biden prepares to assume the U.S. Presidency. Mr. Biden had promised during his campaign to take the U.S. back to the Iran deal, which President Donald Trump had abandoned. But after Fakhri-zadeh's



killing, Iranian lawmakers moved quickly to pass a Bill that would set a timeline for the government to strengthen the country's nuclear programme.

What does the law mean for Iran's nuclear programme?

The new law, if approved by the Supreme Leader, would oblige the government to raise the levels of nuclear enrichment in its key facilities — Natanz and Fordow — and deny access to UN inspectors to these sites. According to the Joint Comprehensive Plan of Action (JCPOA), as the 2015 nuclear deal is called, *there is a 3.67% cap on Iran's uranium enrichment. Low-enriched uranium, which has a 3-5% concentration of Uranium-235, can be used to produce nuclear fuel for power plants.* Under the new law, which has been passed in Parliament and got the clearance of the Islamic constitutional watchdog Guardian Council, the government should raise the enrichment levels to 20% if the European signatories to the JCPOA do not provide relief to Iran from sanctions within two months. It also mandates the government to install advanced centrifuges in its nuclear plants for higher enrichment.

Is Iran currently complying with the deal's terms?

Tehran began violating the deal after President Trump pulled the U.S. out of the JCPOA in 2018 and re-imposed sanctions on Iran. The Islamic Republic has breached the caps for both uranium stockpile and enrichment. *According to a confidential report by the International Atomic Energy Agency (IAEA), which was leaked to the press, Iran, as of November 2, had a stockpile of 2,442 kg of low-enriched uranium, up from the 202.8 kg cap set by the nuclear deal. The same report stated that Iran is enriching uranium to a purity of 4.5%, up from the 3.67% threshold. Before the nuclear deal was signed, Iran had a stockpile of 7,000 kg of 20% enriched uranium. The 20% purity is a technical step away from the weapons-grade level of 90%.* Now, by producing more nuclear fuel and seeking to gradually raise the purity, the new legislation requires the government to go back to the pre-nuclear deal capacities. However, there is no consensus in the Iranian regime on the way forward. President Hassan Rouhani has publicly voiced his opposition to the Bill.

Why is Mr. Rouhani opposed to the legislation?

President Rouhani's opposition suggests that the Iranian government is still hopeful that the nuclear deal could be revived under a Biden administration. The legislation would be "harmful" to diplomatic efforts to restore the deal and easing sanctions, said Mr. Rouhani. The violations Iran has already announced can easily be rolled back if an understanding is reached with the U.S. in the next few months. Even when Iran started raising the fuel stockpile, it continued to allow full access to the IAEA to its facilities. This was one of the reasons the other signatories did not abandon the accord. *But if the Bill is approved and Iran blocks access to nuclear inspectors to its sites, it could be seen as a major provocation.* By voicing his opposition publicly, Mr. Rouhani has given credence to the argument that the regime is divided on what its response should be. *Mr. Rouhani, however, does not have the power to veto the Bill. If he declines to sign it, the Parliament Speaker could sign it and send it to the Supreme Leader, Ali Khamenei, who takes the final call.*

What's next?

A lot depends on Mr. Biden's policy on Iran. If he reopens the diplomatic path, takes the U.S. back to the deal and at least eases some sanctions, it could bring the deal back to life. If he seeks more concessions from Iran as a precondition to rejoin the deal, as he suggested in a recent interview,



it could prolong the crisis and strengthen the hands of the already powerful hardliners in the regime.

WHY A NIKE AD IN JAPAN HAS GENERATED BACKLASH

In the last week of November, Nike Japan released a video highlighting the issues of racism and bullying in the country. This set off a firestorm, with many Japanese social media users calling for a boycott of the company. The two-minute video, titled 'The Future Isn't Waiting', is the latest attempt by the company to expand its marketing strategy to focus on socio-political issues.

Why has the video generated controversy?

On the surface, the advertisement is similar to others by Nike that feature stories of athletes overcoming odds to achieve success in various sports. But this video has an additional message — three young women athletes are shown battling racism and bullying in educational institutions in Japan and how their sports helped them find refuge. Nike had said that the advertisement was inspired by the stories of real women athletes in Japan, and the video features one biracial woman and another who is a zainichi, ethnically Korean. While the advertisement has been lauded by many, there have been others who have claimed that Nike is exaggerating the scale of racism and discrimination towards foreigners and biracial individuals in Japan.

SHIFTING THE ROHINGYA TO BHASHAN CHAR

Agencies reported that a United Nations (UN) human rights investigator had requested Bangladesh to allow a safety assessment of the remote islet of Bhashan Char, where the government had shipped 1,600-odd Rohingya refugees. Reuters reported that the UN said it was not involved in the transfer of the refugees there. Thomas Andrews, the UN human rights investigator for Myanmar, told the news agency that the assessment and verification process to ensure that the refugees were not forced to go were in the "best interest of all". Other human rights agencies have also criticised the move.

Is the islet safe?

Bhashan Char is a char-land of around 13,000 acres, formed by the accumulation of silt where the river Meghna meets the Bay of Bengal carrying rich alluvial deposits. Char-lands are a common feature in Meghna and Padma rivers and literally mean "shifting silt landmass". As the name reveals, the char was not part of the permanent land feature of Bangladesh, but appeared recently. *Bhashan Char is surrounded by a mangrove forest that has given it geographical stability.* Sensing a tourism opportunity, the Bangladesh government had declared Bhashan Char as a protected forest land in 2013. It is a two-and-a-half-hours boat ride away from Cox's Bazar in Chittagong. The main argument for the char-land being unsafe is that these lands are known to be *unstable and flood-prone*. The other fear factor includes the *tropical cyclones* that visit the area every year.

What is the arrangement for the Rohingya?

Over the past few years, Bangladesh has constructed roads and brought modern telecommunication networks to Bhashan Char. The Bangladesh government has earmarked around 1,350 acres for the Rohingya refugees, of which 432 acres is dedicated to their rehabilitation and the rest remains for future projects. The government has constructed a large



number of housing units in the section designated for the Rohingya. *The country sent 1,642 Rohingya refugees to the islet from their temporary camps in Kutupalong, near Cox's Bazar, on December 4. They are being housed in red-roofed residential units and most houses are built four feet above the ground to help them withstand unexpected high tidal waves.*

Why is Bangladesh moving the refugees?

Rohingya refugees of *Kutupalong* have been living in a large refugee camp near the forested borders with Myanmar since 2017, when they were forced to traverse the forest and the rivers that constitute the border between Bangladesh and Myanmar's Rakhine province. *Ever since their arrival, the refugees, numbering 1.1 million, have been living in Kutupalong under bamboo and tarpaulin structures. The camp is located on a hillock, which was a sanctuary for elephants and other wild animals.* Kutupalong has also been in the news for its rising crime rate. Bangladesh argues that the islet will provide a safer place.

Why are human rights agencies upset?

Amnesty International said Bangladesh must "drop" its plans to shift Rohingya refugees to Bhasan Char as the char-land had not yet been declared safe for habitation by the United Nations.

What happens next?

Diplomatic sources have confirmed that Dhaka does not plan to relocate the entire refugee settlement and only aims at reducing the congestion in Kutupalong. The country's long-term plan for Rohingya refugees is to seek their repatriation to the Rakhine province of Myanmar.

Located close to the much larger Sandwip, Bhasan Char spans 40 sq km. The government has built shelters, hospitals and masjids. According to media reports, construction of the concrete accommodation began in November 2017 at an estimated cost of 23.12 billion taka (\$272 million). A Reuters report in 2018 said Chinese and British companies carried out the construction, which includes flood embankments and cyclone shelters. According to a report in the Bangladesh newspaper Daily Sun, *1,440 houses have been constructed at 4m height from the land, and can accommodate around 100,000 people.* Officials told the newspaper that people relocated to the island can engage in farming and livestock breeding, but will not be able to "transact money" as Bangladesh is yet to officially recognise them as refugees and refers to them only as "stateless" people. Of 120 shelters, 20 are allocated for civil administration, learning centres, mosques, community clinics, day-care centres, orphanage etc. Google Earth images show rows of red roofed barrack-like structures on the island. It also has a helipad. Some fishing boats are visible, but the island is otherwise uninhabited.

Myanmar & Rohingya

Myanmar, which does not recognise Rohingya as an indigenous group and refers to them only as Bengalis, has not reacted to the relocation to Bhasan Char. Two years ago, Myanmar had reluctantly agreed to take back some Rohingya, but hardly any went back. The army crackdown four years ago was against a group called the Arakan Rohingya Salvation Army, which Myanmar said was a Islamist terrorist group. The UN-appointed "independent international fact finding committee" said "[t]he horrors inflicted on Rohingya men, women and children during the August 2017 operations, including their indiscriminate killing, rise to the level of both war crimes and crimes against humanity". It said the Army targeted civilians for killings, rape and sexual violence



on “a shocking scale”. Last November, Gambia, with backing from the Organisation of Islamic Cooperation, took Myanmar to the International Court of Justice (ICJ) for violating the 1948 Genocide Convention. State counsellor Aug San Suu Kyi represented Myanmar at the hearings. In January, the ICJ passed a provisional order directing Myanmar to take “all measures within its power” to prevent atrocities against members of the minority Rohingya Muslim community, in accordance with its obligations under the Convention on the Prevention and Punishment of the Crime of Genocide. The orders are not binding on Myanmar.

Rohingya in Myanmar today

Discrimination against the Rohingya continues in Myanmar. In the recent elections in which Suu Kyi's party emerged with a bigger majority than in 2015, there were practically no Rohingya voters, this right having been stripped by the military junta before the last election. With upto a million Rohingya outside Myanmar, and voting called off in Rakhine state, where a lakh Rohingya still live, even those eligible could not vote. Nominations of Rohingya candidates were rejected for not being able to prove citizenship. ASEAN, of which Myanmar is a member, has been unable to address the crisis. The grouping operates on the basis of non-interference. The international horror at Suu Kyi's defence of the army's policies at the ICJ has led Myanmar to find solace in China's arms. Amid all this, Bangladesh, which has done more than any other country for the Rohingya, believes it is within its rights to bypass UN concerns at the relocation to Bhasan Char.

HISTORY OF OIC

Dennis Michael Rohan did not dream of the *Organisation of Islamic Cooperation (OIC)*, yet this Australian's dreams would lead to the creation of one of the oldest multilateral bodies of the Islamic world. The OIC, which hits the headlines in India whenever it comments on the Kashmir issue, *was born in the backdrop of a series of historic developments in the Arab world, beginning with the Six-Day War of 1967 that led to the shocking defeat of the frontline Arab countries such as Egypt, Jordan and Syria.* The war also *led to the loss of East Jerusalem, which hosts the Al-Aqsa mosque, one of the three holiest shrines in Islam after Mecca and Medina.* The sensational victory of the Israel Defence Forces was topped by the arrival of the Jewish troops at the Western Wall, the Jewish holy site adjoining Al-Aqsa. While the Israeli government promised to preserve the holy Islamic shrine, fanatics across the world dreamt of a new era. Dennis Michael Rohan, in Australia, dreamt of the second coming of Jesus Christ and he took it upon himself to make way for the messiah and he flew to Israel. *The original pulpit of Al-Aqsa was an object of wonder. The 12th century wooden structure had survived the ups and downs of history that visited Jerusalem and left its mark on the city that was holy to three religions. In 1969, Rohan arrived in Israel and in the night of August 21, he carried a can of kerosene into Al-Aqsa and set fire to the pulpit.* As smoke rose from the ancient mosque's windows, sending out shock and horror across the world, *Islamic countries began brain storming about the Palestine cause and the need to protect the holy shrines that fell in the occupied territories. The storm of public outrage triggered the first conference of Islamic governments, which was held in Rabat, Morocco, on September 22-25, 1969, where they resolved to protect the Palestinian territories, and condemned the arson attack. The Rabat conference had two criteria of membership: the countries with Muslim majority and those with a Muslim head of state could be considered for membership of the collective that would eventually become the OIC. Former Indian Ambassador to Morocco, Gurbachan Singh, has said India was invited to be a participant in the inaugural summit and yet, when the Minister of Industrial Development Fakhruddin Ali Ahmed arrived in Rabat, the Indian case was mixed with the riot in Ahmedabad, which was brought up by*



President Yahya Khan of Pakistan. India as a secular democracy was formally invited through Ambassador Singh, but Pakistan, which had already fought two wars with India and had a heating political scenario in East Pakistan at that time, successfully scuttled the Indian case at the Rabat summit. The summit boosted the Palestine cause considerably and the next four years, the world witnessed a series of developments, including dramatic hijacking of aircraft by various organisations demanding the liberation of Palestine. Meanwhile, Yahya Khan had a personal setback with the defeat of Pakistan in the 1971 war against India. This defeat, which was noted within the OIC, was followed by the Yom Kippur War of 1973 during which the Arab air forces were able to stun Israel. This was quickly followed by the oil shock, which was the outcome of the energy embargo imposed by the Arabs mainly at the behest of King Faisal of Saudi Arabia.

Lahore summit

Soon thereafter, OIC Secretary-General Tunku Abdul Rahman suggested an emergency summit of the Islamic countries for brainstorming the future of the Islamic world. Tunku, who was the first Prime Minister of Malaysia, decided to shift the summit away from the Arab world. *In 1974, Lahore hosted the OIC summit.* In the past, Malaysia and Pakistan had troublesome ties. *Malaysia had not supported Pakistan in the 1965 war. However, the past was forgotten as the Pakistan leadership found the summit as an opportunity to get out of the economic downturn and diplomatic isolation caused by the defeat in the 1971 war.* The summit turned out to be a success for Zulfikar Ali Bhutto's government. Many big names such as Anwar Sadat of Egypt, Shah Reza Pahlavi of Iran, the young Colonel Moammer Gaddafi of Libya were hosted at Lahore, and Prime Minister Bhutto personally received each one of the guests. *Pakistan managed to score a major diplomatic point by inviting Sheikh Mujibur Rahman of Bangladesh and recognised the new country.* The images of Mr. Bhutto, who had just three years ago demanded harshest punishment for Sheikh Mujib, welcoming him at the airport was broadcast across the world. Gaddafi became the star of the summit as he represented a new oil rich power which had the potential of bankrolling Pakistan's aspirations. It also hosted Yasser Arafat of the Palestine Liberation Organisation (PLO) and treated the outfit as a state representative. It is believed that the gesture went down very well with Arafat, who was reported to have said, "Palestine was born in Lahore". Despite the bonhomie, the countries were barely united under the umbrella of the OIC, and the disunity has been a consistent factor of weakness in the organisation. For example, Gaddafi was opposed by the Shah of Iran as the former had described him as a U.S. ally. Mr. Bhutto had personal problems with the Shah, who had reached out to Indira Gandhi around this time for oil trade. *The Lahore summit brought the Pakistan factor in a prominent way in the OIC.* However, the next big developments like the siege of Mecca's Grand Mosque in November 1979 and the Islamic Revolution of Iran earlier that year added new dynamics to the organisation.

Iran-Iraq war

Soon, *the OIC was divided across the middle as the eight-year-long Iran-Iraq war broke out in 1980.* During the war, Saddam Hussein of Iraq was backed by Saudi Arabia against the Shia theocratic Iran. *The jihad in Afghanistan against Soviet troops in the 1980s gave an opportunity for unity among themselves, but they never managed to bridge the Iran-Saudi sectarian and geopolitical gap, which continues to resonate in West Asian politics.* As the group remained divided over its two powerful members, Pakistan brought up the Kashmir issue repeatedly. India was given a rare opportunity in the aftermath of the Pulwama attack to state its case on global terrorism at the Foreign Minister-level meeting of the OIC in Abu Dhabi. This, however, did not deter the



organisation from remaining focused on the state of affairs in Kashmir, which was stripped of special status six months after the Pulwama strike. *Headquartered in Jeddah, Saudi Arabia*, the group now has 57 member States. Former Saudi Social Affairs Minister Yousef bin Ahmad Al-Othaimeen is its current Secretary-General. *In recent years, apart from terrorism, the OIC has routinely taken up vexing problems like the Rohingya refugee crisis, the Syrian civil war, Kashmir, the conflict in Yemen and, of course, the Palestine issue.* But besides passing resolutions, the group could do little to resolve any of these problems. Also, even when it projects itself as a body for transnational Islamic cooperation, the divisions within the group runs deep.

PAKISTAN'S BLASPHEMY LAW IS USED TO TARGET THE CHRISTIAN COMMUNITY WITH IMPUNITY

Pakistan's most humiliating moment is reached every time someone is accused of blasphemy and sentenced to death. Proof is not needed; the court is just too scared to let the accused go, as happened in the case of Junaid Hafeez, a "visiting" faculty member at the English department of Bahauddin Zakariya University in Multan, who was sentenced to death by a court in Multan in 2019 after being arrested in 2013. He was a Fulbright scholar with a Master's from Jackson State University. It is easy to convict people for blasphemy because the law says an insult to the Prophet PBUH can take place even by innuendo. Then, *there are the clerics who can scare any judge if they think he is getting soft because of lack of evidence. One such "blasphemy" priest, Allama Khadim Hussain Rizvi, died a natural death recently after getting many innocent people in trouble over "rumours" of blasphemy.* His fiery sermons caused police-guard Mumtaz Qadri to pump 27 bullets into Governor of Punjab Salmaan Taseer in 2011 for supporting a Christian woman accused of blasphemy. *Amnesty International in September appealed to Pakistani authorities to immediately and unconditionally release Hafeez.* "Junaid's lengthy trial has gravely affected his mental and physical health, endangered him and his family, and exemplifies the misuse of Pakistan's blasphemy laws," Amnesty International's regional researcher, Rabia Mehmood, stated. *Junaid's father tried to find a lawyer who would tell the scared judge why his son should be let off. He had to confess: "I found a lawyer willing to take the case but, on his first day, he was harassed by some 200 lawyers."* He still thought the judge would be fearless. "The prosecution, the witnesses and trial could not prove any of the allegations," said the lawyer. Before India's "love jihad", Pakistan found its way to getting rid of its Christians. Blasphemy was pinned on them with *the confidence that no judge would let them off the hook, with pious crowds demanding death outside his court.* In August 2009, after a week of simmering Muslim-Christian dispute over the desecration of the Holy Quran in tehsil Gojra in Toba Tek Singh district in Punjab, violence broke out. As usual, *a "banned organisation", Sipah-e-Sahaba*, came from outside town, took over and used acid and petrol bombs to destroy property and kill women and children, while the local government and police stood aside. The federal government took only "serious note". *Christians are the largest religious minority in Pakistan. The total number of Christians in Pakistan was at least 2 million in 2008 or 1.1 per cent of the population.* An examination of birth records yields a total number of Christians at 2.8 million. *More than 90 per cent of the country's Christians reside in Punjab. And 60 per cent live in villages, and in most cases are more indigenous to their areas than Muslims.* Blasphemy and desecration of the Quran are used against them, but the latter is used against them collectively, followed by organised destruction of property. In 1997, the twin villages of Shantinagar-Tibba Colony, 12 km east of Khanewal, Multan Division, were looted and burnt by 20,000 Muslim citizens and 500 policemen acting together after an incident of desecration of the Quran was reported. The police first evacuated the Christian population of 15,000, then helped the raiders use explosives to blow



up their houses and property. Sipah-e-Sahaba was blamed by the Christians for the violence. In 2005, the Christian community of Sangla Hill in Nankana district in Punjab experienced a most hair-raising day of violence. After allegations of desecration of the Quran, a mob of 3,000 led by a local politician and the police burnt down three churches, a missionary-run school, two hostels and several houses belonging to Christians. Lahore's archbishop stated that the attackers had been brought there by buses from outside. The great champion of the blasphemy law, Allama Khadim Husain Rizvi, would lead "life-sacrificing" followers to Islamabad and block all roads going to the capital city and condemn the government, harshly using the word dalla (pimp) for politicians. When coronaries finally took him in Lahore, there were more than a million "devotees" at his funeral.

PAK: 'HABITUAL' RAPISTS COULD BE CASTRATED UNDER NEW LAW

Convicted habitual rapists in Pakistan could be chemically castrated after President Arif Alvi approved a new anti-rape ordinance. Alvi's approval came after Pakistan's Cabinet last month approved the *anti-rape ordinance*, which called for the *chemical castration of rapists with the consent of the convict and setting up of special courts for rape trials*. The law would ensure speedy trial of rape cases against women and children for which special courts would be established throughout the country. The courts will wrap up the cases within four months, the President's office said in a statement. *The concept of chemical castration for first or repeated offenders has been introduced mainly as a form of rehabilitation, and subject to consent of the convict.* The law stipulated that anti-rape crisis cells would also be set up for conducting medico-legal examination within six hours of the incident. Also, a countrywide registry of sexual offenders would be established with the help of the National Database and Registration Authority. The identities of victims would not be disclosed and the disclosure would be a punishable offence.

BHUTAN'S PARLIAMENT PASSES BILL TO DECRIMINALISE HOMOSEXUALITY

A joint sitting of both houses of Bhutan's Parliament approved a Billon to legalise gay sex, making the tiny Himalayan kingdom the latest Asian nation to take steps towards easing restrictions on same-sex relationships. Sections 213 and 214 of the penal code had criminalised "unnatural sex", widely interpreted as homosexuality. Lawmaker Ugyen Wangdi, the vice chairperson of a joint panel considering the changes, said 63 of the total 69 members of both houses of Parliament had voted in favour of amending the code to scrap the provision. Six members were absent. The changes still need to be approved by the King of Bhutan to become a law.

WHY MANY HEARD THE NAME ESWATINI FOR FIRST TIME THROUGH A PM MODI TWEET

When Prime Minister Narendra Modi offered a condolence message following the *death of Eswatini's Prime Minister Ambrose Mandvulo Dlamini, who had tested positive for Covid-19* four weeks ago, the name of the country came as news for some Indian social media users. *Although officially renamed Eswatini in 2018, the landlocked country in southern Africa, is more well-known in India by its former name Swaziland.*



Why did Swaziland change its name to Eswatini?

In April 2018, King Mswati III of Swaziland announced that he was renaming the country 'the Kingdom of eSwatini'. The name is sometimes also spelled as 'Eswatini'. The announcement for the name change occurred during celebrations for 50 years of Swazi independence from British rule, that coincided with those for the king's 50th birthday. Eswatini means 'land of the



Swazis' in Swazi language and was an extant name given how King Mswati III had always referred to the country by this name. The most prominent use of this name occurred when the King referred to the country as 'Eswatini' during his address at the UN General Assembly in 2017 and earlier in 2014, during the state opening of the parliament in the country. *When the name change had occurred, the king had explained the move saying there were some who would mistakenly refer to the country as Switzerland.* By implementing this name change, he had hoped that this would happen less. *Shedding the country's colonial past was another reason.* In 2018, the king had said: "African countries on getting independence reverted to their ancient names before they were colonised. So from now on the country will officially be known as the Kingdom of eSwatini."

Can a country's name change occur this way?

There are a few reasons why a country may want to change its name. Sometimes, it is because there is a desire to shed the traces of its brutal colonial past, while at other times, it is an attempt to foster a sense of national pride and identity. *In modern history, following the decolonization of Africa, several countries decided to rename themselves. For instance, Nyasaland in central Africa was renamed Malawi, Bechuanaland became the Republic of Botswana in 1966, the Republic of Upper Volta was renamed Burkina Faso, while Gold Coast became Ghana.* Sometimes, political factors influence name changes. *In 1989, Burma's name was changed to Myanmar by the country's military junta, in a move that was justified as an attempt to align the country's name with one in the Burmese language, simultaneously divesting it of its colonial legacy.* The move was controversial, in part because it was done without a referendum, but was endorsed by the United Nations only days later.

What happened in the case of Eswatini?

The decision to change the name of the country appears to have been one unilaterally taken by King Mswati III. At that time, critics had said that the king should instead focus on the state of the country's economy and issues like health care. *Eswatini has the world's highest prevalence rate for HIV/Aids with low life expectancy for both men and women. In contrast, the king lives a lavish life with 15 wives.* There are severe curbs on political parties and freedom of speech and issues such as discrimination towards girls and women is widespread. But King Mswati III heads Africa's last remaining absolute monarchy. In fact, around the world, *there are only three other absolute monarchies: Brunei, the Sultanate of Oman and the Kingdom of Saudi Arabia.* So King Mswati III does indeed have the powers to change the name of his country if he so desires.



FOREIGN AFFAIRS

ISRAEL AND BHUTAN ESTABLISH DIPLOMATIC TIES

Bhutan and Israel established formal ties on Saturday, with a formal ceremony in New Delhi where the Ambassadors of both countries to India exchanged agreements. The move follows a flurry of diplomatic activity in both countries in the past few weeks. *In deals brokered by the United States, Israel has established full relations with the United Arab Emirates(UAE), Bahrain, Sudan and Morocco in the last two months, while Bhutan established ties with Germany, its first new formal relationship since 2013. With the announcement, Bhutan, which does not have ties with any permanent UNSC member, has taken the restricted number of diplomatic relations to 54 countries and the European Union.* “The establishment of diplomatic relations would not only build upon the existing close ties but open the path to greater cooperation and further strengthen relations between the two countries and peoples,” said a joint statement, adding that Notes Verbale were exchanged between Bhutanese Ambassador Major General Vetsop Namgyel and Israeli Ambassador Ron Malika.

The two sides will not be setting up embassies in Thimphu and Tel Aviv however, and will coordinate through their missions in Delhi. While Israel and Bhutan have not had formal ties, the two sides cooperate on development activities and agricultural training. Israel’s Agency for International Development Cooperation (MASHAV) has trained hundred of Bhutanese youth since 2013.

FRIEND AND NEIGHBOUR

The virtual summit between Prime Minister Narendra Modi and his Bangladesh counterpart Sheikh Hasina, where they discussed issues ranging from the violent border incidents to the COVID-19 fight, demonstrates their desire to reboot India-Bangladesh ties that have faced challenges in recent months. *Mr. Modi called Bangladesh a “major pillar” in India’s neighbourhood first policy, while Ms. Hasina invited him to visit Bangladesh in March for the celebrations of the 50th anniversary of its independence.* It is a key opportunity for India, which had played a major role in Bangladesh’s liberation in 1971, to revive the bonhomie and address the issues adversely affecting the partnership. *Despite the friendship remaining solid, the border has been sensitive — at least 25 Bangladeshis were killed in the first six months of this year along the border by Indian forces, according to a rights watchdog. The Teesta water dispute remains unresolved. The Citizenship (Amendment) Act and the proposed National Register of Citizens, which Ms. Hasina called “unnecessary”, have created a negative impression about India. Above all, China is making deep inroads into Bangladesh by ramping up infrastructure investments and expanding economic cooperation.* So, it is imperative for India to bolster ties with this all-weather friend, and there may not be a better time to do so than when Bangladesh is to celebrate the golden jubilee of its independence.

Ms. Hasina has done relatively well in steering Bangladesh through crises. Under the Awami League government, Bangladesh, India’s largest trading partner in South Asia, has expanded its economy and improved social welfare. Despite the Awami League’s tight grip over the administration, Ms. Hasina has continued to face challenges from Islamist factions. War crimes and corruption trials have weakened the traditional opposition — the Bangladesh Nationalist Party and its ally, the pro-Pakistan Jamaat-e-Islami. But *another Islamist group, Hifazat-e-Islam,*



made headlines recently when it organised mass protests against French President Emmanuel Macron and opposed the Hasina government's plan to build a statue of the country's founding father, Bangabandhu Mujibur Rahman, in Dhaka's suburbs. The Hifazat has claimed that installing statues is prohibited in Islam and that they would be pulled down, but the government seems determined to go ahead with its plan. In a speech marking Victory Day (December 16), Ms. Hasina said she would not allow the country to be divided on religious lines, in an indirect reference to Hifazat. India should support her fight against the radical elements. India should also not allow the ideological inclinations of the ruling party to spoil the historic relationship between the two countries. New Delhi should take a broader view of the changing scenario and growing competition in South Asia, and reach out to Dhaka with an open mind.

The two leaders remotely launched the rail link between Chilahati (Bangladesh) and Haldibari (West Bengal), which is the fifth such link between the countries. The Chilahati-Haldibari rail link was last operational in 1965. Upgrade of the old lines was carried out before the inauguration. A joint statement issued at the end of the summit said that the filming of a biopic on Bangabandhu would begin under the direction of Shyam Benegal in January 2021. The document also pledged to name the road from Mujib Nagar to West Bengal's Nadia as "Shadhinota Shorok". It was in Mujib Nagar that a government in exile was formed in 1971.

Seven agreements

The two sides also concluded seven agreements covering areas such as hydrocarbon, High Impact Community Development Projects, elephant conservation, solid waste management, agriculture, and terms of reference of the India-Bangladesh CEOs forum. Both sides agreed to hold an early meeting of the Joint Boundary Conference to prepare a new set of strip maps along the stretch of the Ichhamati, Kalindi, Raimongol and Hariabhanga rivers from Main Pillar 1 to Land Boundary terminus. This exercise will help in fixing the international boundary on that stretch.

WHAT IS CURRENCY MANIPULATION, AND WHY HAS US PUT INDIA ON ITS CURRENCY WATCHLIST?

The United States has once again included India in its monitoring list of countries with potentially "questionable foreign exchange policies" and "currency manipulation". This comes a year after India was removed from the watchlist in the US Treasury Department's semi-annual foreign-exchange report to the US Congress.

What does the term 'currency manipulator' mean?

This is a label given by the US government to countries it feels are engaging in "unfair currency practices" by deliberately devaluing their currency against the dollar. The practice would mean that the country in question is artificially lowering the value of its currency to gain an unfair advantage over others. This is because the devaluation would reduce the cost of exports from that country and artificially show a reduction in trade deficits as a result.

What are the parameters used?

An economy meeting *two of the three criteria* in the Trade Facilitation and Trade Enforcement Act of 2015 is placed on the Monitoring List. This includes:



1. A “significant” bilateral trade surplus with the US — one that is at least \$20 billion over a 12-month period.
2. A material current account surplus equivalent to at least 2 percent of gross domestic product (GDP) over a 12-month period.
3. “Persistent”, one-sided intervention — when net purchases of foreign currency totalling at least 2 percent of the country’s GDP over a 12 month period are conducted repeatedly, in at least six out of 12 months.

Once on the Monitoring List, an economy will remain there for at least two consecutive reports “to help ensure that any improvement in performance versus the criteria is durable and is not due to temporary factors,” according to the US treasury department. The administration will also add and retain on the Monitoring List any major US trading partner that accounts for a “large and disproportionate” share of the overall US trade deficit, “even if that economy has not met two of the three criteria from the 2015 Act”.

Which are the other countries in the latest monitoring list?

The US Department of the Treasury Office of International Affairs, in its latest report to the US Congress, has *included India, Taiwan and Thailand to its Monitoring List* of major trading partners that “merit close attention” to their currency practices and macroeconomic policies. Other countries in the latest list comprise *China, Japan, Korea, Germany, Italy, Singapore, Malaysia. India was last included in the currency watchlist in October 2018, but removed from the list that came out in May 2019.* The designation of a country as a currency manipulator *does not immediately attract any penalties, but tends to dent the confidence about a country in the global financial markets.*

Why is India back in the Monitoring List again?

India, which has for several years maintained a “significant” bilateral goods trade surplus with the US, crossed the \$20 billion mark, according to the latest report. Bilateral goods trade surplus totalled \$22 billion in the first four quarters through June 2020. Based on the central bank’s intervention data, India’s net purchases of foreign exchange accelerated notably in the second half of 2019. Following sales during the initial onset of the pandemic, India sustained net purchases for much of the first half of 2020, which pushed net purchases of foreign exchange to \$64 billion— or 2.4% of GDP—over the four quarters through June 2020.

The U.S. Treasury labelled Switzerland and Vietnam as currency manipulators on Wednesday and added three new names, including India, to a watch list of countries it suspects of taking measures to devalue their currencies against the dollar. In response, the Swiss National Bank said it does not manipulate its currency and its monetary policy approach would be unchanged, adding that it “remains willing to intervene more strongly in the foreign exchange market”. Vietnam’s trade ministry declined to comment on the report and referred questions to the foreign ministry.

The U.S. also said that India and Singapore had also intervened in the foreign exchange market in a “sustained, asymmetric manner” but did not meet other requirements to warrant designation as manipulators.



HOW INTELLECTUAL PROPERTY COOPERATION MOU WITH US COULD BENEFIT INDUSTRIES

India and the United States, earlier this week, signed a memorandum of understanding (MoU) on intellectual property (IP) cooperation.

What is the MoU about?

The agreement, between the Commerce Ministry's Department for Promotion of Industry and Internal Trade (DPIIT) and the United States Patent and Trademark Office (USPTO), aims to increase IP cooperation between the two countries. It was virtually signed by DPIIT Secretary Guruprasad Mohapatra and USPTO Director Andrei Iancu on December 2; nearly 10 months after the Union Cabinet gave the approval for the country to enter into this MoU with the US.

How will the deal increase IP cooperation between the two?

The MoU would facilitate exchange and dissemination of best practices, experiences and knowledge on IP among the public as well as between and among the industry, universities, research and development organisations, and small and medium-sized enterprises. This will happen through their participation in programmes and events that are singly or jointly organised by the participants. It is also expected to encourage collaboration in training programmes, exchange of experts, technical exchanges and outreach activities. The MoU provides for the exchange of information and best practices on processes for registration and examination of applications for patents, trademarks, copyrights, geographical indications, and industrial designs, as well as the protection, enforcement and use of intellectual property rights. It also provides for the exchange of information on the development and implementation of automation and modernisation projects, new documentation and information systems in IP and procedures for management of IP office services. It is also expected to foster their cooperation to understand various issues related to traditional knowledge and the exchange of best practices, including those related to traditional knowledge databases and awareness raising on the use of existing IP systems to protect traditional knowledge.

How will it be implemented?

The two sides will draw up a biennial work plan to implement the MoU, including detailed planning to carry out the cooperation activities like the scope of action.

CULTURE AND PEACE

In a strong statement at the UN General Assembly discussing resolutions of the UN Alliance of Civilizations (UNAOC) on the 'Culture of Peace', India criticised the world body for what it called "selectivity" in seeking to protect Abrahamic religions — Islam, Christianity and Judaism — over others. The Indian delegate pointed out that previous resolutions of the UNAOC dating back to 2006 had repeatedly decried the hatred against those religions — "Islamophobia, Christianophobia and anti-Semitism" — but didn't condemn attacks on other religious groups including Hindus, Sikhs and Buddhists, who have suffered terror strikes and seen their shrines destroyed in Afghanistan and Pakistan. In particular, India said, the UNGA statement welcomed the Kartarpur Gurudwara corridor agreement between India and Pakistan, but failed to note that Pakistan's government has taken over the management of the Sikh shrine, which it called a contravention of the agreement



and a violation of Sikh beliefs. India's delegate also accused Pakistan of a "culture of hatred" against "religions in India" and fostering cross-border terrorism and said a culture of peace cannot exist until that is changed. Above all, the Indian statement said, *the UN's selectivity under the aegis of the UNAOC, an organisation that was set up in 2005 to prevent polarisation between societies and cultures and to bridge differences between them, only serves to further the theory of an inevitable "clash of civilisations" instead.*

India's concerns over the UN resolutions that portray only three religions as victims of religious hatred are completely valid, and it is important that they are broadened to include every community that faces religion-based violence. It is also important that the government thwarts Pakistan's particularly insidious attempts to create a controversy against India at this time, by pushing these resolutions as India steps to take its two-year seat at the UN Security Council. New Delhi has been concerned by an increase in intrusive language from the UN bodies concerned as well, given that *UNAOC issued a statement of "grave concern" over the Delhi riots in February this year that it said resulted in casualties of "mostly Muslims"*. India is keen to push back on the UNAOC and other UN arms, like the UN Human Rights Council, that have criticised the Citizenship (Amendment) Act. As it seeks to do all of this, however, the government must be careful about ensuring that in exposing the UN's "selectivity" it doesn't open a flank for a counter-charge against India. The Citizenship (Amendment) Act, for example, has been criticised for offering fast-track citizenship to only a select group of religions, leaving out Muslims. India cannot call for a culture of peace that stitches together an alliance of faiths, while Indian States bring laws that seek to make difficult inter-faith marriages. *In the larger analysis, the force of India's argument against the UN's selective resolutions and non-inclusive language as well as the international efforts of adversaries such as Pakistan remains its own secular credentials enshrined in the Constitution and its pluralistic ethos.*

NATION

PEOPLE HAVE THE RIGHT TO DEMONSTRATE PEACEFULLY: U.N.

"People have a right to demonstrate peacefully and authorities need to let them do so," Stephane Dujarric, spokesperson for the Secretary-General of the United Nations said on Saturday, on being asked about the farmers' movement in India. *The comment is the latest addition to a show of support for farmers.* The remark comes a day after the Ministry of External Affairs (MEA) described Canadian Prime Minister Justin Trudeau's support to the protest as "unacceptable interference". The comment from the United Nations came even as 36 British Members of Parliament sent a joint letter to U.K. Foreign Secretary Dominic Raab, calling upon him to bring up the concerns of British citizens over the protests in Punjab and in the outskirts of Delhi. In a two page letter, Tanmanjeet Dhesi, Member of Parliament for Slough, expressed concern about the well-being of the protesting farmers and said, "These new laws (in India) present the Punjabis with a huge problem, with some describing it as a 'death warrant'." The comments from the U.K. and the United Nations have added to the arguments from Canada. Meanwhile, protests were held in multiple locations across Canada, where a large number of Indo-Canadians participated in drive-in demonstrations, many of which culminated at Indian diplomatic missions. *The diplomatic spat between Canada and India was visible as External Affairs Minister S. Jaishankar cancelled his participation in the December 7 meeting on the COVID-19 pandemic, which is to be led by Canada.*



LAW AND DISORDER (N.L. RAJAH - SENIOR ADVOCATE, MADRAS HIGH COURT)

Most often, the issue of spending on judiciary is equated with a call for increasing the salaries of judges and providing better court infrastructure. Such perceptions are unfortunate. *India has one of the most comprehensive legal aid programmes in the world, the Legal Services Authority Act of 1987. Under this law, all women, irrespective of their financial status, are entitled to free legal aid. Scheduled Castes and Scheduled Tribes and children too are entitled to free legal aid. This means that a significant proportion of the population falls — or is supposed to fall — under a free legal aid regime. However, in reality, this law is a dead letter. There has been little effort on the part of successive governments to provide a task force of carefully selected, well-trained and reasonably paid advocates to provide these services.* In comparison, the system of legal aid in the U.K. identifies and funds several independent solicitor offices to provide such services. If support is withdrawn, many solicitor offices that provide these invaluable services would collapse and with that, the rule of law. India is yet to put in place anything similar to this.

Poor judge-population ratio

The judge-population ratio provides one of the most important yardsticks to measure the health of the legal system. *The U.S. has about 100 judges per million population. Canada has about 75 and the U.K. has about 50. India, on the other hand, has only 19 judges per million population.* Of these, at any given point, *at least one-fourth is always vacant.* While much is written on vacancies to the Supreme Court and the High Courts, hardly any attention is focused on this gaping inadequacy in lower courts which is where the common man first comes into contact (or at least should) with the justice delivery system. These inadequacies are far more important to the common man than the issues relating to the apex court that are frequently highlighted in the public space. *In All India Judges Association v. Union of India (2001), the Supreme Court had directed the Government of India to increase the judge-population ratio to at least 50 per million population within five years from the date of the judgment.* This has not been implemented.

Access to justice

Though 'access to justice' has not been specifically spelt out as a fundamental right in the Constitution, it has always been treated as such by Indian courts. In Anita Kushwaha v. Pushpa Sadan (2016), the Supreme Court held unambiguously that if “life” implies not only life in the physical sense but a bundle of rights that make life worth living, there is no justice or other basis for holding that denial of “access to justice” will not affect the quality of human life. It was for the first time that the Supreme Court had attempted a near-exhaustive definition of what “access to justice” actually means. Further, the court pointed out four important components of access to justice. It pointed out the need for adjudicatory mechanisms. It said that the mechanism must be conveniently accessible in terms of distance and that the process of adjudication must be speedy and affordable to the disputants. It is of course a paradox that this judgment, which emphasises the concept of speedy justice, was passed in 2016 in a batch of transfer petitions that were filed between 2008 to 2014. The state in all its glorious manifestations — the executive, judiciary and the legislature — is yet to draw out a national policy and road map for clearing backlogs and making these concepts real. These are just a few of the issues crying for attention. A disproportionate amount of attention that is given to the functioning of the Supreme Court, important as it is, distracts from these and similar issues. Let us assume that the apex court achieves the distinction of being “ideal” in the near future, of being all things to all people. Still, a



fine mind alone is of little avail if the rest of the body lies disabled, as the justice delivery system is today.

PLEA IN SC AGAINST EMERGENCY: WHY IS THE PETITIONER SEEKING RELIEF NOW?

The Supreme Court agreed to look into whether it should examine the constitutionality of the proclamation of national Emergency in 1975 by the then Indira Gandhi-led Congress government. The issue came up before the court as 94-year old Veera Sarin is seeking compensation for the loss she suffered due to the proclamation of emergency.

What is the Supreme Court looking into?

A three-judge bench of the Supreme Court headed by justice Sanjay Kishan Kaul, rather reluctantly agreed to examine if the court could examine whether the proclamation of Emergency was constitutional. The court was hesitant to take up the issue as 45 years have passed since the declaration of Emergency and examining such an issue on merits now could be a cumbersome process. "If history is not corrected, then it will repeat itself," senior advocate Harish Salve, appearing for Sarin, argued. The court then asked Sarin's lawyers to amend her plea. It will be heard again on December 18.

What was the Emergency?

On June 12, 1975, the Allahabad High Court had declared the election of then Prime Minister Indira Gandhi as null and void. Following the court decision, Gandhi moved the Supreme Court and a vacation bench of justice Krishna Iyer stayed the high court's decision allowing Gandhi to remain as PM while limiting her right to vote in the parliament till the appeal was decided. Following an opposition rally for the resignation of Indira Gandhi, she made a decision to impose a national Emergency which would give the central government sweeping powers. *On June 25, 1975 then President Fakhruddin Ali Ahmed relying on Article 352 of the Constitution declared a national Emergency in the country. The notification of the proclamation of Emergency was published in the official gazette on June 26, 1975 when it took effect.* In 1975, the President could impose Emergency if satisfied with the "persistence of a grave threat to the security of the whole of India or a territory of India, either by war, external aggression or internal disturbances."

What happened after the proclamation of Emergency?

From media censorship, suspension of civil liberties and attempts to fundamentally change the Constitution to suit the government, the Emergency is reckoned as a dark period in India's democracy. *The 38th- 42nd Constitutional amendments were passed during the Emergency which led to a tussle between the executive and the judiciary that would have a lasting impact on the Parliament's power to amend the Constitution. Many of these changes were either overturned by courts or were reversed in the 44th Constitutional amendment in 1978 which was brought in after the Janata government was voted to power.* Through the *38th Constitutional Amendment*, Mrs Gandhi sought to expand the power of the President and barred judicial review of the proclamation of Emergency by the President or any ordinance issued by the President even if it infringed upon the fundamental rights guaranteed under the Constitution. The *39th amendment* was intended to nullify the effect of the Allahabad High Court ruling that declared Gandhi's election as null and void. The amendment placed any dispute to the election to the office of the Prime Minister, President beyond the scope of judicial review. The *40th amendment* placed crucial



land reforms in the Ninth schedule, beyond the scope of judicial review. The *41st Amendment* said no criminal proceedings “whatsoever” could lie against a President, Prime Minister, or Governor for acts before or during their terms of office. In the *42nd amendment*, the Parliament expanded its powers to amend the Constitution, even its ‘basic structure’ and curtail any fundamental rights. *Through the 43rd and 44th amendments, many of the amendments made during the Emergency were withdrawn and Article 352- the provisions relating to Emergency itself was strengthened to prevent misuse by the executive.*

Why is the petitioner seeking relief 45 years after the Emergency?

Sarin has claimed in her plea that a number of her immovable properties were illegally occupied for their activities during the Emergency. She also states in her plea that she won her long legal battle in the Delhi High Court for control of the properties owned by her late husband in July this year. Additionally, the Delhi High Court also ordered that rent be paid to Sarin as compensation for illegal occupation of the property. That order, five months ago, led Sarin to file a plea claiming damages for the alleged harassment suffered by the imposition of the Emergency.

She and her family were hounded by the authorities during the Emergency, forcing them to leave India. Vera Sarin submitted that her late husband H K Sarin had lost his “flourishing business of gold arts, gems, artefacts etc. at Karol Bagh as well as at K G Marg, New Delhi” following the declaration of the Emergency. According to the plea, H K Sarin’s “customers were from high status families”, and “famous foreign jewellers such as Harry Winston, Bulgari, Kazanjian...were his regular clients”. In the early 1960s, Sarin “opened his business under the name and style of Sarin Gem House in Akash Deep, Connaught Place”; he was appointed jewellery appraiser by the government, and he evaluated the wealth of royal houses for tax purposes. After the declaration of the Emergency, however, all the Sarins’ immovable property “came to be seized; the movable property consisting of artefacts, gems, carpets, paintings, tusks, statues, ivory worth crores of rupees were also seized, and there has been no restitution of the same till date”, says the plea. Vera and H K Sarin were married in 1957, and he passed away in 2000. In December 2014, Delhi High Court had ruled that the proceedings against her husband under The Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act, 1976, “were initiated bereft of any jurisdiction and therefore a nullity”. And in July this year, the court, based on a statement by the central government had “directed payment of arrears of rent for the property at K.G. Marg, New Delhi to the Petitioner and other legal heirs at a specified monthly rate”, the plea says. According to the nonagenarian petitioner, “the valuable movable properties have been siphoned away and illegally appropriated by many government authorities and private persons during the time of Emergency”. She “faced innumerable challenges and suffered atrocities upon her husband being compelled to leave her behind with the children”. There would be “nightly knocks” on her door, and policemen and other officials would enter her home and leave her alone “only after she offered them leftover pieces of valuables”. She and her children were psychologically disturbed, the petition says – “such was the indiscriminate, high handed, unauthorized power unleashed upon the citizens of the country during the said period”. Now, at an advanced age, she “has a simple desire to seek a closure to her trauma and an acknowledgment to her suffering”, the petition says. Sarin, who was born in Moradabad as the daughter of the headmaster in a missionary school, received a Master’s degree in school administration in the United States. She subsequently taught at her alma mater, Isabella Thoburn College in Lucknow, and at Jamia Millia University and the American International School in New Delhi.



CONVICTS TO COMPENSATE VICTIMS OF CRIME IN DELHI

Delhi will become the first city in the country where victims of crime, ranging from rape, murder to theft, will be financially compensated by a convict for physical injuries, emotional or psychological trauma and even funeral expenses. The compensation or "restitution" will be paid by the convict and may have a bearing on the final sentencing, if the court and the victim agree. To determine a just and reasonable amount of restitution, the court shall pay due regard to non-monetary factors such as emotional trauma or harm, nature and severity of physical injury, type and duration of medical intervention required, nature and duration of physical health problems, loss of life, loss of affection and companionship, loss of reputation. The move follows a report filed by amicus curiae G.S. Bajpai, who is also the chairperson, Centre for Criminology and Victimology at the National Law University in Delhi, in association with senior advocate Vikas Pahwa in the Delhi High Court.

Evaluation tool

Based on the report, a tool for the "victim impact report" has been put in place and it will be applicable to all courts in Delhi covering all police stations in Delhi. *The court, while deciding the quantum of compensation, will consider the monetary expenses borne by the victim such as money spent on counselling or psychological therapy, medical treatment, loss of earning, legal expenses, damage or loss to property, loss due to attachment of property for evidentiary purposes, funeral expenses and interest on the total sum incurred.* After a crime has been reported, the investigating officer will have to compulsorily record the "loss or injury to the victim" and "financial capacity of the accused." A group of legal experts appointed by the Delhi State Legal Services Authority, including senior police officers and social activists appointed by the court where a criminal trial is taking place, will assess the "emotional and mental" trauma faced by the victim of any crime and will prescribe monetary compensation before the jail sentence is announced. "Minor offences such as petty theft may have emotional impact in the short term while offences such as kidnapping or rape are bound to have long-term consequences," the report said. Mr. Bajpai told The Hindu, *"Our criminal justice system is accused-centric and the victim does not have space. This practice will bring the victim to the mainstream."*

SC FINDS HC ORDER ON A.P. GOVERNMENT 'DISTURBING

The Supreme Court quite rightly stayed an Andhra Pradesh High Court order that sought to convene a judicial inquiry into whether there is a "constitutional breakdown" in the Y.S. Jagan Mohan Reddy-led government in the State. The top court's intervention must be welcomed as it quickly halted an untenable adventure by the High Court that might have required the imposition of President's Rule. *While hearing habeas corpus petitions filed by relatives of persons remanded in judicial custody or on bail, on October 1, the High Court had suo motu summoned the State counsel to assist in deciding "whether in circumstances prevailing in the State of Andhra Pradesh, the court can record a finding that there is constitutional breakdown in the State or not". This was clearly a case of judicial over-reach by the A.P. High Court.* The question of a "constitutional breakdown" or the failure of constitutional machinery is dealt with under *Article 356* of the Constitution, whose invoking comes under the prerogative of the executive and not the judiciary. In the *S.R. Bommai case*, a nine-member Bench of the Supreme Court construed the scope of Article 356, which also allows the imposition of President's Rule in the States, with *stringent conditions for the valid exercise* of that power by the President after being presented with a proclamation by the Union Council of Ministers. These included *ascertaining whether objective conditions exist which render it impossible*



to carry out governance in the State where the proclamation has been made and the process has to be approved by both Houses of Parliament before consideration for judicial review. But the A.P. High Court's order seemed to have reversed the scheme of things by putting the cart before the horse in asking to ascertain if there is a "constitutional breakdown in the State". *The Chief Justice of India noted that the Court found it to be "disturbing" before staying it.* The Supreme Court's order comes in the wake of incidents pointing to a tussle between the judiciary and the elected government in Andhra Pradesh. *Chief Minister Jagan Mohan Reddy had, in an unprecedented letter to the CJI, complained about the alleged hostile attitude of the High Court against him and his government besides making controversial allegations against a senior Supreme Court judge. This was even as the High Court ordered a CBI probe into what it termed was a social media campaign against the judges.* The onus is now on the Supreme Court to put an end to the unseemly tussle between the judiciary and government in the State. Ordering an internal inquiry into the Chief Minister's letter would be a good beginning. A clear nullification of the High Court order will also ensure that such legal adventures impinging upon the separation of powers in the State are not repeated.

DON'T PASTE QUARANTINE POSTERS: SC

The Supreme Court clarified that State governments and Union Territory administrations are not required to paste posters outside the houses of quarantined COVID-19 patients. "No State or Union Territory is required to paste posters outside the residence of COVID-19 positive persons, as of now. The State governments and Union Territories can resort to the above exercise only when any direction is issued by the competent authority under the Disaster Management Act, 2005," a three-judge Bench led by Justice Ashok Bhushan cleared the air on the issue in an 11-page order. The order came on a petition filed by advocate Kush Kulra, who said such posters entail the violation of the fundamental right to privacy of patients.

'Details publicised'

Mr. Kalra had argued that these placards divulge, even "widely publicise", the names of the patients and other details to strangers, other residents in the colony or apartment complex, as well as household staff of neighbours, vendors, passers-by and others. In its order, the Bench referred to the Centre's submission that its guidelines on home isolation for patients have no mention of pasting posters outside their residences. The government had referred to its "Revised guidelines for home isolation of very mild/pre-symptomatic/asymptomatic COVID-19 cases" in July in this regard.

'No such direction'

"Neither any such direction has been issued by the Government of India nor it is obligatory to any State or Union Territory to paste the posters outside the residences of COVID19 positive persons," the Bench reproduced the submission made by Solicitor General Tushar Mehta, for the Centre, in its order. The Centre had said that its November 19 letter to States and Union Territories does not contain any instruction or guidance on affixing posters or signage outside the residences of those found COVID-19 patients. The court noted that the Delhi and Punjab governments have already withdrawn orders to paste posters.



PLEA AGAINST KAFEEL'S RELEASE REJECTED

The Supreme Court dismissed an appeal by the Uttar Pradesh government against an Allahabad High Court decision quashing the detention of Dr. Kafeel Khan under the National Security Act (NSA). A Bench led by Chief Justice of India Sharad A. Bobde, however, said *any remarks made by the High Court on the facts of the case in its September order would not interfere in the ongoing prosecution of the case*. "Case will be decided on its own merits," the Bench observed. Senior advocate Indira Jaising, for Mr. Khan's mother Nuzhat Perween, argued against the State's appeal. "The man has been out for three months now and there has been no problems," Ms. Jaising submitted. Chief Justice Bobde told Solicitor General Tushar Mehta that the court would not intervene against the quashing of detention order and told the State "to get on with whatever prosecution is pending". Dr. Khan had been in custody since January 29 for his remarks during a speech at an anti-Citizenship (Amendment) Act (CAA) event in Aligarh Muslim University last year. *The High Court had, in its order, said his speech did not "disclose any effort to promote hatred"*.

MAKING A SPECTACLE

The weeks that it took for a straw and a sipper to reach an 83-year-old tribal rights activist afflicted with Parkinson's; the time it took for authorities in a Mumbai jail to turn away a pair of spectacles meant for a civil rights activist— both, among many other instances, are a measure of the gap between human dignity and the justice system. The Bombay High Court must be thanked for stepping into this gap and speaking up for "humanity". *While hearing the bail pleas of two other activists arrested in the Elgar Parishad case, it questioned the Taloja jail authorities' alacrity in refusing a pair of glasses for Gautam Navlakha, an under trial in the case, who is near-blind without them. "How are such small items denied? These are human considerations," the court said. Such considerations were also absent in the spectacle, that played out over weeks, of the National Investigation Agency and a special court going back and forth over a straw and sipper for Stan Swamy; or in the implacable resistance to bail for the grievously ailing Telugu poet Varavara Rao, who was moved to a hospital only after the Bombay HC intervened. These requests are so basic as to be incontestable. But the intransigence over minor and procedural matters speaks of a larger worrying pattern.* Not only has the state fallen into the heavy-handed use of draconian laws like the *Unlawful Activities (Prevention) Act against public intellectuals, human rights activists and even a journalist on his way to a story, the courts have not adequately pushed back. In other matters of personal liberty, too, the judiciary has rushed in with questionable urgency to defend certain individuals, while habeas corpus petitions languish in the cold.* When the state wields sedition laws as weapons to cramp the liberty of speech, the highest levels of the judiciary have often turned a blind eye. The HC's words on Navlakha are, therefore, more than welcome in re-emphasising the need for humanity while upholding the law. For the overwhelmingly poor and underprivileged who comprise the vast undertrial population in prisons, the court's words are a promise of dignity and fairness. But they must also include the urgent need of a fair and speedy trial. Not only should Stan Swamy and his co-accused, some in prison for two years now, be given the straw, sipper and spectacles they need, but also a closure to a legal process that risks turning into the punishment.



HC STAYS CIC ORDER DIRECTING IAF TO FURNISH DETAILS OF PM ENTOURAGE ON HIS FOREIGN TRIPS

The Delhi High Court stayed a Central Information Commission (CIC) order directing the Indian Air Force (IAF) to disclose under RTI Act the details regarding Prime Minister Narendra Modi's entourage accompanying him on his foreign visits. The CIC, in a July 8 order, had directed the Central Public Information Officer of Air Headquarters, IAF to provide certified copies of available and relevant SFR-II (Special Flight Returns - Part II, which contains the flight manifest) to applicant Commodore Lokesh K Batra (retd) "after severing the names and other relevant identifying particulars of the security/SPG personnel figuring therein". The IAF had earlier this week moved the High Court against the order, citing a potential threat to the sovereignty and integrity of India.

RAPE BY HIV POSITIVE MAN NOT ATTEMPT TO MURDER: HC

While upholding the conviction of an HIV positive man in a rape case, the Delhi High Court has set aside his conviction under an attempt to murder charge -- for which a trial court had sentenced him to additional 10 years imprisonment. The HC said such a ruling by the lower court would also mean that any sexual activity by a person infected by HIV is punishable under IPC section 307, notwithstanding the partner's consent. The trial court, in 2012, ruled the accused was aware his act could result in transmitting the life-threatening disease. "This is because the culpable act under Section 307 of the IPC does not cease to be one if the victim of such an act has also consented to the same. If the reasoning adopted by the learned trial court is extended further, it would also mean that a healthy person who willingly engages in unprotected sexual intercourse with an HIV positive partner and acquires the said disease as a result thereof that eventually proves fatal, would have committed suicide and, the HIV positive partner would be guilty of abetment of suicide under Section 306 of the IPC if not guilty of committing murder as defined under Section 300 of the IPC," Justice Vibhu Bakhru said. In the August 2012 order, *the trial court sentenced the accused to 10 years in prison for raping his step daughter, five years for causing her miscarriage without her consent, and to 10 years for the offence under Section 307. The accused was sentenced to 25 years in prison as the sentences were directed to run consecutively.*

NO QUESTION OF COERCION IN CONTROL OF POPULATION: GOVT TO SC

In response to a petition seeking implementation of a two-child norm to check the country's population, the Centre has told the Supreme Court that India's population policy is "unequivocally against coercion in family planning", which has proved to be "counter-productive", and that the country's Total Fertility Rate (TFR) is "witnessing a constant decline". In an affidavit filed in the top court on a petition by advocate Ashwini Kumar Upadhyay, the Union Ministry for Health and Family Welfare said, "... international experience shows that any coercion to have a certain number of children is counter-productive and leads to demographic distortions". *India's TFR, the government has pointed out, is already down "substantially" to 2.2 as per the 2018 Sample Registration System, which is part of the Census exercise, from 3.2 in 2000, when the National Population Policy was adopted.* "(The) Family Welfare Programme... is voluntary in nature, which enables couples to decide the size of their family and adopt the family planning methods best suited to them, according to their choice, without any compulsion," the government said. In his Independence Day speech last year, the first of his second term in office, Prime Minister Narendra



Modi had highlighted “the need to have greater discussion and awareness on population explosion”. He had also said those who choose to have small families contribute to the development of the nation and that it was a form of patriotism. Giving figures on fall in fertility rates, the government’s affidavit in the Supreme Court said, *“The wanted fertility in India as per NFHS (National Family Health Survey) IV is only 1.8 as against the actual fertility of 2.2 prevailing at that time, indicating thereby that couples (on) an average do not want more than 2 children.”* It adds that *25 out of 36 states and Union Territories had already achieved the replacement level fertility of 2.1 or less.* Census figures also show that the *2001-2011 decade was the first in 100 years where a lesser population was added compared to the decade preceding it,* the government said. *“(It) also registered the sharpest decline in decadal growth, from 21.54 % in 1991-2001 to 17.64 % in 2001-2011.”* Noting that “the Programme of Action of the International Conference on Population and Development, 1994, to which India is a signatory, is unequivocally against coercion in family planning”, the Centre said various steps and schemes by it “to stabilise the country’s population” were “beginning to yield dividends”. “At present India is knocking at the door of achieving replacement level fertility and has made remarkable improvement in reducing maternal and child mortality. With commitment and perseverance, India can achieve the goal of population stabilisation and advancing the development goals of the country.” Upadhyay had earlier filed a petition in the Delhi High Court. After it was dismissed, he approached the Supreme Court. In its submission to the Court, *the Centre has also said that since ‘public health’ is a state subject, state governments must lead health sector reforms in a “suitable and sustainable manner”, and that its role can be “supportive and facilitative”.*

THE CENTRE CAN NOTIFY ANY LAND, ACQUIRE IT FOR HIGHWAY: SC

The centre is “fully competent “to notify” any land (not necessarily an existing road/highway) for acquisition, to construct a highway to be a national highway”, the Supreme Court ruled on Wednesday while upholding notifications issued under the National Highways Authority of India (NHAI) Act, 1956, for acquisition of land for construction of the eight-lane Chennai-Krishna giri Salem national highway. The highway is to be built as part of the Bharatmala Pariyojna-Phase-I project. Allowing an appeal by NHAI and the Centre against a Madras High Court judgment quashing the notifications, a bench of Justices A M Khanwilkar, B R Gavai and Krishna Murari said that “there is nothing in the Constitution which constricts the power of Parliament to make a law for declaring any stretch/section within the State not being a road or an existing highway, to be a national highway”. On the other hand, the court said, “provisions in the Constitution unambiguously indicate that the legislative as well as executive power regarding all matters concerning and connected with a highway to be designated as a national highway, vests in Parliament, and the laws to be made by it in that regard. For the same reason, the complete executive power also vests within the Union.” The Central government, the bench pointed out, “is free to construct/build a new national highway keeping in mind the obligations it has to discharge under Part IV of the Constitution for securing a social order and promotion of welfare of the people in the concerned region, to provide them adequate means of livelihood, distribute material resources as best to subserve the common good, create new opportunities, so as to empower the people of that area including provisioning new economic opportunities in the area through which the national highway would pass and the country’s economy as a whole. “The availability of a highway in any part of the State paves way for sustainable development and for overall enhancement of human well-being, including to facilitate the inhabitants there to enjoy a decent quality of life, creation of



assets (due to natural increase in market value of their properties) and to fulfil their aspirations of good life by provisioning access to newer and present-day opportunities.”

The project had come under challenge on grounds that the notification issued under Section 3(A) of the NHAI Act could only have been done after environmental clearance. It was also contended that the Centre could not acquire open green fields for construction of national highway, and that only a pre-existing state highway could be declared as such. The HC upheld the argument that prior environmental clearance was needed for issuing the notification under Section 3(A) for the project, 10 km of which is scheduled to pass through the forest region. The judgment of the Madras High Court, which had taken a nuanced position in favour of environmental protection, agriculture and preservation of rural livelihoods over the economic benefits of a new highway on virgin land, has been set aside in the process. The High Court had shown greater sensitivity to possible livelihood and ecological concerns. It had favoured early judicial intervention, relying on judgments from the U.S. that spoke out against letting projects advance to such a stage that there is irreversible commitment of resources. *Overruling this, the SC said the notification is only an expression of interest to acquire the designated land, and no prior environmental clearance was needed before issuing it.*

By upholding notifications intending to acquire agricultural land for the proposed Chennai-Salem greenfield highway, the Supreme Court has both paved the way for completing the land acquisition process and sought to ensure that environmental clearances are obtained before its construction. It has ruled that it will be premature to expect the authorities to obtain environmental approvals at the stage of identifying the land linked to the proposed alignment of a highway, but, once the land was notified for acquisition and surveyed for feasibility, they would have to apply for all statutory clearances. It would be at the stage of entertaining objections that questions such as whether the project was truly a ‘public purpose’ could be dealt with. However, *the land could be taken over and construction begun only after the competent authorities give their clearances, along with measures for mitigating and remedying possible environmental damage.*

As part of a growing body of jurisprudence on sustainable development, the top court had laid down in Karnataka Industrial Areas Development Board (2006) a general principle that in future, before acquiring land for development, the possible adverse environmental impact should be “properly comprehended” and the acquisition done in a way that did not impair it. In a departure from this dictum, it now says the statutory framework governing highways and the process laid down for acquiring land for highway projects did not provide for a prior clearance requirement. The Court’s line of reasoning based mostly on development-centric statutes is something of a disappointment when it could have taken, even at this stage, a holistic view of the need for sustainable development. True, it has left open the question whether the clearances obtained after the lands were notified for acquisition are valid; and the principle that construction of the highways cannot begin without such clearances also stays. But it is not inconceivable that the Court’s position may have rendered the project a fait accompli.

MAHARASHTRA HOUSE RESOLUTION ON ARNAB GOSWAMI, AND ITS FACE-OFF WITH JUDICIARY

The decision by both Houses of the Maharashtra State Legislature to not respond to any notice sent by the High Court or the Supreme Court in the Breach of Privilege motion against Republic



TV editor and anchor Arnab Goswami has added a new twist to the debate over the separation of powers between the judiciary and legislature.

What is the doctrine of separation of power?

The doctrine of separation of power is a part of the basic structure of the Indian Constitution, even though it is not specifically mentioned in its text. It implies that the three pillars of democracy, namely the executive, judiciary and legislature, perform separate functions and act as separate entities. One of the features of the doctrine is that one arm of the state should not interfere in the functioning of the other organs or exercise a function of another organ.

What resolution did the Maharashtra Assembly pass on Tuesday?

Questioning the boundaries of the judiciary's powers, both Houses of the Maharashtra State Legislature passed proposals Tuesday stating that they will not take cognizance of or reply to any notice sent by the High Court or the Supreme Court in the Breach of Privilege motion against Republic TV editor and anchor Arnab Goswami. *Both the proposals stated that replying to such notices could mean accepting that the judiciary can keep a check on the legislature and would be "inconsistent with the basic structure of the Constitution".* The proposals were passed during the two-day Winter Session that ended Tuesday. "The Constitution has set clear cut boundaries for the three organs of the government – the judiciary, the legislature and the executive. Each organ should honour these boundaries. No one should encroach on each other's territories," said Speaker Nana Patole. "...publicly, the legislature, secretariat, its secretaries and other officers responding to court notices and other correspondence means, in a way, accepting that the judiciary can keep a check on the legislature and it would be inconsistent with the Basic Structure of the Constitution," said Chairman Ramraje Naik Nimbalkar.

What are the reasons for the Maharashtra Assembly to pass such a resolution?

The genesis of the proposal is *the privilege motion filed by the members of Maharashtra Vikas Aghadi Government against Republic TV editor and anchor Arnab Goswami.* Two such separate privilege motions were filed on September 8 in the Legislative Assembly by Shiv Sena MLA Pratap Sarnaik against Goswami. Seeking admission of his motion, Sarnaik accused Goswami of using "derogatory language" and making baseless remarks against Chief Minister Uddhav Thackeray and NCP president Sharad Pawar. He further said that Goswami has been frequently insulting ministers, Lok Sabha and Vidhan Sabha members during TV debates. Another one was moved in the Legislative Council on the same day by Shiv Sena legislator Manisha Kyanade and Congress legislator Bhai Jagtap. The proposal was forwarded by the Chairman of the Legislative Council on November 3 to the Privilege Committee for an inquiry. On September 29, Goswami had moved the Supreme Court to challenge one of the privilege motions filed by Sarnaik. *While the court granted relief to Goswami from arrest in the matter on November 6, the SC took exception to a letter dated October 13 sent to Goswami by Maharashtra Legislative Secretariat's deputy secretary Vilas Athawale. The letter is alleged to have raised questions on how Goswami submitted confidential proceedings in the Lower House regarding breach of the privilege motion against him to the Supreme Court without the Speaker's permission. The SC stated that the content of the letter was to "intimidate the petitioner" and on November 6 the Supreme Court had issued a showcause notice to Athawale asking him to explain why contempt proceedings should not be initiated against him for his letter to the journalist. Athawale had subsequently apologised to the SC and had said that he had acted on the instructions of the Speaker to send the letter. The Supreme Court on November 26 had*



then said that it might be “necessary in all probability to serve the Speaker” to know his version in matter. The proposal moved by the Maharashtra Assembly is an attempt to safeguard itself against any such notice and ensure that its officials or the speaker are not asked to present itself against the court.

What legal provisions has the state assembly invoked while passing the proposal?

The proposal cites two articles of the constitution as the basis of its argument. They are articles 194 of the Constitution, which lays down the powers and privileges of the Houses of Legislatures. *Article 194* states that there shall be freedom of speech in the Legislature of every State and no member of the Legislature of a State shall be liable to any proceedings in any court in respect of anything said or any vote given by him in the Legislature or any committee thereof, and no person shall be so liable in respect of the publication by or under the authority of a House of such a Legislature of any report, paper, votes or proceedings. *Article 212* states that the validity of any proceedings in the Legislature of a State shall not be called in question on the ground of any alleged irregularity of procedure and no officer or member of the Legislature of a State in whom powers are vested by or under this Constitution for regulating procedure or the conduct of business, or for maintaining order, in the Legislature shall be subject to the jurisdiction of any court in respect of the exercise by him of those powers.

Has there been a precedent of a similar proposal being passed in the Maharashtra Assembly?

In 2010, Congress MLA Yashomati Thakur had moved a privilege motion against Shrinivas Karve, head of the caste verification committee. The officer challenged the motion in court and the Bombay High Court had subsequently issued summons to the MLA and served notices to legislature officials. Subsequently in April 2011, the state assembly passed a resolution to deny the summons served to office bearers and members of the assembly by a court. While the MLA did not have to present herself before court, Karve in 2013 was handed a one-day civil imprisonment punishment by the State Legislative Assembly as part of the privilege proceedings.

MAMATA REFUSES TO ALLOW 3 IPS OFFICERS TO GO TO CENTRE

A fresh political row erupted in poll-bound West Bengal with the Union government again demanding that the State relieve three serving IPS officers for Central deputation despite its strong reservations against the move. Describing the Centre’s order as a “colourable exercise of power and a blatant misuse of emergency provision of the IPS Cadre Rule, 1954,” Chief Minister Mamata Banerjee said West Bengal was “not going to cow down in front of an expansionist and undemocratic force”. *Despite the objection of the State government, the Union government called the three IPS officers on central deputation. The officers were deployed for the security of BJP president J.P. Nadda when his convoy was attacked on December 10. Mr. Nadda was visiting Diamond Harbour in the South 24 Parganas, the Lok Sabha constituency of Ms. Banerjee’s nephew and MP Abhishek Banerjee. Several leaders were injured and many vehicles in the convoy of the BJP president were damaged in the attack after stones were hurled at them. Stones came flying from all sides at the convoy as people holding flags of the Trinamool Congress lined up on the road at several places. Mr. Nadda said he escaped unhurt because he was in a bullet-proof car. BJP national general secretary Kailash Vijayvargiya and vice-president Mukul Roy were among those who suffered injuries in the attack.* The Trinamool Congress leadership, including Ms. Banerjee, blamed the BJP for the provocation which led to the attack. Three FIRs were registered and seven persons



arrested. Ms. Banerjee said such a move before the elections was against “the basic tenets of the federal structure”. “This act is nothing but a deliberate attempt to encroach upon the State’s jurisdiction and demoralise the serving officers in WB. This move, particularly before the elections is against the basic tenets of the federal structure. It’s unconstitutional & completely unacceptable!” Ms. Banerjee tweeted. “We wouldn’t allow this brazen attempt by the Centre to control the State machinery by proxy! West Bengal is not going to cow-down in front of expansionist & undemocratic force,” the Chief Minister tweeted.

Chief Secy summoned

The Union Home Ministry had summoned the West Bengal Chief Secretary and the Director General of Police (DGP) to participate in a meeting on the law and order situation in the State in New Delhi on December 14. The Chief Secretary wrote back to the Centre seeking an exemption from attending the meeting. Political parties in the Opposition, particularly the BJP, have been raising the issue of political violence, including killing of party workers regularly. *The Union Home Ministry had on December 11 asked for the central deputation of the three IPS officers who were responsible for Mr. Nadda’s security on December 10. The State government refused to give its consent, following which the Union Home Ministry came out with an order sending the three officers on central deployment.*

In the Mamata Banerjee-led West Bengal government’s refusal to send three IPS officers on central deputation, there is an echo of a similar refusal by then Tamil Nadu Chief Minister J Jayalithaa in 2001.

For the premier civil services — IAS, IPS and Indian Forest Service — officers of the state cadre are allotted by the Centre from a pool of officers. From time to time, a certain number of officers are sent on central deputation. The Home Ministry is the authority in control of IPS cadre, the Department of Personnel and Training for the IAS cadre, and the Ministry of Environment, Forest and Climate Change for IFS cadre. Muthukaruppan told The Indian Express on Sunday, “I cannot comment on what the central government can do against the West Bengal officers, but we approached CAT (Central Administrative Tribunal) which stayed the Home Ministry order. None of us tried for central deputation since 2001. There was no other action by the central government against us.” *The Centre can take no action against civil service officials who are posted under the state government.* Rule 7 of the All India Services (Discipline and Appeal) Rules, 1969, states that the “Authority to institute proceedings and to impose penalty” will be the state government if the officer is “serving in connection with the affairs of a State, or is deputed for service under any company, association or body of individuals, whether incorporated or not, which is wholly or substantially owned or controlled by the Government of a State, or in a local authority set up by an Act of the Legislature of that State.” *For any action to be taken on an officer of the All India Services (IAS, IPS, IFS), the state and the Centre both need to agree.* Rule 6 (1) of the Indian Police Service (Cadre) Rules, 1954, as amended in May 1969, states that “A cadre officer may, with the concurrence of the State Government or the State Governments concerned and the Central Government, be deputed for service under the Central Government or another State Government...” In July 1985, a line was added to this Rule, saying, “that in case of any disagreement, the matter shall be decided by the Central Government and the State Government or State Governments concerned shall give effect to the decision of the Central Government.” *Under the Home Ministry’s deputation policy for IPS officers, “if an officer on offer is selected for a Central posting and does not report either on his own or at the instance of the State Government, he*



would be debarred for consideration for a post under the Government of India for a period of five years. Officers, who have already been debarred, should not be offered before the debarment period is over." Being debarred from central deputation, however, hardly bothers an official if they prefer to work in their state. Another episode, in February last year, was a pointer to the Centre's limitations in acting against All India Service officers. The Home Ministry had written to then Chief Secretary Malay Kumar De calling for action against five officers, including DGP Virendra, for allegedly taking part in a dharna organised by the Trinamool Congress. The state government, however, said no officer had taken part in the dharna.

Sources in the government told The Indian Express that the Home Ministry's letter to the state government saying that the Centre requires the services of the three IPS officers, has sought the state's concurrence by December 15. It has said that if the state does not respond by that date, the Centre would consider concurrence as granted. The normal practice is that the central government asks every year for an "offer list" of officers willing to come on central deputation, after which the Centre picks the officers from that list, considering several other conditions. The IPS deputation policy states: "The two-way movement of officers from State to Centre and back is of mutual benefit to the states and the Government of India on the one hand and to the officers concerned on the other." Every state cadre provides for a central deputation quota and utilisation of that quota is an "important factor governing the scale at which officers are borrowed from the various State cadres of the service," the policy says. But for central deputation, the concurrence of the state is a very important factor. Under normal circumstances, it is also understood that the officer concerned should be willing. *In the case of Archana Ramasundaram, a Tamil Nadu officer who was deputed to the CBI in 2014, the state government had refused to release her, and had suspended her after she defied the state's order. However, the suspension did not apply because she had by the time already joined CBI.* Earlier in July 2001, the central government headed by Atal Bihari Vajpayee had asked the Tamil Nadu government then headed by J Jayalithaa to send three IPS officers on central deputation, but she had refused. The officers, then Chennai Police Commissioner K Muthukaruppan, Joint Commissioner S George, and Deputy Commissioner Christopher Nelson, were involved in the June 30, 2001 late-night raid on then DMK chief M Karunanidhi. Jayalithaa had refused to spare the officers, and written to other chief ministers about the "disturbing trend" in the management of state cadres of the All India Services, and asked them to write to the Centre on the threat to federalism. Prakash Singh, a former DGP of Uttar Pradesh who has been fighting a battle for reforms in the police, told The Indian Express on Saturday: "The Centre has the right to call for the services of any IPS officer to central deputation, but the state cannot be compelled to send any officer."

THE BID TO REMAKE THE FACE OF THE CAPITAL

On December 10, a little over a year after the government announced its ambitious plan to redevelop *the 3-km-long historical stretch from the Rashtrapati Bhavan to India Gate known as the Central Vista*, Prime Minister Narendra Modi kicked off the first part of the project by laying the foundation stone for the new Parliament building. While the bhoomi puja, performed by Mr. Modi, marked the beginning of the project, construction will only start after the Supreme Court disposes of all challenges to the project that are pending before it. Ever since Housing and Urban Affairs Minister Hardeep Puri announced the project in September 2019, activists, environmentalists, architects and Opposition leaders have questioned the need for the project, the processes for obtaining approvals for it and the costs involved. *The Supreme Court on December 7*



allowed the government to go ahead with the foundation stone ceremony, but only after the Centre gave an affidavit, saying there would be no construction, demolition and cutting of trees till the court gives its rulings in the cases. The plan, as drafted by Ahmedabad-based HCP Design, Planning and Management, involves constructing a triangular shaped Parliament building adjacent to the existing one that was built in the 1920s by the British; demolishing the post-Independence office buildings along the Central Vista and replacing them with 10 modern multi-storey office complexes to house all Ministries; and revamping the civic infrastructure and facilities for the Republic Day parade on Rajpath. The need for the project, according to the *government's arguments* in court and Mr. Puri's public statements in the past year, is that *the existing Parliament House is almost 100 years old, structurally unsafe, and lacks adequate workspace for a modern legislature. Similarly, the 10 new office buildings proposed are required to bring all Central Ministries in one place, making the functioning of the government more efficient, according to the government. Another reason touted by the government is the expected increase in number of constituencies after delimitation, which is frozen till the first Census after 2026, which will be in 2031.* The Parliament House now would not be able to accommodate additional MPs, the government has maintained. Apart from the more practical reasons given, Mr. Modi's speech at the ground-breaking ceremony invoked symbolism of a new Parliament as a temple of democracy, built by an Independent and Atmanirbhar India. He asked Indians to pledge to keep "India First". The design of the new building will also reflect that, with the national emblem crowning the structure; the national bird, peacock, and the national flower, lotus, providing inspiration for the interiors of the Lok Sabha and Rajya Sabha chambers, respectively; and arts and crafts from across the country being represented. In a written statement to The Hindu, HCP Design, which is headed by Padma Shri-awardee Bimal Patel, said: *"The proposed Parliament building will be the first purpose-designed building for the Parliament of India. Presently, Parliament is accommodated in a building that was built as the council house for the Raj." According to government sources, the existing Parliament building, constructed by the British in the 1920s, was designed for the Imperial Legislative Council and not for a bicameral Parliament.* The building has been modified over the years, including in 1956 when two floors were added. Offices for all MPs will be built after demolishing the existing Shram Shakti Bhawan and connected to Parliament via an underground pathway. *The project was awarded to Tata Projects for ₹971 crore after a two-step bid process earlier this year.* The construction is expected to take 22 months and *is scheduled to finish in time for the Winter Session of Parliament in 2022, when India marks 75 years of Independence.* Critics of the project have questioned the timing, given that the economy is still reeling under the impact of the COVID-19 pandemic. Congress president Sonia Gandhi was among those who urged the government to suspend the project and reallocate the funds to healthcare needs. Mr. Puri has responded by saying the project will lead to employment generation and an increase in economic activity. Another concern raised by environmentalists has been the *quick process of approvals and cutting of trees, some of which are 80 to 90 years old.* Recently, the Delhi Forest Department issued a notice to the Central Public Works Department (CPWD), which is carrying out the project, for violating the conditions of the approval to cut trees. In response to the questions raised and the Supreme Court's decision not to allow construction for now, Housing and Urban Affairs Secretary Durga Shanker Mishra told The Hindu that all the legal processes had been followed. He said he was hopeful that the court would give its decisions soon. The project, he said, was for all Indians, not any individual.

The new building, which is part of the Narendra Modi government's ambitious plan to modify the Central Vista skyline of Lutyens' Delhi, will cost an estimated ₹971 crore and be able to accommodate a much larger number of MPs, 888 in the Lok Sabha and 384 in the Rajya Sabha.



ARE NRIS LIKELY TO GET POSTAL VOTING RIGHTS SOON?

On November 27, the Election Commission of India (ECI) wrote to the Law Ministry, proposing to extend the facility of postal ballots to (eligible) overseas, non-resident Indians (NRIs) for the Assembly elections in Assam, Kerala, Puducherry, Tamil Nadu and West Bengal in 2021. The ECI proposed amending the Conduct of Election Rules, 1961, in order to allow this facility. The postal ballots will be sent to NRIs electronically and they will send these ballots after choosing their candidate via post. This partially electronic facility is now available for service voters (being a member of the armed Forces of the Union; or a member of a force to which provisions of the Army Act, 1950 (46 of 1950), have been made applicable whether with or without modification; a member of an Armed Police Force of a State, and serving outside that State; or a person who is employed under the Government of India, in a post outside India) and is being sought to be extended to overseas NRI voters. The Law Ministry is yet to respond to the proposal.

How can overseas voters currently vote in Indian elections?

Prior to 2010, an Indian citizen who is an eligible voter and was residing abroad for more than six months owing to employment, education or otherwise, would not have been able to vote in elections. This was because the NRI's name was deleted from electoral rolls if he or she stayed outside the country for more than six months at a stretch. After the passing of the Representation of the People (Amendment) Act, 2010, eligible NRIs who had stayed abroad beyond six months have been enabled to vote, but only in person at the polling station where they have been enrolled as an overseas elector.

Just as any resident Indian citizen above the age of 18 years (having attained it on the first day of January of the year of revision of electoral rolls for the State) is eligible to vote in the constituency where she/he is a resident, overseas Indian citizens are also eligible to do so. In the case of overseas voters, their address mentioned in the passport is taken as the place of ordinary residence and chosen as the constituency for the overseas voter to enrol in.

How has the existing facility worked so far?

*From merely 11,846 overseas voters who registered in 2014, the number went up to close to a lakh in 2019. The EC does not have data on NRI voters broken down country-wise. Rather, the Commission keeps the data for every state in India. Therefore, we know the states in which NRIs are registered as voters, but not the foreign country in which they reside. Out of 1.18 lakh NRI voters, the largest number — about 89,000 — are registered to vote in Kerala. *Of the 25,606 such voters who actually turned up, 25,534 were from Kerala (mostly from Kozhikode and Malappuram districts).* The second-largest cohort (roughly 7,500) are registered in Andhra Pradesh, followed by Maharashtra (5,500 approx), Karnataka (4,500 approx), Tamil Nadu (3,200), and Telangana (2,500). Given that the poll panel is now keen on allowing overseas electors to vote in Indian elections from abroad, however, it will also have to maintain country-wise information.*

Clearly, a very low proportion of eligible overseas residents actually registered or turned up to vote. The Representation of the People Act, envisaged voters as only the “ordinary residents” in a constituency (<https://bit.ly/3p7gIgL>) who will choose representatives to represent their local interests while mediating on larger issues in the legislature. Some democracies that already allow absentee voting stipulate that overseas electors are eligible to vote provided they are not abroad for a specified period of time and/or if they mention an “intent to return”. Section 20-1A, Part III of the Representation of the People Act addresses this to some extent by qualifying “a person



absenting himself temporarily from his place of ordinary residence shall not by reason thereof cease to be ordinarily resident therein” and in essence provides for NRIs who are temporarily staying abroad to be eligible to vote in their local constituencies. Yet, *the proviso of having to visit the polling booth in person has discouraged eligible voters from exercising their mandate*. In the winter session of Parliament in 2017, the government proposed to remove the restriction imposed by Section 20A of the Representation of the People Act, which required them to be physically present to vote in their constituencies. *The Bill provided for overseas voters to be able to appoint a proxy to cast their votes on their behalf, subject to conditions laid down in the Conduct of Election Rules, 1961. The Bill was later passed in 2018, but lapsed with the dissolution of the 16th Lok Sabha*. Now the ECI has approached the government to permit NRIs to vote via postal ballots similar to a system that is already used by service voters (the Electronically Transmitted Postal Ballot System, or ETPBS).

What is ETPBS and how does it function?

The Conduct of Election Rules, 1961 was amended in 2016 to allow service voters to use the ETPBS. Under this system, postal ballots are sent electronically to registered service voters. The service voter can then download the ETPB (along with a declaration form and covers), register their mandate on the ballot and send it to the returning officer of the constituency via ordinary mail. The post will include an attested declaration form (after being signed by the voter in the presence of an appointed senior officer who will attest it). *The postal ballot must reach the returning officer by 8 a.m. on the day of the counting of results*. The ECI now proposes to extend this facility to overseas voters as well. For this to commence, the Law Ministry has to amend the Conduct of Election Rules, 1961 (just as it was done for service voters). In its meeting last week with the MEA, the EC has proposed that any NRI interested in voting through the postal ballot in an election will have to inform the Returning Officer (RO) not later than five days after the notification of the election. On receiving such information, the RO will dispatch the ballot paper electronically. A designated officer in the Indian mission will download the ballot paper on the voter's behalf, and hand it over to the overseas elector. The overseas elector can then mark her preference at the mission, get the self-declaration form attested by the designated officer, and hand back the ballot paper and declaration form in a sealed envelope to the mission. The mission will then dispatch all the envelopes to the election officer concerned.

Will this facility be available to all overseas voters across countries?

There were news reports that the ECI had indicated to the Ministry of External Affairs that it would want postal voting introduced on a pilot basis in non-Gulf countries. The proposal may get implemented first for voters based in the United States, Canada, New Zealand, Japan, Australia, Germany, France, and South Africa. For now, Gulf countries are not part of the proposed pilot. The Commission obviously does not have anything against the NRIs settled in the Gulf countries such as Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. However, the MEA has in the past expressed strong reservations over facilitating voting for Indian citizens living in non-democratic nations. Holding a democratic exercise, involving voters queuing outside Indian Missions and Embassies, in non-democratic countries will require permissions, and the host nation may not approve. Given these concerns, the EC, for now, hasn't included Gulf countries in its proposed pilot.

But ECI officials told The Hindu that the ECI had asked the Law Ministry to explore the possibility of extending postal ballots to overseas electors and not restrict it to any particular country.



Are postal ballots a viable means of voting?

The ETPBS method allowed for greater turnout among service voters in the 2019 Lok Sabha election. With increasing mobility of citizens across countries for reasons related to work, the postal ballot method has been recognised by the International Institute for Democracy and Electoral Assistance (an intergovernmental organisation that works to support democratic processes and institutions) as a means to allow overseas voters to exercise their right, subject to certain conditions normally related to the time spent abroad or the work carried out abroad. Postal ballots were proven to be a secure and easy ways of registering the mandate in the presidential elections in the United States recently with many voters preferring to use this method due to the COVID-19 social distancing norms. A postal ballot mechanism that allows for proper authentication of the ballot at designated consular/embassy offices and an effective postal system should ease this process for NRIs, but the rules must be clearly framed for eligibility on the basis of time spent away from the country.

VOTER CARD IN YOUR PHONE? HERE'S WHAT ELECTION COMMISSION WANTS TO DO

The Election Commission (EC) is keen to make the Elector's Photo Identity Card or EPIC available in electronic form. In other words, you could soon carry your Voter ID Card on your phone just like an electronic boarding pass that is downloadable ahead of a journey by air. Currently, the EPIC is only available in hard copy, and has to be produced in the original by the voter on election day. For those who cannot produce EPIC, can show an alternative photo ID document permitted by the EC.

What formalities would a voter need to complete to avail the soft copy of her Voter Identity Card?

To avail this facility, an eligible voter will have to *provide her mobile number or email address* to the EC machinery at the time of applying for enrolment in the voters' list. Once her name is included in the electoral roll, she will be intimated through an SMS or email. The new voter can then download the Voter Card through OTP (One Time Password) authentication, The Indian Express has learned. *Existing voters may have to reverify their details with the EC (similar to the Bank KYC process) and provide their email or mobile phone number to get their cards in the electronic form.*

What would the digital Voter Card look like?

The digital voter card is not expected to look too different from its physical form. It will be available as a *PDF file*, and can be downloaded on one's phone or computer. The soft copy may also have a *QR code* that will carry the voter's enrolment details such as name and date of birth and address.

But why is the Commission considering such a proposal?

An electronic card will help *the EC save costs* on printing and distributing hard copy of EPIC. The EC feels that voters too, will find it useful to have the PDF file of her voter card on her phone, which will do away with the necessity of first producing a voter's slip on the day of voting.

When is the EC expected to introduce the digital voter cards?

This is still just a proposal, and needs to be approved by the full Commission — that is, by Chief Election Commissioner Sunil Arora and Election Commissioners Sushil Chandra and Rajiv Kumar.



According to sources, it may come up for consideration before the next set of Assembly elections next year. West Bengal, Assam, Kerala, Tamil Nadu, and Puducherry will vote in early summer 2021.

WINTER SESSION CANCELLED, A LOOK AT HOW PARLIAMENT IS CONVENED

In response to a letter from the Congress leader in Lok Sabha Adhir Ranjan Chowdhury seeking a short session of Parliament to discuss the new farm laws, Parliamentary Affairs Minister Pralhad Joshi has said that some opposition parties "have expressed concerns about the ongoing pandemic and opined of doing away with winter session".

Sessions of Parliament

The power to convene a session of Parliament rests with the government. The decision is taken by the Cabinet Committee on Parliamentary Affairs, which currently comprises nine ministers, including those for Defence, Home, Finance, and Law. The decision of the Committee is formalised by the President, in whose name MPs are summoned to meet for a session. India does not have a fixed parliamentary calendar. By convention, Parliament meets for three sessions in a year. The longest, the Budget Session, starts towards the end of January, and concludes by the end of April or first week of May. The session has a recess so that Parliamentary Committees can discuss the budgetary proposals. The second session is the three-week Monsoon Session, which usually begins in July and finishes in August. The parliamentary year ends with a three week-long Winter Session, which is held from November to December. A general scheme of sittings was recommended in 1955 by the General Purpose Committee of Lok Sabha. It was accepted by the government of Prime Minister Jawaharlal Nehru, but was not implemented.

What the Constitution says

The summoning of Parliament is specified in Article 85 of the Constitution. Like many other articles, it is based on a provision of The Government of India Act, 1935. This provision specified that the central legislature had to be summoned to meet at least once a year, and that not more than 12 months could elapse between two sessions. Dr B R Ambedkar stated that the purpose of this provision was to summon the legislature only to collect revenue, and that the once-a-year meeting was designed to avoid scrutiny of the government by the legislature. On the floor of the Constituent Assembly, he said: "We thought and personally I also think that the atmosphere has completely changed and I do not think any executive would hereafter be capable of showing this kind of callous conduct towards the legislature." His drafting of the provision reduced the gap between sessions to six months, and specified that Parliament should meet at least twice a year. He argued that "The clause as it stands does not prevent the legislature from being summoned more often than what has been provided for in the clause itself. In fact, my fear is, if I may say so, that the sessions of Parliament would be so frequent and so lengthy that the members of the legislature would probably themselves get tired of the sessions." During the debate, members of the Constituent Assembly highlighted three issues: (i) the number of sessions in a year, (ii) the number of days of sitting and, (iii) who should have the power to convene Parliament. Prof K T Shah from Bihar was of the opinion that Parliament should sit throughout the year, with breaks in between. Others wanted Parliament to sit for longer durations, and gave examples of the British and American legislatures which during that time were meeting for more than a hundred days in a year. Prof Shah also wanted the presiding officers of the two Houses to be empowered to



convene Parliament in certain circumstances. These suggestions were not accepted by Dr Ambedkar.

Moved, delayed, stretched

Over the years, governments have shuffled around the dates of sessions to accommodate political and legislative exigencies. In 2017, the Winter Session was delayed on account of the Gujarat Assembly elections. In 2011, political parties agreed to cut short the Budget Session so they could campaign for Vidhan Sabha elections in five states. Sessions have also been cut short or delayed to allow the government to issue Ordinances. For example, in 2016, the Budget Session was broken up into two separate sessions to enable the issuance of an Ordinance. Sessions have been stretched — in 2008, the two-day Monsoon Session (in which a no-confidence motion was moved against the UPA-I government over the India-US nuclear deal) was extended until December. The ostensible reason was to prevent the moving of another no-confidence motion. It meant that there were only two sessions that year.

Fewer House sittings

Over the years, there has been a decline in the sittings days of Parliament. During the first two decades of Parliament, Lok Sabha met for an average of a little more than 120 days a year. This has come down to approximately 70 days in the last decade. One institutional reason given for this is the reduction in the workload of Parliament by its Standing Committees, which, since the 1990s, have anchored debates outside the House. However, several Committees have recommended that Parliament should meet for at least 120 days in a year. This year, Parliament has met for 33 days. The last time it met for fewer than 50 days was in 2008, when it met for 46 days.

CASTE IN THE CENSUS

The Tamil Nadu government has decided to appoint a commission to formulate a methodology to collect caste-wise particulars of its population and use that to come up with a report. It is not clear if this will involve a full headcount of all members of every caste, or whether it is better described as a 'survey' than a 'census'. The Centre conducted a 'Socio-Economic Caste Census' (SECC) in 2011 throughout the country, but it did not make public the caste component of the findings. In Karnataka, the outcome of a similar exercise has not been disclosed to the public.

Is collection of caste details part of the census?

Caste was among the details collected by enumerators during the decennial Census of India until 1931. It was given up in 1941, a year in which the census operation was partially affected by World War II. In his report on the 1941 exercise, then Census Commissioner of India, M.W.M. Yeatts, indicated that tabulation of caste details separately involved additional costs. "The sanctioned tabulation for British India does not cover caste, but even had the full course been taken, there would have been no all-India caste table. Even in 1931, it was severely limited due to financial reasons; the time is past for this enormous and costly table..." he wrote. However, at the time of sorting the details, some provinces or States that wanted a caste record for administrative reasons were given some data on payment.



Has there been criticism of including caste in the census?

The principal argument against taking caste particulars of individuals is that *it tends to perpetuate the caste system*. But it may be argued that ignoring its existence would be ostrich-like.

What was the view after Independence?

R.A. Gopaldaswami, the first Indian Registrar-General of independent India, said in the 1951 report: "The 1951 census was not [emphasis in the original] to concern itself with questions regarding castes, races and tribes, except insofar as the necessary statistical material related to 'special groups' and certain other material relating to backward classes collected and made over to the Backward Classes Commission." 'Special Groups' has been explained as referring to Scheduled Castes, Scheduled Tribes, Anglo-Indians and certain castes treated provisionally as 'backward' for the purposes of the census. This implies that BC data were collected, but not compiled or published.

How have caste details been collected so far?

While SC/ST details are collected as part of the census, details of other castes are not collected by the enumerators. The main method is by self-declaration to the enumerator. *So far, backward classes commissions in various States have been conducting their own counts to ascertain the population of backward castes.* The methodology may vary from State to State. Details available about some commissions in the public domain suggest that these panels use methods like distribution of questionnaires, meeting with representatives of stakeholders, touring relevant areas and localities, and in some cases, such as the J.A. Ambasankar Commission in Tamil Nadu and the Venkataswamy Commission in Karnataka, door-to-door enumeration.

What about SECC 2011?

The Socio-Economic Caste Census of 2011 was a major exercise to obtain data about the socio-economic status of various communities. Even though there could be an overlap in the dataset of SECC 2011 with that of the census taken that year, the findings could be markedly different. The general census is conducted in a small window of a month, while the caste census is conducted over a longer period of time, and there is a good deal of revision and correction. *The SECC 2011 had two components: a survey of the rural and urban households and ranking of these households based on pre-set parameters, and a caste census. However, only the details of the economic conditions of the people in rural and urban households were released. The caste data have not been released till now.* While a precise reason is yet to be disclosed, it is surmised that the data were considered too politically sensitive. Fear of antagonising dominant and powerful castes that may find that their projected strength in the population is not as high as claimed may be an important reason.

What is the legal imperative for a caste count?

Over the last two decades, *the Supreme Court has been raising questions about the basis for reservation levels being high in various States.* In particular, it has laid down that *there should be quantifiable data to justify the presence of a caste in the backward class list*, as well as evidence of its under-representation in services. It has also called for periodical review of community-wise lists so that the benefits do not perpetually go in favour of a few castes.



WHY INDIA'S TOP ARTISTES HAVE BEEN SERVED EVICTION NOTICES

Several eminent artistes were last month sent notices to vacate government accommodation in Delhi by December 31, barring which, they will be charged heavy fees for overstaying. The 27 who have been served with notices include painter Jatin Das, Kathak dancer Pandit Birju Maharaj and santoor player Bhajan Sopori. Union Culture Minister Prahlad Patel says the artistes will have to pay their outstanding dues (going up to Rs 32 crore, as per bills raised by the Ministry of Housing and Urban Development) if they fail to comply with the government's decision. "If they vacate within the deadline, all their dues will be waived off," Patel added. As the December 31 deadline for eviction approaches, we look at the government's policy for artistes' accommodation, and why they have been asked to vacate the houses where they have been living for more than two decades:

Culture quota for government houses

In the 1970s, 40 houses in the national capital were set aside for artistes, under the culture quota. The list of beneficiaries was prepared by the Ministry of Culture keeping in mind an artiste's repute, and certain criteria such as their age and income. The guidelines say to be eligible for a government house in Delhi, artistes must be 40-60 years of age and their monthly earning should not exceed Rs 20,000. The houses were given for a three-year-period, which was extended each time it lapsed. The allottees included painters, writers and musicians of repute, with many of them being Padma awardees or honoured with other national-level awards. The government quota is for a maximum of 40 residential units, out of which 23 have been vacated till date owing to an artiste's demise or other reasons.

Change in policy

*It was in 2014 that the Narendra Modi government decided to phase out all kind of quotas in accommodation, be it for sportspersons, journalists or artistes. Under the new policy, only central government employees will be provided government accommodation. Although there are around 60,000 government houses available in Delhi, as per the Ministry of Housing and Urban Development, it says there is a shortfall of 15,000 houses for central government employees. An official from the Ministry of Culture says, "Since 2014, regular notices for eviction are being sent to those who still refuse to vacate the government houses, failing which they are liable to pay damages," adding that in some cases, the dues are now running to crores. The official says *some artists have passed away and their heirs, who are not even the original allottees, continue to live in the quarters, while many are using the government houses illegally for commercial purposes such as running music schools.**

Are the artistes ready to vacate?

Pandit Birju Maharaj, dhrupad artist Ut Wasifuddin Dagar, Mohiniyattam dancer Bharati Shivaji, Kathak artist Geetanjali Lal, Kuchipudi dancer Guru Jayarama Rao and painter Jatin Das are among those who have been served with eviction notices. The 27 houses in question are located in areas like Shahjahan Road, Asian Games Village and Lodhi Colony. While Maharaj has been living in his Shahjahan Road house for 36 years, Das has been living in his Asian Games village flat for 26 years. Dagar has claimed that artists do not retire, unlike ministers. He claimed, "I teach dhrupad out of this home. These are only 20 houses, extremely simple, small homes and that is also bothering them? We hope that somebody will come forward to help us." Maharaj says, "During this pandemic, I received a notice to vacate the home... I am 83 quite shocked that a notice like this has



come at this time. It's my appeal to PM Modi to think about this." He has also threatened to return his award if forced to vacate the residence.

What next?

Union Culture Minister Prahlad Patel is quoted as saying that the eligibility criteria will be revisited. "(Any new) policy on who should be accommodated will be framed later after they have vacated (the houses)," he says. On the other hand, SAHMAT, the Delhi-based artists' collective, has vociferously protested the Centre's decision. "Most of the artistes who have been issued these notices are now aged and do not have any other place to reside. Many people do not realise the precarious financial condition most artistes have to cope with, including those who are...legendary names," said the SAHMAT statement, adding that they cannot afford the kinds of market rents in Delhi now. Sanskar Bharati, a cultural organisation affiliated to the RSS, has also requested Prahlad Patel to reconsider the move and formulate a housing policy. But as per the Ministry of Culture, *this decision has to be taken at the topmost level and any further extension in the deadline will be decided only by the Cabinet Committee on Accommodation.*

THE FEATURES OF THE UPCOMING INTERNATIONAL AIRPORT IN NOIDA'S JEWAR

Uttar Pradesh Chief Minister Yogi Adityanath has given the go-ahead to the name, design and logo of the much-awaited international airport at Noida's Jewar. Yogi said the airport, which will be officially known as Noida International Greenfield Airport, will become a global brand and the pride of India.

The airport has the state bird 'saras' (crane) as its logo. Sources in the government informed that the logo was presented before the Chief Minister this Thursday. They said the bird is in a flying posture so as to indicate connectivity with the rest of the world.

The project through regimes

While the airport project in its present form has been referred to as a "greenfield project", the idea was first proposed in 2001 when Rajnath Singh was Chief Minister in 2001 though it did not materialise then. The project was named Taj International and Aviation Hub at the time. It got a push during the regime of the Bahujan Samajwadi Party (BSP) in the state led by then chief minister Mayawati from 2007 to 2012, with even a cargo hub proposed along with it. However, *the project could not make any headway because of the Centre-state tussle with the former pointing out its proximity to the existing international airport in Delhi, which, it said, was against an agreement that no airport can come within the 150km radius of the Delhi Airport.* The project was then sidelined during the SP regime, which began pressing for an international airport in Agra so as to build a connectivity with its dream project, Lucknow-Agra Expressway. The project was revived during the current BJP regime, and with the same party at the centre and the state, things could move way faster. The site clearance for the airport came in 2017. Over the past three years, various clearances, including security, environment, bidder, etc followed. It is Zurich Airport International AG that won the bid for developing the airport in December last year. Significance of its proximity to Delhi airport: The Jewar airport is expected to share the load of the IGI Airport in Delhi. Moreover, with the Delhi airport expected to reach its capacity in the next few years, experts say this airport would serve as an alternative given its plan to expand up to 70 million passengers per year and with five runways.



STARTING NEXT WEEK, METRO TO ROLL OUT FIRST DRIVERLESS TRAIN ON MAGENTA LINE

Delhi Metro's first 'driverless' train is likely to roll out by next week on the Magenta Line, when the country's largest rapid urban mass transit completes 18 years of operations. While trains running on Pink and Magenta Lines are equipped to run "unattended" — they can run without train operators — Metro has not yet switched to complete automation. Currently, trains plying on these corridors have drivers on board. Drivers don't have to do much apart from closing doors, as the automated system takes care of speed, opening of doors, among other things. *This was also made possible due to the implementation of the signalling technology called Communication Based Train Control (CBTC).* DMRC will complete 18 years of operations on December 25. DMRC sources said they have reached out to the Prime Minister's Office to get PM Narendra Modi during the launch of the driverless train services. DMRC sources said necessary changes in the Metro Railway General Rules will soon be notified to make the transition to driverless train operations possible. The prevailing norms do not allow train operations in the absence of a driver. It is learnt that *the driverless trains will have attendants on board to intervene in case of emergencies.* They will not be stationed in the driver's cabin, but will intervene whenever required. *Both Pink and Magenta Lines came up as part of Metro's phase III project. The 58-km-long Pink Line connects Majlis Park with Shiv Vihar, while Magenta Line, measuring 38 km, stretches between Janakpuri West and Noida Botanical Garden.*

WHY GUJARAT IS SEEING PROTESTS TO SAVE A 107-YEAR-OLD RAILWAY LINE

The Western Railways has decided to scrap 11 narrow gauge routes and branch lines in Gujarat, calling them unviable. One of these is the 107-year-old Billimora-Waghai line, once run by the Gaekwad Baroda State Railway (GBSR), against the closure of which political leaders have started a campaign pitching.

History of the Billimora-Waghai train

The narrow gauge train connecting Billimora in Navsari district with Waghai in Dang district was started by rulers of the Gaekwad dynasty of the princely state of Baroda in 1913. This was much before the Western Railway came into existence in 1951 with the merger of the Bombay, Baroda & Central India Railway, the Saurashtra, Rajputana and Jaipur state Railways. At the instance of Gaekwad rulers, the British laid railway tracks and it was operated by Gaekwad Baroda State Railway (GBSR) owned by Sayajirao Gaekwad III. The Gaekwad jurisdiction was spread across parts of Saurashtra, Mehsana in north Gujarat, and Billimora in South Gujarat. The 63-km Billimora-Waghai and the 19-km Choranda-Moti Karal routes are among those five routes the Indian Railways had proposed to be preserved as "industrial heritage" in 2018. Sources said the Billimora-Waghai train that *runs among Gujarat's most forested routes*, was used for the purpose of transportation of sag timber from deep forest areas. For about 24 years the train was run by a steam engine, which was replaced by diesel engine in 1937. *After Independence the Western Railway took charge of the train from GBSR. In 1994, the original steam engine was put on the display at Churchgate Heritage Gallery in Mumbai.*

How does it affect the tribals

The train was majorly used by the tribals staying in the interior villages in Dangs district in South Gujarat, which has no road connectivity to reach towns like Gandevi and Billimora for work to sell



their agriculture produce. The craftsmen of Dangs district also used this train to sell their products to the shop keepers in these town. So do the students from interior villages to go to colleges in the towns.

Who want to save the train and why

Soon after the announcement to scrap the services, newly BJP elected MLA from Dangs, Vijay Patel, Congress MLA of Vansda in Navsari district Anant Patel and Bipin Rawat, a social worker of Waghai, started a movement to restart the services for tribals. Patel made a written representation to Railway Minister Piyush Goyal where he has said that it was the lifeline for the tribals and should ideally be upgraded and used for tourism. MLA Anant Patel started a relay of protest at each of the railway stations on the route. Rawat claims there is no health services in the interior villages in Dangs and during medical emergency the patients use this train to reach the towns for medical treatment in government and private hospitals. Even the tribal people, who wanted to go to Surat and Mumbai, use this train to reach Billimora station for further rail connectivity via broad gauge.

FLIP FLOP ON ROSHINI ACT IN J&K

The government's petition before the Jammu & Kashmir High Court seeking a review of its October 9 ruling that the Roshni Act was "illegal, unconstitutional and unsustainable" reeks of hypocrisy. The legislation, formally titled the Jammu and Kashmir State Land (Vesting of Ownership to the Occupants) Act, 2001, was enacted by the National Conference government of the day, to regularise both encroached and leased government lands. The stated intent was to raise money for power projects. The original cut-off date of 1990 was extended by subsequent governments. In 2018, then Governor Satya Pal Malik halted the further implementation of the Act due to allegations of corruption. When the High Court struck down the Act, and ordered a CBI investigation against officials who had implemented it, the BJP jubilantly declared it to be a "surgical strike against land jihad". From the start, the narrative on the Roshni Act sought to project that political and other elites in "Muslim" Kashmir were usurping government land, and were backing less privileged Muslims to do the same in "Hindu" Jammu. The government used the Court order asking it to publicise the names of beneficiaries to give out the names of Kashmiri political leaders and others who had benefited from the act just ahead of the District Development Council elections. If the timing of this "naming and shaming" was suspect, the list itself was selective. Now that the lists show that the beneficiaries, furious about losing their property rights, are both in the Valley and in Jammu, the "land jihad" narrative appears to be unravelling. Egregiously, the government, which had earlier said it would start retrieving state lands from the beneficiaries expeditiously, now wants the Court to do two things — one aimed at protecting a political constituency, and the other itself. In the first instance, it wants the court to modify its order to differentiate between "rich and influential" beneficiaries and the "common people" who might be rendered landless or homeless, though it must know only too well that any such a distinction would be arbitrary, discriminatory and bad in law. Second, it also wants the court to prevent what it fears may be "an unintended roving inquiry by the CBI, which may go on endlessly without generating the results sought by the High Court". J&K is not the only place in the country where such regularisation takes place at intervals. Tamil Nadu, Maharashtra, Gujarat, Delhi, indeed most other states, have enacted laws for regularisation of leasehold to freehold, as well as to regularise encroachments, especially where people have been occupying such land for decades. Like the new domicile rules, which too had to be amended after coming under fire from the BJP's



constituencies in Jammu, the flip flop on the Roshni Act threatens to undermine trust in the credibility of the decision-making process in J&K in a time of transition and change.

MEGHALAYA GROUP WRITES TO PM, SEEKS ENTRY RESTRICTIONS, REPEAL OF CAA

A pressure group in Meghalaya has petitioned Prime Minister Narendra Modi demanding the implementation of inner-line permit (ILP), a British-era entry restriction, in the State and the scrapping of the Citizenship (Amendment) Act (CAA). The memorandum by the Khasi Students' Union (KSU) preceded the relaunch of the anti-CAA movement in the region on December 11.

Effective mechanism

The KSU said the ILP would be an effective mechanism to regulate the entry of outsiders into the State that has a microscopic indigenous population. It pointed out that ILP has helped the States in Northeast — barring Meghalaya, Assam and Tripura — maintain their indigenous demographic structure. The ILP, based on the Bengal Eastern Frontier Regulation of 1873, is applicable in Arunachal Pradesh, Manipur, Mizoram and Nagaland.

'Long-pending issue'

"The demand for the implementation of ILP in Meghalaya is a long-pending issue which the KSU started highlighting since 1985. Due to excessive migration from outside the country and certain other States since 1971, there developed serious ramifications within the State whereby there is a contestation in all aspects between the indigenous tribal communities and the outsiders/migrant communities. Meghalaya is slowly becoming like Tripura and Assam where indigenous communities are being overwhelmed by migrant communities," KSU wrote.

On the CAA that seeks to fast-track Indian citizenship to non-Muslims from Afghanistan, Bangladesh and Pakistan, the KSU said Meghalaya had been bearing the brunt of massive illegal immigration since the onset of the Bangladesh Liberation War in 1971. "Taking a cue from the State of Tripura, the citizens of Meghalaya are wary of being overwhelmed by the larger migrant communities coming from Bangladesh," the students' organisation told the Prime Minister.

EFFECT OF NEW SLAUGHTER LAWS: CATTLE NUMBERS FALL IN BJP-RULED STATES

Karnataka has become the latest BJP-ruled state to put a stringent anti-cattle slaughter Bill in motion. The Karnataka Prevention of Slaughter and Preservation of Cattle Bill, 2020, which envisages a ban on all forms of cattle slaughter and stringent punishment for offenders, is a revised version of a Bill that was passed in 2010 when the BJP was in power. The 2010 Bill was shelved in 2013 by the Congress government after it did not receive the Governor's assent. The Congress had reverted to the less stringent Karnataka Prevention of Cow Slaughter and Preservation of Animals Act, 1964, which allows cow slaughter with certain restrictions. While the 1964 law banned the killing of "any cow or calf of she-buffalo", it allowed the slaughter of bullock, buffalo male or female if it was certified by a competent authority to be above the age of 12 years or incapacitated for breeding or deemed sick.

The striking feature of this Bill is its definition of 'cattle'. It includes not just cows, bulls, bullocks and calves, but also male and female buffaloes. That makes it a comprehensive anti-bovine slaughter Bill. This is unlike the laws in other states, whose scope is restricted only to the Bos



Taurus species. The latter include cows, bulls, bullocks and calves, but not buffaloes, that belong to a separate *Bubalus bubalis* species. 'Cattle' in animal taxonomy covers just *Bos taurus*. Cattle and buffaloes are together termed 'bovines'. Prior to Karnataka, it was Maharashtra, under the previous BJP-led government of Devendra Fadnavis, which had enacted the most rigorous anti-slaughter legislation. The Maharashtra Animal Preservation (Amendment) Act of 2015 made slaughter of bulls and bullocks a crime, punishable with a jail term of up to five years. Previously, the ban on killing was limited to cows and only attracted six months' imprisonment. The B S Yediyurappa administration's Karnataka Prevention of Slaughter and Preservation of Cattle Bill goes beyond Maharashtra's. Like the 1964 and 2010 laws, the new law passed in the state assembly also designates the slaughter of cattle as a cognizable offence—where arrests can be carried out without court warrants. The punishment is increased in the new bill and the offender can be jailed for not less than three and extending to seven years and fines ranging from ₹50,000 to ₹5 lakh and gives the police sweeping powers to search premises and vehicles. No other state — including Yogi Adityanath's Uttar Pradesh and Shivraj Singh Chouhan's Madhya Pradesh — has so far made buffalo slaughter illegal. The only exemptions under the 2020 Bill are buffaloes above the age of 13 years and certified by a competent authority, cattle used in medical research, cattle certified for slaughter by a veterinarian to prevent spread of a disease, and very sick cattle. But from a dairy farmer's standpoint, that isn't particularly helpful. A typical crossbred cow takes 17-18 months to come to puberty and be ready for insemination. Adding 9-10 months of pregnancy, it will deliver its first calf and start producing milk at 27-28 months. Subsequent calvings, after factoring in three-four months post-partum rest, happen every 13-14 months. Farmers usually don't keep a cow beyond five-six calvings, when milk yields fall and the returns don't justify the costs of feeding and maintenance. By then, the animal is seven-eight years old. The same goes for buffaloes, which take even longer (3.5-4 years) to calve first and have 15-16 months inter-calving period. Their productive age, too, isn't beyond 9-10 years. No farmer can afford to wait for 13 years, by which time the animal ceases to even have any salvage value. The small amount that the farmer may receive is more than offset by the cost of feeding during the animal's unproductive years.

The impact of anti-slaughter laws—and more so, their aggressive enforcement—can be seen in the official Livestock Census data. Between 2012 and 2019, UP, MP, Gujarat and Maharashtra (which, till a year ago, was a BJP-ruled state) saw their cattle populations dwindle. These same states, however, registered increases in their buffalo numbers. UP, Gujarat and Haryana — and also Punjab and Andhra Pradesh— today have more buffaloes than cattle. The 2019 Census, in fact, saw West Bengal overtake UP as India's No.1 cattle state. The irony is that the state permits slaughter of all animals. It merely has an animal slaughter "control" law. Under it, any animal -- be it cattle or buffalo -- can be slaughtered. All that is required is a certificate from a veterinary officer stating that the animal is "fit for slaughter". If the stated objective behind enacting an anti-slaughter legislation is "preservation of cattle", that message is clearly not being heeded by farmers. They seem more inclined towards rearing animals that can be easily disposed of once their useful life is over.

The contentious piece of legislation has got a new lease of life with the state's Vidhan Sabha passing it without a debate — the Opposition Congress and Janata Dal (S) members walked out, saying that the Speaker did not give them adequate time to air their views. If Governor Vajubhai Vala approves it, the Karnataka Prevention of Slaughter and Preservation of Cattle Bill 2020 could create problems for the state's farmers, much like what's being experienced by their counterparts in other states—especially Uttar Pradesh—which have similarly stringent laws.



Of salience would have been the Allahabad High Court's observation on October 26 this year: "The Act is being used against innocent persons... In rural areas, cattle owners, who are unable to feed their livestock, abandon them. They cannot be transported outside the state for fear of locals and police. There are no pastures now. Thus, these animals wander here and there destroying crops. Earlier, farmers were afraid of the neel gai... now they have to save their crops from stray cows". With several states trying to outdo each other in cow protection in the past five years, the link between farms and slaughter houses has been ruptured. The Karnataka bill is of a piece with laws that have made cattle traders insecure and emboldened vigilantes.

CONVERTING WASTE TO ENERGY (PUSHKARA S.V. - PRACTITIONER AT THE INDIAN INSTITUTE FOR HUMAN SETTLEMENTS, BENGALURU)

On December 2, Karnataka Chief Minister B.S. Yediyurappa laid the foundation stone for a 11.5 MW waste-to-energy plant near Bidadi. This plant is expected to process 600 tonnes per day of inorganic waste. Bengaluru generates close to 5,000 tonnes of waste daily, of which about 2,500 tonnes is organic, about 1,000 tonnes inert material (sweeping waste) and 1,500 tonnes inorganic. This inorganic material, which consists of bad quality plastics and used cloth pieces, can be processed as *Refuse Derived Fuel (RDF)*. This material has a calorific value of more than 2,500 kJ/kg, and can be used to generate steam energy, which can be converted into electric energy instead of burning coal and other materials used in traditional waste-to-energy plants.

A well-planned plantc

The waste-to-energy plants usually accept the RDF material generated in organic composting plants. They also segregate the wet and inorganic material near the plant, convert organic waste to compost, and inorganic waste to energy. Typically, about 50 tonnes of RDF generate 1 MW of power, which indicates that the plant at Bidadi has been appropriately designed. Eight organic waste processing plants are operational within the city in Kannahalli, Seeghalli, Chikka Nagamangala, Doddabidarakallu, KCDC, MSGP, Lingadeeranahalli and Subbarayanapalya, and they receive more than 2,000 tonnes of waste collected by households, commercial establishments and markets. Although about 30%-40% of the material received is segregated organic waste and the remainder is mixed waste, the latter consists of about 40% inorganic waste which can be converted into RDF. Handling inorganic waste that is not fit for recycling has always been a challenge. *At present, these high-calorific materials are landfilled or left unhandled in waste plants and cause fire accidents. Attempts to send this material to cement kilns have not fructified. The proposed plant can source 600 tonnes per day of this RDF and generate 11.5 MW of power equivalent to 2.4 lakh units of power per day. This will reduce the city's dependency on unscientific landfills, reduce fire accidents, and provide a permanent solution to recover value from inorganic waste.* However, there are some challenges.

The plants require fine inorganic material with less than 5% moisture and less than 5% silt and soil contents, whereas the moisture and inert content in the mixed waste generated in the city is more than 15%-20%. Since segregation at source doesn't happen in the city, the collected waste material needs to be sieved using 80mm-100 mm sieving machines, which lets through organic material with more than 80mm-100 mm particle sizes into the inorganic waste. In addition, the sticky silt and soil particles can also reduce the calorific value. The other big challenge for this plant is the power tariff. Generally, the tariff at which the power is purchased by such plants across the country is around ₹7-8 kWh which is higher than the ₹3-4 per kWh generated through coal and



other means. This could be a serious challenge to KPTCL as the selling price of power cannot be increased corresponding to the purchasing price. If the plant eases the challenge of handling inorganic waste, the efficiency of organic waste processing/ composting plants would become better. If it is successful, the city would require three more waste-to-energy plants of similar size or six plants of smaller size considering the potential to recover 2,500-3,000 tonnes per day RDF in the coming years.

MPS RAISE CONCERNS OVER EXEMPTIONS IN PRIVACY BILL

Ten members of the 30-member joint parliamentary committee on the Data Protection Bill, 2019, have moved amendments against the provision in the legislation giving power to the Central government to exempt any agency of the government from application of the Act. The members have said this clause makes the entire Act infructuous. The Bill seeks to provide protection of personal data of individuals and was introduced in December last year in Lok Sabha. It was referred to the joint parliament, headed by BJP MP Meenakshi Lekhi, in February this year. Invoking “sovereignty and integrity of India”, “public order”, “friendly relations with foreign states” and “security of the state”, the legislation gives powers to the Central government to suspend all or any of the provisions of this Act for government agencies. Five of the MPs — Jairam Ramesh Derek O’ Brien, Mahua Moitra, Ritesh Pandey and Amar Patnaik — want the Act to be suitably amended, vesting the power in Parliament instead of the Central government to approve any such exemption. Congress MP Gaurav Gogoi and Manish Tewari want judicial approval for it. Mr. Tewari while moving his amendment to this clause, submitted that since privacy has been held to be a fundamental right, it, therefore, is subject to the rigors of Article 21 of the Constitution of India and an exception cannot be made for the government.

CABINET NOD FOR PUBLIC WIFI NETWORKS

The Union Cabinet on Wednesday approved a proposal for setting up public WiFi hotspots across the country via *public data offices or PDOs, which could even be a kirana shop or a paan shop*. The move, aimed at helping accelerate the uptake of broadband Internet services, will not require the PDOs to get a license or pay a fee. The public *WiFi Access Network Interface*, which will be called *‘PM-WANI’*, was first recommended by the Telecom Regulatory Authority of India (TRAI) in 2017. There are three important actors here. First is the *Public Data Office (PDO)*. The PDO can be anyone, and it is clear that along with Internet infrastructure, the government also sees this as a way to generate revenue for individuals and small shopkeepers. It is important to note that PDOs will not require registration of any kind, thus easing the regulatory burden on them. Next, is the *PDOA (Public Data Office Aggregator)*, who is basically the aggregator who will buy bandwidth from Internet service provider (ISPs) and telecom companies and sell it to PDOs, while also accounting for data used by all PDOs. Finally, *the app provider will develop the app to register users and discover PM-WANI compliant WiFi hotspots nearby. The details of all three will be maintained by the registry*. Two pillars have been given as a baseline for public Wi-Fi. The first is *interoperability*, where the user will be required to login only once and stay connected across access points. The second is *multiple payment options*, allowing the user to pay both online and offline. The report also talks about how products should start from low denominations, starting with ₹2. It is suggested in the report that the requirement of authentication through a one-time password for each instance of access may be cumbersome and automatic authentication through



stored e-know your customer (KYC) is encouraged, which inevitably means a linking with Aadhaar.

According to TRAI, in most major economies, for 50%-70% of their total usage time, mobile users use WiFi technology to communicate. However, in India, this figure is less than 10%. Service providers had in 2018 stated that they aimed to provide 5 lakh hotspots by March 31, 2019 and 10 lakh hotspots by September 30, 2019. However, these targets have not been achieved. The move will help unleash a WiFi revolution in the country. *For PDOs, there will be no license or fee or registration.* This could be a tea shop or kirana shop...PM-WANI is going to be a power transformative digital platform to empower ordinary Indians... it offers a lot of scope for various sectors, particularly education," Minister for Communications, Electronics & Information Technology Ravi Shankar Prasad said while announcing the decision.

Essentially, this would mean the ability to connect to a Wi-Fi broadband connection almost anywhere. This can help to bridge the increasing digital divide in India. Recently, the NITI Aayog chief executive officer had said that India can create \$1 trillion of economic value using digital technology by 2025. However, as per the latest Telecom Regulatory Authority of India (TRAI) data, *about 54% of India's population has access to the Internet. The 75th round of the National Statistical Organisation survey shows that only 20% of the population has the ability to use the Internet. The India Internet 2019 report shows that rural India has half the Internet penetration as urban, and twice as many users who access the Internet less than once a week.* To illustrate this point, let us look at the *Umang App (Unified Mobile Application for New-age Governance)*, which allows access to 2,084 services, across 194 government departments, across themes such as education, health, finance, social security, etc. The ability to access and utilise the app enhances an individual's capabilities to benefit from services that they are entitled to. With each move towards digitisation, we are threatening to leave behind a large part of our population to suffer in digital poverty.

The PM-WANI has the potential to change the fortunes of Bharat Net as well. Bharat Net envisions broadband connectivity in all villages in India. The project has missed multiple deadlines, and even where the infrastructure has been created, usage data is not enough to incentivise ISPs to use Bharat Net infra to provide services. One of the reasons for the lack of demand is the deficit in digital literacy in India.

Security, privacy issues

There are some concerns, mainly with respect to security and privacy. A large-scale study conducted at public Wi-Fi spots in 15 airports across the United States, Germany, Australia, and India discovered that two thirds of users leak private information whilst accessing the Internet. Further, the TRAI report recommends that 'community interest' data be stored locally, raising questions about data protection in a scenario where the country currently does not have a data protection law in place. These are however, problems of regulation, state capacity and awareness and do not directly affect the framework for this scheme. *With the PM-WANI, the state is expanding the reach of digital transformation to those who have been excluded till now. It is a game-changer because it has the potential to move Digital India to Digital Bharat.*

REFORM, AS PER MR KANT

Apart of the reason why Niti Aayog CEO Amitabh Kant sounds so off-key is terrible timing. *His comments, at an online event on Tuesday, about the difficulty of "tough" reforms in India because*



“we are too much of a democracy” come bang in the middle of a high-visibility impasse between government and farmers camping at Delhi’s borders, for 13 days now, in the bitter cold. At the heart of the stand-off are farm “reforms” rammed through Parliament by the BJP-led government, with *little or no evidence of consultation with allies, parties of the Opposition, or farmers’ organisations and their representatives, no thorough debate in the House, no reference to a standing committee, in the middle of a pandemic that has accentuated an economic decline.* The intent or merit of the reform—this paper has argued that the three laws move India’s agriculture in broadly the right direction—has been overtaken by legitimate questions on the manner in which it is seen to have been rail roaded through. In this backdrop, “too much democracy” sounds more than a little inept. It reinforces the protesters’ suspicions that something sneaky, behind their back, is being done in the name of their welfare. But Kant gets more than just the moment wrong. Surely, he would know that the conventional narrative of strong-government-equals-more-economic-growth/reform stands punctured by India’s experience in the coalition era, when power was more fragmented—a period he would presumably characterise as too-much-democracy. It is not just that a government with a tenuous hold on power opened up the economy in 1991— it could be argued that those reforms happened because India had its back to the wall. It is also that in the three decades before 2014, when India was governed by coalitions, its economy can be said to have come of age, reforming, achieving high growth rates, pulling millions out of poverty. The Niti Aayog CEO’s webinar wisdom doesn’t merely fly against facts, it also frames the issue in a way that does disservice to both democracy and reform. *To see reforms as adversarial to the democratic process is to foreclose spaces for negotiation, innovation, and dialogue.* This approach, if taken seriously in the corridors of power, is fraught with special risks given India’s diversity in which checks and balances on executive power often seem too weakly institutionalised. *On farm reform, it could be argued, in fact, that it is inadequate democracy, not too much of it, the concentration of power instead of its dispersion, that has contributed to the present stalemate.* Arguably, if the government had talked and listened more to stakeholders instead of vilifying them when they protested, if cautionary voices within the NDA had been heard, or if all parties had used the parliamentary space better, the issue would have played out differently. Democracy checks and balances, negotiation—these are good words, not bad. They serve to limit the worst impulses of the ruling regime, whatever its ideological colour. Among the stated objectives of Niti Aayog, India’s “premier policy think tank,” is to evolve a “shared vision” of national development with states and to foster “cooperative federalism.” That means much more democracy. As CEO, Kant should know better — he doesn’t need to bad mouth democracy to sing the government’s praise.

JIO TOWERS VANDALISED IN PUNJAB: CALLS LIKELY TO FACE CONGESTION

The disruption in telecom services offered by Reliance Jio Infocomm continued in Punjab as protesting groups cut power connection to additional towers owned by the operator and continued to block the repair of vandalised towers.

What has been vandalised?

Of the 9,000 tower sites that Jio has in the state, power supply to roughly 1,800 had been either cut off or been disconnected by protesting groups as of Tuesday.



How does this impact Jio services in the state?

With power supply to Jio's towers being disconnected, the immediate impact is likely to be felt on calls and internet data speed in the region. *On an average, a mobile cell phone tower can provide connectivity to users up to 75 km away. However, for the mobile signal to be strong enough, multiple tower sites are installed in a region so that the maximum distance between a cell site and a mobile phone is kept limited between 25-35 km.* Jio has around 14 million subscribers in the state. *With about 1,800 of these towers being vandalised, the load of the rest of subscribers of the company is likely to shift on to the other towers in the vicinity of that tower. This, in turn, may impact the quality of calls and the internet data speed in the region. The impact is also likely to be felt on services of other providers since calls landing on and originating from Jio's networks may face congestion due to lesser number of cell sites. Apart from voice calls, the low number of cell sites is likely to hit internet speeds.*

A NARROW WINDOW

The Supreme Court has opened a window, narrow though it may be, for the farmers' unions and the government to negotiate a consensus on the contentious farm laws. *The court, while hearing petitions seeking the removal of farmers sitting on protest in Delhi borders, upheld the right of the farmers to protest and came with an innovation to end the impasse: It has proposed setting up an "independent and impartial committee" to hear both sides.* While Solicitor General Tushar Mehta refused to assure the court that the government would keep the laws in abeyance until it ruled on them, Attorney General KK Venugopal said he would discuss the subject with the government. This is an opportunity for both parties to step back from their maximalist positions and discover a middle ground that addresses the concerns of farmers and meets the government's case for agriculture reforms. Prime Minister Narendra Modi, addressing a kisan meet in Madhya Pradesh, said he was ready "with folded hands" to discuss every issue with farmers. He spoke of the measures the government has done to ease the burden of farmers — cash transfers to their bank, access to Kisan Credit Cards and so on — besides reiterating that minimum support price for farm produce will continue. But along with this outreach comes a disturbing refrain: *Questioning the nationalist credentials of the protestors.* Union Agriculture Minister Narendra Singh Tomar Thursday suggested a sinister design to the rail track protestors: Hindering the delivery of supplies to soldiers in Ladakh and said that "the ideology of these people, who are misleading the farmers by hiding behind curtains, was not with the country even during the war of '62. Today, these people are again speaking the language of '62." *Government and BJP functionaries need to stop infantilising the protestors.* You can't celebrate the wisdom of the farmer and, in the same breath, say they are being "misled" by darker forces out to break the nation. The apex court's suggestion may create a space relatively insulated from such self-serving — and self-defeating — rhetoric.

Like politics, policy-making also involves negotiation. In the case of farm laws, the government ignored the early signs of dissent and discomfort among the intended beneficiaries of the reforms — the BJP even allowed a long-standing ally, the Shiromani Akali Dal, to quit the Union Cabinet and NDA on the issue. The Supreme Court has now given the government an opportunity to discuss and clarify its intentions with other stakeholders; it must not let ego or narrow political interests shut this window. The farmers, too, need to factor in that repeal-or-nothing-else isn't the most effective way to address their apprehensions.



FARMERS PROTEST

It should be obvious to any keen observer of the Indian economy that the country's agriculture, which also supports the remaining rural workforce, was, forever, living beyond its means. In 1950-51, agriculture's share in the country's GDP was 45%, the share of the workforce dependent on the sector was close to 70%. Seven decades later, agriculture's share in GDP is below 16%, but almost 50% of the country's workforce depends on this sector. The squeeze on the agricultural sector becomes even more evident from its terms of trade vis-à-vis the non-agricultural sectors. Agriculture has been facing adverse terms of trade over extended periods since the 1980s, and even during the phases when the terms of trade have moved in its favour, for instance in the 1990s and again since 2012-13, there was no distinct upward trend. A more telling commentary in this regard is that since the middle of the 2000s, farming communities have almost consistently faced adverse terms of trade vis-à-vis non-farmers. **Erosion of farm incomes was triggered by growing inefficiencies, which, in turn, was caused by a lack of meaningful investment in agriculture.** The share of this sector in the total investment undertaken in the country consistently fell from about 18% in the 1950s to just above 11% in the 1980s. In the subsequent decades, the situation has got far worse with agriculture's share not even reaching double digits. In the most recent quinquennium for which data are available (2014-15 to 2018-19), the average share of agriculture was 7.6%. However, despite this unacceptable situation, every government in post-independent India systematically ignored the need to step up investment in agriculture, which would not only have ensured more efficient use of farm resources but would have also been a crucial step towards improving farm incomes.

A look at yields

A quick comparison of the yields of the major crops in India with those of other countries confirms the dismal state of agriculture in this country. ***If one ranks countries in terms of their yields in wheat and rice — India's two major crops — the country's ranks were 45 and 59, respectively, in 2019.*** It may also be added here that this ranking would go down sharply if the areas recording high yields, such as Punjab and Haryana, are excluded. In other words, for farmers in most regions of the country, it is an uphill battle for survival amid low yields. The market has always been the farmers' biggest adversary, making it impossible for them to realise remunerative prices for their produce. ***The existing marketing system dominated by the Agricultural Produce Market Committees has long been proved to be against the interests of the small farmers, but the government, in its own wisdom, has now decided to introduce even larger middlemen that would do no more than complete the circle of misery for the farming communities.***

Need for a policy

It is a no-brainer that such complex problems facing Indian agriculture cannot be resolved through ad hoc decision-making, and that this country needs an agricultural policy that addresses the challenges facing this sector in a comprehensive manner. Surprisingly, the demand for such a policy has seldom been made in a forthright manner, even by the country's farming communities. The lack of a coherent policy for agriculture must surely be regarded among the most remarkable failures of the governments in post-Independence India. The magnitude of this failure can be better understood if one considers the fact that the United States, with less than 2% of its workforce engaged in agriculture, has been enacting farm legislations every four years since the Agricultural Adjustment Act was enacted in 1933, the first piece of legislation of U.S. President



Franklin Roosevelt's New Deal. In a similar vein, members of the European Common Market adopted their Common Agricultural Policy in 1962, only a few years after establishing the institution. These policies comprehensively address the needs of the farm sector through proactive support from the respective governments.

Issue of farm subsidies

The above discussion is useful for contextualising India's farm subsidies. The government dole out is a price that the country pays for the failure of the policy makers to comprehensively address the problems of the farm sector. Thus, instead of engaging with the farming communities for putting in place a comprehensive set of policies (which also provides for the setting up of farmer-friendly institutions in order to improve the economic viability of the sector), successive governments have chosen to dole out subsidies in order to ensure domestic food security and protecting rural livelihoods. It must be said that the governments have continued granting subsidies as a failure to realise that either of the two objectives can have catastrophic consequences for the country. At the same time, however, *wanton distribution of subsidies without a proper policy framework has distorted the structure of production and, consequently, undesirable outcomes in terms of excessive food stockpiling.* And, yet, the fundamental ills of Indian agriculture are not adequately addressed. When subsidies have virtually been made the survival kit for Indian farmers, there is possibly a need to understand the magnitude of the government dole out, also by comparing it with those granted by other countries. *Members of the World Trade Organization (WTO) are expected to notify their agricultural subsidies as a part of their commitment under the Agreement on Agriculture (AoA);* the subsidy notifications provide a good basis to understand where India stands vis-à-vis other countries in this regard.

Economically weak farmers

India's latest notification, for 2018-19, shows that the subsidies provided were slightly more than \$56 billion. In most of the recent years, the largest component of India's subsidies (\$24.2 billion, or 43% of the total) are provided to "low income or resource poor farmers", a terminology that the AoA uses. However, designation of this category of farmers is left to individual members. *India has notified that 99.43% of its farmers are low income or resource poor. According to the agricultural census conducted in 2015-16, these are the farmers whose holdings are 10 hectares or less.* Thus, according to the Government of India, almost the entire farm sector comprises economically weak farmers. *The two major providers of farm subsidies, namely, the U.S. and the members of the European Union (EU) gave much larger magnitudes of support than India did. America provided \$131 billion in 2017 and the EU, nearly €80 billion (or \$93 billion) in 2017-18.* Absolute numbers do not provide a good yardstick to compare the farm subsidies; the ratios of subsidies to agricultural value addition for the three countries give a much better picture. *Thus, for 2017, India's farm subsidies were 12.4% of agricultural value addition, while for the U.S. and the EU, the figures were 90.8% and 45.3%, respectively. This then is the reality of farm subsidies that India provides.*

Political truth about subsidies

An uncomfortable truth looms above all this but is conveniently ignored by most. This truth is that everybody benefits from subsidies. The farmers benefit (cheap electricity and fertilizers, for example), central Government employees benefit (the Central Government Health Scheme, for example), Ministers benefit, corporates benefit (for example, the "revenues foregone" by the government to help business; this increased by 16% in the 2018-19 Budget), the armed forces



benefit (rations for the services are priced much lower, for example), poor children benefit (government schools), universities benefit (State and central universities), even prisons benefit (in the U.S., as many as 8% of prisoners are in privately-run prisons). When a particular subsidy is withdrawn, the population that was being served by it will protest. If the CGHS is shut down, bureaucrats will rise in opposition; withdraw perks to Members of Parliament, and our lawmakers will object; cease cancelling the “revenues foregone” provision in the Budget and businesses will complain. Subsidies are bad, but only for other people, never for oneself. If there are so many truths, half-truths and an overwhelming politically unacceptable truth, a meeting ground will always be hard to find.

WHY ARE PUNJAB ARHTIYAS UNDER THE I-T SCANNER?

For the past one week the arhtiyas of Punjab have been receiving summons and notices from the Income Tax department. Also, there have been I-T raids on the premises of the seven arhtiyas, including the district presidents of arhtiya associations and the president of state level-association of commission agents. The Indian Express explains why arhtiyas are suddenly on the I-T radar.

How do arhtiyas view the I-T department crackdown?

Arhtiyas claim that they are being targeted for supporting the farmer’s protest. Apart from participating in the ongoing farmers’ protest at Singhu and Tikri border in Delhi, arhtiyas have been sending buses carrying protesters from across the state to the protest sites. They had also closed mandis as a protest for the three days from December 7 to December 9 participate in the protest at Delhi. Arhtiyas point to there being a general impression among government officials in Delhi, that they are the ones sponsoring the farmers’ agitation. They argue that this is a form on intimidation to make them end their support to the protest.

WHO ARE SHETKARI SANGHATANA, THE GROUP BACKING GOVT ON THE FARM LAWS?

Some farmers’ unions met Agriculture Minister Narendra Singh Tomar to express support for the three farm laws against which thousands of farmers are protesting at the borders of Delhi. Among those who met Tomar was Shetkari Sanghatana, the Maharashtra-based union that was founded by the legendary farm leader Sharad Joshi.

Joshi and his vision

Before he took up farmers’ issues, Joshi, an economist by training, worked for the United Nations in Switzerland. After returning to the country, he purchased land near the now-industrial belt of Chakan in Khed taluka of Pune district and became a full-time farmer. In 1979, he led a group of farmers to block the Pune-Nashik highway to press for higher prices for onion. The genesis of the Shetkari Sanghatana lies in this movement, which saw onion growers dumping their produce on the highway to underline their demand. Joshi believed that unless the problems of Bharat (meaning rural India) were raised forcefully in India (a reference to cities and urban areas), farmers would never receive justice. His agitations were, therefore, invariably staged in the urban areas, and were calculated to impact urban life. Protesters often gathered on highways or railway tracks to press for better prices of sugarcane, or the removal of state monopoly in the procurement of cotton.



THE LONG ROAD TO FOOD SECURITY (RAJMOHAN UNNITHAN - AN MP AND MEMBER OF THE DEPARTMENT RELATED STANDING COMMITTEE ON FOOD, CONSUMER AFFAIRS AND PUBLIC DISTRIBUTION)

India's malnutrition levels are almost twice the level of many African countries. The Global Hunger Index 2020 report has given India the 94th rank among 107 countries, much behind Bangladesh, Pakistan, and Nepal. As per a UN-FAO report, 194 million people go hungry every day in India, comprising about 23% of the world's undernourished population. This flies in the face of the landmark Right to Food case, in which the Supreme Court declared Right to Food as part of Article 21 of the Constitution, that is, the Right to Life.

India continues to be gripped by a paradox of plenty in the realm of food security. The country reached self-sufficiency in agricultural production some time ago, and yet, mass hunger is rampant across States. India produces more than the estimated amount required to feed the entire population (in 2018-19, India produced 283.37 million tons of food grains). The country ranks first in millets and second in rice and wheat production in the world. India's horticultural crops, such as fruits and vegetables, are also in surplus (over 313 million tons in 2018-19).

Struggling ecosystem

However, *according to data released by the Department of Consumer Affairs, almost 62,000 tons of food grains were damaged in Food Corporation of India warehouses between 2011 and 2017. In 2016-17 alone, over 8,600 tons of food grains were lost. A study conducted by the Indian Council for Research on International Economic Relations found that while there is a proliferation of millions of ineligible and bogus ration cards, there are also, simultaneously, a multitude of genuinely poor families that do not even possess ration cards. These data expose the poor management of the food ecosystem in India.* To ensure India's food security, a two-pronged policy is needed. Firstly, the government must ensure remunerative prices for farm produce. For this, the *Minimum Support Price (MSP)* should be made available to the maximum range of farm products. This will enhance the purchasing power of farmers so that they can purchase essential food items. Secondly, it is crucial that India improves the *Public Distribution System and Public Procurement*.

The situation could be further improved by revamping the Annapurna Yojana. Under this scheme, ten kilograms of food grains are distributed per month free of cost to destitute persons above 65 years of age, with no or meagre subsistence. The Centre has fixed the target of 20% of the number of persons who are eligible for National Old Age Pension, but who are not receiving such pension.

HOW PUNJAB CAN ACHIEVE CROP DIVERSIFICATION

Punjab's stellar role in ushering the Green Revolution in the country in the late 1960s through the mid-1980s is well-known. India was desperately short of grains in 1965, and heavily dependent on PL 480 imports from the US to the tune of almost 10 million metric tonnes (MMT) against rupee payments, as the country did not have enough foreign exchange to buy wheat at global markets. The entire foreign exchange reserves of the country at the time could not help it purchase more than 7 MMT of grains. It is against this backdrop that the minimum support price (MSP) system was devised in 1965. The situation today is vastly different. Today, the Food Corporation of India (FCI) is saddled with huge stocks of grains — it touched 97 MMT in June this year against a buffer stock norm of 41.2 MMT. The economic cost of that excess grain, beyond the buffer stock norm,



was more than Rs1,80,000 crore, a dead capital locked in without much purpose. That's the situation of the current grain management system based on MSP and open-ended procurement. On the foreign exchange front, India has more than \$575 billion—way more than comfort levels.

The flashpoint between the agitating farmers and the central government is essentially rooted in the mismatch between the supply and demand for the wheat crop in India. *The genesis of the current state of affairs stems from policies initiated over half a century ago when India was critically short in food grains and had to rely upon imports under PL-480 as aid from the US. India set up a massive Public Distribution System (PDS) for supplying wheat (and later rice) to the urban consumers (and other vulnerable sections of the population in rural areas, at a later stage) by issuing ration cards that entitled them to a fixed quantum at controlled prices. To feed the PDS, potential surplus producing states (notably, Punjab and Haryana) were cordoned off from the rest of the country under a quasi-monopolistic buying by the central government through the Food Corporation of India (FCI) at a farmer remunerative price, label led as the minimum support price (MSP). Concurrently, high-yielding varieties of seeds were produced and popularised by the state agencies along with pushing the use of tube wells and fertilisers with subsidies for electricity and some fertilisers. The result was a resounding success for the production and procurement of rice (common varieties) and wheat. India has become consistently surplus in their production, which was the focus of the PDS and government policy.*

What is the extent of paddy-wheat monoculture in Punjab?

Punjab's gross cropped area in 2018-19 was estimated at 78.30 lakh hectares (lh). Out of that, 35.20 lh was sown under wheat and another 31.03 lh under paddy, adding up to 84.6% of the total area planted to all crops. That ratio was just over 32% in 1960-61 and 47.4% in 1970-71. The real acreage share increase has taken place in paddy (from below 7% in 1970-71 to almost 40% in 2018-19) than for wheat. The latter had crossed 40% by 1970-71, when Punjab farmers were already planting the new Green Revolution wheat varieties such as Kalyan Sona and Sonalika, but hasn't gone up much since then. The above gains have been at the expense of pulses (after 1960-61), maize, bajra and oilseeds (after 1970-71) and cotton (after 1990-91). Wheat replaced chana, masur, mustard and sunflower, while cotton, maize, groundnut and sugarcane area got diverted to paddy. The only crops that have registered some acreage expansions are vegetables (especially potato and pea) and fruits (kinnow), but they hardly amount to any diversification.

Why is monoculture such a problem?

Growing the same crops year after year on the same land increases vulnerability to pest and disease attacks. The more the crop and genetic diversity, the more difficult it is for insects and pathogens to device way to pierce through plant resistance. Wheat and paddy cannot also, unlike pulses and legumes, fix nitrogen from the atmosphere. Their continuous cultivation sans any crop rotation, then, leads to depletion of soil nutrients and growing dependence on chemical fertilisers and pesticides. In Punjab's case, the issue isn't as much with wheat, which is naturally adapted to its soil and agro-climatic conditions. Also, wheat is a cool season crop that can be grown only in regions – particularly north of the Vindhyas – where day temperatures are within early-thirty degrees Celsius range right through March. Its cultivation in Punjab is desirable from a national food security standpoint, too. The state's wheat yields – at 5 tonnes-plus per hectare, as against the national average of 3.4-3.5 tonnes – are far too high to merit a drastic area reduction to below, say, 30 lh.



So, it is basically paddy that needs fixing?

Yes, there are two reasons for it. The first has to do with paddy being a warm season crop not very sensitive to high temperature stress. It can be grown in much of eastern, central and southern India, where water is sufficiently available. Punjab contributed 12.71 million tonnes (mt) of wheat and 10.88 mt of rice (milled paddy), out of their corresponding total Central pool procurement of 38.99 mt and 52 mt, respectively in 2019-20. Probably half of this rice of Punjab can, instead, be procured from eastern Uttar Pradesh, Bihar, West Bengal or Assam. Linked to this is the second reason. Paddy requires not low temperatures, but water. *Farmers usually irrigate wheat five times. In paddy, 30 irrigations or more are given. Punjab's groundwater table has been declining by 0.5 meters per annum on an average – largely courtesy paddy and the state's policy of supplying free power for irrigation. It has encouraged farmers to grow long-duration water-guzzling varieties like Pusa-44. Before Pusa-44's release in 1993, Punjab farmers were mostly cultivating PR-106, a paddy variety that yielded an average 26 quintals per acre over 145 days. Pusa-44's yield was 32 quintals, but it had 160-days duration, from nursery sowing of seed to harvesting of the ripened grain. Long duration meant that nursery-raising happened in April last week and transplanting by mid-May, to enable harvesting from October and timely planting of the next wheat crop.* But being peak summer time, it also translated into very high water requirement.

Has the Punjab government done anything to address this?

The one significant step that it took was enacting the Punjab Preservation of Subsoil Water Act in 2009, barring any nursery-sowing and transplanting of paddy before May 15 and June 15, respectively. That, however, produced a different problem. If transplanting of Pusa-44 was permitted only after the monsoon rains arrived in mid-June, it also pushed harvesting to October-end, leaving a narrow time window for sowing wheat before the November 15 deadline. Farmers, then, had no option other than burning the paddy stubble left behind after combine-harvesting. Simply put, groundwater conservation in Punjab ended up causing air pollution in Delhi.

Has there been any way to avoid this trade-off?

One thing that scientists at the Punjab Agriculture University (PAU), Ludhiana have done is breed shorter-duration paddy varieties. These take between 13 and 37 days less time to mature than Pusa-44, while yielding almost the same. PR-126, a variety released in 2017, has a mere 123 days duration (inclusive of 30 days post nursery-raising) and its yield is 30 quintals per acre. "In 2012, 39% of Punjab's non-basmati paddy area was under Pusa-44. That was down to 20% this year, while the share of shorter-duration varieties, mainly PR-121 and PR-126, has crossed 71%. Crop residue burning incidents has been concentrated in the Malwa districts of Sangrur, Mansa, Barnala, Moga, Bathinda and Muktsar, where 40-60% area is still under Pusa-44 and other long-duration varieties," says G.S. Mangat, Head, Department of Plant Breeding and Genetics, PAU. *While Pusa-44 requires around 31 irrigations, it is only 23 in PR-126 and 26 in PR-121.* There would be further 3-4 irrigation savings if farmers adopt direct seeding of paddy, as opposed to transplanting in flooded fields (<https://bit.ly/3ahA4vx>). A single irrigation consumes roughly 200 cubic meters (2 lakh litres) of water per acre. 10 irrigations saved is equivalent to 2,000 cubic meters (20 lakh litres) less water per acre.



What is the way forward, then?

As already noted, there is scope to bring down Punjab's wheat from 35 lh to, maybe, 30 lh. In paddy, the 31.03 lh area of 2018-19 included 5.11 lh under basmati varieties. The state's overall paddy acreage this year has fallen to 27.36 lh and, within that, basmati's share is up to 6.6 lh and non-basmati's down to 20.76 lh. *A sensible strategy could be to limit Punjab's a non-basmati paddy area to 10 lh and ensure planting of only shorter-duration varieties.* These can be transplanted after June 20 and harvested well before mid-October, giving farmers enough time to manage the standing stubble without having to burn. Further *water savings can be induced through metering of electricity and direct seeding of paddy, which, in fact, covered a record 3.6 lh this time.* The 10 lh less non-basmati area can be diverted towards basmati varieties (they consume less water because of transplanting only in July and aren't procured by government agencies), cotton, maize, groundnut and kharif pulses (arhar, moong and urad) with some assured government price/per-acre incentive support. The same could be done for the 5 lh wheat area diverted to chana, mustard or sunflower.

The recognition that agriculture is embedded in nature and that the agrarian economy is constrained by the limits imposed by nature and by social rules is fundamental to making policies that can benefit farmers. Instead of a resource-based approach, the need is to develop a relationship-based approach towards the environment. The challenges towards adopting such an approach have ecological, socio cultural, political, techno-scientific and economic dimensions. Reducing this complex maze to either economic or techno-scientific or a combination of both is highly problematic. This reductionism is the primary reason we are now suffering the consequences of runaway climate change, to which the contribution of modern agriculture is significant. Moreover, the destruction of our rich agricultural biodiversity, the growing toxicity of our air, water and soils, the over-extraction of ground water and growth in pesticide resistance have led to farming becoming a high-risk venture, in addition to threatening human health. The link between factory farming of animals and the growth of zoonotic diseases is now well-known, especially after the COVID-19 outbreak. Drawing upon a paradigm of the conquest of nature, modern agricultural practices emphasise maximising crop yields, farm incomes and global competitiveness. The single-minded pursuit of such goals has remade our land and farms into monocultures. Success means ensuring a single crop accesses all the nutrients and everything else is killed as pests or weeds. This means competing with and controlling nature, which, in contrast, survives (and thrives) on the principles of biodiversity. This has led to increasing doses of chemical fertilisers and pesticides, causing widespread soil degradation. The extent of degraded land in India is 12 crore hectares or about 38 percent of our total geographical area. While modern science and technology have made monoculture farms possible, it is the economics of modern supplychains that has accelerated their growth. For example, crop varieties of wheat (and later rice), highly responsive to chemical fertilisers and water, along with the advent of mechanisation and agrochemicals, made wheat and paddy monoculture farms possible in the 1960s. But the Green Revolution did not take off until the Indian government provided in put subsidies and set up the MSP-based procurement regime for these two crops. Similarly, it is the economics of soybean meal as cattle-feed that has driven the growth of soybean monoculture farms around the world while the demand for sweeteners and biofuels made from corn and sugarcane have promoted their fast growth. Unfortunately, the scientific paradigm of single-crop productivity has promoted an agricultural system with ecologically unsustainable cropping patterns. It has contributed significantly to climate emissions, and threatened farmer livelihoods and the natural resource base they depend upon. Moreover, it has also distorted our food consumption patterns,



replacing nutritious millets with polished rice and wheat and negatively affected our nutritional security.

DON'T CLOSE THE DOOR

From not engaging with stakeholders at the time of drafting or allowing debate in Parliament during passage, to now conceding to farmers' demands short of repeal, the Narendra Modi government has done a virtual 180 on its three agricultural reform laws. It has agreed to permit state governments to impose the cesses/fee charged in APMC (agricultural produce market committee) mandis also on trades happening outside their boundaries. The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act not only provided for sale and purchase of agri-commodities in private mandis, direct collection centres, electronic platforms and other alternative markets, but also exempted such transactions from any APMC imposts. This was only fair: How could buyers and sellers be made to pay for not even

using the infrastructure of the state-regulated markets? By proposing that states can extend the levies applicable in APMC mandis to the new alternative markets, the Modi government has shown willingness to strike down a key provision (Section 6) of its law. There are other concessions, too, on offer. They include giving farmers the option to approach regular courts in the event of disputes arising from transactions (the current resolution mechanism is limited to sub-divisional and district-level authorities) and registration of traders in non-APMC markets by state governments (the existing law requires them to simply have a permanent account number). But these, unlike removing Section 6, don't tantamount to a fundamental rewriting of the Act. The amendments required in their case could well have been introduced during informed discussions in Parliament, which did not take place due to the government's intransigence. The fact that the same government isn't today averse to effectively rendering redundant a progressive legislation, which dismantles the monopoly of APMCs and opens up new marketing avenues for crops, is a measure of how much it has had to bend to farmer pressure. Unfortunately, the farmer unions have not just rejected the Modi government's proposals — extending to a not-legally-binding "written assurance" on continuance of the present minimum support price-based procurement system— but are demanding a total roll back of all the three laws. This, despite the other two Acts (which significantly do away with stockholding restrictions on agri-produce and enable contract cultivation) having no provisions that can be termed anti-farmer. Farmers, if anything, benefit from traders being able to buy and stock without limit, just as a legal framework for contract contraction (which is anyway voluntary) is only in their interest. The unions have already won a moral victory by forcing the government to negotiate on their terms. They have also, perhaps, gained public sympathy through their dignified and non-violent conduct even in the face of insinuation. All the more reason why they should not close the door on negotiation by insisting on "repeal or nothing".

WHO ARE THE FARMERS FROM PUNJAB AND HARYANA FIGHTING LEGAL BATTLE FOR LAND IN KUTCH?

A group of farmers in Kutch, who are originally from Punjab and Haryana and have settled here, are embroiled in a legal battle with the Gujarat government over their agricultural land. The dispute dates back to 2010 when many farmers were told that records of their land were being frozen as they were not natives of Gujarat. Prime Minister Narendra Modi was the state chief minister then. PM



Modi interacted with farmers in Kutch, including those from Punjab, during his visit to the border district to lay the foundation stones of several projects.

Who are the farmers fighting a legal battle for land in Kutch?

A group of around 60 farmers from Kutch have been fighting a legal battle for the past decade to retain their agricultural land. These farmers are mostly natives of Punjab and Haryana, who either purchased land or received it through government allotment. However, underlining that since they were not native Gujaratis, the state government has frozen records of land belonging to them and around 700 other farmers in Kutch. Of the total 784 farmers whose land records have been frozen, 245 are from Punjab and Haryana. The rest are from Rajasthan, Gujarat and Maharashtra. A majority of them are Sikhs.

How did they happen to come to Kutch?

During the 1965 India-Pakistan war, the Pakistan army had managed to enter Kutch. After the war, however, then Prime Minister Lal Bahadur Shastri proposed to populate border areas in the district to make the border more secure. Government incentivised settlements in Kutch by allotting people land and handing out cash doles to help them purchase bullocks, etc. In response, a sizable number of families from Punjab, Haryana, Rajasthan and Maharashtra came to Kutch. The state government allotted land to a total of 550 individuals between 1965 and 1984. Of them, 390 were Sikhs, some of them having come to Punjab after the Partition. They started exploiting groundwater to irrigate their crops in Kutch and brought about a revolution in agriculture in this semi-arid district. Relatives and friends of these early migrants followed as land in Kutch is abundant (Kutch is spread over 45,000 square kilometres and thus accounts for 23 per cent of total geographical area of Gujarat) and comparatively cheap.

What did Gujarat government do in 2010?

On October 22, 2010, Kutch collector served notices on 784 farmers, informing them that records of their land were being frozen since they were ineligible to hold land in Gujarat because they were not natives of Gujarat. The government cited a circular of year 1973 which declared that only native Gujaratis can purchase agricultural land in the state. Freezing of records of their land meant that the owners of such land couldn't sell it nor could they transfer it in the name of their heirs through mutation entries. Also, Forms 7-12 and 8-A of records of such land came with riders, making their owners ineligible to avail of bank loan, etc. In short, the freezing meant third party interest in the land couldn't be created. The 784 land accounts included those who had been allotted land by the government. Land records of 52 farmers who could prove it through documents that they legally held land allotted by the government were de-frozen later on.

Where does the legal fight stand now?

After courts of revenue authorities, the matter reached the Gujarat High Court (HC). In July 2011, a single judge bench of the HC ruled in favour of the state government but the farmers challenged that verdict before a larger bench of the court. In June 2012, the larger bench of the HC ruled in favour of the farmer. Therefore, the state government approached the Supreme Court in 2012 with a special leave petition praying no third party interest should be created in the land in question. The SC granted that prayer. However, the government's petition challenging the Gujarat HC ruling is still pending.



WHAT IS JHARKHAND'S CROP RELIEF SCHEME THAT WILL REPLACE PM INSURANCE SCHEME

Jharkhand is set to replace the Prime Minister's insurance scheme for farmers with its own crop relief scheme. To be launched on December 29, the scheme will take three months to come into effect.

What is Jharkhand's Kisan Fasal Rahat Yojana?

It is a compensation scheme aimed at providing security cover to Jharkhand farmers in case of crop damage due to natural calamity. *It will cover both land owning and landless farmers.* The Department of Agriculture, Animal Husbandry and Co-operative will be the implementing agency and it will work in association with a project management unit, which will be a consultancy firm that will take care of technical requirements. "Food safety, crop diversification, rapid development in agriculture and paving the way for competition," are among the aims of the scheme. *It is not an insurance scheme where premiums are paid.*

How many farmers does Jharkhand have? How is the rainfall situation here?

There are around 38 lakh farmers cultivating 38 lakh hectares of land in Jharkhand. Government says that among them around 25 lakh farmers are small or marginal landholders. This year, adequate rainfall occurred in Jharkhand, however, in the last three years (2017-19), the average rainfall in the monsoon season was much less and stood at 13%, -27.8%, -20.9%' respectively. *Irregular monsoon has affected the Kharif sowing season and as Jharkhand is mostly a single crop (paddy) state, the scheme will primarily target this group of farmers.* Also, drought has been a concern in the state: In 2018, 129 blocks were drought-affected while in 2019 the number was 107.

Why does the government want to replace the PM insurance scheme?

Every year a large amount is paid as premium to the insurance companies. Jharkhand paid a total of Rs 512.55 crore in the last three years while the compensation claim settlement was only Rs 82.86 crore, which was only 16 per cent of the total premium. The number of farmers benefited as compared to the actual cover is also hugely disproportionate. In the last three years, out of a total of 33.79 lakh registered farmers, only 2.25 lakh farmers have benefited from the scheme. *The Jharkhand government says that since the state pays half the insurance premium, it would rather use that amount for direct compensation.*

How will the state assess crop damage, and what will be the compensation?

Crop damage will be assessed through a 'ground truthing' process, which will be a combination of sample observations. In the case of post-harvest damage, assessment will be done on the basis of sighting. Various coordination committees will be constituted at various levels. The role of the gram sabha is important in the initial reporting of crop damage received from the farmers. Floods, hurricanes, tornadoes, volcanic eruptions, earthquakes, tsunamis, hurricanes and other geological processes fall under the category of natural calamities—risks which will be covered under the scheme. *Damage due to wild animal attack, preventable risks such as unscientific farming by farmers will not be considered under the scheme.* A payout matrix has been developed: from 0.1- 5 acre of



land ranging from Rs 3000 to Rs 3500 per acre compensation depending upon the loss. More details are awaited on this.

What does a farmer need to do to avail the scheme?

A farmer will need to submit their Aadhaar number or “submit proof of their nomination for Aadhaar”. *Eligible farmers will be registered only through the online portal.* Sources in the government said they will train various volunteers as well as multiple customer service point operators, which act as a mini bank in rural areas, to help farmers register themselves. The farmers will need to enter on the portal their holding land, name of crop to be sown, area of crop to be sown, Aadhaar number, bank account number, self-declaration etc verified by the gram sabha. After registration, a code will be sent to the registered mobile number of the farmer. This will be a challenge as most of the farmers are facing technological barriers during registration as evident during the current Kharif procurement season in Jharkhand. The officers, however, say monitoring will be key to implementation.

WHAT IS JHARKHAND’S FARM LOAN WAIVER SCHEME, AND WHO IS ELIGIBLE?

The Jharkhand cabinet Wednesday approved a farm loan waiver scheme with a total budget of Rs 2,000 crore. What is the scheme and who is eligible? How will it be implemented? We explain:

Jharkhand farm loan waiver scheme: What is it, who is eligible?

The loan waiver scheme will give relief to 7.83 lakh farmers in the state. In addition to this, Rs 50,000 will be waived for 1.24 lakh farmers. For each farmer, the capping is at Rs 50,000. The amount will be paid by the government to their respective banks. Both landowners and landless farmers will be eligible. The farmer should have repaid instalment at least once during the repayment period.

BIHAR PROCUREMENT AT SNAIL’S PACE, FARMERS FORCED TO SELL PADDY MUCH BELOW MSP

Bihar, who have harvested their paddy crop this season, have no option but to sell their produce at rates much below the Minimum Support Price of ₹1,868 per quintal in open market, largely because of delayed and slow procurement by the state government’s nodal procurement agency, Primary Agriculture Credit Society (PACS). Although the official date to start the paddy procurement process is November 15, this year it started only a week ago in nine of the 32 districts. So far, 793 MT paddy has been procured – against the target of 30 lakh MT – said officials involved in the procurement process. According to official estimates, more than 80 percent of farmers in the state have already harvested their paddy crop. *On an average, the state grows around 1.60 crore MT paddy every year, out of which the government procures around 30 lakh MT paddy. In 2019-20, however, it procured a little over 20 lakh MT paddy from over 27 lakh farmers.* Several farmers told The Sunday Express that *they had to sell their paddy for ₹800- ₹1,200 per quintal in open market, although the MSP is ₹1,868 per quintal, as the procurement process is yet to begin in their areas.* R R Roy, of Pipra village in Banka, said, “My paddy is ready but there is no place to preserve it and wait for the PACS procurement to get underway. Local traders have been exploiting farmers by giving much less price than MSP.” *A farmer from Dinara accused the PACS of delaying the procurement process deliberately so that most farmers sell out their paddy.* Ramesh C



Choubey, chairman of Bihar State Cooperative Bank, which assists the PACS to procure paddy in the form of loans, said, "It is true that paddy procurement should ideally start from November 15 but there are moisture issues."

SIGNIFICANCE AND HISTORY OF KISAN DIWAS OR NATIONAL FARMERS' DAY

National Farmers' Day, or Kisan Diwas, is celebrated across the country on December 23 to honour India's farmers and mark the birth anniversary of the nation's fifth prime minister, Choudhary Charan Singh. This year, Kisan Diwas takes place against the backdrop of intensifying farmers' protests on the borders of the national capital. Lakhs of farmers from across India have joined the movement — now entering its second month — against the BJP-led government's controversial farm laws.

But, why is December 23 celebrated as National Farmers' Day?

In 2001, the government decided to recognise Choudhary Charan Singh's contribution to the agriculture sector and welfare of farmers by celebrating his birth anniversary as Kisan Diwas. Since then, December 23 has been observed as National Farmers' Day. Generally, awareness campaigns and drives are organised across the country to educate people on the role of farmers and their contribution to the economy.

Who was Chaudhary Charan Singh and what was his connection with farmers?

Chaudhary Charan Singh, who briefly served as prime minister between 1979 and 1980, is widely regarded as one of the country's most famous peasant leaders. He was known for his pioneering work to promote the welfare of farmers and the agricultural sector. Charan Singh was no stranger to the struggles faced by the Indian farmer. *He was born in to a middle-class peasant family in Uttar Pradesh on December 23, 1902. Greatly influenced by the teachings of Mahatma Gandhi, he took an active part in the fight for independence. After that, his political career largely focused on socialism in rural India. Charan Singh served twice as chief minister of India's biggest agrarian state, Uttar Pradesh, where he played a major role in shaping land reforms. He was behind several major farmer-forward Bills, including the Land Utilisation Bill of 1939 and the Debt Redemption Bill in 1939. While serving as agriculture minister in 1952, he led UP in its efforts to abolish the zamindari system. In fact, he went on to draft the UP Zamindari and Land Reforms Bill himself.* On 23 December, 1978, he founded the Kisan Trust — a non-political, non-profit making body — with the aim of educating India's rural masses against injustice, and fostering solidarity among them.

IN CRITICISM & LAWSUIT, DEBATE OVER CODING FOR KIDS

Mumbai-based White Hat Jr has been in the news for the past several months over allegedly stifling free speech and misleading customers. In addition, the startup —which was acquired by education tech company Byju's earlier this year for \$300 million—has found itself in the centre of a debate on the right age for children to start learning to code.

Why is learning to code a big deal?

At the turn of this century, when extremely affordable computers made their way into technical and engineering colleges across the country, India was able to produce a huge army of coders and programmers — essentially people who could create computer software. As computing devices



have taken over every aspect of life, the need for good programmers and coders has been increasing relentlessly—and calls to teach coding and programming to young students have got louder. In recent years, platforms and companies have started to claim that kids as young as those in elementary school must begin to learn coding.

And how did the call to start teaching code to children in elementary school come about?

Since the advent of computers and the arrival of computer coding as the next big thing, leaders of technology companies around the world have pushed for coding to be included as a subject in middle or higher secondary school for students who may be interested to learn. In 2018, Microsoft co-founder Bill Gates wrote in a blog post that everyone could benefit from learning the basics of computer science. According to Gates, coding, which he taught himself and fell in love with at the age of 13, led him to ask questions about how to achieve tasks, and find answers to questions. “The questions it teaches you to ask—How do you accomplish a task? Can you find a pattern? What data do you need?—are useful no matter where you go in life,” Gates wrote. Leaders of several other tech companies agreed. The idea, most said, was to make coding as simple and accessible as the “mother tongue” for young children. Gates subsequently named online classes such as Khan Academy and Code.org, which he said helped to break down the complexities of coding into simpler ideas.

What do the critics of code-learning at an early age say?

The primary contention against learning to code at a very young age is that some age groups, which are being targeted by platforms, are being pushed into it even before they have mastered the mathematical and technological fundamentals. A metaphor that is often used is that children are being made to ride a bicycle before they have even learnt to walk. Software engineer Pradeep Poonia, 30, a vocal critic who has become a prominent voice in the debate, says: “There’s a reason why in mathematics addition is taught first, then subtraction, then multiplication, and then division. It is necessary to learn several elements of mathematics and logical thinking before one can code. [What many of the online platforms are doing these days] is like someone teaching you to draw a car under the pretext of making you learn how to build a car.”

Who teaches code-learning in India?

Enthusiastic entrepreneurs introduced online education technology platforms along the lines of Khan Academy and Code.org in India. Though their introduction went relatively unnoticed initially, several questions have since been raised around the methods and marketing strategies adopted by many of these platforms. *One such platform, WhiteHat Jr especially, has been rocked by criticism—allegations against the company have included aggressive marketing bordering on unethical practices, harassment of teachers and young children, as well as of parents of kids enrolled in the online coding classes.* While White Hat Jr is the best known among platforms that teach coding to children, there are several others, including Coding Ninjas, Coding Blocks, Camp K12, Codementor, etc.

READING NFHS DATA: WHY FINDINGS OF THE LATEST ROUND ARE OF CONCERN

The Ministry of Health and Family Welfare (MoHFW) recently released the results from the first phase of the National Family Health Survey (NFHS). This is the fifth such survey and the first phase — for which data was collected in the second half of 2019 — covered 17 states and five Union



Territories. These include four states from the south (Andhra Pradesh, Karnataka, Kerala and Telangana), three from the west (Goa, Gujarat and Maharashtra), two from the east (Bihar and West Bengal), one from the north (Himachal Pradesh) and the rest from the Northeast (Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura).

What is NFHS?

NFHS is a large-scale nationwide survey of representative households. The data is collected over multiple rounds. The MoHFW has designated International Institute for Population Sciences in Mumbai as the nodal agency and the survey is a collaborative effort of IIPS; ORC Macro, Maryland (US); and the East-West Center, Hawaii (US). The survey is funded by the United States Agency for International Development (USAID) with supplementary support from UNICEF. This is the fifth NFHS and refers to the 2019-20 period. The first four referred to 1992-93, 1998-99, 2005-06 and 2015-16, respectively.

What data does it collect?

The initial factsheet for NFHS-5 provides state-wise data on 131 parameters. These parameters include questions such as how many households get drinking water, electricity and improved sanitation; what is sex ratio at birth, what are infant and child mortality metrics, what is the status of maternal and child health, how many have high blood sugar or high blood pressure etc. Each round of NFHS has also expanded the scope of inquiry. In the fifth iteration, for instance, there are new questions on preschool education, disability, access to a toilet facility, death registration, bathing practices during menstruation, and methods and reasons for abortion.

Why are NFHS results important?

The NFHS database is possibly the most important one because it not only feeds into the research needs and informs advocacy but also is central to both central and state-level policymaking. NFHS survey results also provide internationally comparable results. That's because the questions and the methodology is internationally valid. Thus, it places the results of say child malnutrition trends in Bihar in the global context.

What has NFHS-5 found?

Researchers and experts on health and welfare metrics have described the latest results as “shocking”, “alarming” and “very troublesome”. The graphs alongside show why. On several parameters, the number of states worsening over the last round — NFHS-4 (2015-16) — is not only high but often more than the number of states improving. What is most troubling is that on child malnutrition parameters — such as infant and child (under 5 years of age) mortality, child stunting (low height for one's age), child wasting (low weight for one's height) and proportion of underweight children — several states have either been stagnant or worsened. In other words, children born between 2014 and 2019 (that is, 0 to 5 years of age) are more malnourished than the previous generation.

The most important takeaway is that between 2015 and 2019, several Indian states have suffered a reversal on several child malnutrition parameters. In other words, instead of improving, several states have either seen child malnutrition increase or improve at a very slow rate. The second phase of the survey was disrupted by the Covid-19 pandemic; its results are expected to come out in May 2021. The second phase will cover some of the biggest states such as Uttar Pradesh, Madhya Pradesh,



Punjab and Jharkhand. Experts expect the second phase data on child malnutrition to be even worse, given the all-round adverse impact of Covid — be it personal incomes, food availability, healthcare provisioning etc.

Almost a similar pattern appears in the underweight category: Eleven states registered an increase in this metric. What's more, stunting has gone up in 10 out of 11 states where the number of underweight children surged. While it has declined marginally in four states, there is hardly any improvement in other two states.

In wasting, nine states witnessed an increase, whereas five states registered paltry or no progress in the last four years. Only three states, Karnataka, Meghalaya and Goa, registered a noteworthy decline in wasting. To put it differently, at least one aspect of child undernutrition has gone up in 14 out of 17 states.

Additionally, both stunting and underweight increased in eight states, whereas stunting and wasting increased in six states. In five states (Himachal Pradesh, Mizoram, Nagaland, Telangana and Tripura), all the three aspects of child undernutrition increased. To be sure, the above patterns in 17 states cannot be generalised for the entire country. However, it is equally important not to lose sight of the larger phenomenon of a possible reversal of the progress on child undernutrition, especially in stunting.

The reversal in the proportion of children who are stunted is the most worrisome because unlike wasting and being underweight (which can be due to short term reasons and represent acute malnutrition), stunting represents chronic malnutrition. Reversals in stunting are unheard of in growing economies with stable democracies. Of these 17 states, *stunting* in children under five years has gone up in 11 states to a varying degree, but significantly more in Tripura (8 percentage points), Goa and Telangana (5 percentage points) between 2015-16 and 2019-20. It remains almost the same in the three large states of Andhra Pradesh, Karnataka and Assam. Only three states (Sikkim, Manipur and Bihar) were an exception with a decline being observed. A disquieting revelation from the survey is that southern states have joined the league of poor performing states. Stunting has risen in Kerala and Telangana, followed by just a minor decline in Andhra Pradesh and Karnataka. Also worth mentioning is the persistence of a huge rural-urban disparity in stunting in many states, notably in Meghalaya, Andhra Pradesh, Gujarat and Sikkim (over 10 percentage points). A comparison with the results of the Comprehensive National Nutrition Survey (CNNS), held in 2016-18, reveals that 10 out of these 11 states had either a negative or subpar performance in stunting. The worsening of child stunting in these states, thus, appears to be a rather sustained phenomenon.

Another cause of concern is the fact that the first phase data is pre-pandemic and it is quite likely that the second phase — which will also incorporate Covid's impact — may throw up ever poorer results.

What is the significance of these results?

A definitive diagnosis demands a detailed, careful scrutiny of data, as a cursory look at some of the associated factors reveals a conflicting picture. For instance, access to sanitation and safe drinking water has improved significantly in states where stunting has increased. Conversely, anaemia among children has gone up sharply in most of these states. Also, maternal anaemia has either increased or remained the same. Equally important, the proportion of children (6-23 months) who



received an adequate diet remains low without a significant improvement. Two observations merit a mention. First, *NFHS-5 was carried out in these states at a time when India's economy was decelerating steadily, followed by reports of rising joblessness and food insecurity. The survey won't be able to clearly inform how and to what extent these factors have contributed to the worsening of child undernutrition.* Two, *the existing policy approach on food security in general and agriculture policy, in particular, which promotes a few crops at the expense of nutri-cereals, calls for a careful scrutiny, especially given the need to counter the high prevalence of anaemia.* This assumes centrality and immediacy at this point of time. The worsening of child undernutrition well before — and possibly after — COVID-19 is a grim reminder of the state of a critically important aspect of human development. This calls for immediate and decisive course correction, including a critical assessment of the reach and efficacy of the existing nutrition centric programmes. The dismal performance of southern states despite their robust welfare architecture makes this urgent. A complacent approach that assumes that all necessary measures, including the Poshan Abhiyan, are in place and the reversal in progress is only momentary will be a sure way to inflict a debilitating, irreversible impact on children's nutrition and their well-being.

Worsening child malnutrition, as well as rising levels of anaemia in women (especially pregnant ones), points to Indian children born in the past 5 years likely suffering from both cognitive and physical deficiencies. In January 2012, then Prime Minister Manmohan Singh had said that high child malnutrition level in India was “a national shame”. As it turns out, between NFHS-3 (2005-06) and NFHS-4 (2015-16), India registered its most significant reduction in child malnutrition, thanks to a flurry of interventions such nutrition missions, Integrated Child Development Services, the introduction of MGNREGA and expansion of Public Distribution System among others. The latest results show that health-wise, India has taken a turn for the worse since 2015 despite improvements in water availability and sanitation methods. Health outcomes such as child malnutrition data are the result of a complex set of reasons — ranging from the state of a family's income generation to environmental factors to government interventions. Experts say that only when the full set of raw unit-level data is available can a proper analysis of why India suffered such reversals over the past five years be done.

Bihar has shown a promising decline of 5.4 % points in stunting, but still retains the highest percentage of stunted children (42.9%) among big States.

There is also an increase in the prevalence of other indicators such as adult malnutrition measured by those having a Body Mass Index of less than 18.5kg/m² in many States/ UTs. What is also a matter of concern is that most States/UTs also see an increase in overweight/obesity prevalence among children and adults, once again drawing attention to the inadequacy of diets in India both in terms of quality and quantity.

Children are defined as stunted, underweight or wasted if their standardised height-for-age, weight-for-age or weight-for-height, respectively, is more than two standard deviations below the World Health Organization (WHO) Child Growth Standards (<https://bit.ly/3rd11A7>) median.

NFHS-5 also flags improvements in other factors that contribute to malnutrition and poor health outcomes — in access to sanitation and clean cooking fuels.

In indicators related to women's well-being (with variance across States), spousal violence declined in 17 of 22 States/UTs, child marriage declined in 18, and access to bank accounts rose



in all of them, compared to NFHS-4. But the persistence of poor anthropometric measures related to hunger and nutrition suggests that existing programmes to address them, such as POSHAN Abhiyaan, will need a push and focus to meet targets such as the 2%-point decrease in childhood stunting every year. More importantly, the complications arising out of the pandemic should make the Centre and States refocus on welfare delivery as a concerted strategy to eradicate hunger and extreme poverty. This is an imperative that would not just meet the UN's Sustainable Development Goal targets but will also ensure the well-being of citizens in a country that showed significant promise in combining economic growth and general welfare in the last couple of decades before encountering major reversals lately.

What these overall poor nutritional outcomes therefore also show is that a piecemeal approach addressing some aspects (that too inadequately) does not work. Direct interventions such as supplementary nutrition (of good quality including eggs, fruits, etc.), growth monitoring, and behaviour change communication through the ICDS and school meals must be strengthened and given more resources. Universal maternity entitlements and child care services to enable exclusive breastfeeding, appropriate infant and young child feeding as well as towards recognising women's unpaid work burdens have been on the agenda for long, but not much progress has been made on these. At the same time, the linkages between agriculture and nutrition both through what foods are produced and available as well as what kinds of livelihoods are generated in farming are also important. Overall, *one of the main messages is that the basic determinants of malnutrition – household food security, access to basic health services and equitable gender relations – cannot be ignored any longer.* An employment-centred growth strategy which includes universal provision of basic services for education, health, food and social security is imperative. There have been many indications in our country that business as usual is not sustainable anymore. It is hoped that the experience of the pandemic as well as the results of NFHS-5 serve as a wake-up call for serious rethinking of issues related to nutrition and accord these issues priority.

OVER 15% MEN CONSUME ALCOHOL IN DRY STATE OF BIHAR, SAYS NFHS

In November 2019, the Patna High Court pulled up the State government for clogging the courts with over two lakh cases related to the liquor ban. As many as 52 police officials in the State have been facing inquiries under the new law while, 36 of them have either been suspended or facing departmental and administrative inquiries. However, the latest NFHS-5 report said 15.5% people over 15 years of age in the State consumed alcohol while only 0.4% women did the same. Similarly, 48.8% men of similar age bracket use tobacco while, only 5.0% women consume it.

The report also said that nearly 77% women in Bihar have their own bank account and over 51% of them use mobile phones. So far, over 2 lakh people, mostly from poor marginalised class of society have been arrested under the new law and over 30 lakh litres of alcohol has been confiscated in the State.

Though more granular data is needed to parse the reasons for this unexpected setback, there have been several indicators of the slowing down of economic growth and employment distress, which are bound to have an effect on hunger and nutrition. *The 2017-18 NSSO report, for instance, showed a dip in consumption expenditure for the first time in decades, but the government eventually decided to withhold it.* But the problem of child malnourishment is a hard one precisely because it is tangled in several deep-rooted problems, and is not just a function of growth. The gender skew in



Indian societies, which leads to poor education, lack of reproductive choice and inadequate nutrition from childhood, perpetuates a vicious legacy of under-nutrition. In recent years, *the culture wars over non-vegetarian food habits have also led several states to knock off eggs — one of the cheapest sources of protein for children — off mid-day meal and anganwadi menus.*

MORE FEMALES PER 1,000 MALES IN ASSAM, REVEALS SURVEY REPORT

The sex ratio in Assam is now skewed in favour of females, the National Family Health Survey for the 2019-20 fiscal (NFHS-5) has revealed. On the flip said, more women were found to have been married before attaining adulthood compared to those surveyed during NFHS-4 covering the 2015-16 fiscal. A multinational agency had done the NFHS-5 fieldwork for the Ministry of Health and Family Welfare conducted from June 17 to December 21, 2019. The data showed Assam mostly ticked the right boxes with improvement in neonatal and infant mortality rates, birth and death registrations, maternity care, delivery care and child vaccination, access to electricity, sanitation, drinking water and clean fuel for cooking. The State recorded a jump in insurance coverage and children attending schools too. *According to NFHS-5, Assam saw 1,012 females born during 2019-2020 per 1,000 males. The sex ratio in 2015-16 was 993 females per a thousand males. But compared to the last survey, more women and men were found to have tied the knot before reaching the permissible age.* About 31.8% of the women who were surveyed said they married before they turned 18. The percentage of such women in 2015-16 was 30.8. Likewise, compared to 15% during the last survey, 21.8% of the men surveyed this time had married before they attained the age of 21 years.

Fertility rate dips

The total fertility rate, however, dipped from 2.2 children per woman in NFHS-4 to 1.9 in the latest survey. Female sterilisation also dropped from 9.5% to 9% between the two surveys while male sterilisation remained constant at 0.1%. The survey found more children aged 6-59 months were anaemic or with low haemoglobin count than five years ago.

EXCELLENCE IN DIVERSITY

The significant expansion of the IIT system since 2008, after reservation was extended to student candidates belonging to Other Backward Classes, has resulted in a vexed situation in which these *institutions are unable to find enough qualified faculty members, whose recruitment must also meet quota norms. Bound by the Central Educational Institutions (Reservation in Teachers' Cadre) Act, 2019, the IITs must fulfil the important goal of affirmative action while making appointments.* While the law is enabling, the benefit cannot be extended to many due to a severe mismatch between the demand and availability of technology research graduates. Last year, IIT Delhi had a staggering deficit of 30% in its teacher ranks, and there are 23 such institutes in India now, highlighting the scale of the crisis. It is in this context of large-scale vacancies that the Education Ministry tasked a committee to suggest effective implementation of reservation in central institutions such as the IITs, for both student enrolment and faculty recruitment. *The panel headed by IIT Delhi's director has come up with two options: to exempt IITs from quotas by including them in the schedule to the 2019 law, which is applicable to institutions of excellence, research institutions and institutions of national and strategic importance; and to provide reservation to specified grades of assistant professors, taking the institution as a whole. Where candidates are not available in the latter case,*



the posts can be de-reserved in the subsequent year. An early decision must now be taken by the government without sacrificing equity principles.

Diversity achieved through affirmative action such as compensatory discrimination in favour of some classes of citizens corrects historical distortions. For it to be fully realised, however, the concomitant is massive investments in the education system at all levels, which can raise the capability of students. It is now widely recognised that substituting traditional privilege with opportunity and the right facilities dispels the myth of innate merit. Such an approach ensures justice for those who were deprived. The Ministry's committee echoes this, when it recommends a government-sponsored preparatory programme at the IITs which can help candidates eligible for reservation to get acquainted with high quality academic work, and optionally prepare for a PhD if they aspire to be teachers. This is the imperative, considering that such graduates will help fill not just vacancies in the IITs, but also aid the large number of other technical education institutions that aspire to research excellence. Governments must aim for progressive redistribution, for which policy should actively expand equal opportunity, starting with a strong, liberal public school system. This will strengthen diversity, and lay the foundation for the kind of scholarship that institutions of excellence need.

IN STANFORD RANKING, HOPE FOR INDIAN SCIENCE

It would be quite relevant to recollect these words now: 'India is at the origin of everything; intellectually, religiously or politically where even the Greek heritage seems pale in comparison'. Ancient India has made contributions to several complex and present-day scientific achievements. But these words spell some hope as far as the apparent dip in the performance of Indian scientists in the contemporary world is concerned. If one is to look at a new report, by Stanford University, U.S. on the world ranking of scientists it paints a positive picture and shows there are definite signs of Indian scientists regaining lost ground.

A comprehensive database

Scientists at Stanford University, led by John Ioannidis, have created a database of 1,59,683 (top 2%) scientists of the world (<https://bit.ly/2JAQBzY>), based on standard indicators such as information on citations, h-Index, co-authorship and a composite indicator. This database has largely depended on the citation index provided by resource databases such as Scopus and Web of Science. It is based on the number of research papers published, the number of times the author has been cited and the h-index, which is a measure of the impact of an author's work and other people's research. There is no other database that systematically ranks all the scientists across the world with such accuracy and depth. From India, 1,594 Indians have made it to the list of top 2% scientists in the world. An appraisal of the report, which includes disciplines of science, technology, medicine and allied areas, shows certain significant trends. Scientists from government-supported institutions have shown supremacy in the disciplines of science and technology, whereas scientists from private institutions find more place in the disciplines of medicine and allied areas. An analysis of the report shows that there is an equitable distribution of scientists working in institutions in urban and rural areas. In certain disciplines, a large number of scientists have secured a place in the list, whereas in some disciplines, only one scientist could be included.



TRUST THE IIMS

The government doesn't seem to be able to keep its hands off the Indian Institutes of Management (IIMs). As this newspaper has reported, the ministry of education is considering a proposal that will empower it to initiate an inquiry against the board of governors (BOG) of any of the 20 IIMs, if it is found to violate the IIM Act. The heads of the institutes are alarmed, rightfully so, at this clear move to encroach on the autonomy guaranteed to the IIMs almost three years ago by the very same Act. *The most recent standoff between the government and the IIMs involves its one-year programme. The IIMs call it an MBA degree, as is the global norm in many business schools. But the mighty UGC rule book says only two-year programmes deserve that term.* This illustrates the kind of tussle over trivialities that bureaucratic systems expend energies on, almost by reflex. This tug-of-war has played out before. In 2015, the ministry under Smriti Irani was involved in a tussle with the Prime Minister's Office (PMO) on the matter of government role in the elite institutions. At the time, the PMO had pushed back against the ministry's plans to give itself sweeping powers over the IIMs, and underlined the need for autonomy on various fronts, from scrapping the President's role as "visitor" of the IIMs to the composition of the board and regulation of the fee structure. Thankfully, the PMO's views prevailed. In 2016, almost a year later and with a new minister, Prakash Javadekar, in charge, a new draft of the law gave wide powers to the IIMs, with an internal system of checks and balances. The current move threatens to undo that detente and slide back into central micromanagement for goals that remain extremely unclear. The PM has championed the autonomy of the IIMs, a system which has proved its mettle over and over again. The New Education Policy (NEP 2020), too, envisages greater freedom for institutions of higher learning. Neither of those objectives are met by this attempted change in law. Indeed, dangling the threat of an inquiry over IIM boards leaves little about the ministry's intentions to the imagination. It also depicts a suspicion of decentralisation characteristic of all Big Government, and signals its patronising certainty that only "sarkar knows best". It is precisely this attitude that, over decades and over several governments, has cramped the creativity of institutes of higher learning. Of all human endeavours, learning and knowledge, especially, are contingent on institutional freedoms. It is not something that should be granted as a favour by a patrician state to "deserving" B-schools of excellence, but promoted in all educational institutions. In this new flashpoint, the PMO must step in again and convince the ministry of education to trust the IIMs and back off from a pointless wrangle. As an IIM director told this newspaper, learn to trust the Board please, the government isn't the only responsible agency in the country.

WHY ARE NURSES AT AIIMS PROTESTING DESPITE COVID-19?

Around 5,000 AIIMS nurses have been on an indefinite strike since Monday afternoon in support of a number of demands, including lack of clarity of their salary structure under the Sixth Pay Commission. Despite requests from the administration to continue work in view of the Covid-19 situation, nurses have refused to relent.

What are their demands regarding the salary?

In a letter to the Director of AIIMS dated November 13, the nurses have cited 23 unresolved demands. Foremost among them is the demand to address the Sixth Pay Commission anomaly with respect to their salaries. Nurses said their salary was fixed at Rs 18,460 per month but they receive Rs 17,140. They said that their demand is not a pay hike, rather, that they be paid what is



mentioned under the Sixth Pay Commission. They had written to the administration last month, stating that they would go on an indefinite strike if the issues were not resolved soon.

What are their other demands?

The nurses are also protesting against the reservation on the basis of gender at AIIMS that requires 80 per cent of the nursing staff to be female. Nurses say the quota is leaving many qualified men unemployed. Their other demands are related to the pension scheme, cadre restructuring, qualification pay and modifications in job description, among others. The hospital has also decided to outsource nurses on *a contractual basis*, which has angered the nurses further. The nurses said that earlier candidates had to sit for an entrance test in order to get recruited. Recruiting nurses on a contractual basis, they say, will adversely impact the superior quality of healthcare provided by AIIMS.

What has the AIIMS director appealed to the nurses?

In a video message to the nursing union on Monday, AIIMS director Dr Randeep Guleria made an appeal to all the nurses to not go on strike during the pandemic. "The nurses union has put in 23 demands and almost all of the demands have been met by the AIIMS administration and by the government. There is one demand which they have insisted upon and this is basically a perceived anomaly in the fixation of the pay, as far as the 6th CPC is concerned. It, however, seems inappropriate that when the country is fighting a pandemic and we are fighting for our near and dear ones to save lives and we know that we need to work for few more months, and the vaccine may provide a solution, unfortunately, at this point of time the nurses union have gone on a strike," said Dr Guleria.

PANDEMIC LESSONS LEARNT, DATABASE ON MIGRANT LABOUR MAY BE READY BY JUNE

The Labour and Employment Ministry has sought help from other ministries to build a new database for migrant workers and others in the unorganised sector, which it hopes to operationalise by May-June next year. *The government will tap into existing databases of schemes such as Mahatma National Rural Employment Guarantee Scheme and One Nation, One Ration Card, along with data from Employees' State Insurance Corporation and Employees' Provident Fund Organisation, to create a unique registration for migrant workers. Since multiple databases will be used, a de-duplication exercise using Aadhaar data will be undertaken prior to registration for the new portal, which the National Informatics Centre (NIC) is developing.* Details of gig and platform workers and other unorganised sector workers will be separately added to this database. A comprehensive database for migrant and other unorganised sector workers is seen as necessary in the wake of the Covid-19 pandemic. The government had announced the creation of an online portal for migrant workers after large scale migration took place in the aftermath of the disease outbreak and lockdown. The government estimates about 20-25 crore unorganised workers will be added on the portal over the next four or five years, Chandra said. "There are around 8-10 crore workers registered under NREGA. About 10-15 lakh would be gig and platform workers. One Nation, One Ration card is a big database, around 30-35 crore people under it. But many would be common between NREGA and One Nation, One Ration. So those would be duplications. Even gig and platform workers might have worked earlier in organised sectors with EPF contributions and so, there could be duplication. So, the de-duplication process will take sometime," he said. *The*



common Aadhaar linked database will also be the first step towards initiating social security measures for unorganised sector workers.

INDIA'S 1ST LGBT+WORKPLACE EQUALITY INDEX LAUNCHED

The 'India Workplace Equality Index', touted as the country's first comprehensive benchmarking tool for employers to measure their progress on LGBT+ inclusion at the workplace, was launched with its first report virtually announcing winners from among 65 companies which shared data on their diversity and inclusion practices. The IWEI comes two years after the Supreme Court's landmark reading down of Section 377. Hotelier-activist Keshav Suri through his non-profit Keshav Suri Foundation, partnered with Pride Circle, Stonewall UK and FICCI, to bring the IWEI to India Inc. The index measures nine areas: policies and benefits, employee lifecycle, employee network group, allies and role models, senior leadership, monitoring, procurement, community engagement and additional work. Twenty-one firms won under the gold category, while 18 were placed under silver and 13 got bronze.

NEW SOFTWARE AND MAHARASHTRA FIGHT AGAINST CHILD PORN

The cyber wing of Maharashtra Police has recently acquired a software from Interpol that would help them track child pornography online. Twelve Maharashtra Police officers who are part of a cell that specialises in fighting child pornography, received training from the South Asia wing of Interpol.

The new software

The software employs tools that detect nudity in images and recognise age through facial structures. Built-in algorithms look for keywords that would help law enforcement agencies track forums involved in such crimes. The software, a "crawler", scans the Internet for such images, videos, and text. *Any target media, if identified, is added to a database that is investigated by officers.* Once content is identified as child pornography, *the software automatically detects its presence on other portals, and takes it down.*

Software in India

Interpol have provided the software to Maharashtra, and earlier this year, 12 officers of Maharashtra Police's cyber wing were trained by Interpol officers in its use. Officers from Kerala too were to undergo training last year after several such media were found to have been uploaded from the state. The 12 officers who were trained by the South Asian wing of Interpol form the core of the Tactical Response Against Cyber Child Exploitation (TRACE) Unit. Those officers last week trained a batch of 270 policemen across the state in the use of the software.

WHY HAVE WOMEN'S RIGHTS ACTIVISTS CRITICISED MAHARASHTRA'S PROPOSED LAWS AGAINST SEXUAL OFFENCES?

Two bills cleared by the Maharashtra Cabinet last week are expected to be tabled in the Legislative Assembly during the two-day Winter Session that began on Monday (December 14). But the Bills — The Maharashtra Shakti Bill, 2020, and The Special Court and Machinery for Implementation of Maharashtra Shakti Criminal Law, 2020 — that enhance punishment for violence against



women and children, and include the death penalty for some offences, have been criticised by prominent women's rights advocates for being "draconian" and "anti-women".

Who are the individuals and groups opposing the two Bills?

The letter sent to Maharashtra Chief Minister Uddhav Thackeray opposing the two Bills has 92 signatories including women and child rights groups, lawyers, activists, academics and LGBTQ+ rights activists. Signatories include senior advocate Indira Jaising, lawyers Veena Gowda and Susan Abraham, lawyer and child rights activist Mahrukh Adenwalla, activist Ulka Mahajan, law professor Dr Asha Bajpai, and faculty members from Tata Institute of Social Sciences (TISS). Members of organisations such as the Mumbai-based queer feminist LGBT collective LABIA, Akhil Bharatiya Janwadi Mahila Sangathana, women's rights forum Awaaz-e-Niswan, and Forum Against Oppression of Women, are among the signatories.

What are their objections?

In their letter to Thackeray, the signatories have said that the two Bills — framed on the lines of The Andhra Pradesh Disha Act, 2019 — should have been discussed with lawyers, activists, and academics working on women's issues before they were passed by the state Cabinet. An amendment has been proposed to Section 375 (rape) of the IPC, to add an "explanation" that says that in cases where parties are adults and their conduct suggest there was "consent or implied consent", a presumption of consent will be made. This, the activists say, "feeds into the patriarchal construct of consent and conduct of women". Consensual sexual intercourse is very often used as defence by accused in cases of rape — and with such an explanation inserted into the law, proving rape will be impossible, they say. Again, Section 12 of The Special Courts and Machinery for the Implementation of Shakti Act, 2020, proposes punishment in cases of false complaints and acts of providing false information regarding sexual and other offences against women with the intention to humiliate, extort and defame. The only other law which has a similar provision is the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal Act), 2013. The provision only points to the patriarchal conception that women are manipulative liars and unworthy of being trusted. Even as most laws are indeed susceptible to misuse by individuals and authorities, no other legislation has such a provision. *Offences against women often occur behind closed doors or at desolate places, making finding eyewitnesses difficult. Investigation and prosecution are often shabby and negligent. This results in unfair acquittals, and the victims, in turn, may be accused of having filed false complaints. A provision for punishing false complaints would result in counter cases being filed against victims, and may thus dissuade many victims of sexual assault and acid attacks from filing complaints, thereby muffling women's voices.* In a country where courts have directed women to marry their abuser, the possibility of a counter case would only make it more difficult for a woman to say 'No' to such a proposition.

This, according to the signatories, "perpetuates the patriarchal notions of viewing women with suspicion, as unworthy of being believed" — and will deter victims from reporting sexual offences. The signatories have said that existing laws cover offences like intimidation of women through electronic media or punishment for public servants who fail to assist investigation. But these, they have said, are nugatory, and effective only in making a political statement.



But why is there opposition to speedy delivery of justice — 15 days for investigation and one month for trial — as has been proposed?

According to those opposed to the two Bills, this time-frame will not be sufficient for gathering all evidence — and will become an excuse for police to not conduct a proper investigation. Also, a hurried investigation and trial, they said, is likely to lead to miscarriage of justice. “Neither the police nor the Courts have the infrastructure to comply with these time frames and the same will only result in unfair trials and more acquittals,” they have written. Further, the Bill does not state what happens if the investigation, trial, or appeal is not completed within the prescribed time. In the current system, police officers are saddled with a large number of cases at the same time. There are not enough prosecutors at trial courts and in high courts; most of them are assigned three-four courts at a time and they prosecute hundreds of cases simultaneously. Unless these systemic problems are solved, new laws will only be a facade.

And what is the argument to oppose the hanging of perpetrators of sexual offences against women?

The other aspect of the Bill is the introduction of the death penalty for rape, acid attacks, and for rape of a minor. The amendment to the relevant sections adds that in cases where *“the characteristic of the offence is heinous in nature and where adequate conclusive evidence is there and the circumstances warrant exemplary punishment”, the offence shall be punishable with death. However, it does not define what cases would qualify as being “heinous in nature”,* thus leaving it open to the interpretation of courts. To date, courts have held cases of varying standards to be “heinous” and there is no uniform benchmark to identify what circumstances make an offence “heinous”. Further, the death penalty has been in the statute books for a long time, but there is no evidence affirming its potency as a deterrent in preventing crimes. *It is time legislators realise that death penalty is not the absolute answer to the issue of rape — only the certainty that there will be effective investigation, trial, and therefore punishment, can act as an effective deterrent.* Contrary to the State’s understanding, the death penalty will only mean that an accused may not stop at just rape and *may murder the victim to get rid of the only witness*, as the punishment for both will be the same. Importantly, studies have shown that often, the accused in sexual assault crimes are relatives or persons known to the victims. *If the punishment for the crime is death, then not only the family of the victim, but the victim herself may choose not to report the crime or may turn hostile during the trial. Research has also indicated that judges are unlikely to convict a person when the punishment is death.* This sends a “wrong and lethal message” to rape survivors, the signatories have said. *“The message it sends is that after an incident like rape her life is as good as over; she is as good as dead,”* they have written. They have also stressed that women and child rights activists and scholars have repeatedly stated that the death penalty reduces both the reporting of sexual offences and of conviction rates.

Lastly, the proposed amendments seem to have been recommended without considering similar, already-existing provisions in the criminal laws. For instance, the Bill seeks to introduce Section 354E (Harassment of Women by any mode of communication) into the IPC, aiming to punish intimidation of women through social media and electronic platforms. Similar provisions exist under the IPC and the Information Technology Act, 2000, which comprehensively cover all the offences mentioned under the new section. Similarly, the provision to punish public servants for failing to assist in investigation or perform their assigned duties is also sufficiently covered under the IPC, in terms of contravention of law or disobedience of orders and duties. Hence, in effect, these proposed amendments are of little significance. It would be more pragmatic if the



government focused on improving the implementation of existing laws and infrastructure. The Bill was opposed by several women's rights organisations and lawyers from Maharashtra, which seems to have led the State government to refer it to a joint select committee. This is a welcome move and it would be in the interest of women, and justice itself, if the committee has a larger consultative process, engages with stakeholders and experts to understand the existing criminal laws, and reconsiders passing this regressive legislation.

ONLY ORGANIC FARMING ALLOWED IN LAKSHADWEEP

With the entire Lakshadweep group of islands being declared an organic agricultural area, the island administration is eyeing an expansion of the traditional business in coconuts and coconut products through value addition, better marketing, and round-the-year processing. Around 10 crore coconuts are produced on the island in 12,000 small holdings with an average size of 0.25 hectares, sources in the island administration say. The total acreage under coconuts is around 2,800 hectares. The nuts are processed now mostly for oil and the islands being declared an organic agricultural area will give a big boost to their business, sources add. At the same time, there is tremendous scope for expanding the business. At present, only about 3 crore nuts are processed on the island and there is an excess of around 7 crore nuts, which are mostly sold in mainland India.

Idle for six months

The coconut processing industry also works only for about six months a year when the weather is dry. The period between May and December sees the industry come to a standstill. When the industry idles, coconuts are lost. Keeping this in view, the island administration plans to introduce dryers and other machinery to utilise the nuts even during the wet months, sources add. The move is expected to increase coconut utilisation from the present level of around 50% to more than 70%. The business in coconuts and coconut products is worth around ₹75 crore a year now. The volume of business can easily go up to about ₹200 crore with measures like the ones being contemplated, sources add. The island's coconut farmers are also expected to benefit from the Union government's 'One District One Product' programme of food processing, in which the entire island is being considered as a single district and coconut oil has been identified as the product. Financial support for the programme will help augment the coconut industry on the island, sources add.

Common brand name

One of the key areas of attention is marketing. The restrictions on access from other parts of India prevents buyers from reaching the islands to make direct procurements. Taking this into consideration, the island administration plans to help the farmers market their products under a common brand name through an entity chosen by the administration. Ensuring the quality of the raw material through the declaration of the islands as an organic agricultural area and augmented processing facilities with value addition and marketing support will go a long way in giving a boost to the business, island administration sources say.



AFTER DEATH OF A GAUR IN PUNE CITY MELEE, LESSONS TO BE LEARNT ON HOW TO AVOID SUCH TRAGIC INCIDENTS

A male Gaur, also known as Indian Bison, aged between three to four years, was spotted in the residential area of Mahatma Society in Kothrud area of Pune on Wednesday morning. Forest Department officials were informed by local residents and subsequently police, Municipal Corporation and Fire Brigade personnel rushed to the area. After initial attempts by Forest department staff to tranquilise it, the Gaur ran towards an adjacent locality, where it had to face an unruly crowd, which, according to forest officials, added to its panic. After running in panic for over 3 km, the animal was tranquilised with a dart and captured. But it died after being taken to a transit treatment centre. Primary report of post-mortem suggests that the animal suffered from respiratory insufficiency leading to cardiovascular failure, shock and death, possibly due to exhaustion and stress. Officials said the Gaur could have ventured into the city from the adjoining forest areas of Mulshi and Tamhini. Officials said that on rare occasions in the past, Gaurs have travelled long distances from forests in Mahabaleshwar in Satara via connecting corridors to enter forest areas adjoining Pune city.

Human-Gaur conflicts in Maharashtra

The Indian Bison, mainly found in South and Southeast Asia, has been listed as 'vulnerable' since 1986 on the Red List of the International Union for Conservation of Nature. In India, the Gaur is mainly found in Western Ghats, the forests of central India and forest patches in the the Northeast. In Maharashtra, a Gaur is found mainly in Sahyadri ranges and also in forest areas adjoining Madhya Pradesh. Maharashtra's Principal Chief Conservator of Forests (Wildlife), Nitin Kakodkar, said, "In terms of human-Gaur conflict, incidents like the one in Pune are extremely rare. But yes, there are conflict situations in agricultural patches like sugarcane fields. Gaurs are by nature shy and avoid confrontation, unless provoked. Cases of human casualties have been reported but are rare. There have been three human deaths in human-Gaur conflicts since 2018 in Maharashtra, one in 2018 and two in 2020. All of them have taken place in forest areas in Kolhapur region, where there is a significant population of the animal. But cases of crop damage by the Gaurs are common and often reported from places adjoining forest areas where Gaurs are present. There is a mechanism to give compensation to farmers after crop damage by wild animals like elephants, chital, sambar deer or blackbuck, and a similar mechanism exists for crop damage by Gaurs." Forest department officials said that the current compensation rates have been carried forward since 2015 and a proposal to revise and increase these compensation amounts is under consideration. Instances of human-Gaur conflicts, which resulted in human casualties, have been reported in larger numbers from southern Indian states of the Western Ghat region, and also from central and northeast India. There are various reasons for the rise in these conflicts over the years, including receding forest covers and expanding human habitations, frequent forest fires, changing crop patterns, vanishing grazing lands, shortage of water etc. When conflict situations arise, panic and curiosity among people hinder mitigation efforts.

While such conflicts in urban areas are rare, it is important that we are prepared for them to make sure that situations in both urban and rural settings are resolved in the best possible manner. For example, having uniform jackets for all those involved in the rescue operation, having a public address system etc could have helped a lot.



ASSAM ELECTRIC FENCES TAKE TOLL, PREGNANT ELEPHANT LATEST CASUALTY

Electric fences put up by villagers to protect their crops and homes from wandering pachyderms claimed three more elephants in Assam's Chirang district this month, with the last one on Wednesday. Officials said the one killed was pregnant. This takes the number of elephants killed in similar incidents since August in the vicinity of the Manas National Park, amid a growing human-elephant conflict, to six. "At least five elephants have been electrocuted in Chirang alone since August. Villagers steal power to electrify their fences to prevent elephants from destroying their paddy fields," said Gautam Talukdar, Deputy Commissioner, Chirang district. Data shared by the Assam Forest Department show that the state saw 113 elephant deaths due to electrocution between 2009 and September 25, 2020, with several more casualties reported since. Chirang Divisional Forest Officer (DFO) Brahmananda Patiri said seven people had been held for the five elephant deaths in the district.

"The villagers harbour resentment because they are not compensated (by the government) for the damage to their crops and properties for years," he said. "So they take matters into their own hands, build these live wire fences." The DFO said fences also end up hurting elephants, pigs, wild boars as well as deer. Dr Bhaskar Choudhry, wildlife veterinarian of the Wildlife Trust of India (WTI), said unchecked sagging power lines were often to blame too.

RANTHAMBORE CAMERA TRAPS FIND WIRE NOOSE AROUND TIGER'S NECK

A statewide alert against poaching has been issued after camera traps in and around the Ranthambore Tiger Reserve captured images of a tiger with a hunting snare-like wire noose coiled around its neck. State forest department officials said the tiger, T-108, was tranquilised and the wire removed on Saturday. The department has ordered an inquiry into the issue. "According to preliminary findings, it appears that it is a loose noose, probably set for animals like boars or nilgais outside the forest. But even if it was meant for other animals, it is still hunting, which is illegal. More details will emerge after the inquiry. We will inquire if there was any laxity in monitoring," said Banerjee. "A collaborative team of Tiger Watch and the forest department found the image, which is from near Devpura area, Phalodi. It seems to be a hunting snare, even if it may not be meant for tigers but for smaller animals. The government should ensure proper monitoring," said Dharmendra Khandal, conservation biologist, TigerWatch.

BUILDING BRIDGES IN THE FOREST, TO HELP WILDLIFE

Ramnagar forest division in Nainital district, Uttarakhand, recently built its first eco bridge for reptiles and smaller mammals.

Why eco-bridges matter Eco-ducts or eco-bridges aim to enhance wildlife connectivity that can be disrupted because of highways or logging. These include canopy bridges (usually for monkeys, squirrels and other arboreal species); concrete underpasses or overpass tunnels or viaducts (usually for larger animals); and amphibian tunnels or culverts. Usually these bridges are overlaid with planting from the area to give it a contiguous look with the landscape. A 2020 study by the Wildlife Institute of India (WII) noted that nearly 50,000 km of road projects have been identified for construction in India over the next five to six years, while many highways are being upgraded to four lanes. The National Tiger Conservation Authority, New Delhi, had identified three major sites that were cutting across animal corridors, including National Highway 37 through the



Kaziranga-Karbi Anglong landscape in Assam, and State Highway 33 through the Nagarhole Tiger Reserve in Karnataka. On the Kaladhungi-Nainital Highway, Chandra Sekhar Joshi, Ramnagar Divisional Forest Officer, supervised the building of the new 90-foot eco-bridge. "We found many road kills on this route, especially of reptiles such as the monitor lizard. The bridge is an awareness-building mechanism for this very congested tourist route," he said. "... The bridge was away to see how we can preserve the ecosystem necessary for reptiles that feed on insects, for snakes that feed on reptiles, and for eagles that feed on snakes."

CATTLE, BUFFALO MEAT RESIDUE FOUND IN INDUS VALLEY VESSELS

A new study has found the presence of animal products, including cattle and buffalo meat, in ceramic vessels dating back about 4,600 years at seven Indus Valley Civilisation sites in present-day Haryana and Uttar Pradesh. The study, which was published on Wednesday in the Journal of Archaeological Science and conducted as a part of the Two Rains project of the University of Cambridge and Banaras Hindu University, analysed the lipid residue in pottery found at the ancient sites. About 50-60% of domestic animal bones found at Indus Valley sites come from cattle/buffalo, the study said. "The high proportions of cattle bones may suggest a cultural preference for beef consumption across Indus populations, supplemented by the consumption of mutton/lamb," it said. The lead author of the study, Dr. Aksheyta Suryanarayan, said in a statement by the Cambridge University Department of Archaeology: "Our study of lipid residues in Indus pottery shows a dominance of animal products in vessels, such as the meat of non-ruminant animals like pigs, ruminant animals like cattle or buffalo and sheep or goat, as well as dairy products." She said the analysis of lipid residues involved extraction and identification of the fats and oils that were absorbed in the vessels. "Lipids are relatively less prone to degradation and have been discovered in pottery from archaeological contexts around the world. However, they have seen very limited investigation in ancient ceramics from South Asia," she said.

She added that the study was the first to look into the absorbed lipid residues in pottery from multiple sites, including Rakhigarhi, Farmana and Masudpur.

Speaking to The Hindu, she said that while cattle bones have been found in large numbers at Indus Valley sites, the study found little evidence of dairy products. However, she said there could be regional differences as a recent study of vessels in Gujarat had found evidence of dairy products.

HAMPI CHARIOT CAN'T BE TOUCHED

Tourists can no longer get too close to the iconic stone chariot in front of the Vijaya Vittala Temple at Hampi, a UNESCO World Heritage site. The architectural marvel, one of the most photographed monuments, has been cordoned off by a chain barricade by the Archaeological Survey of India (ASI). The ASI on Saturday put up the barricade to prevent people from touching or climbing the monument and causing damage to it in any way. P. Kalimuthu, Deputy Superintendent of ASI, Hampi, said the stone chariot was one of the most visited monuments in Hampi and needed extra protection. "Every tourist visiting the site photographs the sensitive monument and touches it. Some even climb it to take their photos with the monument. The protected monument is facing the risk of being damaged. Therefore, we had to put the barricade around it," Mr. Kalimuthu said. Tourists can, henceforth, see and photograph the monument from a distance, he added. He clarified that there were no proposals presently before the ASI to barricade more monuments at the heritage site. The proposal to install the barricade was in the pipeline for a long time now.



There was some opposition from civil society when the ASI came forward to implement it in February this year. *The chariot inside the temple complex is a shrine dedicated to Garuda, but the sculpture of Garuda is now missing. The Hampi chariot is one among the three famous stone chariots in India, the other two being in Konark, Odisha, and Mahabalipuram, Tamil Nadu.* The delicately carved chariot at Hampi, art historians say, reflects skill of temple architecture under the patronage of Vijayanagara rulers who reigned from 14th to 17th century CE.

WHAT DO WE KNOW ABOUT THE MYSTERY ILLNESS IN ELURU?

Over 550 people in Eluru town of Andhra Pradesh's West Godavari district have been suffering from convulsions, seizures, dizziness and nausea since last Saturday evening. The seizures last for 3 to 5 minutes followed usually by vomiting or loss of consciousness.

The All India Institute of Medical Sciences (AIIMS), New Delhi found traces of lead and nickel in blood samples of 25 victims out of the 45 samples sent by the state government. Public health experts and scientists from various agencies are awaiting detailed reports of analysis of blood and water samples but the *primary suspicion is on water contamination by heavy metals. Scientists suspect that pesticide or insecticide has seeped into drinking water sources.* The district administration and Eluru Municipal Corporation officials are also investigating if excessive use of bleaching powder and chlorine in sanitation programmes as part of Covid-19 prevention measures caused water contamination. Experts from National Institute of Nutrition (NIN), Hyderabad who collected water, blood, and food samples from Eluru say there are indications of lead contamination but can confirm this only after detailed test reports. *Eluru receives water through canals from both Godavari and Krishna rivers. The canals pass through agricultural fields where runoff laced with pesticides mixes with water in the canals. Many aspects of the mystery illness have baffled scientists. People who only use packaged drinking water have also fallen sick. There are many instances where only one or two persons in the family fell sick.* Over 70 per cent of Eluru town is affected. Even areas outside of Eluru Municipal Corporation to which it does not supply drinking water are also affected. While lead and pesticides continue to be concentrated upon, investigations pertaining to other pathogens, probable sources also being carried out.

CLEAR THE SMOKE

Till 1985, the recreational use of marijuana was not a criminal offence in India. The Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985, was brought in to fulfil India's international obligations as a signatory to Single Convention on Narcotic Drugs, Convention on Psychotropic Substances, and United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. Last week, India voted—along with a significant majority of member-states—at the UN Commission on Narcotic Drugs (CND) to remove cannabis and cannabis resin from the list of the most dangerous drugs. By doing so, the government has rightly signalled that the criminalisation of the recreational and medicinal use of cannabis must be done away with. It must now follow through with an amendment to the NDPS Act that reflects the spirit of its vote at the CND. The rationale for the legalisation of marijuana goes far beyond the legalities of India's international obligations. *Culturally, marijuana has been a part of India's religious and social fabric, used for medicinal purposes, in cuisines, at festivals and, of course, recreationally.* As recently as 2019, the 'Magnitude of Substance Use in India' report found that "about 2.8 percent of the population (3.1 crore individuals) reports having used any cannabis product within the previous year". That such a large number of people willingly admitted to using cannabis products in a government survey



should signal both the prevalence and acceptability of the substance. *Criminalising the use of such a widespread substance—one whose effects on mental and physical health have been proven to be far less harmful than legal stimulants like alcohol and tobacco—only serves to burden an overworked criminal justice system and, in many cases, gives undue powers to police agencies like the Narcotics Control Bureau.* The NCB's "crackdown" on celebrities in the wake of the Sushant Singh Rajput case has shown the high-handedness with which the NDPS Act can be wielded. As with alcohol and tobacco products, the use of cannabis must be regulated, taxed and monitored. Addiction, when it occurs, must be treated as and for what it is—a mental health issue. *The international conventions which forced the promulgation of the NDPS Act were, in many ways, an offshoot of the US's "war on drugs" which began in the 1960s. After decades of incarcerating its own people, a majority of Americans voted recently to legalise cannabis.* There is no need for the world's largest democracy to repeat the oldest democracy's mistakes.

WHAT IS SPECIAL ABOUT MALLANA CREAM, HIMACHAL'S UNIQUE CANNABIS PRODUCT?

The Narcotics Control Bureau in Mumbai Wednesday claimed to have seized the contraband 'Malana Cream' from a person linked to actor Sushant Singh Rajput's death. What is Malana Cream and why is it one of the most sought-after forms of hashish across the globe? We explain.

What is Malana Cream?

It is the charas or hash or hashish which comes from the Malana Valley in Kullu district of Himachal Pradesh. Charas, called bhang in Himachal, is the resin obtained from a species or strain of the cannabis plant (botanical classification of cannabis is disputed), which grows naturally in the valley and is also cultivated illegally. *The valley has a single village, Malana, and the hash resin produced there is generally more 'creamy', or clay-like, as compared to that produced in other parts of the state.*

What makes it unique?

The cannabis plant has a number of chemical compounds called cannabinoids, among which tetrahydrocannabinol (THC) is the primary psychoactive constituent which produces the high sensation. *Strains of the plant with low levels of THC are used for industrial and non-drug purposes such as making ropes, paper, textiles etc. Plants with a high level of another cannabinoid called CBD (cannabidiol) are used for medicinal purposes.* A high proportion of THC in the plant extract is required for recreational drug use and *Malana Cream is believed to be particularly rich in THC,* making it more potent. Resin extracted from the plant, generally by rubbing using hands, is also concentrated further to obtain the more potent hash oil. In addition, charas from Malana has a distinct set of terpenes, aromatic compounds associated with flavour and other characteristics. These characteristics are the result of unique climatic conditions of the valley.

How much is it worth?

According to the police, varieties of Malana Cream are generally sold anywhere between Rs 1,500 to Rs 8,000 per 10 grams in India depending upon the purity of the product and the place of sale. As the charas is smuggled to greater distances, the price rises. Once it is smuggled outside the country, the price skyrockets – it is one of the costliest forms of hash sold in cafes of Amsterdam for instance. Peddlers smuggling charas out of the valley generally use trekking routes in the mountains, which makes it harder to catch them.



How is it produced so widely if it is illegal?

Malana is a remote village which remained isolated from other habitations in the area for centuries and developed its own distinct culture. The nearest road is still four kilometres down the hill, and it was built in 2007 to facilitate a hydropower project. Before the road, residents had to trek a distance of 26 km over 12 to 15 hours to reach the market in the adjacent valley, according to village pradhan Bhagi Ram. A few decades ago, however, Malana emerged on the global map with the emergence of the counterculture movement in western countries, and started attracting users of psychedelic drugs from all parts of the world. *Charas was banned in India in 1986 under the NDPS Act, but the plant was considered an important crop in Kullu, used for a variety of other purposes such as making footwear.* With greater road connectivity, *Malana and its neighbouring Parvati Valley became notorious for 'drug tourism'*, with domestic as well as foreign tourists thronging to the area lured by the easy availability of drugs as well as picturesque treks. Security agencies sometimes have to trek for hours and even days to locate and burn the fields of cannabis or track down peddlers. Those involved in the lucrative trade move their fields further uphill or to remoter parts of the mountains when this happens. Also, *the plant grows naturally in the area, so it cannot be eliminated altogether. The illegality of cannabis has made it a contentious issue in Himachal, since it has a certain cultural acceptance in the state. A petition to allow non-narcotic use of the plant like in some other states is pending in the state high court, and several legislators are supportive of it.* In the last Assembly session, MLA Ramesh Chand Dhawala spoke at length about the medicinal and other benefits of hemp, and complained that the "police are bent on chasing and destroying this plant".

About Malana

Malana currently has a population of 2,350, and is located at an altitude of 2,650 metres above sea level. It has been "a self-contained democratic society for centuries", according to the Himachal government. *Besides the Malana cream, it also attracts visitors due to its age-old traditions, scenic beauty, popular treks, a distinct culture and myths and legends associated with the inhabitants.*

DECLARE EXOTIC PETS, AVOID PROSECUTION: HOW ONE-TIME SCHEME WORKS

On November 22, the Supreme Court upheld an Allahabad High Court order granting immunity from investigation and prosecution if one declared illegal acquisition or possession of exotic wildlife species between June and December. This was under a new amnesty scheme announced by the Centre. The High Court had said that whoever declares the stock of exotic species and submits to registration under the amnesty scheme, "shall have immunity from any inquiry into the source of licit acquisition or possession of the voluntarily declared stock of exotic species".

What is the government's voluntary disclosure scheme?

The Ministry of Environment, Forest and Climate Change (MoEFCC) has come out with an advisory on a one-time voluntary disclosure scheme that allows owners of exotic live species that have been acquired illegally, or without documents, to declare their stock to the government between June and December 2020. *With this scheme, the government aims to address the challenge of zoonotic diseases, develop an inventory of exotic live species for better compliance under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and regulate their import.* In its current form, however, the amnesty scheme is just an advisory, not a law.



What kind of exotic wild life are covered?

The advisory has defined exotic live species as animals named under the Appendices I, II and III of the CITES. It does not include species from the Schedules of the Wild Life (Protection) Act 1972. So, a plain reading of the advisory excludes exotic birds from the amnesty scheme. CITES is an international agreement between governments to ensure that international trade in wild animals, birds and plants does not endanger them. India is a member. Appendices I, II and III of CITES list 5,950 species as protected against over-exploitation through international trade. Many of these animals, such as iguanas, lemurs, civets, albino monkeys, coral snakes, tortoises, are popular as exotic pets in India.

What is the process for disclosure under the scheme?

The disclosure has to be done online through MoEFCC's Parivesh portal. The owner of the animal(s) will have to declare the stock as on January 1, 2020 to the Chief Wildlife Warden (CWLW) of the concerned state or Union Territory. This will be followed by a physical verification of the animals. The CWLW will have to issue an online certificate of possession of exotic live species within six months of the date of the voluntary disclosure. After the registration, it is mandatory for the owner to allow the CWLW with free access to the exotic species declared on anyday for verification. Apart from this, the CWLW has to be informed about any new acquisition, death or change in possession of the animals within 30 days. The scheme has also specified guidelines for surrender of such animals to a recognised zoo. The owner will also have to provide the details of the species acquired, their numbers, and the address of the facility where they are housed.

How big a problem is illegal trade of exotic animals in India?

The Directorate of Revenue Intelligence (DRI), which enforces anti-smuggling laws, says India has emerged as a big demand centre for exotic birds and animals with an increase in smuggling of endangered species from different parts of the world. Most of this exotic wildlife is imported through illegal channels and then sold in the domestic market as pets. "The long international border and air routes are used to source consignments from Bangkok, Malaysia and other top tourist destinations in South East Asia, as well as from Europe from where they are sent to Kolkata, Chennai, Hyderabad, Delhi, Bangalore, Mumbai, Cochin," said the DRI in its 2019-2020 annual report. In the last one year, the DRI has seized black-and-white ruffed lemur endemic to Madagascar, the endangered hoolock gibbon and palm civet, albino monkeys, crocodiles, pygmy falcons, kookaburras, scarlet macaws, aracarís among several others, the annual report said.

HELPAge INDIA PRESENTED UN POPULATION AWARD FOR 2020

HelpAge India has been presented the UN Population Award for 2020 (institutional category), according to a release issued by UNFPA. Established by the United Nations General Assembly in 1981, the United Nations Population Award recognises contributions in the fields of population and reproductive health. The Committee for the United Nations Population Award, which made the selections, is chaired by Ion Jinga, the permanent representative of Romania to the United Nations, and is composed of representatives of nine other UN Member States. "For the first time in the history of the UN Population Award, the honour is being conferred on an Indian institution. The last time the Award came to an Indian was 28 years ago, back in 1992, when it was awarded to Mr. J.R.D. Tata as an individual laureate. HelpAge India, which has been working for 'the cause and



care of disadvantaged older persons to improve their quality of life' for over four decades, is the first Indian institution to receive this award," added the release.



DreamIAS



BUSINESS & ECONOMICS

THE MANY CHALLENGES FOR WTO (DAMMU RAVI - ADDITIONAL SECRETARY, MINISTRY OF EXTERNAL AFFAIRS)

For the first time in its 25-year history, the World Trade Organization (WTO) will be led by a woman, as both the contending candidates for the Director-General (D-G) post are women, from Nigeria and South Korea respectively. The prestige aside, the D-G's job will require perseverance and outstanding negotiating skills for balancing the diverse and varied interests of the 164 member countries, and especially, for reconciling competing multilateral and national visions, for the organisation to work efficiently. The next D-G will have to grapple with the global economic fallout of the COVID-19 pandemic and work towards carrying out reforms of the multilateral trading system for reviving the world economy. On all these issues, her non-partisan role will be watched carefully. The current impasse in the WTO negotiations has led member countries to believe in the necessity of carrying out urgent reforms, even as the debate is likely to throw up some difficult choices for developing countries like India. *At the core of the divide within the WTO is the Doha Development Agenda, which the developed countries sought to jettison in favour of a new agenda that includes, amongst others, e-commerce, investment facilitation, MSMEs and gender.* Salvaging the 'development'-centric agenda is critical for a large number of developing countries as they essentially see trade as a catalyst of development. *Restoring the WTO dispute settlement mechanism, especially the revival of its Appellate body, is also crucial for the organisation's efficient functioning.* The *push for a change in the definition of "developing country" under the principle of special and differential treatment (S&DT), aimed at upgrading certain developing countries, will deeply impinge on the status of emerging economies such as India, China, South Africa, Turkey, Egypt, et cetera.* *The assumption that some countries have benefited immensely from the WTO rules since its formation in 1995 is flawed, at least in the case of India.* And even if there may be no consensus of views on measuring 'development', India will remain a developing country no matter which parameter is used. The way out for India could be to negotiate a longer phase-out period, or an acceptable formula based on development indices, etc. Among the current negotiations at the WTO, nothing commands more attention than the fisheries subsidies negotiations. India can lead the way in finding a landing zone by urging others to settle for the lowest common denominator, while seeking permanent protection for traditional and artisanal farmers who are at the subsistence level of survival. The danger lies in seeking larger carve-outs, which, if universally applicable to all, could result in developed countries ploughing precious fisheries resources in international waters. *The consensus-based decision-making in the WTO, which makes dissension by even one member stop the process in its track, gives developing countries some heft and influence at par with developed countries.* The D-G would need to tread cautiously on this front, as some will allude to the successful implementation of the Trade Facilitation Agreement in 2017, that allowed member countries to take commitments in a phased manner in accordance with their domestic preparedness.

ADB NARROWS INDIA'S FY21 GDP CONTRACTION PROJECTION TO 8%

The Asian Development Bank (ADB) on Thursday upgraded its forecast for the Indian economy, projecting 8% contraction in 2020-21 as compared to 9% estimated earlier, on the back of a faster-than-expected recovery. Observing that the economy had begun to normalise, the Asian Development Outlook (ADO) Supplement said the second quarter contraction at 7.5% was better-



than-expected. The economy contracted by 23.9% in the June quarter on account of the impact of the COVID-19s pandemic. It retained its growth projection for the next fiscal at 8%. Highlighting that India was recovering more rapidly than expected, the ADB said the earlier South Asia forecast of 6.8% contraction was upgraded to (-)6.1% in line with an improved projection for India.

South Asia to rebound

Growth will return in 2021-22, at 7.2% in South Asia, the Asian lender added. Earlier this month, Reserve Bank of India (RBI) Governor Shaktikanta Das had said the economy was recuperating faster than anticipated and that the growth rate was likely to turn positive in the second half of the current financial year. Inflation, the ADB said, was expected to ease in the coming months, and maintained the 4% projection for 2021-22. Supply chain disruptions had taken food inflation to an average of 9.1% in the first 7 months of 2020-21, pushing headline inflation to 6.9% in the same period, the regional lender said. As a result, the ADB raised India's inflation projection for the current fiscal to 5.8%, from 4.5%.

JHARKHAND'S JOINING ENDS GST COMPENSATION IMPASSE

Jharkhand has accepted the alternative offered by the Centre to meet part of the GST compensation shortfall through a special borrowing window, the Finance Ministry said on Saturday. With Jharkhand's acquiescence to the Centre's proposed solution, all States and Union Territories have now exercised the option to receive part of their GST implementation dues for this year. The Centre had offered States the option of borrowing ₹1.1 lakh crore out of the estimated ₹2.35 lakh crore shortfall in compensation dues payable to States for this year. After initially asking States to undertake the borrowings themselves, the Centre had later offered to borrow on States' behalf and lend it onwards. Over the past two weeks, most of the States that had had reservations with the Centre's proposed arrangement, including Kerala, West Bengal and Punjab, had communicated their acceptance of Option-1. All repayments for these special borrowings will be made from future collections of GST cess, whose validity has been extended beyond the originally envisaged sunset date of June 2022.

DIVEST AND SPEND

The government's yet another attempt to divest its stake in the beleaguered Air India appears to be gaining traction. As reported in this paper, the Centre has received multiple "expressions of interest" for the debt-laden airline. *The process will now move to the second stage with the qualified bidders expected to be notified by next month.* Interest from prospective buyers has been greater this time around with *the government modifying its earlier terms of sale*, hoping to make it an attractive proposition after previous efforts to sell its stake in the airline failed to find buyers. Separately, *reports also reveal that an evaluation committee is meeting to consider the expressions of interest received for the government's stake in Bharat Petroleum Corporation Limited.* While there is ambiguity over whether either of these transactions will close by the end of the current financial year — only three months remain — disinvestment of either of these entities could help plug, to some extent, the revenue shortfall that the Centre is facing this year. *So far this year, proceeds from disinvestment have been paltry — as against a budgeted target of ₹ 2.1 lakh crore, the government has so far managed to garner only a mere ₹6,533 crore. The government's past record of meeting its disinvestment target is nothing to write home about. In fact, revenue from disinvestment (as a percentage of GDP) has been almost stagnant in the past few years. In the last*



financial year, too, even as the budgeted target of ₹1.05 lakh crore was revised downwards to ₹65,000 crore at the revised estimates stage, actual collections stood even lower at ₹50,304 crore as per data from the Controller General of Accounts. Part of the problem is the manner in which successive governments have approached the issue of disinvestment/privatisation. Disinvestment is often viewed as a means of plugging the gaps in the revenue, often to be carried out towards the end of the year, when the budgeted revenue shortfall becomes glaring. For instance, despite announcing it in the budget, *not much progress has been made on the LIC IPO. The government must lay out a roadmap for disinvestment/privatisation of PSUs, listing out in detail the entities where it intends to cut its stake, and the timelines it intends to follow.* The burden on the exchequer for continuing to finance loss-making public sector entities in sectors where competition exists and no public purpose is served is unreasonably excessive. And coming at a time when the government is facing a huge hole in its revenues, garnering extra resources through this route could provide it with some fiscal space. Proceeds from such stake sales could be ring fenced, only to be used to finance fresh public investment.

FORMAL BIDS FOR AIR INDIA CLOSE, WHO WILL THE MAHARAJA GO TO?

The Centre has said that it has received “multiple expressions of interest” for Air India, including a bid from Tata Sons, and one from a consortium of the airline’s employees and the US-based investment firm Interups Inc. The deadline for submission of formal bids closed at 5pm on Monday (December 14). The government is likely to notify the qualified bidders on January 5.

Second attempt

This is the government’s second attempt at disinvesting its stake in Air India. The earlier attempt in 2018 ended badly, after not a single bid was received for the debt-laden airline. *On the earlier occasion, the government had put up 76% stake for sale along with a portion of its debt. This time, it plans to divest 100% of its equity share capital in Air India Limited, which includes Air India’s shareholding interest of 100% in Air India Express and 50% in Air India SATS Airport Services.*

Possible suitors

A source with knowledge of the matter said the Tata Group has submitted an official expression of interest for the airline. The bid has not been placed through one of its affiliate airlines — Vistara or AirAsia India, the source said. A Tata Group spokesperson declined to comment. *The other confirmed bid has been jointly placed by a consortium of Air India employees and Interups, the chairman of the investment firm, Laxmi Prasad, told The Indian Express.* The bid proposes to give 51% stake to the Air India employee association, which includes 219 staffers, including some board members, and 49% stake to Interups Inc, which will act as the financial partner. The plan to have participation from the airline’s employees was put in motion by Air India’s commercial director Meenakshi Mallik, who wrote to nearly 20,000 of the airline’s staff seeking participation in the disinvestment process. Some employee unions, however, had advised their members against participating.

The way forward

During this attempt, *the most significant change made by the government in the terms of bidding was that it allowed potential investors to bid on the basis of enterprise value, effectively allowing the bidders to determine the debt level they would want to take on.* Air India had current liabilities and



provisions, including short-term loans and trade payables of ₹70,686.6 crore and a net debt of Rs ₹58,255 crore at the end of 2018-19. Thereafter, the government has transferred ₹29,464 crore of this debt from Air India to a government-owned special purpose vehicle, *Air India Assets Holding Company Ltd*. Going ahead, the entities that have submitted the expressions of interest, will need to submit physical bids by December 29, and *the qualified interested bidders will be intimated on January 5. These qualified bidders will place bids on the basis of enterprise value, and the winning entity will be decided on the basis of whoever quotes the highest enterprise value. This entity will then have to pay at least 15 per cent of the quoted enterprise value in cash, while the rest can be taken on as debt.*

LIQUIDITY PUSH FOR DEBT MARKETS: PLAN TO LIST G-SECS ON GLOBAL BOND INDICES

A set of Indian government securities (G-secs) are expected to be included in global bond indices that would provide a stable sources of funding and increase liquidity for the debt markets. The Union Budget 2020-21 had proposed to remove limit on foreign investment in some government securities, as a first step towards their inclusion in global bond indices. The Reserve Bank of India had on March 30 notified a fully accessible route for investment by non-residents in government securities without any ceilings. Sources said the issues around capital control, KYC requirements and clearing and settlement of such securities have largely been addressed, which should facilitate their entry into global indices.

The government had given up the earlier idea of issuing foreign currency denominated bonds as that has a currency risk. "The main concern of bond index providers is that there should be no limit in entry and exit from a particular government security, which requires that there are no limits on foreign ownership in a particular security. This issue was resolved through removal of limits on a class of securities without really removing overall capital controls which carry significant risk. This is providing enough liquidity to these bonds," the official said. With fiscal deficit expected to widen significantly in the backdrop of the Covid-19 pandemic, additional sources of funding into government debt market are expected to aid the Centre's borrowing increased programme. The Centre is expected to overshoot its fiscal deficit target of 3.5 per cent of GDP for the current fiscal as a result of rising expenditure and lower revenue receipts. *As government's tax and non-tax revenues plunged following the imposition of lockdown to combat coronavirus, the finance ministry had in May increased its market borrowing programme for the current financial year by more than 50 percent to ₹12 lakh crore. The Union Budget 2020-21 had earlier estimated the gross market borrowing for the current fiscal at ₹7.80 lakh crore.* The government has already borrowed ₹7.66 lakh crore during April-September in the current year. While fund raising for the government is not an issue given abundant liquidity with banks, low interest rates and tepid private sector credit growth; inclusion of securities into global bond indices opens up the avenues to massive pools of long term funding. "The idea is to get access to these pools of funds which can be as high as \$ 2 trillion, as it would be positive both for government securities as well as private corporate bond market," sources said.

WHY ARE PETROL AND DIESEL PRICES RISING?

Oil marketing companies have hiked the prices of petrol and diesel by over Rs 2 and by nearly Rs 3.50 respectively since November 19 after holding them unchanged for 59 days. Diesel is currently retailing at Rs 73.87 per litre in the capital, while petrol is retailing at Rs 83.71 per litre. On Wednesday (December 9), petrol was selling at Rs 90.34 at pumps in Mumbai, according to data



released by the Petroleum Planning and Analysis Cell (PPAC). Retail fuel prices in India are now the highest since October 2018.

What is causing petrol and diesel prices to rise?

Rising global crude oil prices and an improved demand outlook for petroleum products due to the prospects of a viable vaccine for Covid-19 are the key reasons behind the recent rise in the prices of petrol and diesel, according to experts. The price of Brent crude has risen to almost \$49 per barrel, its highest level since early March. The price of Brent crude crashed from \$66 per barrel at the beginning of the year to \$19 per barrel in April due to global restrictions on travel as countries shut down to control the transmission of the novel coronavirus. Since India imports most of the fuel required to meet its demands, the price of fuels rises in tandem with global prices. Domestic prices of petrol and diesel are revised by oil marketing companies based on changes in the international prices of petrol and diesel. However, as global crude prices crashed and India went into lockdown, Indian OMCs stopped revising the prices of petrol and diesel for over 80 days.

The Central Board of Indirect Taxes and Customs increased the Road and Infrastructure cess, as well as Special Additional Excise Duty on petrol and diesel in May 2020, following a similar announcement in March. State and central taxes currently account for around 62% of the retail price of petrol and around 57.5% of the retail price of diesel in Delhi. The central government has increased the excise duty on petrol to Rs 32.98 per litre from Rs 19.98 and at the beginning of the year, and increased the excise duty on diesel to Rs 31.83 per litre from Rs 15.83 over the same period. Many states, including, Delhi, Maharashtra, Tamil Nadu, and Karnataka have also hiked state levies on petrol and diesel since the beginning of the fiscal to boost revenues.

What are the different components of fuel price?

Excise duty levied by the Centre is the biggest component of the price of petrol in Delhi (See Table 1). Since 2014, the revenues collected by the Centre from the sales of petrol and oil products have nearly doubled. Value added tax (collected by the state on the price of petrol as well as the dealer's commission) makes up less than a quarter of the price. *Together, the taxes and duties amount to 63% of the cost of petrol in Delhi. The base price of petrol is less than a third of the price at which a buyer in Delhi gets it from the retailer.* The retailers' commissions and freight charges along with the base price make up a little over a third of the price.

WHAT START OF GAS PRODUCTION IN KGD6 MEANS FOR INDIA

Reliance Industries Ltd and BP (British Petroleum) have announced the start of gas production from the R cluster, the deepest off-shore gas field in Asia. The field is the first of three deepwater gas projects in the KGD6 block jointly developed by RIL and BP to come onstream. RIL has a participating interest of 66.7% in the KG-D6 block and BP has a participating interest of 33.3% in the block.

Why is this important?

The R cluster, along with the Satellite Cluster and MJ gas fields in the Krishna Godavari Basin are expected to produce around 30 MMSCMD (Million standard cubic metres per day) of natural gas or about 15% of India's projected demand for natural gas by 2023. The R cluster field alone is expected to have a peak production of 12.9 MMSCMSD or about 10% of India's current natural gas output. In FY20, demand for natural gas in India was around 153 MMSCMD around half of which is met



through imports. RIL and BP are jointly set to invest a total of Rs 40,000 crore on these three fields. Production of gas from the R cluster was expected to start in May 2020 but was delayed due to the impact of the Covid-19 pandemic. The satellite cluster is expected to start production in the next fiscal.

Do they impact India's energy security efforts?

The three projects are a key part of the plan to boost domestic production of natural gas to increase the share of natural gas in India's energy basket from 6.2% now to 15% by 2030. Increased domestic production of natural gas is an important aspect in reducing India's dependence on imports and improve energy security.

Gas tariff boost

According to experts, recent changes in the formula for gas transport tariffs are likely to benefit Reliance and BP's investments in these three fields. *The regulations move away from the existing system which charges consumers based on the distance from the source of gas and the number of pipelines used to a unified gas tariff system through with one tariff for gas transported within 300 kms and another tariff for gas transported beyond 300 kms from the source of the natural gas.* The move which is aimed at making natural gas more affordable to customers in the hinterland will likely benefit Reliance as most of the customers for the gas from the fields in the KG-D6 basin would be well beyond 300 km away, according to an expert who did not wish to be quoted. "Lower transport tariffs will boost Reliance's ability to charge for gas," the expert noted.

GOVT. PLANS \$60-BN INVESTMENT TO BOLSTER GAS INFRASTRUCTURE

Petroleum Minister Dharmendra Pradhan said the government had planned a \$60-billion investment for creating gas infrastructure in the country till 2024, and that gas's share in the energy mix is expected to rise to 15% by 2030. Currently, gas accounts for 6% in the country's total energy mix. Speaking at the ASSOCHAM Foundation Day Week 2020, he said, "We have envisaged a spend of \$60 billion in creating gas infrastructure till 2024, including for pipelines, LNG terminals and CGD (city gas distribution) networks."

INDIA MULLS E20 FUEL TO CUT VEHICULAR EMISSIONS

The government proposed the adoption of E20 fuel — a blend of 20% of ethanol and gasoline — as an automobile fuel in order to reduce vehicular emissions as well as the country's oil import bill. The Ministry of Road Transport and Highways has published a draft notification and invited comments from the public for adoption of the fuel. *The current permissible level of blending is 10% of ethanol though India reached only 5.6% of blending in 2019.*

Vehicle compatibility

It added the compatibility of vehicles with the percentage of ethanol in the blend would be defined by the vehicle manufacturer, which would have to be displayed on the vehicle with a sticker. Ethanol is a biofuel and a common by-product of biomass left by agricultural feedstock such as corn, sugarcane, hemp, potato, etc.



INDIA BUCKS CHINA'S RECORD EXPORT SHOW

India's imports from China as well as its trade deficit declined sharply in November, marking an exception to a record month for Chinese exports around the world that registered the fastest growth in almost three years and underlined China's continuing recovery amid a pandemic-induced global slump. Bilateral trade reached \$78 billion over the 11-month period, sharply lower than 2019's \$84.4 billion. China's shipments to India at the end of November accounted for \$59 billion, sliding 13% and helping narrow India's deficit to \$40 billion, from \$51.6 billion in the year-earlier period. India's annual trade deficit with its northern neighbour had shrunk by 2% in 2019 to \$56.95 billion, marking the first decline since 2005. The slump in China's exports to India was broadly expected after data from India's Ministry of Commerce last week showed a 13.3% decline in India's overall imports in November.

Electrical machinery and equipment was India's *biggest import from China in 2019, worth \$20.17 billion. Other major imports last year were organic chemicals (\$8.39 billion) and fertilizers (\$1.67 billion)*, according to data available with the Indian Embassy in Beijing. *India's top exports to China in 2019 were iron ore, organic chemicals, cotton and unfinished diamonds. India was the fourth largest exporter of iron ore to China after Australia, Brazil and South Africa. India's exports to China were up 16% in November reaching \$19 billion after 11 months of this year, likely driven by a recovery in Chinese imports of iron ore, which were up 16% according to China's General Administration of Customs.* In November, China also agreed to import rice from India for the first time in three decades, with 1,00,000 tons of exports of broken rice contracted for December to February at \$300 per ton, Reuters reported. The rice purchase was a "purely commercial move" as the price was "far cheaper than that of its domestic counterparts", Jiao Shanwei, editor-in-chief of a Chinese website on grains news, told the Global Times.

INFLATION'S IMPORT IN MONETARY MATTERS

The Monetary Policy Committee (MPC) of the Reserve Bank of India (RBI) on Friday announced its decision to hold the benchmark repo rate unchanged at 4%. Vowing to stick with its 'accommodative' policy stance in the next fiscal year to help support economic recovery amid the COVID-19 pandemic, the MPC opined that inflation was likely to remain elevated, "barring transient relief in the winter months from prices of perishables". This, it stressed, "constrains monetary policy at the current juncture from using the space available to act in support of growth".

What is the projection on CPI inflation?

The rate-setting panel noted that the recovery appeared to be "far from being broad-based" and was dependent on sustained policy support, which the central bank offered through a raft of measures to ensure that credit availability remains adequate. *Consumer Price Index (CPI) inflation, the RBI said, would average 6.8% for Q3 and 5.8% in Q4 — both levels above or close to the 6% upper bound of the target range for ensuring price stability — before easing to a 5.2% to 4.6% range in the first half of the next financial year, starting April 2021.*

How does India measure retail inflation?

Inflation is the rate of change in the prices of a given set of items. India bases its retail inflation metrics on the Consumer Price Index (CPI). The index records changes in prices for *a sample of*



family budget items that are representative of what consumers typically spend their household income on — food, fuel, housing, clothing, health, education, amusement and even paan, tobacco and intoxicants. The measure is based on a weighted average. That is, some items in the index may get greater weightage depending on their priority in a typical family's budget. The CPI-based retail inflation is measured monthly and is published as a percentage value of change in the index from the corresponding year-earlier period. Data for a certain month are released by the Ministry of Statistics and Programme Implementation generally on the twelfth day of the subsequent month.

Why is faster inflation a concern for policymakers?

Faster retail inflation is indicative of prices of household items rising quickly. While inflation affects everyone, *it is often referred to as a 'tax on the poor' as the low-income stratum of society bears the brunt. Persistent high inflation pushes several items out of reach for this category of consumers.* For example, onions and potatoes are generally a key staple in an average Indian family's diet. But, if the price of potatoes starts rising rapidly, a poor household is often forced to sharply reduce or forgo its consumption of this key source of essential nutrients, including carbohydrates. *Over time, if unchecked, persistent high inflation erodes the value of money and hurts several other segments of the population, including the elderly living off a fixed pension. It hence ends up undermining a society's consumptive capacity, and thereby, economic growth itself.*

What is the RBI's role in tackling inflation?

The RBI's explicit mandate is to conduct monetary policy. "The primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth. Price stability is a necessary precondition to sustainable growth," the RBI states on its website. *In 2016, the Reserve Bank of India Act, 1934, was amended to provide a statutory basis for the implementation of a flexible inflation-targeting framework, where the Centre and the RBI would review and agree upon a specific inflation target every five years. Under this, 4% was set as the Consumer Price Index (CPI) inflation target for the period from August 5, 2016, to March 31, 2021, with the upper tolerance limit of 6% and the lower tolerance limit of 2%. To the extent that ensuring price stability is its primary goal, the RBI through its MPC must constantly assess not just current levels of inflation and prices of various goods and services in the economy, but also take into consideration inflation expectations both of consumers and financial markets so as to use an array of monetary tools, including interest rates, to contain inflation within its target range.*

What is core inflation and why is it important?

Core inflation helps measure inflation after excluding the effects of temporary volatility, especially from prices of items such as fuel and food. For example, seasonal spikes in food prices may skew the inflation rate, but the effect is only transitory. The RBI's action on rates, however, affects the economy with a lag, by which time the spikes in the price of those food items may have reversed. Viewing inflation after stripping out such volatility helps give it a better picture of the underlying trend in prices. In Friday's statement, the MPC noted: "Cost-push pressures continue to impinge on core inflation, which has remained sticky and could firm up as economic activity normalises and demand picks up."

Retail inflation as measured by the Consumer Price Index (CPI) is estimated to have moderated in November to a provisional 6.93%, from the previous month's 7.61%, official data released on Monday showed. On the face of it, the moderation in price gains ought to be welcome news. A



closer look shows that the 68 basis points easing in the headline level of inflation has been helped largely by a 140 basis points slowing in price gains in the food and beverages basket, *which with a weight of almost 46 is the single biggest index constituent and driver of retail inflation*. The RBI had in its monetary policy announcement earlier this month flagged an expected softening in the prices of perishables in the winter months. Predictably, increased market arrivals of vegetables — the third-largest weight within the basket — led to a sharp deceleration in price gains for this key food item. Inflation for vegetables slid 688 basis points to 15.63% last month, from 22.51% in October. Cereals, the food category with the largest weight, saw inflation slow to 2.32%, from 3.39%, reflecting the bumper kharif harvests and confirming the trend that the central bank had spoken of. And though the prices of other food categories too softened in November, out of the basket of 12 items, inflation still remained in the double digits in the case of six, excluding vegetables. Key protein sources including pulses, eggs and meat and fish continued to register worryingly high levels of inflation that surely cannot bode well for the wider population's nutritional well-being.

Disconcertingly, inflation in the key transport and communication category that includes petrol and diesel eased by a marginal 10 basis points to 11.06%. With oil marketing companies continuing to raise pump prices of these crucial transportation fuels, as crude oil extends its recovery from April's pandemic-induced lows, it is hard to foresee any further appreciable softening in food prices in December given the high costs of transporting farm produce from the agrarian hinterland. This would, in turn, put the RBI's forecast for average fiscal third-quarter inflation of 6.8% in jeopardy, as the headline figure would now need to moderate by at least 107 basis points to about 5.86% for this month. Its November survey of households' inflation expectations also offers little room for comfort. With more households expecting general prices to rise over the 'next three months' and 'one year ahead' horizons than the number of respondents concerned about such a price trend in the September survey, policymakers must guard against easing vigilance on prices while considering growth-supportive measures. Price stability, for all the growing calls to downplay its centrality in the RBI's policy mandate, must remain the monetary authority's primary target: unchecked inflation poses manifold risks to the nascent economic recovery.

24X7 RTGS TRANSFER FROM DEC 14

The Reserve Bank of India (RBI) said Real Time Gross Settlement System (RTGS) services will be available round the clock with effect from December 14. India will become one of the few countries to operate its RTGS system round the clock throughout the year, according to the central bank. This comes within a year of operationalising round the clock National Electronic Fund Transfer (NEFT) fund transfer. The RBI said RTGS — which began its operations on March 26, 2004, with a soft launch involving four banks—presently handles 6.35 lakh transactions daily for a value of Rs 4.17 lakh crore across 237 participant banks. The average ticket size for RTGS in November 2020 was Rs 57.96 lakh. "Round the clock availability of RTGS will provide extended flexibility to businesses for effecting payments and will enable introduction of additional settlement cycles in ancillary payment systems. This can also be leveraged to enhance operations of Indian financial markets and cross-border payments," the RBI said.



KEY STEPS TO GET THIS SPECTRUM AUCTION RIGHT

The Union Cabinet has cleared the much-awaited auction of radio spectrum in various bands for commercial mobile services. Following this decision of December 16, the auction that will use the well-proven methodology of *Simultaneous Multiple Round Ascending (SMRA) Auction* will be the seventh of its type and is being held four years after the last one. Based on the recommendation of the Telecom Regulatory Authority of India, *the government is planning to auction spectrum in the sub GHz bands of 700, 800 and 900 MHz along with mid-band frequencies in bands of 1800, 2100, 2300, and 2500 MHz across the 22 Licensed Service Areas (LSAs) of the country. The total spectrum to be auctioned is about 2,251 MHz, compared to about 2,355 MHz put on the block in 2016. The cumulative reserve price — and hence the potential revenue accrual to the government at reserve prices — is about \$50 billion. (a reserve price of ₹3.92 lakh crore.) Total reserve price of spectrum put on auction in 2016 was about \$90 billion while the realised value was just about one-tenth of that, with none of the 700 MHz spectrum band being sold. Hence, while the 2016 auction could be considered as a failure from the auctioneer's point of view.*

Factor of VoIP subscribers

The willingness to pay by the telcos depends on their position vis-à-vis *Over The Top (OTT) providers* who are providing substitute goods such as *Voice Over Internet Protocol (VoIP)*; and capturing a greater mind share of customers while remaining relatively invisible to government regulators. Rise of VoIP subscribers could have a positive effect on winning bid prices. However, the erosion of the position of telcos vis-à-vis OTTs in the context of their relationship in the overall digital value network of devices, connectivity and apps, could result in a lower willingness to pay.

Allocation of unlicensed spectrum for Wi-Fi also affects auction. By off-loading mobile data, Wi-Fi supplements the carrier network and reduces the demand for mobile network capacity. *A number of countries including the United States have unlicensed the V-band spectrum in 60 GHz — pencil beam band. Referred to as “wireless fibre”, the 60 GHz spectrum provides huge capacities in a limited area, ideally to be used for Wi-Fi and fixed wireless access. Wi-Fi 6 (a.k.a. IEEE 802.11 ax) that operates in the 2.4/5 GHz unlicensed band requires additional unlicensed spectrum allocation to provide Gigabit speeds.* The more the unlicensed spectrum allocation, the lower will be the demand for licensed spectrum.

Spectrum visibility

While there is an indication by the government that the spectrum for 5G auction, namely 3.4-3.6 GHz, will be held in late 2021, the amount of spectrum that will be made available is not clear. There is still uncertainty about the release of 26 GHz by the Department of Space for mobile services. *With this limited visibility, the bidders will be in a quandary whether to acquire the spectrum now, or wait for subsequent auctions. Further, some part of the current spectrum holding of all the operators is coming up for renewal in mid-2021, and hence there is additional pressure on them to retain them in the forthcoming auction. The reserve prices of different bands for the forthcoming auction as recommended by TRAI indicate that the average price per MHz per population (a common metric used for comparing spectrum prices) is around \$3 for sub-GHz band and \$1.70 for mid-band.* These are comparable to only some of the higher winning bid prices in other countries.



The right price

Higher reserve prices, though they increase spectrum prices, may leave again a swathe of spectrum blocks unsold as in the 2016 auction. This will indicate a failure of the auction. Spectrum is a perishable scarce resource. If it cannot be used, then its value is lost. When the whole country is adopting a new norm for Work from Home due to the COVID-19 crisis, it is important for the government to ensure that the spectrum put on the block is sold successfully. A re-visit of reserve prices especially that of 700 MHz (even though it was re-estimated to be lower by TRAI) which is the “golden band” for covering the hinterlands of the country may be lowered. *Releasing more unlicensed spectrum in 2.4/5/60 GHz for proliferating Wi-Fi as a suitable complement to [the] carrier network; this will also augment the deployments of the Public Wi-Fi project which the cabinet approved recently; Provide visibility of future auctions, especially the quantum of spectrum that can be put on the block in 3.3/3.6/26/28 GHz; Now that OTT firms have been brought under regulation under the ambit of the Ministry of Information and Broadcasting, the government should release guidelines on how they will be regulated and what will be regulated so that the telcos and OTTs can join hands to provide superior services for the benefit of the consumers.*

Bidders will have to comply with conditions, including block size, in which bidders will be able to submit their bids, spectrum cap or the maximum amount of spectrum that can be held by a bidder after completion of auction, roll-out obligations and payment terms. Successful bidders would have the option of paying the entire amount upfront or a certain amount in 16 equated annual instalments after a two-year moratorium, it said. They would also have to pay 3% of the adjusted gross revenue, excluding wireline services, as the spectrum usage charge.

Considering the revenue shortfall that the Centre is facing, a successful auction could help boost its coffers — in the budget, the government had pegged revenue from “other communication services”, which includes licence fees from telecom operators and receipts on account of spectrum usage charges, at ₹1.33 lakh crore in 2020-21. This time around, it is possible that telcos looking to renew their licences in bands which are expiring in 2021, and seeking to plug existing gaps, might pick up spectrum in the less expensive bands. Telecom operators have in the past complained about the high reserve prices. Some may opt out of the bidding, while others may bid, heightening the risk of “winner’s curse”. Alternatively, high reserve prices could lead to a situation where bidding is dominated by a single player to the detriment of both competition and consumers. Reportedly, the Department of Telecommunications is yet to finalise the bands for auction of 5G spectrum. This puts telcos in a blind spot. With no clarity over which band will be offered up for auction, and when, they are unable to plan their auction strategies in advance. The government would thus do well to provide a timeline of when it intends to auction 5G spectrum. Equally, it must reconsider its approach, which is driven more by concerns of revenue maximisation than the sector’s welfare.

TELCOS URGE GOVT. TO SPELL OUT 5G POLICY

Telecom industry leaders on Tuesday urged the Centre to spell out the policy framework and standards that would enable an expeditious roll-out of 5G technology in the country and help ensure the success of the ‘Digital India’ initiative. Cautioning against adopting India-specific standards on 5G, Bharti Airtel’s India and South Asia CEO Gopal Vittal told participants at the India Mobile Congress 2020 that the country risked isolating itself from the larger world of communications. “There is sometimes talk of India having its own 5G standards. This is an



existential threat which could lock India out of a global ecosystem and slow down the pace of innovation. We would have let our citizens down if you allow that to happen,” Mr. Vittal asserted. Citing the case of GSM and CDMA technologies, he said while CDMA was a better technology, GSM had won as it had gained wider acceptance with more companies in the world embracing it. “So, GSM won because it became part of the global ecosystem, and CDMA died,” he added. “We have to set aside our differences and be part of one: the private sector — telcos, equipment players, device players, manufacturing companies, IT companies, everyone can benefit as the growth of technology makes us all more productive. So, we should collectively sign on to create a 5G ecosystem,” Mr. Vittal said. Also, to deliver the vision of Digital India, there was a need for enabling policies that kept the access to technology affordable, he said.

HOW APPLE’S REACTION TO LABOUR CHALLENGES IN INDIA IS DIFFERENT FROM CHINA

Like the other contract manufacturers of Apple, Wistron is also involved in production of its flagship iPhones. The factory in Narasapura is the a new unit from where it had started assembly of the iPhone SE (2020). The original iPhone SE was the first iPhone to be made in India and now there are four models being produced here, including the iPhone 11. The plant is spread over 43 acres, and was built with an investment of Rs 3,000 crore. This is a new unit, which was opened in July this year. The other unit in Bengaluru is in the Peenya locality of the city’s outskirts, from where Wistron has been producing iPhone SE models since 2017. The Narasapura unit employs about 2,000 regular employees and some 7000 contractual employees, while the old Peenya unit employs about 3,500 people on a permanent basis. The flagship iPhones produced at the Narasapura and Peenya unit are also exported to other countries across the world.

The assembling of iPhones has often been held up as an example of the government’s success in boosting domestic manufacturing. Wistron, along with Foxconn and the Pegatron Corp, lies at the heart of component manufacturing and the mobile phone assembly drive in India. In fact, looking to replicate the apparent success of its mobile phone assembly initiative, the government has recently announced the expansion of its *Production-Linked Incentive (PLI) scheme to cover 10 key sectors, ranging from automobiles to pharmaceutical drugs.* Separately, it has also moved to ease the stringent and archaic labour laws that have long been held responsible for holding back the growth of a labour intensive manufacturing sector. For instance, the *Industrial Relations Code 2020 enables industry to employ workers on a fixed-term contract for seasonal and short-term jobs, sidestepping the contractor system* — six contractors were responsible for recruiting contractual workers for Wistron. Considering that changes to labour laws are often viewed with suspicion, as the debate has often been framed in terms of empowering managements, the current crisis may well heighten such fears. The signals that emanate from this unrest are a cause for concern. At a time of acute distress, labour practices will come under intense scrutiny. While some flexibility for firms is desirable, both the government and firms must realise that during periods of acute precarity, concerns of labour must be kept front and centre.

On December 12, temporary workers employed at Wistron’s Narasapura facility in Bengaluru raised slogans and vandalised vehicles parked inside the factory premises. These workers were protesting against non-payment of regular and overtime dues by the company. The workers started throwing stones, and damaged some vehicles inside the factory. Some iPhones, which had been manufactured at the factory and were kept for export, were also looted by the workers, according to reports.



In Kolar, Wistron claimed ₹437 crore of damages from the incident even as the Centre and the State government reacted with alacrity, given the importance of the project for India to establish its credentials as an alternative manufacturing base to China. The State said it was disturbed and around 160 people were arrested. The Centre asked the B.S. Yediyurappa administration for an expeditious inquiry to identify the culprits and ensure that investor sentiment is not affected due to the 'one-off incident'. *The Prime Minister has been reported to be 'very worried' about the development, and all necessary support has been promised so that the firm may restart operations.* That may take a while now given that Apple's own probe has found glaring lapses in Wistron's treatment of its staffers. From playing victim initially, Wistron has been compelled to change tack — it now claims the damages from the violence were about ₹50 crore and has fired a top official handling its India operations for failing to ensure employees got their entire dues in a timely manner.

What is the status now?

A week later, after the initial investigations in the issue have been done, both Wistron and Apple have acknowledged the "lapses" in payment and work schedules. Even the state government agreed that contractual workers at the plant had not been paid regular and overtime dues over the past three-four months. In its statement on Saturday, Wistron said that during its investigations it had found that some workers were not paid correctly, or on time. The company also said that it had fired its vice-president who was overseeing the business in India. The mistakes made, Wistron said in its statement, were as they expanded. "Some of the processes we put in place to manage labour agencies and payments need to be strengthened and upgraded. We are taking immediate action to correct this, including disciplinary action," Wistron said. On the other hand, Apple, for whom Wistron makes iPhone and other gadgets from its Narasapura unit, said that they had placed "Wistron on probation and they will not receive any new business from Apple before they complete corrective actions".

HOW INDIAN COMPANIES ADHERE TO DIVERSITY REQUIREMENTS

The NASDAQ stock exchange in the US may soon require all companies listed on the bourse to include at least one female board member as well as one member from a racial minority group or from the LGBTQ community on their board of directors. There also are in place diversity requirements from Indian companies and their compliance with these rules.

What are the diversity requirements that Indian companies need to meet?

All public companies which are listed on stock exchanges and companies with either a paid-up capital of ₹100 crore or annual turnover over ₹300 crore are required to have at least one woman board member under the Companies Act. The Securities and Exchange Board of India (Sebi) further requires, since April 1, 2020, that the top 1000 listed companies by market capitalisation have a woman board member who is also an independent director.

What is the level of compliance on diversity requirements by Indian companies?

According to data compiled by Institutional Investor Advisory Services (IiAS), 17 per cent of directors in the Nifty 500 companies were women, as of the end of the last fiscal, with 44 per cent of Nifty 500 companies having two or more women directors. The report by IiAS noted that only 3 per cent of Nifty 500 companies had no women directors. Experts noted that other than some



public sector enterprises (PSEs) which have lagged on the appointment of independent directors, all major companies were in compliance with the diversity requirements.

An expert who did not wish to be quoted said that a significant number of companies had appointed relatives of promoters as directors to fulfil the requirement of a woman director and that such directors were unlikely to show the level of independence expected from a director. The person, however, added that large multinational companies were leading the way in following the diversity regulations in letter and spirit by appointing qualified independent women directors to their boards. An expert who did not wish to be named pointed out that diversity requirement mandating a member of the LGBTQ community on the board of directors was not necessary, noting that “sexual orientation should not be an issue in appointments to the board of directors.”

SUPPLY OF LIFE-SAVING MEDICINES AFFECTED BY ‘MAKE IN INDIA’ POLICY

*The Ministry of Railways has written to the Department for Promotion of Industry & Internal Trade (DPIIT), Ministry of Commerce and Industry, seeking exemption for procuring certain medical items manufactured outside India, particularly medicines used in the treatment of COVID-19 and cancer. The issue was first flagged in August 2020 by Northern Railway, which formally wrote to the Railway Board, expressing difficulty in procuring drugs and surgical items in the light of the latest ‘Make in India’ policy. It said that certain drugs used in cancer treatment were manufactured outside India but available in the Indian market through agents or dealers. “The uninterrupted supply chain of these medicines and medical items are essential in the human life saving category and providing satisfactory health care to all railway employees and their family members. In the existing ‘Make in India’ policy, there is no window available to procure such items from the suppliers who may not meet the Local Content Criteria required for Class-I and Class-II Local Supplier category. It is therefore proposed to seek exemption to procure such medicines and medical items from Indian Market from ‘non-local suppliers’...,” the letter said. **Going by the Department for Promotion of Industry and Internal Trade’s (DPIIT) norms, Class-I is a local supplier or service provider whose goods, services or works offered for procurement have local content equal to or more than 50%, while Class-II is a supplier or service provider whose goods, services or works offered for procurement have local content of more than 20% but less than 50%. Only these two categories of suppliers shall be eligible to bid in the procurement of all goods, services or works and with estimated value of purchases of less than ₹200 crore.** On December 3, 2020, the Ministry of Railways communicated to the Principal Chief Materials Manager heading Purchases that the DPIIT had informed the issue had been forwarded to the Department of Pharmaceuticals and Ministry of Health and Family Welfare, being the nodal agencies for Pharmaceuticals, Medical Devices and Equipment. The DPIIT also said that the Secretary (Coordination), Cabinet Secretariat, in a meeting held on November 10, 2020, had directed that the purpose of seeking relaxation was to achieve indigenisation of the items that were presently not being manufactured in the country. “It is felt that the above objective is defeated in case the subject relaxation is granted,” the DPIIT noted. However, the Ministry of Railways was advised to exercise the powers conferred under Para 14 of the ‘Make in India’ policy guidelines with the approval of the Minister in-charge to seek relaxation in any particular procurement, if required.*



CONSTRUCTION MAJOR 'PRINTS OUT' A BUILDING

The 700-sq-ft building looks like a normal concrete shell structure. There is nothing to indicate that it is not one of the usual concrete buildings of the urban landscape, but it is special. What makes it unique is that the *ground-plus-first floor building in Kancheepuram, about 75 km from Chennai, has been fully constructed using only a 3D printer and a special concrete mix.* L&T, the engineering and construction conglomerate, built this concrete building using *a fully automated 3D printer with an indigenously developed concrete mixture and some manual labour. The special concrete mix used by the printer has been prepared using the same concrete composition used for regular construction materials.* The company hopes the project would play a disruptive role in the construction industry.

'At a nascent stage'

The 3D printing technology is a computer-controlled execution of printing an object layer-by-layer and is being used for manufacturing various prototype models and producing complex shapes of engineering products, but 3D printing with concrete has remained at a nascent stage internationally until now, said the company spokesman. M.V. Satish, senior executive vice-president (Buildings), L&T, said the success of the building project lies in its construction, executed in both vertical and horizontal methods using reinforced bars and welded mesh. The building project was executed at an open project site and completed within 106 printing hours. The vertical and horizontal methodology formulated for the 3D building project meets the provisions of the Indian codes for construction. The cost is also optimal, compared to what is spent on traditional manpower and material-intensive construction, he added. *The 700-sq-ft building is an advancement over the company's project last year — a 3D printed 240-sq-ft one-bedroom house aimed at promoting building layouts for the economically weaker sections, and exploring 3D printing technology for house construction. It could make housing for all viable.*

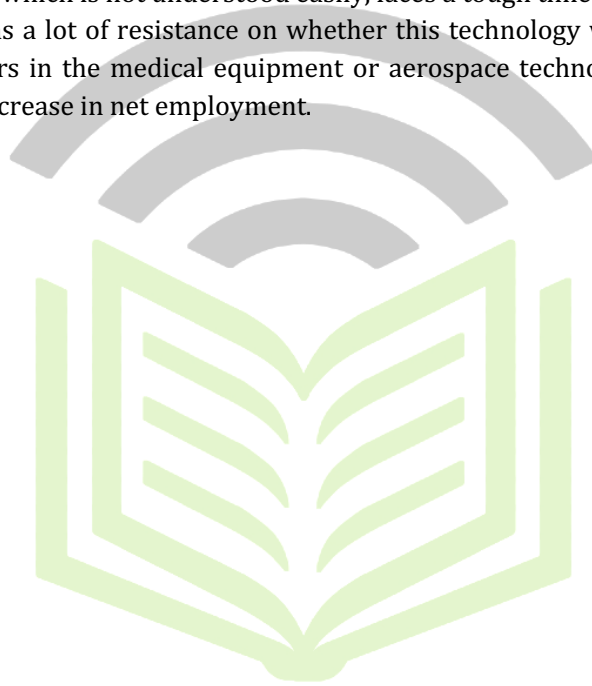
GOVT READIES 3D PRINTING POLICY FOR LOCAL FIRMS TO JOIN NEW GLOBAL MARKET

Eyeing an emerging global market, the Ministry of Electronics and Information Technology (MeitY) will soon come up with a policy aimed at promoting 3D printing on an industrial scale and helping domestic companies "overcome technical and economic barriers" so that they can build supportive and ancillary facilities for world leaders in the technology, such as the US and China. The policy will help develop a "conducive ecosystem for design, development and deployment" of 3D printing and additive manufacturing, Government officials told

The global market for additive manufacturing is expected to reach \$ 34.8 billion by 2024, which is growing at a compound annual growth rate of 23.2 percent, according to the IT Ministry's estimates. *3D printing or additive manufacturing uses computer-aided designing to make prototypes or working models of objects by laying down successive layers of materials such as plastic, resin, thermoplastic, metal, fibre or ceramic.* With the help of software, the model to be printed is first developed by the computer, which then gives instructions to the 3D printer. *"So, there is not only the manufacturing aspect of it, but also design and software. The policy will aim to cover both sides. We have ahead start as far as software is concerned. The idea is to build on it,"* the official said. According to the draft policy, the Central Government will also look to encourage market leaders to establish global bases for 3D manufacturing in India, while also discouraging imports of printed material for domestic requirements. *"One of the key applications for such products is in the medical*



and allied sector. The challenge there is lack of standards since it (3D printing) is a very niche and new domain. There are no global qualifications and certification norms. So that will be a key challenge,” another official said. Other key areas of focus include the *auto and ancillary auto and motor spare part business, such as engines, interior and exterior parts of luxury vehicles, or landing gear, complex brackets, and turbine blades.* “There can be *some application of it in consumer electronics, printed circuit boards, clothing, toys and jewellery as well.* Only after we get some feedback from experts, both in India and the world, can we start to define the industries where it can be more viable and useful than others,” the official said. *Asia leads the world in 3D printing, and about 50 percent of its market is cornered by China, followed by Japan at 30 percent, and South Korea 10percent. But globally, the US remains the leader, with more than 35 percent market share.* Any new technology, which is not understood easily, faces a tough time. In our initial meetings on the subject, there was a lot of resistance on whether this technology would eat into the jobs of highly-skilled workers in the medical equipment or aerospace technology sectors. 3D printing may not lead to an increase in net employment.



DreamIAS



LIFE & SCIENCE

WHAT DOES SPACESHIP TWO'S FIRST CREWED TEST FLIGHT MEAN FOR SPACE TOURISM?

Virgin Galactic will launch a test flight of SpaceShipTwo, its reusable winged spacecraft which will take off from New Mexico's Spaceport America for the first time and is expected to reach an altitude of 80 km.

So what exactly is happening on Saturday?

Virgin Galactic is a publicly traded company founded by British entrepreneur Richard Branson and is one of the companies that is working on offering flights to space to paying customers. Saturday's flight will mark the first crewed flight of the *rocket-powered spacecraft that eventually aims to carry tourists to space, which the company claims will start in 2021*. Once the spacecraft takes off, it will test elements of the customer cabin and flight controls. The spacecraft will also carry payloads as part of its agreement with NASA. In June this year, Virgin Galactic signed a Space Act Agreement with NASA's Johnson Space Center to encourage commercial participation in orbital human spaceflight to the International Space Station (ISS) and help in the development of a Low Earth Orbit economy. Saturday's flight will be followed by two more test flights in the coming months before the company can start commercial flights. *SpaceShipTwo can carry a total of eight people, including two pilots, and has more windows than any other spacecraft in history, the company claims. When it was unveiled in 2016, it was named VSS Unity by Stephen Hawking.*

What is space tourism?

Space tourism is a segment of space travel that seeks to give lay people the opportunity to go to space for recreational, leisure or business purposes. The idea is to make space more accessible to those individuals who are not astronauts and want to go to space for non-scientific purposes. A report published by the Congressional Research Service (CRS) notes that the concept of space tourism is "fairly new". The report mentions that in 1997, the private company *Space Adventures was founded to offer "bookable space-related adventures"*. In fact, *Space Adventures is the only private company to send paying customers to orbital space so far, the report says. In 2004, test pilot Mike Melville became the first private astronaut to fly beyond the Karman Line (recognised as the edge of space)*. In 2008, the billionaire video game developer, Richard Garriott became the sixth private citizen to fly to space. As per media reports, Garriott paid over \$30 million to spend about 12 days at the ISS, which he traveled to aboard a Russian Soyuz spacecraft. Before Garriott, Space Adventures' customer Dennis Tito became the first space tourist in 2001. His flight to space was objected to by NASA citing lack of training. As per CRS, the company has sent seven paying customers to space between 2001 and 2009 and *tourist visits to space came to halt in 2011, when NASA suspended its shuttle program, after which American astronauts were given seats on the Russian Soyuz spacecraft to get to the ISS.*

How much does it cost to go to space as a tourist?

As of now, companies including Virgin Atlantic, SpaceX, XCOR Aerospace, Jeff Bezos's Blue Origin and Armadillo Aerospace are working on providing space tourism services to people. As per Virgin Galactic, over 600 people have already paid to avail its services that will take them to space and the company might become the first in the world to take tourists to space if it can begin commercial



operations next year. As per the BBC, singer Justin Bieber and actor Leonardo DiCaprio are among the 600 people who have already paid. As of now, potential customers can pay a \$1000 fully refundable registration fee to Virgin Galactic, after which they will be notified as and when tickets go on sale. "Please note that, although we have not yet announced final pricing, we will be charging more than the \$250,000 ticket price offered to those who signed up early," it says on its website. According to The New York Times, Axiom Space offered a \$55 million ticket on a SpaceX capsule for a 10-day stay on the orbiting outpost. The flight could take off as soon as in the second half of 2021 and will take a total of three passengers.

INDIAN-AMERICAN AMONG 18 IN NASA'S MANNED MOON MISSION

Raja Jon Vurputoor Chari, an Indian-American US Air Force colonel, is among 18 astronauts, half of them women, who have been selected by NASA for its ambitious manned mission to the Moon and beyond. The modern lunar exploration programme *will land the first woman and next man on the Moon in 2024 and establish a sustainable human lunar presence by the end of the decade*, the American space agency said. NASA named the 18 astronauts who will train for its Artemis moon-landing programme. Chari, 43, a graduate of the US Air Force Academy, Massachusetts Institute of Technology (MIT) and US Naval Test Pilot School, is the only Indian-American in the list. He was selected by NASA to join the 2017 Astronaut Candidate Class. He reported for duty in August 2017 and having completed the initial astronaut candidate training is now eligible for a mission assignment. NASA will announce flight assignments for astronauts later, pulling from the Artemis Team. Additional Artemis Team members, including international partner astronauts, will join this group, as needed. The selected astronauts will help NASA prepare for the coming Artemis missions, which begin next year working with the agency's commercial partners as they develop human landing systems; assisting in the development of training; defining hardware requirements; and consulting on technical development. They also will engage the public and industry on NASA's exploration plans.

JAPAN CAPSULE WITH ASTEROID SAMPLES RETRIEVED IN AUSTRALIA

Japan's space agency said its helicopter search team has retrieved a capsule, which is carrying asteroid samples that could explain the origin of life that landed on a remote area in southern Australia as planned Sunday. Hayabusa2 had successfully released the small capsule on Saturday and sent it toward Earth to deliver samples from a distant asteroid that could provide clues to the origin of the solar system and life on our planet, the Japan Aerospace Exploration Agency (JAXA) said. Early Sunday the capsule briefly turned into a fireball as it re-entered the atmosphere 120 kilometres above Earth. At about 10 kilometres above ground, a parachute was opened to slow its fall and beacon signals were transmitted to indicate its location. Beacon signals were detected, suggesting the parachute successfully opened and the capsule landed safely in a remote, sparsely populated area of Woomera, Australia, said JAXA official Akitaka Kishi. About two hours after the capsule's re-entry, JAXA said its helicopter search team found the capsule in the planned landing area. The retrieval of the panshaped capsule, about 40 centimetres in diameter, was completed about two hours later. The fireball could be seen even from the International Space Station. Hayabusa2 left the *asteroid Ryugu*, about 300 million kilometres away, a year ago. *After it released the capsule, it moved away from Earth to capture images of the capsule descending toward the planet as it set off on a new expedition to another distant asteroid. The capsule descended from 220,000 kilometres away in space after it was separated from Hayabusa2 in a challenging operation*



that required precision control. JAXA officials said they hoped to conduct a preliminary safety inspection at an Australian lab and bring the capsule back to Japan early next week. Dozens of JAXA staff have been working in Woomera to prepare for the sample return. They set up satellite dishes at several locations in the target area inside the Australian Air Force test field to receive the signals. Australian National University space rock expert Trevor Ireland, who was in Woomera for the arrival of the capsule, said he expected the *Ryugu samples to be similar to the meteorite that fell in Australia near Murchison in Victoria state more than 50 years ago.* *“The Murchison meteorite opened a window on the origin of organics on Earth because these rocks were found to contain simple amino acids as well as abundant water,”* Ireland said. *“We will examine whether Ryugu is a potential source of organic matter and water on Earth when the solar system was forming, and whether these still remain intact on the asteroid.”* *Scientists say they believe the samples, especially ones taken from under the asteroid’s surface, contain valuable data unaffected by space radiation and other environmental factors. They are particularly interested in analysing organic materials in the samples.*

Hayabusa 2, a robotic space probe launched by JAXA, Japan’s space agency, in 2014 to explore an asteroid named *Ryugu, a dark, carbon-rich rock a bit more than half a mile wide.* The success of the mission and the science it produces will raise Japan’s status as a central player in deep space exploration, together with NASA, the European Space Agency and Russia. *JAXA currently has a spacecraft in orbit around Venus studying that planet’s hellish climate and is collaborating with the Europeans on a mission that is on its way to Mercury.* In the coming years, *Japan plans to bring back rocks from Phobos, a moon of Mars, and contribute to NASA’s Artemis program to send astronauts to Earth’s moon.*

ISRO LAUNCHES SATELLITE FOR COMMUNICATIONS

The Indian Space Research Organisation (ISRO) successfully placed into a transfer orbit India’s 42nd communications satellite, CMS-01, carried on board the PSLV-C50, from the second launch pad of the Satish Dhawan Space Centre, Sriharikota Range, on Thursday. India’s workhorse launch vehicle, the PSLV, in its 52nd mission, configured in its ‘XL’ version with six strap-on motors, rose into the skies at 3.41 p.m. The satellite was placed into a precise *geosynchronous transfer orbit (GTO)* roughly 20 minutes after lift-off. *CMS-01 is a communications satellite envisaged for providing services in extended C Band of the frequency spectrum and its coverage will include the Indian mainland and the Andaman & Nicobar and Lakshadweep islands,* the ISRO said. The satellite is expected to have a life of over seven years. He said the satellite would act as a continuation of the GSAT-12 launched 11 years ago. Mr. Sivan said *the next launch, the PSLV-C51, would be a special mission for ISRO and the entire country as the vehicle would carry the country’s first private sector satellite under the space reforms programme announced by the Indian government.* “Recently, we have brought in space reforms to unlock India’s potential in the space sector, which the Government of India has initiated. *Within eight months [of the announcement], the first satellite, from Pixxel India named ‘Anand’, will be launched on board the PSLV-C51.* This is the first among a series of satellites to be launched,” Mr. Sivan said. He said *two more satellites, ‘Satish Sat’ from Space Kidz India and ‘Unity Sat’ from a consortium of universities will also be launched.* The ISRO Chairman said the PSLV-C51 launch will mark a new era of space reforms in India.



IN WEIRD PLANET 336 LIGHT-YEARS AWAY, CLUES ABOUT OUR OWN PLANET NINE

A strange exoplanet, orbiting a double-star 336 light years away, has caught the interest of astronomers. The oddball behaviour of the planet, HD106906 b, provide clues about our own mysterious Planet Nine — if it exists. HD106906 b and its behaviour have been described in a study published in The Astronomical Journal on December 10.

What is this exoplanet, and what is Planet Nine?

HD106906 b is not a new discovery: It appears in archival images taken by the Hubble Space Telescope in 2004. But at the time, people did not recognise the object to be a planet. “It was not until follow-up observations were taken in 2013 of the system using a different telescope (specifically the Magellan Telescopes in Chile) that people figured out that this was actually a distinct planet,” lead researcher Meiji Nguyen, from the University of California-Berkeley, told The Indian Express by email. Using data on the object’s motion over 14 years, astronomers have now precisely calculated its orbit and other key details. *Planet Nine is an elusive, distant planet in our own Solar System. Although it has not been found yet, it has been predicted by a series of studies over the last few years, and has been described by astronomers as “hiding in plain sight”. If it exists, Planet Nine is 10 times as massive as Earth.*

Why is Planet Nine believed to exist?

These predictions arise from the peculiar behaviour and alignment of various objects in the Solar System. Astronomers believe all this is happening under the influence of Planet Nine. For example, in the outer reaches of the Solar System, beyond Neptune, there is a region called the Kuiper belt, populated by icy debris. Some of the objects in this region have been found to be very peculiarly aligned, and Planet Nine is likely responsible for this, according to a paper published in 2016 by Konstantin Batygin and Michael Brown of the California University of Technology. Then in 2018, astronomers reported the peculiar behaviour of another object in the Solar System, called 2015 BP519. The object orbits our Sun — but at an extreme tilt (54°) when compared to the orbits of Earth and the other seven planets. Simulations showed that the influence of Planet Nine (if it exists) would explain this tilt. Without Planet Nine, the tilt would be unexplained.

Why is the new exoplanet being compared with Planet Nine?

Both planets (assuming Planet Nine is real) reside far out in their respective stellar systems. Both orbit their respective stars at an extreme tilt. And both are massive enough to influence the behaviour of other objects in their respective regions. All that said, HD106906 b presents a more extreme case in these respects. While Planet Nine is assumed to be 10 times as massive as Earth, HD106906 b is 11 times the mass of Jupiter. HD106906 b is unusually far away from its pair of host stars — over 730 times the distance that earth is from the sun. That makes its orbit extremely long — 15,000 years. Its binary star is relatively young at 15 million years, compared to our Sun which is 4.6 billion years old.

Can Planet Nine’s location and orbit be predicted with measurements?

Indeed it can, Nguyen said. Brown and Batygin of Caltech, authors of the 2016 paper mentioned earlier, have made predictions for where they think Planet Nine is likely to be found in the sky. “Of course, the main challenge is actually trying to find such an object, because *it will not only be very far away, but it will also be incredibly faint...* So it would be like trying to find a tiny black speck



against the pitch darkness of the already black night sky,” Nguyen said. As such, many scientists are using indirect methods to track down the planet rather than spot it directly on a telescope.

WHAT MAKES THE GEMINIDS METEOR SHOWER UNIQUE?

The Geminids meteor shower, believed to be the strongest of the year, is active from December 4-December 20, with December 13 and 14 considered to be the best nights for viewing these meteor showers. Soon after the Geminids meteor shower, viewers in the northern hemisphere can expect to see the Ursids meteor shower, which will be active from December 17-December 26 and will peak right before Christmas on the night of December 21-December 22. However, the rate of Ursids is much less than Geminids. Geminids viewers in the northern hemisphere can expect to see about 60 meteors per hour compared to Ursids, whose observers can typically see 5-10 meteors per hour.

Why is the Geminid meteor shower considered to be the best of the year?

The Geminids meteor showers are unique because their origin does not lie in a comet, but what is believed to be an asteroid or an extinct comet. The Geminids emerge from 3200 Phaethon, which meteor scientists consider to be an asteroid. Discovered on October 11, 1983, the asteroid is over 5 km in diameter and was named after the Greek myth of Phaethon, the son of Sun god Helios. According to NASA, the Geminids rate will be better this year because the shower’s peak overlaps with a nearly new moon, which means there will be darker skies and no moonlight to wash out the fainter meteors. While the meteors peaked on the night of December 13 to the dawn of December 14, some meteor activity may still be visible in the days before and after this peak. NASA says that Geminids travel at a speed of 78,000 mph or 35 km/s, which is over 1000 times faster than a cheetah, about 250 times faster than the swiftest car in the world and about 40 times faster than a speeding bullet. Meteors are best visible on a cloudless night and when the Moon is not extremely bright.

WHY PARTS OF THE US MAY BE ABLE TO SEE THE NORTHERN LIGHTS TODAY

Northern Lights, also known as aurora borealis, are usually witnessed far up in the polar regions or the high latitude regions of Europe, like in Norway. But, on Thursday, they could be visible in regions that are more to the south, such as in the northern parts of Illinois and Pennsylvania in the US. This is happening due to a solar flare, which emerged from a Sunspot on Monday. The flare is accompanied by a *Coronal Mass Ejection (CME) — a large bubble of radiation and particles emitted by the Sun that explodes into space at high speed.* The Space Weather Prediction Center at the US National Oceanic and Atmospheric Administration (NOAA) said the electromagnetic storm could be growing to major status, causing the Northern Lights to be visible in more number of areas than usual.

What causes an aurora?

Auroras occur when charged particles ejected from the Sun’s surface — called the solar wind — enter the Earth’s atmosphere. While flowing toward Earth, the fast-moving solar wind carries with it the Sun’s magnetic field, which disrupts the magnetosphere — the region of space around Earth in which the magnetic field of our planet is dominant. When the Sun’s magnetic field approaches Earth, the protective magnetic field radiating from our planet’s poles deflects the former, thus shielding life on



Earth. However, as this happens, the protective fields couple together to form funnels, through which charged solar wind particles are able to stream down to the poles. At the north and south poles, the charged particles interact with different gases in the atmosphere, causing a display of light in the sky. This display, known as an aurora, is seen from the Earth's high latitude regions (called the **auroral oval**), and is active all year round. In the northern part of our globe, the polar lights are called **aurora borealis or Northern Lights**, and are seen from the US (Alaska), Canada, Iceland, Greenland, Norway, Sweden and Finland. In the south, they are called **aurora australis or southern lights**, and are visible from high latitudes in Antarctica, Chile, Argentina, New Zealand and Australia. *Generally, the auroral oval is confined to the polar regions.* But occasionally, the oval expands, and the lights become visible at lower latitudes, as is expected to happen on Thursday. This happens during periods of high solar activity, such as the arrival of solar storms.

HOW MOUNT EVEREST GOT 3 FEET HIGHER, ENDORSED BY BOTH NEPAL AND CHINA

The Foreign Ministers of Nepal and China jointly certified the elevation of Mount Everest at 8,848.86 metres above sea level—86 cm higher than what was recognised since 1954. The common declaration meant that the two countries have shed their long-standing difference in opinion about the mountain's height — 29,017 feet (8,844m) claimed by China and 29,028 ft (8,848 m) by Nepal. In feet, *the new elevation is about 29,031 ft, or about 3 ft higher than Nepal's previous claim. No other mountain has perhaps been the subject of as much debate.* Over the years, there have been debates on issues like whether it should be "rock height", or whether the snow cladding it, too, should be accounted for.

How and when was the earlier measurement of 8,848m done?

This was determined by the Survey of India in 1954, using instruments like theodolites and chains, with GPS still decades away. The elevation of 8,848 m came to be accepted in all references worldwide — except by China. Mount Everest rises from the border between Nepal and China. *There was also a third estimate, even higher. In 1999, a US team put the elevation at 29,035 feet (nearly 8,850m). This survey was sponsored by the National Geographic Society, US. The Society uses this measurement, while the rest of the world, except China, had accepted 8,848m so far.*

When was the new measurement done?

Until the devastating earthquake of April 2015, Nepal's Survey Department had perhaps never considered the idea of measuring Mt Everest. But the earthquake triggered a debate among scientists on whether it had affected the height of the mountain. The government subsequently declared that it would measure the mountain on its own, instead of continuing to follow the Survey of India findings of 1954. *New Zealand, which shares a bond with Nepal over the mountain, provided technical assistance. Sir Edmund Hillary, the first climber on the peak along with Nepal's Tenzing Norgay in May 1953, worked as the mountain's undeclared brand ambassador to the world.* In May 2019, the New Zealand government provided Nepal's Survey Department (Napi Bibhag) with a Global Navigation Satellite, and trained technicians. Christopher Pearson, a scientist from University of Otago, travelled to Nepal on a special assignment.

How did China come to be part of it?

China's measurements were done separately. Nepal, in fact, had completed its mission early last year. The team of 120 (field workers and data analysts) was processing the data and computing results,



which took four months, when the pandemic disrupted its work. The two sides subsequently signed a memorandum of understanding to jointly make public their results. The Chinese side conducted its measurements early this year.

What was the methodology used?

In Tuesday's webinar, which lasted nearly half an hour, Foreign Ministers Pradeep Kumar Gyawali and Yang Yi, respectively from Kathmandu and Beijing, simply announced the new height, and appreciated the mutual cooperation. They did not go into technical details. Damodar Dhakal, Joint Secretary and spokesperson for Nepal's Department of Survey, said: "We have used the previous methods applied in ascertaining the height as well as the latest data as well Global Navigational Satellite System (GNSS). The fact that both Chinese and Nepali data tallied shows the accuracy."

Could there be any disagreement on the processor the outcome?

"There should not be any," Dhakal said. The Department of Survey said that with both sides finding the same result, the accuracy of the methods appear all the more credible. There is an important takeaway for Nepal. It was a moment of national pride in achieving this technological feat. As a senior bureaucrat said: "We got involved for the first time in ascertaining the height of the mountain that is linked to our identity. Second, the world community and those in adventure tourism will be able to gain a higher record by climbing Mt Everest that is taller than it was assumed yesterday."

For Nepal and China, the height of Everest wasn't merely an academic debate. It also had ramifications for a lucrative tourism industry. Officials told the Kathmandu Post the slightly higher "snow height" was "one of the key reasons why Nepal had been drawing Everest aspirants in droves". Ang Tsering Sherpa, former president of the Nepal Mountaineering Association, told the newspaper that climbers from Nepal "started to swell from 2007 when China started issuing Everest climbing certificates stating the height as 8,844.57 metres against 8,848 metres in certificates issued by Nepal for the same peak". "Now, there will be a common height," he said, but it will give China an advantage in the climbing stakes as "climbing Everest through the northern side is much cheaper than climbing from the southern side". The new height replaced the long-associated 8,848 metre-height, which was, newspapers in Beijing and Kathmandu noted, a legacy from 1954, and a measurement carried out by the Survey of India.

SINGAPORE'S BELOVED STREET HAWKER CULTURE, NOW A UNESCO 'INTANGIBLE HERITAGE'

Last week, one of Singapore's most popular attractions, its vibrant street hawker culture, was designated an Intangible Cultural Heritage by the UNESCO. It is now part of a list that includes practices such as yoga from India, reggae music from Jamaica, Finland's sauna culture and Turkey's endangered whistled language.

Street hawking in Singapore

Singapore's street hawkers are an indelible part of the city-state's local life, as seen in the hit film Crazy, Rich Asians (2018), which has scenes set in Newton Market, one of most popular late-night street food destinations in the city. *These hawker stalls are also a huge tourist attraction, drawing millions of tourists for dishes like nasi lemak, chilli crab, kaya toast, laksa, and roti prata. The hawker*



centres are representative of Singapore's multiculturalism, with stalls selling cheap, delicious food of Chinese, Malay, Indian origins, among others. People from all walks of life patronise these stalls, and according to the Singapore government's heritage website, set up during the submission process to the *the Unesco's Representative List of the Intangible Cultural Heritage of Humanity*, nine out of 10 Singaporeans believe that the street hawker culture is an important part of their national identity. *According to the heritage website, the history of this vibrant street food culture goes back to the 1800s when Singapore became an important trading hub of the British empire. Immigrants from all across the region — China, India, the Malay archipelago — were drawn to the employment opportunities presented by the busy port city, and many of them took to selling food on the streets. They remained a part of the city's life even after Singapore gained independence in 1965. Soon after this, in 1968, the authorities began to license street hawkers and move them to specially-built hawker centres, a process that continued until 1986. Over the years, the Singapore government, under its National Environment Agency, has implemented many steps to keep the hawker culture alive, including setting up the Incubation Stall Programme for aspiring street hawkers, the Hawkers' Development Programme which equips aspiring and existing street hawkers with relevant skills, such as social media marketing, and the Hawker's Productivity Grant, which offers funding to individual stall owners to encourage them to be more productive by using automated equipment.* Singapore's street food has fans across the world, and has earned much critical acclaim as well. In 2016, Chinatown's Liao Fan Hawker Chan, famous for its Soya Sauce Chicken Rice and Roasted Pork Noodles, became the first hawker stall in the world to be awarded a Michelin star. Many other stalls in Singapore have since earned the coveted recognition, making them some of the cheapest Michelin-starred eateries in the world.

A vibrant but struggling culture

Despite being a beloved local institution and attracting dedicated state support, however, the hawker culture has been beset by problems, including the fact that fewer and fewer young Singaporeans are keen to work the long, hard hours that a street hawking stall requires. Additionally, the rising costs of ingredients has made it increasingly unsustainable to sell high quality food that is cheap. This year, the Covid-19 pandemic, which has left much of the global food and hospitality industry in tatters, also hit Singapore's street vendors hard. While community initiatives, such as Hawker Heroes SG, which offers a completely free delivery service to the worst-hit hawkers, have come up, the UNESCO announcement is expected to provide a much-required boost to Singapore's unique street hawker culture.

BITCOIN EXPLAINED

Bitcoin, the cryptocurrency, has breached an important psychological barrier against the US dollar — the \$20,000 mark — after having fallen just short during its 2017 rally. As of Thursday, Bitcoin was trading above \$23,000. The rally to these levels, which has sustained over the last four months, has also seen various stakeholders taking steps towards legitimising the cryptocurrency. But before one decides to invest in Bitcoin, there are a number of factors to be considered.

How does a Bitcoin work?

The origin of Bitcoin is unclear, as is who founded it. A person, or a group of people, who went by the identity of *Satoshi Nakamoto* are said to have conceptualised an accounting system *in the aftermath of the 2008 financial crisis*. Nakamoto published a white paper about *a peer-to-peer*



electronic cash system, which would “allow online payments to be sent directly from one party to another without going through a financial institution”. According to Bitcoin.org, a website originally co-owned by Nakamoto, Bitcoin from a user’s perspective is “nothing more than a mobile app or computer program that provides a personal Bitcoin wallet and allows a user to send and receive Bitcoins with them”. *Bitcoins are generally identified with a Bitcoin address, which comprises 26-35 alphanumeric characters starting with either “1” or “3”*. This address, which remains anonymous, represents the destination of a Bitcoin, or a fraction. *Originally, the Bitcoin was intended to provide an alternative to fiat money and become a universally accepted medium of exchange directly between two involved parties*. However, after Bitcoins picked up momentum, some entities started establishing exchanges — on lines of stock exchanges — for people to buy and sell Bitcoins against fiat money such as dollars or euros or pounds. Early proponents of the cryptocurrency argued that once an exchange was established, all the strengths of a Bitcoin went away, considering a third party institution was involved once again for money to change hands.

Are records of Bitcoin transactions maintained?

Nakamoto mooted an idea for a publicly available, open ledger that would contain all the transactions ever made, albeit in an anonymous and an encrypted form. This ledger is called blockchain. Considering the public and open nature of the ledger, proponents of this currency system believe it could help weed out corruption and inefficiencies in the system. In a traditional financial deal in which two parties are using fiat money, a third-party organisation — usually a central bank — assures that the money is genuine and the transaction is recorded. With Bitcoin, a chain of computers is constantly working towards authenticating the transactions by solving complex cryptographic puzzles. For solving the puzzles, these systems are rewarded with Bitcoins. This process is called *Bitcoin mining*.

How does one acquire a Bitcoin?

One can either mine a new Bitcoin if they have the computing capacity, purchase them via exchanges, or acquire them in over-the-counter, person-to-person transactions. A Bitcoin exchange functions like a bank where a person buys and sells Bitcoins with traditional currency. Depending on the demand and supply, the price of a Bitcoin keeps fluctuating. *Miners are the people who validate a Bitcoin transaction and secure the network with their hardware. The Bitcoin protocol is designed in such a way that new Bitcoins are created at a fixed rate. No developer has the power to manipulate the system to increase his profits.* One unique aspect of Bitcoin is that *only 21 million units will ever be created*. However, transactions can be denominated in sub-units of a Bitcoin. *A Satoshi is the smallest fraction of a Bitcoin.*

What has led to the rise in Bitcoin prices?

According to those closely watching the currency, the prices have been driven by various factors, including increased acceptance during the pandemic. Globally, large players like payments firm *PayPal*, and Indian lenders like *State Bank of India, ICICI Bank, HDFC Bank and Yes Bank*, have given *legitimacy to cryptocurrency through some of their decisions*. For example, these Indian banks reportedly have allowed their customers to use their bank accounts to fund cryptocurrency trading. *In India, accounts of several exchanges were frozen by financial institutions back in 2018 following a fiat from the Reserve Bank of India that barred banks from using their systems for cryptocurrency-related transactions. However, the Supreme Court ruled against this order in March this year.* “... The biggest factor (in the recent rise of Bitcoin prices) has been the fact that some



pension funds and insurance funds took permission to park a small part of their portfolio in Bitcoins. Once that happened, the availability is an issue leading to the spike in prices,” said Sathvik Vishwanath, co-founder and CEO of Bitcoin exchange Unocoin. Vishwanath however feels that there would be a correction in the prices when people see a bubble around the prices, “but we don’t know at what level that would happen”.

What investment opportunity does Bitcoin present?

The first advocates of Bitcoin did not intend it to be used as an asset, but the mushrooming of exchanges turned it into one. Traditional investment experts are wary of Bitcoin as an investment. “We are not offering advisory on Bitcoin investment. I don’t see any underlying fundamental that drives its price and I think it’s mostly driven by supply and demand and on technical factors and hence we are not offering our advice. It is an alternative currency which is digital in form and one has to be careful while going for it,” said Surya Bhatia, founder of Delhi-based financial services and investment advisory firm Asset Managers. It is important to note that the price of Bitcoin fell sharply from over \$18,000 in December 2017 to around \$3200 in December 2018. It then went up to over \$10,000 in July 2019, then fell to around \$5,500 in March 2020. It has had a sharp rally since then. Market participants say the huge volatility in the price without any major fundamental reason should make retail investors cautious.

Is there a case for Bitcoin to be regulated?

People in the investment fraternity point out that there is no underlying asset in case of Bitcoin, and the value is “fictitious”. Before investors can look at it as an asset, several things need to fall in place. If the cryptocurrency is regulated, it could result in the volatility reducing, and its acceptability and monetisation needs easing up. Given that Bitcoin was intended to come across as a global decentralised currency, any central authority regulating it would effectively defeat that purpose.

WHY FACEBOOK RELEASED ADS TO CALL OUT APPLE’S NEW ANTI-TRACKING POLICY

Apple’s new privacy policy regarding tracking of user behaviour by apps has Facebook fuming. This week the social network took out two full-page advertisements in US newspapers such as Washington Post, The New York Times and Wall Street Journal saying the policy will harm ‘small businesses’ everywhere. This is not the first time that Apple and Facebook have clashed over the issue of privacy. Apple CEO Tim Cook has in the past been critical of Facebook’s business model. Zuckerberg recently accused the iPhone maker of having a “stranglehold as a gatekeeper on what gets on phones,” and “stifling innovation”.

So what is the change to Apple’s privacy policy?

*Apple is adding more transparency in iOS 14. For one, Apple’s App Store now requires self-declared ‘privacy nutrition labels’ or little snippets which show the data being collected by apps. More importantly, Apple is cracking down on apps tracking user behaviour outside of their apps. This tracking behaviour is crucial for apps like Facebook, which have their business model built around being able to target advertisements on the basis of this data. Apple’s new “AppTrackingTransparency” framework means a user has to grant explicit permission before an app can track them or access their “device’s advertising identifier”. *The advertising identifier in each device is a unique id to serve targeted ads and it records what sites you are visiting, your**



interests, where you shop, where you wish to shop and so on. The new policy might mean that Facebook could no longer access this if users choose to block it. According to Apple's description page for developers, *tracking as defined by them means "the act of linking user or device data collected from your app with user or device data collected from other companies' apps, websites, or offline properties for targeted advertising or advertising measurement purposes. Tracking also refers to sharing user or device data with data brokers."* An app which displays ads "based on user data collected from apps and websites owned by other companies", as per Apple, is an example of tracking. For instance, when you visit Amazon and search for a chair, but don't buy it and later see an ad for the same chair on Facebook, that's an example of how tracking works. Sharing device location data or email lists with a data broker, sharing list of emails, advertising IDs, or other IDs with third-party advertising networks, are all considered similarly.

Why is Facebook unhappy?

Apple's new policy could mean major trouble for Facebook, which relies on selling targeted ads to power its business models. In its full-page newspaper ad, Facebook argues that without personalised ads small businesses will suffer. "Forty-four per cent of small to medium businesses started or increased their usage of personalised ads on social media during the pandemic, according to a new Deloitte study. Without personalised ads, Facebook data shows that the average small business advertiser stands to see a cut of over 60 % in their sales for every dollar they spend." According to Facebook, while it will be impacted by the change, small businesses will be 'devastated'. The ad notes, "More than 10 million businesses use our advertising tools each month to find new customers, hire employees and engage with their communities. Many in the small business community have shared concerns about Apple's forced software update, which will limit businesses ability to run personalized ads and reach their customers effectively."

What has been Apple's response?

Apple CEO Tim Cook tweeted saying, "We believe users should have the choice over the data that is being collected about them and how it's used. Facebook can continue to track users across apps and websites as before, *App Tracking Transparency in iOS 14 will just require that they ask for your permission first.*" The tweet had a screenshot of iOS showing a message asking users whether they would want to continue letting Facebook track their activity outside of the app. There are two options: Ask App not to track, Allow. Cook's screenshot also shows that Facebook can show information asking why users should continue to allow tracking. In a statement Apple said it believe this is a simple matter of standing up for our users. "Users should know when their data is being collected and shared across other apps and websites — and they should have the choice to allow that or not. *App Tracking Transparency in iOS 14 does not require Facebook to change its approach to tracking users and creating targeted advertising, it simply requires they give users a choice.*"

Why was WhatsApp unhappy with Apple's nutrition labels?

WhatsApp claimed Apple's new policy around privacy nutrition labels was unevenly implemented, given Apple's own iMessage is pre-loaded onto iPhones and would technically be exempt from these labels. Apple later clarified that all apps, including its own, will have to show the labels. However, users are not likely to see the same for the pre-loaded apps like iMessage as they don't need to be downloaded from the App Store.



A MASSIVE HACK IN THE US, USING A NOVEL SET OF TOOLS

The 'SolarWinds hack', a cyberattack recently discovered in the United States, has emerged as one of the biggest ever targeted against the US government, its agencies and several other private companies. In fact, it is likely a global cyberattack. It was first discovered by US cybersecurity company FireEye, and since then more developments continue to come to light each day. The sheer scale of the cyber-attack remains unknown, although the US Treasury, Department of Homeland Security, Department of Commerce, parts of the Pentagon are all believed to have been impacted. In an opinion piece written for The New York Times, Thomas P Bossert, who was Homeland Security Adviser for President Donald Trump, has named Russia for the attack. He wrote "evidence in the SolarWinds attack points to the Russian intelligence agency known as the SVR, whose tradecraft is among the most advanced in the world." The Kremlin has denied its involvement.

So, what is this 'SolarWinds hack'?

News of the cyberattack technically first broke on December 8, when FireEye put out a blog detecting an attack on its systems. The firm helps with security management of several big private companies and federal government agencies. FireEye CEO Kevin Mandia wrote in a blogpost saying that the company was "attacked by a highly sophisticated threat actor", calling it a state-sponsored attack, although it did not name Russia. Worse, the extent of data stolen or compromised is still unknown, given the scale of the attack is still being discovered. After systems were compromised, "lateral movement and data theft" took place.

How did so many US government agencies and companies get attacked?

This is being called a 'Supply Chain' attack: Instead of directly attacking the federal government or a private organisation's network, the hackers target a third-party vendor, which supplies software to them. In this case, the target was an IT management software called Orion, supplied by the Texas-based company SolarWinds. Orion has been a dominant software from SolarWinds with clients, which include over 33,000 companies. SolarWinds says 18,000 of its clients have been impacted. Incidentally, the company has deleted the list of clients from its official websites. According to the page, which has also been scrubbed from Google's Web Archives, the list includes 425 companies in Fortune 500, the top 10 telecom operators in the US. A New York Times report said parts of the Pentagon, Centers for Disease Control and Prevention, the State Department, the Justice Department, and others, were all impacted. Microsoft confirmed it has found evidence of the malware on their systems, although it added there was no evidence of "access to production services or customer data", or that its "systems were used to attack others".

How did they gain access?

*According to FireEye, the hackers gained "access to victims via trojanized updates to SolarWinds' Orion IT monitoring and management software". Basically, a software update was exploited to install the 'Sunburst' malware into Orion, which was then installed by more than 17,000 customers. FireEye says the attackers relied on "multiple techniques" to avoid being detected and "obscure their activity". The malware was capable of accessing the system files. What worked in the malware's favour was it was able to "blend in with legitimate SolarWinds activity", according to FireEye. *Once installed, the malware gave a backdoor entry to the hackers to the systems and networks of SolarWinds' customers. More importantly, the malware was also able to thwart tools such as anti-virus that could detect it.**



Right now, SolarWinds is recommending that all customers immediately update the existing Orion platform, which has a *patch* for this malware.

GOOGLE OUTAGE, EXPLAINED: WHAT REALLY HAPPENED, AND WHAT IS THE IMPACT?

Most Google services, from Gmail to YouTube to Google Drive, suffered a mass outage lasting over an hour on Monday. Across the world, users complained they were unable to access emails or were logged out of ongoing Google Meet sessions. While Google restored all services within an hour of the outage, by then, the crash had become one of the biggest social media trends — and sent panic waves across businesses in many parts of the world.

How important is this outage?

The outage gains importance given that there has been a surge in users across all online services, and certainly in those offered by Google. There will be questions asked on whether the backend infrastructure of these companies are strong enough to withstand this spike in load, that too over a large period of time. Companies that depend on Google for backend services will be worried about the impact of such outage, especially a longer one.

LAWSUITS COULD FORCE FACEBOOK TO SELL INSTAGRAM, WHATSAPP

Facebook Inc could be forced to sell WhatsApp and Instagram after the U.S. Federal Trade Commission and nearly every U.S. State filed lawsuits against the company, saying it used a “buy or bury” strategy to snap up rivals and keep smaller competitors at bay. The twin lawsuits filed on Wednesday accuse Facebook of buying up rivals, focusing specifically on its acquisitions of photo-sharing app Instagram for \$1 billion in 2012 and messaging app WhatsApp for \$19 billion in 2014. Regulators said the acquisitions should be unwound, which could set off a long legal challenge as the deals were cleared years earlier by the FTC. *With the filing of the lawsuits, Facebook becomes the second Big Tech company to face a major legal challenge this year after the U.S. Justice Department sued Alphabet Inc’s Google in October, accusing the \$1 trillion company of using its market power to fend off rivals.* The lawsuits highlight the growing bipartisan consensus to hold Big Tech accountable for business practices and mark a rare moment of agreement between the Trump administration and Democrats, some of whom have advocated breaking up both Google and Facebook. “For nearly a decade, Facebook has used its dominance and monopoly power to crush smaller rivals, snuff out competition, all at the expense of everyday users,” said New York Attorney General Letitia James *on behalf of the coalition of 46 states, Washington, D.C. and Guam.* Alabama, Georgia, South Carolina and South Dakota did not participate in the lawsuit. Ms. James said the company acquired rivals before they could threaten the company’s dominance. Facebook’s general counsel Jennifer Newstead called the lawsuits “revisionist history” and said antitrust laws do not exist to punish “successful companies.” She said WhatsApp and Instagram have succeeded after Facebook invested billions of dollars in growing the apps. “The government now wants a do-over, sending a chilling warning to American business that no sale is ever final,” Ms. Newstead said. She also raised doubts about alleged harms caused by Facebook, arguing that consumers benefited from its decision to make WhatsApp free, and rivals like YouTube, Twitter and WeChat did “just fine” without access to its developer platform.

FIRING A WARNING SHOT ACROSS BIG TECH’S BOWS (JAYATI GHOSH TAUGHT ECONOMICS AT THE JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI)



It was a long time coming, but the day of reckoning for the big digital companies may finally have arrived. Despite the growing monopoly power of big tech and their use of anti-competitive practices, earlier attempts to regulate them (such as an attempt by the U.S. Department of Justice in 1998 to rein in Microsoft) had only limited success. The novel coronavirus pandemic further enhanced the monopoly power of the big tech giants.

Timeline and actions

But now, a rash of lawsuits and regulatory moves in the United States and Europe against the big non-Chinese digital companies (particularly *Facebook, Amazon, Apple and Google*) suggest that the days of their easy expansion in an unregulated environment may be coming to an end. *In October 2020, the U.S. Department of Justice brought a lawsuit against Google (<https://bit.ly/37fngUw>) for misusing its dominant position as search engine by undermining competitors; favouring its own content in search results; doing deals with other companies to become the default search engine in many browsers and devices; and then using data on its users and competitors to reinforce its dominance and get even more revenue from advertising.* Then, in early December, the *U.S. Federal Trade Commission (FTC) and 48 states, the District of Columbia, and Guam, sued Facebook (<https://bit.ly/3mebxTD>), accusing it of abusing its market power in social networking to crush smaller competitors.* The specific instances of *Facebook's acquisitions of WhatsApp and Instagram* were cited, which apparently resulted from concerns that the growing popularity of these platforms could break the company's hold on social media. The FTC complaint (<https://bit.ly/3moqDwY>) cites a Mark Zuckerberg email of June 2008: *"It is better to buy than compete"*; in another internal communication, he noted that Facebook *"can likely always just buy any competitive startups"* (<https://bit.ly/37ZBpV7>). By 2012, just before buying Instagram, he said the photo and video sharing app "could be very disruptive to us", if allowed to grow independently. The purchase of WhatsApp two years later similarly reflected concerns that the instant messaging service could become the favoured social media over Facebook.

The 'wrath of Mark'

Why did these companies agree to be bought up? *It was not the price at which they were sold (\$19 billion for WhatsApp and \$1 billion for Instagram) so much as Facebook's ability to make an offer they could not refuse, Mafioso-style, by destroying their ability to expand and attract new users. "Will he go into destroy mode if I say no?" Instagram founder Kevin Systrom is cited as having* asked an investor when considering Facebook's offer. "Bottom line I don't think we'll ever escape the wrath of Mark ... it just depends how long we avoid it." This wrath was expressed by using Facebook's huge user base in a bait-and-switch, offering newer app or website developers various incentives (such as allowing them to use "like" buttons) that promoted their sites or apps to Facebook users, which also meant that Facebook could then gather more data on the online activities of those users. When the new app grew and emerged as a possible threat, Facebook would stop this access and thereby destroy its ability to attract a new user base. Google and Facebook are hardly the only transgressors. A U.S. House Committee Report (<https://bit.ly/2WaomKW>) that led up to the lawsuits has major indictments of Amazon and Apple as well. *Amazon "functions as a gatekeeper for e-commerce", reducing competition and thereby also harming consumers.* It has exploitative relationships with other sellers on the platform, which "live in fear of the company" and which Amazon refers to as "internal competitors". Sellers are not allowed to contact shoppers directly, often limited in their ability to sell on other platforms, face "strong-arm tactics in negotiations" and have to choose between getting "atrocious levels of customer service" or better service for a



fee. Like the other companies, Amazon profits from ideas and products developed by others, and simply buys up start-ups or even open-source cloud-software developers when it wants. *Apple also favours its own apps and seeks to put rivals at a disadvantage on its products and leaves developers with little choice for reaching consumers. Like Google, it levies high commission fees (of 30%) that end up being charged on consumers.* The two companies are voracious purchasers of companies: *over the past few years, Google has bought at least one firm a month; Apple buys one every two or so (<https://cnb.cx/2JTK1Vq>).* The European Union has separately filed cases against Amazon and Google. In November, it filed charges against Amazon (<https://bit.ly/37htc wd>), accusing the company of using its access to data from companies selling on its platform to gain unfair advantage over them. Earlier this summer it opened two antitrust cases against Google. It is planning to change the regulatory regime (<https://reut.rs/37YZNq0>) to prevent the anti-competitive practices exhibited, for example, in its Android mobile operating system and its search engine.

Impact on users

The dangers of these aggressive monopolies are not confined to the competitors — users also suffer because of fewer options and weaker privacy controls. *Both WhatsApp and Facebook have eroded the privacy protections that they earlier promised, by changing the terms of service communicated through long and complicated messages that most users simply do not read. All these companies hoard the data they collect, which increasingly covers all aspects of their users' lives. For many of them, data are now the biggest source of revenues and profits. All sorts of use can be made of data: marketing and targeted advertising, influencing and manipulating political outcomes, targeting individuals based on particular criteria, enabling surveillance by both governments and private agencies. The idea in both the U.S. and the EU is to break up these companies — for example, by forcing Facebook to divest both WhatsApp and Instagram, much as the telecom giant AT&T was forced to break up in the early 1980s.* Anti-trust lawsuits are notoriously difficult to win, but many legal experts agree that these cases are very solid. But this is only one step in the required regulatory control of these digital behemoths, which are now exercising unprecedented market power as well as other kinds of power. More regulation is clearly required, in addition to the lawsuits.

The Indian angle is relevant

All this has direct relevance for India, and not only because these companies are so important in India. More than 400 million of WhatsApp's estimated 2 billion users are in India; Amazon has around one-third of the share of online retail in India, neck and neck with Flipkart that was recently acquired by Walmart; India is Facebook's largest single market, with around 270 million accounts; Google completely dominates the search engine space in India, and most smartphones in India are Android-based. And now *Facebook and Google are collaborating with India's largest telecom company — Reliance Jio owned by Mukesh Ambani — to create a single gateway for Indians (<https://bit.ly/3abrSNw>) providing everything from information, news media and entertainment to daily purchases of groceries and sundry other services.* Apart from their market dominance, another concern is the *cosy relationship these companies have established with the ruling party in the country*, and the willingness to adopt different standards of fact-checking and privacy in India, so as to benefit the powerful. Reports suggest that Facebook has been unwilling to remove incendiary and violent content for fear of backlash (<https://on.wsj.com/388qyZc>) from Hindu nationalist politicians and stormtroopers. This is not helped by the fact that India still does not



have a privacy law, even though the Supreme Court declared privacy to be a fundamental right some time ago. Even the proposed Bill is extremely weak without adequate safeguards. It is time for Indians to wake up and realise that anti-trust regulation and public control over digital companies—including home-grown ones — have become critical for them.

IN PORNHUB PULLING DOWN 10 MILLION VIDEOS, IMPLICATIONS FOR ALL OTHER SUCH SITES

Pornhub, the world's most popular porn site, this week pulled down over 10 million videos uploaded by unverified users after backlash following a New York Times article that said the site had too many videos of children being exploited and abused.

The red flag

The trouble for Canada-based Pornhub, also *the tenth most popular site online (it is banned in India) as per SimilarWeb.com*, started when Columnist Nicholas Kristof, in the piece titled 'The Children of Pornhub', wrote: "Its site is infested with rape videos. It monetizes child rapes, revenge pornography, spy cam videos of women showering, racist and misogynist content, and footage of women being asphyxiated in plastic bags." The piece underlined how the videos that depict child abuse and non-consensual violence, would stay on even if Pornhub removed from the site as it allowed users to download the videos directly. There were also cases like that of a 15-year-old missing girl from Florida, whose mother found over 50 videos of her on the site. Within a week, credit card companies MasterCard and Visa both decided to stop transactions on the site and initiated probes into their relations with *Mindgeek, the parent company of Pornhub. Now, Pornhub is able to accept only Bitcoin payments.* There are signs that the financial impact will not end there as the credit card sites are now investigating ties with other adult sites too.

The response

Pornhub banned unverified uploaders from posting new content and eliminated downloads in what it calls the "most comprehensive safeguards in user-generated platform history". *It also removed all content uploaded by these unverified users, hoping it had "demonstrated our dedication to leading by example". Pornhub had over the years modelled itself on YouTube and allowed anyone to upload content, and monetise it. As its 'Pornhub Community' section boomed with videos from all over the world, the site too profited from ads.* Pornhub clocked over 3.3 billion visits in November 2020, as per SimilarWeb.com. In a blogpost this week, Pornhub also claimed that "leading non-profit organisations and advocacy groups acknowledge" its efforts at combating illegal content have been "effective". It claimed that *while Facebook self-reported 84 million instances of child sexual abuse material over the past three years, independent, third-party Internet Watch Foundation reported just 118 incidents on Pornhub.* "That is still 118 too many, which is why we are committed to taking every necessary action," the blogpost said. The blog also claimed that Pornhub was "being targeted" by the National Center on Sexual Exploitation and Exodus Cry/TraffickingHub "dedicated to abolishing pornography, banning material they claim is obscene, and shutting down commercial sex work".

The implications

With PornHub switching off a majority of its content it is likely that the site will see a drastic fall in visitors too. There is also going to be a disproportionate fall in revenue as new users will not be able



to purchase subscriptions on the site anymore with the payment options being removed by credit card companies. This also means that the verified users on Pornhub, often performers who make their livelihood by posting explicit videos on the site, will find their income streams cut to just advertising revenue. The impact on the porn industry will also be significant given that if Pornhub has content that is exploiting children and showing revenge porn, then it is more than likely that all other sites too will have such content. As credit card companies look at their links with all such sites, it could choke the revenue streams of these websites and make some of them unviable. What needs to be seen is whether this ends up being the start of something big. *Interestingly, Mindgeek, earlier called Manwin, has a near monopoly on the online pornography space and own many of the top adult sites like RedTube and YouPorn along with Pornhub and a host of sites like RealityKings that also produces the content.* In 2015, the company had recorded a revenue of \$460 million and 2020 was clearly the best year ever for anything online. The ownership pattern could also come in for scrutiny in the present circumstances especially when anti-trust probes are on against other big tech firms too.

THAI RESEARCHERS UNEARTH RARE BRYDE'S WHALE SKELETON

Thai researchers have unearthed a rare partially fossilised skeleton belonging to a Bryde's whale believed to be around 5,000 years old at an inland site west of Bangkok. The 12.5-metre-long (41 feet) skeleton was found by a cyclist, who spotted part of the vertebrae coming out of the ground, in early November. Excavation has been going on since then. "This whale skeleton is thought to be the only one in Asia," said Pannipa Saetian, a geologist in the Fossil Protection division of the Department of Mineral Resources.

Perfect condition

"Its very rare to find such a discovery in near-perfect condition," said Pannipa, estimating that about 90% of the whale's skeleton had been recovered. "Yesterday we found the right shoulder and fin," she said, noting that about 36 backbone pieces had been unearthed. The bones needed to be carbon-dated in order to determine the exact age of the skeleton, she said.

Can aid research

Once the painstaking process of cleaning and preserving the fragile skeleton is complete it will be exhibited. Scientists hope the skeleton will provide more information to aid research into Bryde's whale populations existing today as well as the geological conditions at the time. *Bryde's whales, sometimes known as tropical whales for their preference for warmer waters, are found in coastal waters in parts of the Indian, Pacific and Atlantic Oceans, including in the Gulf of Thailand.*

50 YEARS OF THE ALBUM THAT SAVED THE HUMPBACK WHALE, SINGERS OF THE DEEP

A large humpback whale has been spotted several times this week in the Hudson river near midtown Manhattan. The whale was photographed in front of the Statue of Liberty and other landmarks of New York City as it paid a visit to the city's harbour. It is not common for whales to come into New York harbour — the last sighting was in 2016 — and as the images by photojournalist Bjoern Kils went viral, people around the world were reminded of these beautiful, wondrous creatures of the deep, and the remarkable story of the *human effort that started the process of their return from near extinction a half-century ago.*



The humpback whale

The humpback whale (*Megaptera novaeangliae*) one of the 15 species of baleen whales, is considered to be one of nature's greatest wonders. *It is famous for travelling enormous distances through the oceans, singing complex melodies in the deep, or leaping out of the water towards the sky with dramatic flair.* They have distinctive tail fins (flukes), and they make nets of bubbles to capture schools of fish. *Humans have found the humpback attractive for another reason too — as raw material to manufacture soap, oil, and pet food. As such, commercial whaling of tens of thousands of humpbacks in the 19th and early 20th centuries all but killed off the species.* It is estimated that around 50,000 whales were being killed each year in the 1950s. But just as the humpback neared extinction, an unusual kind of music began to play. *It was a part of an album, titled 'Songs of the Humpback Whale'. People around the world, including leaders at the United Nations and the heads of NASA, began to listen to the sounds of the dying whales. More than 125,000 copies of the album were bought, a record for a nature recording that stands to this day.*

Listening to the musical whales

In 1970, an American bioacoustics expert named Roger Payne, and an engineer with the US Navy, Frank Watlington, released the album 'Songs of the Humpback Whale', based on the latter's recordings of the singing whales. *While sound is commonly used by whales as a communication tool, humpbacks alone can sing — the females are quiet crooners, but the males are loud, bold and assertive as they either try to impress the girls or warn a rival to keep away.*



Watlington had made recordings of the songs while he was in Bermuda on official assignment and, when he played these, Payne, his then wife Katherine, and an associate, Scott McVay detected the musical structure in the recordings. The group got working and released 'Songs of the Humpback Whale' using three tracks by Watlington and two created by the Roger and Katy Payne. This year marks the 50th anniversary of the album.

Song Sung True: Those Were The Days

The 'Songs of the Humpback Whale', which sounds unusual in the beginning before it captures the hearts of listeners, created a surge of interest and global movements to save the whales.

Stopping the killing, reaching the stars

"Support came with the foundation of Greenpeace in 1972, and in particular its Project Ahab in the mid-70s, in which activists parked their boats in front of the whalers' harpoons. David Attenborough and Jacques Cousteau made popular documentaries focused on the creatures," The Guardian reported. While the International Whaling Commission banned commercial whaling in 1986, around



a half dozen countries such as Iceland and Norway still allow whaling for scientific and commercial reasons. Today, the population of humpback whales is back to pre-whaling days, around 100,000. “Carl Sagan and his wife Ann Druyan added one of my recordings of humpback whales to the golden record they persuaded NASA to attach to each of the Voyager satellites. *Voyager I has entered interstellar space; it has passed through the heliopause — the transition zone (Voyager II is in that zone now) where, as Carl put it so well, ‘The wind from the sun is equal to the wind from the stars’.* Thus have whales captured the hearts of an age-old enemy, man, and their songs are now bound on a 2.5 billion year voyage that will carry their message across the galaxy,” Payne said.

IT'S A GOAT, IT'S A PIG, IT'S A SEROW: AN UNUSUAL SIGHTING IN THE SPITI COLD DESERT

A Himalayan serow has been sighted for the first time in the Himalayan cold desert region. Why is the sighting significant?

First, what kind of an animal is the Himalayan serow?

A biologist has described a Himalayan serow as resembling a cross between a goat, a donkey, a cow, and a pig. It's a

medium-sized mammal with a large head, thick neck, short limbs, long, mule-like ears, and a coat of dark hair. There are several species of serows, and all of them are found in Asia. The Himalayan serow, or *Capricornis sumatraensis thar*, is restricted to the Himalayan region. Taxonomically, it is a subspecies of the mainland serow (*Capricornis sumatraensis*). Himalayan serows are herbivores, and are typically found at altitudes between 2,000 metres and 4,000 metres (6,500 to 13,000 feet). They are known to be found in eastern, central, and western Himalayas, but not in the Trans Himalayan region.



Is the serow a threatened or endangered species?

According to the International Union for Conservation of Nature (IUCN), Himalayan serows have experienced significant declines in population size, range size and habitat in the last decade, and this is expected to continue due to intensive human impact. Previously assessed as ‘near threatened’, the Himalayan serow is now been categorised as ‘vulnerable’ in the IUCN Red List of Threatened Species. It is listed under Schedule I of The Wildlife Protection Act, 1972, which provides absolute protection.

ENDANGERED DHOLE

The dhole, or Asian wild dog, suffers from an undeserved bad reputation, says Arjun Srivathsa. It doesn't lack in the looks department. Its rich russet fur and bushy black-tipped tail make it a handsome animal, an asset not lost on the researcher who is also an artist. *It whistles through its nose to locate other members of its pack. It also whines, screeches, and growls, but it cannot bark or howl like a dog. Unlike tigers, leopards, and wolves, the dhole doesn't eye people as prey.* Yet, throughout the colonial era, writers, hunters, and foresters slandered the species as a marauder



of livestock and game. They claimed game animals feared its presence so much, they fled when they caught wind of its presence. Much of the prejudice reserved for the animal appears to come down to its manner of hunting. *A solitary dhole can snatch a hare on its own. But when a pack brings down large animals like sambhar, nilgai, and gaur, the dhole's weak jaws are incapable of snapping the neck or choking the windpipe as tigers and leopards do. Instead, the pack eviscerates and tears chunks of flesh immediately even as the prey's piteous agonised screams rend the air.* The messy kill appears inhumane and unsportsmanlike. *Since dholes most often hunt by day, when their behaviour is more visible, horrified human observers branded the species as savage and bloodthirsty.*

Big disaster

Across the country, hunters shot the animals on sight for bounties. Diseases and loss of forests added to the dholes' woes. Villagers stole their kills, forcing the tired animals to hunt again. Entire packs were exterminated, and swathes of land cleared of them. Despite humans behaving abominably towards them, the animals may have benefited farming communities. *In the early 1980s, poisoning of dholes across Bhutan led to wild boar numbers increasing. Farmers were forced to stay awake at nights to keep watch over their crops.* Since the 1990s, dholes have recolonised many areas of the country, keeping pig numbers in check.

Forest friendly

Typically, species that hunt as a pack such as the African wild dogs prefer open savannas. Dholes, however, rely on forests even more so than tigers, which can survive in a variety of terrain, says Srivathsa. Even as jungles disappear, the animals avoid areas where livestock graze or people harvest wild produce. Instead of prey making themselves scarce in



mortal fear as colonial hunters alleged, perhaps the long history of persecution makes dholes sensitive to the presence of humans. When Srivathsa had to choose his study subject for his doctoral research, he opted for this species. *"The dhole is the only endangered large carnivore besides the tiger,"* he says. "But why is no one studying it? Why isn't more conservation work being done? Why doesn't it receive more awareness?"

RARE MYRISTICA SWAMP TREEFROG FOUND IN THRISSUR

*Myristica swamp treefrog, a rare arboreal species endemic to the Western Ghats that bears the scientific name *Mercurana myristicapalustris*, has been recorded for the first time north of the Shencottah gap in the Vazhachal Reserve Forest in Kerala's Thrissur district.*



Unique trait

These frogs are rare and elusive for the reason that they are arboreal and active only for a few weeks during their breeding season. During this season, there is a large aggregation of males that descend from the high canopy of the trees. The males vocalise in groups from the low perches in the swamps. They exhibit unique breeding behaviour, says Mr. Gopalan. The breeding season, unlike for other frogs, starts in the pre-monsoon season (May) and ends before the monsoon becomes fully active in June. Before the end of the breeding season, the female frogs along with their male counterparts descend on the forest floor. The female digs the mud and lays eggs in shallow burrows in mud. After breeding and egg-laying, they retreat back to the high canopies of the tree and remain elusive till next breeding season. Extended distribution of such rare frogs in the Western Ghats have conservation implications and provide a suitable niche for further studies on the diverse amphibian fauna of the Ghats.

HOW TO USE CAMERA TRAPS MORE ETHICALLY IN WILDLIFE RESEARCH

Imagine yourself as a wildlife researcher. You set up camera traps in a forest to take pictures of your study animal. But what do you do when the cameras unintentionally capture images of people – local villagers or even suspected poachers? A new paper published by an international team of researchers notes that the privacy of people photographed needs to be respected and lays out seven basic principles, “a blend of ethical and pragmatic good practices,” to be followed.

Studies of snow leopards

The study team has been conducting camera trap-based studies of snow leopards in several countries such as Mongolia, India, China and the Kyrgyz Republic. “These cameras are like quiet observers. Some of them had recorded people with guns, trespassers, and even a possible hunting party. This created ethical dilemmas, and that is when we started to explore... yes, on one hand, camera traps can be used as an important tool to detect illegal movement. But have we informed the people enough?” asks Koustubh Sharma, from the International Snow Leopard Trust, and lead author of the paper published in Ecological Evidence and Solutions. He adds that *it is important to put out a notice in the surrounding local communities just like how inside an ATM it says: This area is under CCTV Surveillance.* “This does two things. One, it warns you that if you do something wrong you’re likely to get caught. The second thing, it also serves as a deterrent because if you know someone’s watching, you are less likely to do something wrong,” says Dr. Sharma.

THE HONEY INDUSTRY AND ITS BITTERSWEET REALITY

The Centre for Science and Environment (CSE) last week released results of an investigation it had conducted into the quality of honey being produced in India. It reported that products by many popular brands were not honey, and, in fact, had been spiked with added sugar. Therefore, they ought not to be branded and sold as honey. The CSE also showed that adulteration technology had become sophisticated and there were commercial products available which are designed to cheat the tests that Indian food testing laboratories conduct to ascertain the purity of honey.

Is there anything called ‘pure honey’?

Over millennia, ‘honey’ was what bees made from plant nectar and people only just squeezed out the contents of honey combs, scrubbed it clean of bees, pollen and other visible residues. This is



honey that is either sourced from wild bees or domesticated bees in apiaries. However, none of this constitutes 'pure honey', because it is a marketing term and a superficial phrase that masks the complexity that is 'honey'. India's food regulator, the Food Safety and Standards Authority of India (FSSAI), in July published a new set of regulations — the third in three years — called the 'Revised Standards of Honey'. Nowhere does one find the term 'pure honey' in it. However, given that the adulteration of honey with added sugar is a global problem, the regulations listed the chemical contents, i.e., tolerable limits of 'impurities' that must be detected by specific tests for a batch of honey presented by a company for labelling to earn the right to market its product as honey. 'Honey' is then classified as either 'Blossom' or 'Nectar Honey', which is what comes from nectar of plants, or 'Honeydew', which comes mainly from excretions of plant-sucking insects (Hemiptera) on the living parts of plants. The honey that is ultimately made available can be a combination of these and can differ widely in 'honey profiles'. There are at least 300 recognised types of honey.

How is honey tested?

Honey is primarily a complex of the fructose, glucose and sucrose sugars. It has a relatively high fructose content, which is why it is sweeter than commercial sugar, which is heavier on sucrose. The latter also breaks down less easily. Laboratory tests determine acceptable ratios of these sugars and tolerance limits. There is also a tolerance for 'ash' content and HMF (hydroxymethylfurfural), which forms when honey is heated. HMF is actually toxic for bees. The reason a wide range of chemical variety is allowed is because different flowers have varying characteristics of nectar and express different chemical compounds that are sensitive to light, temperature and geography. Therefore, it is possible to have raw honey that may be less sweet or high on sucrose, or is lighter or darker. *Researchers in New Zealand have reported that raw honey from the manuka tree, which is believed to have medicinal qualities, is known to fail a standard test called the C4 test. Then, there are minimal levels of pollen count and foreign oligosaccharides that a quantity of honey must have.* All of these have a broad tolerance range and are also influenced by the laboratory tests employed to detect them. *Apiaries are known to feed beehives with sugar (sucrose) to stimulate production, and this, too, can influence the honey profile.* But whether this makes the honey 'raw' is an open question. In all, there are 18 parameters for a product to be certified as honey. *The most common are the so-called C4 and C3 tests, that determine if sugar from corn, sugarcane or rice was used to adulterate honey.*

Why does spiked honey matter?

Honey typifies 'natural sweetness'. The enzymes that bees use to make honey out of plant nectar render it rich in antioxidants, amino acids and other products that give honey its medicinal properties. This is why honey is part of traditional medicine and has been promoted as an immune system stimulant, particularly during the COVID-19 pandemic. *The addition of artificial sugar syrups reduces the concentration of these elements per gram of honey. As a sweetener, honey is digested more easily than sucrose-heavy sugars, but it spikes blood sugar levels the same way commercial sugar does. Therefore, responsibly sourced honey poses similar risks to diabetics as ordinary sugar.*



A PLATFORM DEVELOPED FOR DIAGNOSING TUBERCULOSIS FROM URINE SAMPLES

Diagnosing TB usually involves using a sputum sample or a biopsy in the detection tests. This is not just time-consuming or expensive, there are also cases where getting a sputum sample is not easy or even possible, such as with small children or in the case of extrapulmonary TB. Now, IIT Madras researchers are developing a point-of-care platform for early-stage TB screening and detection using urine samples. The platform is yet to be tested in clinical trials. The research has been published in the journal Biosensors and Bioelectronics. *The glycolipid lipoarabinomannan (LAM), an integral component of the cell wall and cell membrane of Mycobacterium tuberculosis (Mtb), the disease-causing bacterium, has been explored as a biomarker for TB diagnosis. Since it is known that LAM is released into the blood stream during active infection and passed out in urine, it can be viewed as a potential biomarker for even cases other than pulmonary TB.*

WHAT US FDA NOD FOR GENETICALLY MODIFIED PIGS MEANS

This week, the US Food and Drug Administration (FDA) approved a first-of-its-kind intentional genomic alteration (IGA) in a line of domestic pigs referred to as GalSafe pigs. These pigs may be used for food and human therapeutics, the FDA has said. This will be the first time that the regulator has approved an animal biotechnology product for both food and biomedical purposes.

What is intentional genomic alteration?

Intentional genomic alteration in animals means making specific changes to the genome of the organism using modern molecular technologies that are popularly referred to as “genome editing” or “genetic engineering”. However, there are other technologies that can be used to make IGAs in animals. Such changes in the DNA sequence of an animal may be carried out for research purposes, to produce healthier meat for human consumption and to study disease resistance in animals among other reasons. One example is of using IGAs to make an animal more susceptible to certain diseases such as cancer, which helps researchers get a better understanding of the disease and develop new therapies to treat it. The FDA maintains that the only difference between an animal with an IGA and one that does not have an IGA is that the IGA gives them a new trait or characteristic, such as faster growth or resistance to certain diseases. Essentially, an IGA is inserted into an animal to change or alter its structure and function and the FDA makes sure that the IGA contained in the animal is safe for the animal and safe for anyone who consumes a product or food derived from the animal.

What does FDA’s recent approval mean?

The FDA made the announcement this week and allowed IGA in GalSafe pigs to eliminate a type of sugar found in mammals called alpha-gal. This sugar is present on the surface of these pigs’ cells and when they are used for products such as medicines or food (the sugar is found in red meats such as beef, pork and lamb), the sugar makes some people with Alpha-gal Syndrome (AGS) more susceptible to developing mild to severe allergic reactions. Since GalSafe pigs may potentially be used to produce human medical products, IGA will help eventually free these products from detectable alpha-gal sugar, thereby protecting their human consumers from potential allergies. According to the FDA, GalSafe pigs may be used to make the blood-thinning drug heparin.



WHAT A NEW STUDY SAYS ABOUT THE SHARED RISK OF DIABETES BETWEEN DOG AND CAT OWNERS AND THEIR PETS

A new study published in the British Medical Journal (BMJ) says that *diabetes in dogs may indicate an elevated risk of type 2 diabetes in their owners.*

The study

The study included more than 175,000 dog owners and nearly 90,000 cat owners along with their dogs and cats. The dog and cat owners included in the study were all middle-aged or older at the start of the study and were followed through for a period of six years (January 1, 2007 – December 31, 2012). Through this period, researchers analysed the incidence of type 2 diabetes in the pet owners and canine and feline diabetes in their pets.

So what does the research say?

Authors of the study, which was conducted at Uppsala University in Sweden in collaboration with three other universities, say that *owners of a dog with diabetes are more likely to develop type 2 diabetes than owners of a dog without diabetes.* A similar shared risk of diabetes could not be detected for cat owners and their pets, the researchers have said.

What could explain this association?

A significant finding of their study says that owning a dog with diabetes was associated with a 38 per cent increased risk of diabetes in the owner. Beatrice Kennedy, one of the senior authors of the study was quoted as saying in a press release that *the association of diabetes between dogs and their owners might be explained by physical activity patterns, possibly also by their shared dietary habits and adiposity. The WHO defines adiposity as having a body mass index (BMI) of over 30 kg per metre square.* Significantly, if the reason for the association of a shared risk of the disease between dogs and their owners is indeed a result of their physical activity patterns, it would also explain why *the researchers did not see a shared risk association of the disease between cats and their owners.* “Humans and dogs have lived together for at least 15,000 years, and continue to share their everyday lives for better or worse. In this unique study, we show that there might be common lifestyle and environmental factors that influence the risk of diabetes in the household, both in the dogs and in their owners,” Tove Fall, another author of the study was quoted as saying.

What is type 2 diabetes?

Type 2 diabetes is the most common type of diabetes and occurs when blood glucose or blood sugar is too high and is most likely a result of excess body weight and physical inactivity. According to the *World Health Organisation (WHO), this type of diabetes was seen only in adults but is now also occurring increasingly frequently in children. Overall, 422 million adults in the world have diabetes, including type 1.*

FINGERPRINT GRIP

Monkeys, apes and we humans have evolved fingerprints or ridges on hands and feet. This region on our hands and feet also has a high density of sweat glands. A new study has now shown that these ridges and the skin moisture due to the sweat glands helps give greater levels of grip when



holding on to objects. Fingerprint ridges help increase the friction when you hold smooth surfaces and the sweat is also regulated to maximise friction. The results were published in the Proceedings of the National Academy of Sciences.

EUROPEAN LEADERS CLINCH DEAL ON TOUGHER 2030 CLIMATE GOAL

European Union countries agreed a new climate change target for the bloc after haggling through the night in Brussels, pulling the political trigger on a policy revamp to make every sector greener. *Leaders of the 27 member states agreed to cut their net greenhouse gas emissions by at least 55% from 1990 levels by 2030, substantially toughening an existing 40% target.* The EU wants to reach “net zero” emissions by 2050, a deadline that scientists say the world must meet to avert the most catastrophic impacts of climate change. European Council President Charles Michel, who chaired the talks, called the EU the leader in the fight against climate change, and said the target had been hard-fought, but was “credible”. European Commission President Ursula von der Leyen said it *would put the bloc “on a clear path towards climate neutrality in 2050”. The EU will present its target at a UN global virtual summit.* The proposals will speed a shift to electric vehicles and aim to mobilise investments in the huge low-carbon infrastructure that will now be needed—including a requirement for extra energy sector investments of 350 billion euros (\$420 billion) a year this decade. The “at least 55%” target is as good as final, but will need approval from the European Parliament, which supports a more ambitious 60% cut.

Greenhouse gas emissions reached a new high last year, putting the world on track for an average temperature rise of 3 degrees Celsius, a UN report showed on Wednesday. The report by the United Nations Environment Programme (UNEP)— the latest to suggest the world is hurtling toward extreme climate change — follows a year of sobering weather extremes, including rapid ice loss in the Arctic as well as record heat waves and wildfires in Siberia and the US West. Researchers at Europe’s Copernicus Climate Change Service said last month was the hottest-ever November on record.

NOT ALL INDIAN DROUGHTS ARE CAUSED BY EL NINO

Droughts in India have historically been associated with El Nino, an anomalous warming of the equatorial Pacific, but scientists from Bengaluru suggest other culprits too. The study that appears in journal Science says that nearly six out of 10 droughts, in non-El Nino years, that occurred during the Indian summer-monsoon season in the past century may have been driven by *atmospheric disturbances from the North Atlantic region.* The study was led by researchers at the Centre for Atmospheric and Oceanic Sciences (CAOS), Indian Institute of Science (IISc), Bengaluru. *In an El Niño year, abnormally warm equatorial Pacific waters pull moisture-laden clouds away from the subcontinent, but the IISc study shows that in non-El Nino years, these droughts are a consequence of a sudden and steep drop in rainfall in late August.* “As early as the 1980s, people have looked at these droughts individually. But they have not collated and pooled them together, and deduced that these droughts may all have a different type of evolution than El Niño droughts,” V. Venugopal, Associate Professor at CAOS, says in a statement by the IISc.

Decline in rainfall

In an El Nino year, the rainfall deficit departure from a long-term average will set in early around mid-June and progressively worsen. However, a non-El Nino-year drought will see rainfall and will



similarly weaken in mid-June. But from mid-July to mid-August, usually the rainiest period of the monsoon, the monsoon will appear to recover. However, around August third week, there was a sudden steep decline in rainfall, resulting in drought conditions. "We tried to see if we could trace this [August] drought back to a forcing agent or system that influences the behaviour over India. We looked at the winds that were prevalent in these non-El Niño drought years."

Rossby wave

*It seems, the researchers note, that winds in the upper atmosphere are interacting with a deep cyclonic circulation above the abnormally cold North Atlantic waters. The resulting wave of air currents, called a Rossby wave, curved down from the North Atlantic squeezed in by the Tibetan plateau and hit the subcontinent around mid-August, suppressing rainfall and throwing off the monsoon that was trying to recover from the June slump. The wave's usual course is to go from west to east, but not towards the equator, explains Jai Sukhatme, Associate Professor at CAOS and co-author. Independent scientists say that while the link in the research paper is "novel" it is yet early days to be able to predict an impending drought in India from this paper alone. *The Indian Ocean, says Roxy Mathew Koll, a climate scientist at the Indian Institute of Tropical Meteorology, too plays an important role in determining the monsoon's performance and several other factors will have to be considered to develop a reliable model to forecast a potential shortfall in the absence of El Niño.* In 2014, India saw a 14% rainfall deficit — or a drought — that wasn't linked to El Niño and before that in 1986 and 1985. "The sheer size of the Pacific means that it influences global climate much more than the Atlantic or other oceans. Therefore, the latter links aren't easily discoverable. But this study shows that we do need to look at such links closely," Mr. Koll told The Hindu.*

PLASMODIUM OVALE & OTHER TYPES OF MALARIA

A not very common type of malaria, Plasmodium ovale, has been identified in a jawan in Kerala. The soldier is believed to have contracted it during his posting in Sudan, from where he returned nearly a year ago, and where Plasmodium ovale is endemic.

Types of malaria

Malaria is caused by the bite of the female Anopheles mosquito, if the mosquito itself is infected with a malarial parasite. There are five kinds of malarial parasites—Plasmodium falciparum, Plasmodium vivax (the commonest ones), Plasmodium malariae, Plasmodium ovale and Plasmodium knowlesi. Therefore, to say that someone has contracted the Plasmodium ovale type of malaria means that the person has been infected by that particular parasite. In India, out of 1.57 lakh malaria cases in the high-burden states of Odisha, Chhattisgarh, Jharkhand, Meghalaya and Madhya Pradesh in 2019, 1.1 lakh cases (70%) were cases of falciparum malaria, according to a statement by the Health Ministry on December 2. In 2018, the National Vector-borne Disease Control Programme (NVBDCP) estimated that approximately 5 lakh people suffered from malaria (63% were of Plasmodium falciparum); researchers writing in the Malaria Journal of BMC felt the numbers could be an underestimate. The recent World Malaria Report 2020 said cases in India dropped from about 20 million in 2000 to about 5.6 million in 2019.

Plasmodium ovale

Scientists said *P ovale rarely causes severe illness and there is no need for panic because of the case detected in Kerala.* Dr V S Chauhan, emeritus professor at the International Centre for Genetic



Engineering and Biotechnology, New Delhi, said *P ovale is very similar to P vivax*, which is not a killer form. *Symptoms include fever for 48 hours, headache and nausea, and the treatment modality is the same as it is for a person infected with P vivax. P ovale is no more dangerous than getting a viral infection, he said. It is termed ovale as about 20% of the parasitised cells are oval in shape. Distinguishing between P vivax and P ovale may be tricky*, Dr Chauhan said, but a good-quality lab should be able to differentiate between the two.

Cases in India

According to scientists at the National Institute of Malaria Research (NIMR), the Kerala case could be an isolated one and there are *no recorded cases of local transmission so far*. Previously, too, isolated cases were reported in Gujarat, Kolkata, Odisha and Delhi. However, no local transmission has been recorded — which means these cases have been acquired. *The jawan had returned to India from Sudan in January this year and was in Delhi. A month ago, he went to Kerala and shortly after, he began experiencing fever and other symptoms. After Covid-19 tests returned negative, he was tested for malaria. "And on the slide, we could see the parasite inside the red blood cell sample. In Kerala, we usually see malaria types like Plasmodium falciparum and Plasmodium vivax. So we did a rapid antigen test to detect the strain and we found that it was negative for both types. When we investigated further, we diagnosed it as Plasmodium ovale," said Dr Rajeevan, medical superintendent at the district hospital in Kannur where the jawan was treated. Dr Rajeevan said it was possible for the parasite to remain in the spleen or liver of the body for a long time, even years, after the mosquito bite, and the person could become symptomatic later.*

Africa and elsewhere

P ovale malaria is endemic to tropical Western Africa. According to scientists at NIMR, P ovale is relatively unusual outside of Africa and, where found, comprises less than 1% of the isolates. It has also been detected in the Philippines, Indonesia and Papua New Guinea, but is still relatively rare in these areas. In a 2016 study on the China-Myanmar border, it was found that P ovale and P malariae occurred at very low prevalence, but were often misidentified. In another study, carried out in China's Jiangsu Province, indigenous malaria cases decreased significantly over 2011-14, but imported cases of P ovale and P malariae had increased, and were often misdiagnosed.

HEART DISEASE BEHIND 16% OF GLOBAL DEATHS IN 2019

The leading cause of death across the world for the past 20 years, heart disease is now killing more people than ever before, as per the WHO 2019 Global Health Estimates report, released. While cardiac issues accounted for more than two million deaths in 2000, the figure stood at nearly 9 million in 2019, accounting for 16% of the total deaths, from all causes. *Non-communicable diseases, in all, made up seven of the world's top 10 causes of death in 2019, as per the report — an increase from four of the 10 in 2000— including Alzheimer's and other forms of dementia.* While deaths from communicable diseases have fallen, they remain a matter of concern in low income countries. The WHO said the report, which covers the trends in mortality and morbidity over the past two decades (2000-2019), clearly highlights the need for intensified *global focus on preventing and treating cardiovascular diseases, cancer, diabetes and chronic respiratory diseases, as well as tackling injuries. Deaths from diabetes increased by 70% globally between 2000 and 2019, with 80% rise in deaths among males.* However, *women comprised as many as 65% of the total dementia deaths in 2019. Among communicable diseases, pneumonia and other lower respiratory*



infections were the deadliest last year, together ranking as the fourth leading cause of death. However, these infections killed almost half-a million less people than in 2000. HIV/AIDS dropped from being the eighth leading cause of death in 2000 to 19th in 2019, reflecting the success of efforts to prevent infection, and improve testing and treatment for the disease. Tuberculosis is no longer in the global top 10, falling from seventh place in 2000 to 13th in 2019, with a 30% reduction in global deaths. Yet, it remained among the top 10 causes of deaths in the African and South-East Asian regions, where it was the eighth and fifth leading cause respectively. This trend held across communicable diseases for low-income countries, with six of the top 10 causes of death in such areas still communicable diseases, including malaria (sixth), TB (eighth) and HIV/AIDS (ninth). The report has data on life expectancy, healthy life expectancy, mortality and morbidity, and burden of disease at the global, regional and country levels, segregated by age, sex and cause. "These estimates are produced using data from the best available sources from countries and the international community," said Dr Bochen Cao, technical lead for WHO's Global Health Estimates.

WHO TO PROBE VIRUS ORIGINS IN CHINA

A team of international investigators led by the World Health Organization (WHO) is likely to go to China in early January to study the origins of the COVID-19 outbreak, which first began in Wuhan, in southwestern Hubei province, late last year. WHO officials said the composition of the team and where they would visit was being discussed with China. Babatunde Olowokure, the WHO's regional emergencies director in the Western Pacific, said at a press conference that China was "welcoming" the team and the visit was likely to happen in early January. How much access the team will have, and whether the visit comes too late, has become a point of contention. China has resisted calls for an independent international inquiry into the origins but has said it would be open to a WHO-led investigation even as the organisation has come under fire, particularly from the U.S., over its handling of the outbreak in the initial stages. A team of 12-15 experts will likely go to Wuhan "to examine evidence, including human and animal samples collected by Chinese researchers, and to build on their initial studies", Reuters reported. Thea Fischer, a Danish member, was quoted as saying the team would leave "just after New Year's" for a six-week mission, which would include two weeks of quarantine on arrival. Initial attention into the origins of COVID-19 had focused on the Huanan seafood market in Wuhan, where an outbreak was first reported in December, although some Chinese health officials have since said the market may have not been the origin, but where the virus first spread.

Facing global anger over their initial mishandling of the outbreak, Chinese authorities are now trying to rewrite the narrative of the pandemic by pushing theories that the virus originated outside China. In recent days, Chinese officials have said packaged food from overseas might have initially brought the virus to China. Scientists have released a paper positing that the pandemic could have started in India. The state news media has published false stories misrepresenting foreign experts, including Mr. Kekulé and officials at the WHO, as having said the virus came from elsewhere. The campaign seems to reflect anxiety within the ruling party about the continuing damage to China's reputation brought by the virus.

VACCINE DRIVE

Fine theories and good policies are often frustrated in their encounter with facts and implementation processes in the field. India's COVID-19 vaccine policy, recently unveiled, must take care not to head that way, and make adequate allowances for ground realities that could



render naught well-laid plans. With a definitive cure not yet available for COVID-19, vaccines present the world with the best strategy to slow the virus down in its tracks along with a measure of vested herd immunity, as SARS-CoV-2 rampages on. While it may not be the magic wand, vaccinating people will be the only known way of slowing the march of the virus, and every country, down to each county, must prepare for this massive exercise. As the U.K. and the U.S. began vaccinating their people, India has announced its plan and proposed line-up for COVID-19 vaccination, shortly after the Union Health Minister denied that the government had ever committed to COVID vaccination for all in the country. *As per the government's strategy, the vaccination is to be given first to health-care workers and then to people over the age of 50, with those over 60 given priority, based on the situation. This will amount to about 30 crore people. The voters' list for the Lok Sabha and Assembly election polls has been set as the verifying document for the process. A new digital platform, Co-WIN, will be used for COVID-19 vaccination delivery, and about 1.54 lakh Auxiliary Nurse Midwives working on Universal Immunisation Programmes will be roped in as vaccinators, with more such field staff to be mobilised in collaboration with the States. Cold chain systems are to be strengthened across the country to deliver multiple doses.*

A MUTATED CORONAVIRUS HAS BEEN FOUND IN THE UK – IT'S IMPLICATIONS

A mutated variant of the novel coronavirus SARS-CoV2 has been associated with recent infections in England. The question being raised is whether the mutation could affect people's response to vaccines — and scientists say this is unlikely. The virus has undergone several mutations since it first infected humans, which scientists say is neither unexpected nor a cause for panic.

What is the new mutation?

UK researchers have identified it as N501Y. The virus carrying this mutation has caused 1,100 new infections in 60 local authority areas, according to reports quoting UK Health Secretary Matt Hancock. The Consortium for Covid-19 genomics UK (COG-UK) has been tracking the mutation and is likely to provide a critique soon. Prof Ravi said that it is likely to be a mutation in the spike protein. There has been a single nucleotide change in one portion of the spike protein, so there would be no bearing on the disease biology or even diagnostics, he said.

Is a mutation in the spike protein particularly significant?

Dr Gagandeep Kang, Professor at Christian Medical College, Vellore, said that in general, there would be more concern about a mutation in the spike region than other regions of the coronavirus genome. It is the coronavirus spike protein that binds to a human protein to initiate the process of infection. So, changes here could possibly affect how the virus behaves in terms of its ability to infect, or cause severe disease, or escape the immune response made by vaccines — but these are theoretical concerns at the moment, Dr Kang said. *Through the pandemic, over 4,000 mutations have been detected in the spike region. This one appeared initially in Brazil in April, in a small proportion of cases.* Since numbers have gone up in the UK, Dr Gang stressed the need to understand why the increase and what it means. At the moment, however, there is no data to indicate severity or faster spread.

What can it mean for people's response to coronavirus vaccines?

Several coronavirus vaccines are designed to create antibodies targeting the spike protein. But the vaccines target multiple regions on the spike, while a mutation refers to a change in a single point.



So, if there is one mutation, it does not mean vaccines would not work, Dr Kang said. But changes in the virus will be tracked around the world because there is now unprecedented sequencing capacity and data sharing.

Should we worry about these changes?

Mutations will keep happening and the new virus variants will survive or disappear depending upon our immune response and their ability to multiply and transmit, said Prof Arindam Maitra of the National Institute of Biomedical Genomics. But *all SARS-CoV-2 strains are genetically similar to one another, and scientists do not expect these mutations to have a significant impact on their ability to cause more severe disease than what has been observed so far*. “Many mutations mean nothing at all, or at least are more successful for reasons we don’t know. For instance a different strain may be more transmissible, but cause less disease. Bottom line is that we need to monitor, but at present, there is no evidence that the new strain in UK is more transmissible nor severe nor resistant to treatment or vaccination,” Dr Marc-Alain Widdowson, Director of Institute of Tropical Medicine, Antwerp, told The Indian Express.

PREDICTING PROTEIN STRUCTURES (S. KRISHNASWAMY, A STRUCTURAL BIOLOGIST AND PROTEIN CRYSTALLOGRAPHER, IS VISITING PROFESSOR AT THE INSTITUTE OF MATHEMATICAL SCIENCES, CHENNAI)

It takes a lot to make a splash in the world of science when people are excited about the discovery of vaccines against SARS-CoV-2. The success of Artificial Intelligence (AI) in reliable and consistent predictions of structures of proteins with great accuracy is one such splash. *The AI-based program, AlphaFold2, from the company DeepMind, has stunned the world by accurately and quickly predicting the structure of proteins, starting from the sequences of amino acids that constitute them*. Proteins are ubiquitous in all organisms. *By comparing and analysing protein structures, it is possible to get ideas about biological evolution, diseases, defence mechanisms, etc*. This explains the human quest for finding the structures of proteins. *In 1972, Christian B. Anfinsen won the Nobel Prize in Chemistry for his experiments that showed that a protein could fold into its structure based on the information contained in the sequence of amino acids*. Since then, scientists around the world have been trying to computationally predict protein structures.

Progress

Only about 60 years ago, Max Perutz and others experimentally determined the first protein structures of myoglobin and haemoglobin. They did this through a method called X-ray crystallography that uses protein crystals and X-rays. Knowing the structure of haemoglobin helped people understand how it is able to perform its function of transporting oxygen from the lungs to the cells in the body. It also showed how changing a single amino acid can cause sickle cell anaemia. Just as knowing the shape of the human nose or the crow’s beak helps understand its function, knowing a protein structure helps recognise how it functions and how a defect may lead to malfunctioning. *Proteins, along with nucleic acid sequences that make a genome, form the basis of all organisms*. Technology has advanced so much that it is routine and inexpensive to sequence genomes. *The sequences of amino acids that form the proteins are encoded in genes which are part of the genome*. Therefore, translating and getting the sequences of proteins is easy. But getting the three-dimensional structures of proteins was so far possible only experimentally through time-consuming and expensive techniques of X-ray crystallography, nuclear magnetic resonance and



cryo-electron microscopy. India has had a legacy of being a top player in the field of protein structural work, both experimental and computational. *The Ramachandran Plot devised nearly 60 years ago by G.N. Ramachandran and others from the University of Madras is used even today the world over to validate protein structures.*

TRUE TO ITS NAME

With a stroke of a pen, the Drugs Controller General of India has put to rest any doubts and concerns that it would rush to grant emergency use approval to COVID-19 vaccines tested and manufactured in India or elsewhere in the absence of sufficient data. *The greatly reassuring decision to seek additional safety and immunogenicity data from the Pune-based Serum Institute of India and Hyderabad's Bharat Biotech underlines the regulator's priorities even for emergency use approval rather than an early roll-out of vaccines that have not been sufficiently studied.* The decision to seek more evidence would mean a slight delay in locally manufactured vaccines becoming available. But it clearly demonstrates that the committee did not misread the announcement by Prime Minister Narendra Modi that a vaccine will be available in the next few weeks as a signal to grant approval in haste. *By keeping the approval on hold pending more evidence, the expert committee has done much to generate trust in the regulator's uncompromising approval process even for emergency use in the midst of the pandemic.* However, these manufacturers have unfortunately come out as being in a hurry to seek approval without sufficient data to support their case.

Bharat Biotech's rush to seek approval is of concern as the company had not submitted any data from its phase-3 trial but relied entirely on the interim safety and immunogenicity data of the phase-1 and phase-2 trials; the company had begun phase-3 trials only in mid-November. While Serum had submitted interim safety and efficacy data of the Oxford vaccine from the phase-2/3 clinical trials carried out in India and other countries, the safety data of the Indian trial submitted was only till mid-November. The phase-3 trials by Serum began on September 21, and since the second dose is administered 28 days after the first, the median *follow-up after the second dose would have been for just a few weeks, far less than at least two months that the U.S. FDA had stipulated.* With the published data of the interim phase-3 trial of the Oxford vaccine raising some concerns, the committee has rightly sought immunogenicity data from the U.K. trial. While the U.K. has approved the mRNA vaccine from the U.S.-based Pfizer, no country including the U.K. has approved the Oxford vaccine manufactured by London-based AstraZeneca. *In September, nine global vaccine manufacturers had signed a joint pledge that they would not seek premature approval from regulatory authorities and would test COVID-19 vaccines to the highest standards and keep "the safety of vaccinated individuals our top priority".* So Indian manufacturers should strive to carry out the trials to the highest ethical standards and submit comprehensive data such that emergency use approval is a sure shot. *Any further haste shown in seeking approval for emergency use may turn detrimental and the companies may even run the risk of losing public trust.*

BLOOD TEST COULD SHOW IF COVID-19 VACCINE WORKS

A new study in monkeys suggests that a blood test could predict the effectiveness of a Covid-19 vaccine, and perhaps speed up the clinical trials needed to get a working vaccine to billions of people around the world. The study, led by researchers at Harvard and MIT and published last week in the scientific journal Nature ('Correlates of protection against ARS-CoV-2 in rhesus macaques'), reveals tell-tale blood markers that predict whether a monkey's immune system is prepared to



wipe out incoming coronaviruses. The finding raises hope that researchers will be able to look for the same markers in people who get vaccines in clinical trials. If the markers are strong enough, they could reveal if the vaccines protect against Covid19. And *researchers would no longer have to wait for some trial volunteers to get the disease, as they do now.* "It will pave the way for a much more rapid advancement of the Covid vaccine field," Dr Dan Barouch, a vaccine expert at Beth Israel Deaconess Medical Center in Boston and one of the researchers behind the new study, said. Clinical trials of two new coronavirus vaccines, from Moderna and Pfizer-BioNTech, have shown very high efficacy rates of around 95 per cent. *The strength of these two vaccines is, paradoxically, bad news for the dozens of others in earlier stages of development—many of them will most likely have to be compared against the robust front runners rather than a placebo shot.* And because that is a high statistical bar to clear, their trials will need a lot more volunteers, time and money. "You'd have to follow millions of people for a long time," said Dr Nelson Michael, the director of the Center for Infectious Diseases Research at Walter Reed Army Institute of Research, where a protein-based vaccine is being prepared for clinical trials in early 2021. "It's just fantasy." *For some smaller companies, these comparison trials may be deal breakers.* "You're going to see a lot of dropout," said Dr Gregory Poland, a vaccine expert at the MayoClinic. The next wave of vaccines may well be superior to the first, in oneway or the other. They could cost a lot less, and some might come in just one dose instead of two, and won't need a deep freeze. Some might offer protection that lasts a lot longer. "We'd rather not have to revaccinate the world every one or two years," Dr Michael said. *The new monkey study offers a ray of hope for these next-generation vaccines, suggesting that they could be tested not against older vaccines, but using a measurement known as a "correlate of protection." Influenza vaccines are already tested this way. Every new flu season requires the design of a new flu shot, but researchers don't have to run clinical trials comparing it with old versions. Instead, they just check whether the new vaccine triggers a person's immune system to make enough of a certain kind of antibody against the flu.* If it does, then researchers know the vaccine is adequately stimulating the immune system. *If scientists could discover a correlate of protection against the coronavirus, they could follow the example of the flu.* "That is an entirely plausible and feasible scenario," said Dr Anthony Fauci, the director of the US National Institutes of Allergy and Infectious Diseases.

NEW DRUG SHOWN TO STOP CORONAVIRUS SPREAD IN 24 HRS, IS ON WISH LIST IN INDIA TOO

A new drug called Molnupiravir has been shown to stop the transmission of SARS-CoV-2 in 24 hours. Results of the research by scientists at the Institute of Biomedical Sciences, Georgia State University, have been published in the journal Nature Microbiology. And Indian researchers plan to apply to the drug regulator to conduct human trials with the drug.

THE DRUG: *The antiviral drug Molnupiravir, or MK-4482/EIDD2801, is taken orally. Molnupiravir is being developed by the biotechnology firm Ridgeback Biotherapeutics in collaboration with pharmaceutical firm Merck.* The research team repurposed MK-4482/EIDD-2801 against SARS-CoV-2 and tested it on ferrets. *This is the first demonstration of an orally available drug to rapidly block SARS-CoV2 transmission and it can be a game-changer,* said Dr Richard K Plemper, Distinguished University Professor. The group led by Dr Plemper originally discovered that the drug is potent against influenza viruses. "We have characterized the MoA (mechanism of action) of Molnupiravir against influenza viruses in an earlier publication," Dr Plemper told The Indian Express by email.



ITS ACTION: In ferrets, the drug was shown to completely suppress transmission of SARS-CoV-2 in 24 hours. Researchers infected ferrets with SARS-CoV-2 and initiated treatment with MK-4482/EIDD-2801 when the animals started to shed the virus from the nose. “When we cohoused those infected and then treated source animals with untreated contact ferrets in the same cage, none of the contacts became infected,” said Josef Wolf, co-lead author of the study. However, all contacts of source ferrets that had received placebo became infected. The exciting development was that it completely suppressed the spread to untreated contact animals. According to researchers, *if these ferret-based data translate to humans, Covid-19 patients treated with the drug could become non-infectious within 24 hours after beginning treatment.*

WHY FERRETS: Ferrets are a popular model for influenza and other respiratory infections because their *lung physiology is similar to humans* and researchers hope they will mimic aspects of Covid-19 in people such as its spread. “They readily spread SARS CoV-2 but mostly do not develop severe disease— closely resembling the infection spread in young adults,” said Dr Robert Cox, co-lead author.

HUMAN TRIALS: Globally, clinical testing of Molnupiravir is carried out by Merck. The drug is now in advanced phase 2/3 human trials at multiple centres. The phase 2/3 trial is a randomised, placebo-controlled double-blind clinical study to evaluate the efficacy and safety of MK-4482 in hospitalised adults with Covid 19 across 46 locations in various countries.

CHALLENGES IN ACHIEVING HERD IMMUNITY THROUGH VACCINATION

On December 1, Health Secretary Rajesh Bhushan said that the government has never spoken about vaccinating the entire country against COVID-19. Adding to that, Director-General of ICMR Dr. Balram Bhargava said: “If we’re able to vaccinate a critical mass of people and break virus transmission, then we may not have to vaccinate the entire population.” But the *government’s idea of vaccinating a “critical mass of people” for the purpose of breaking the virus transmission chain is riddled with challenges.* “For a disease where everyone is equally affected, immunisation should be available to all when vaccines are ready. It is important to remember that vaccines are a tool to promote health equity,” Dr. Gagandeep Kang, Professor of Microbiology at CMC Vellore says in an email. *“If the goal is to achieve herd immunity, we will need about 70% of the population to be covered. Unlike other infections where groups which have high risk of transmission can be identified, the task is complicated for SARS-CoV-2.”*

Uneven transmission

For instance, the levels of immunisation needed for herd immunity are determined by how the virus spreads in the population, and makes the assumption that spread is homogenous. But SARS-CoV-2 virus spread exhibits a high level of uneven transmission. This is the reason why there have been a number of super-spreading events where some infected individuals spread the virus to very a large number of people while most infected individuals transmit the virus only to a few or none. Considering that two doses of the vaccine are needed for full protection and increased vaccine hesitancy particularly as the vaccine development and testing are seen to be rushed, achieving herd immunity of 70% to break the chain would be challenging. According to Dr. Kang, it was only in January this year that India achieved 90% coverage of all vaccines to be given in infancy. If there is a drop in vaccine coverage in children beyond their first year of life in the immunisation programme, it becomes particularly difficult in the case of SARS-CoV-2.



Aim high

Clinical trials test the efficacy of the vaccine, while the actual effectiveness of the vaccine will be known only when a large number of people are vaccinated post-licensure. Also, *the duration of protection is not known* and *hence how frequently the vaccine has to be administered remains unknown*. It is critically important to understand these to make sure that no resources are diverted from existing immunisation programmes that need to continue, she says.

Ethical challenges

Incidentally, the intent behind identifying the high-priority groups to receive the vaccine first was to safeguard them from severe disease and not to break the virus transmission chain. "Breaking the chain of transmission with partial vaccination of populations is not a concept I understand. Control of transmission requires either very high levels of coverage or combining vaccination at a reasonable level with well implemented testing and isolation," comments Dr. Kang. "I thought the purpose for prioritisation was to protect those at risk of severe disease first and then move to lower risk groups."

Updating the evidence

Another contentious area is the question of vaccinating those who have already been infected. *"The immunity offered by the natural infection is probably long term. Till date, we are not aware of the added benefits or risks of vaccinating the people who are already infected.* It is time we start doing some quick trials to update the evidence based on the contextual needs," says Dr. Giridhara Babu, Epidemiologist at Bengaluru's Public Health Foundation of India. Citing the Oxford vaccine trial results that showed 90% efficacy in those who received half dose-full dose regimen, Dr. Babu feels those who have had mild or no symptoms either due to low viral inoculation dose or with better immune response, or both might respond better with vaccination.

DreamIAS