



# CURRENT AFFAIRS FOR UPSC

11TH TO 24TH OCTOBER, 2020



**TABLE OF CONTENTS**

**International and foreign affairs ..... 5**

**National ..... 6**

Offset dilution in defence.....6

Why DRDO has recently conducted a flurry of missile tests .....7

What are Anti-Tank Guided Missiles, and why are they important? .....9

Nag anti-tank missile completes final user trial ..... 10

Army chief commissions INS Kavaratti at Visakhapatnam ..... 10

What is India’s first seaplane project and how will it function? ..... 11

A ‘Zero Rajdhani’ skirts Guwahati, cuts travel short ..... 12

Jagan vs. judges ..... 12

Rules bar bonus for those facing sex abuse charges..... 15

HC order trivialisation of rape victim’s trauma, says plea in SC..... 15

Why NHRC advisory on sex work has split rights activists down the middle..... 16

What a 2013 study revealed about interfaith marriages in India ..... 17

Coal blocks allocation cases: Allegations, investigation, and what next ..... 18

Maharashtra Governor’s Intemperate letter ..... 20

Government vs Governor in Chhattisgarh..... 21

The Raj Bhavan’s new role — taking centre stage (Harish Khare - senior journalist based in Delhi)  
..... 22

Top features of the Air India One, that will fly the President, Vice-President, Prime Minister .... 24

The key features of the political economy of the Modi model ..... 24

How Modi government has been bypassing Parliament ..... 24

A concerted attack on RTI (Anjali Bhardwaj and Amrita Johri - members of the National  
Campaign for Peoples’ Right to Information)..... 25

Baby walker to capsicum, how the Election Commission decides on party symbols..... 26

Govt. increases poll spend ceiling by 10%..... 27

Parliamentary panel asks Twitter for affidavit on geo-tagging glitch..... 28

House panel mulls action against Amazon..... 28

Promised free vehicles, funds? It’s all fake (Rakesh Dubbudu - founder of the fact-checking  
initiative Factly and Akhil Mothe is a fact-checker with Factly) ..... 29



Metrics of world happiness and the Muslims of India (Faizan Mustafa - Vice-Chancellor, NALSAR University of Law, Hyderabad) .....	30
Recalling a Pakistan misadventure: What happened on October 22, 1947? .....	32
Muslim-Hindu demography of Jammu and Kashmir: what the Census numbers show .....	35
J&K land buying eased .....	36
Farooq to lead Gupkar alliance.....	37
Bimal Gurung's GJM quits NDA: What impact will this have on West Bengal politics? .....	37
What is SVAMITVA, the property card for rural households?.....	39
Move to delete 'ineligible' names from Assam NRC: who, and why .....	40
Assam-Mizoram, and the other boundary issues in Northeast.....	42
What is the Assam Police SI recruitment exam scam? .....	43
HC asks Zee News to disclose source of report on Delhi riots.....	44
The politics behind Uddhav govt decision to move contentious shed out of Aarey .....	44
Significance and impact of SC order on confessions in narcotics cases .....	45
Maharashtra withdraws 'general consent' to CBI: what this means, which cases it will impact .	47
Does a person have to be named in an FIR to be charged by the police? .....	48
What are 'chapter proceedings', initiated by Mumbai police against Arnab Goswami? .....	50
BARC suspends ratings of all news channels.....	52
Bollywood's moment of reckoning? (Kunal Ray teaches literary and cultural studies at FLAME University, Pune).....	52
The new amendments to Gujarat's Disturbed Areas Act.....	53
Why are Andhra farmers apprehensive about new electricity metres for farm motors? .....	55
What is Haryana's 'flexi-examination' system for post-graduate students? .....	56
Back to basics in algorithms (S. Arun-Kumar and Subhashis Banerjee are professors in the Department of Computer Science and Engineering at IIT Delhi).....	57
The chronic battle with malnourishment.....	58
<b>Business &amp; Economics.....</b>	<b>61</b>
GST: An incomplete solution .....	61
GST cess will stay: finance panel chief .....	61
India's economy to contract by 10.3% this fiscal, says IMF .....	62
The comparison between India and Bangladesh per capita GDP.....	62
What government has proposed in new LTC scheme.....	64



Phased manufacturing policy .....	66
Why workers' bodies from RSS, Left and Congress are fighting corporatisation of ordnance factories.....	67
How fertiliser subsidy works .....	69
What Punjab's three new farm Bills say, and what they seek to achieve .....	71
How Punjab mandis procure more paddy than state produces; the UP-Bihar link.....	72
Why Gujarat has a glut of milk powder, and why export could help .....	73
digital payment superhighway .....	74
MPC wary of inflation: minutes .....	76
RBI: Signalling optimism.....	76
How does delisting work, and why did Vedanta fail at it?.....	77
What Flipkart picking up stake in Aditya Birla Retail means for both groups .....	78
Why Amazon is objecting to Future Group-Reliance Retail deal.....	79
<b>Life &amp; Science .....</b>	<b>81</b>
The economics of auctions .....	81
'Genetic scissors' .....	82
World Food Programme .....	84
Century-old data help measure the Sun's magnetic field .....	85
Why Mars is the brightest this month .....	85
The Milky Way's secret .....	86
Early childhood stress and mental illness .....	87
new organ in the throat?.....	88
Why scientists are trying to cultivate heeng in the Indian Himalayas.....	89
Were Indians making cheese 4,500 years ago? .....	90
What is keto diet?.....	91
Poll to select national butterfly takes wing.....	92
China's climate commitment: How significant is it for the planet, and India? .....	93
New findings strengthen link between climate change and wildfires.....	94
What is the giant cat drawing at a UNESCO World Heritage site in Peru? .....	95
Celebrating skinks, ZSI lists 62 species in India.....	96
A tale of mangrove migration.....	97



Approaching the misinformation storm.....	98
In the eyes of a fruit fly .....	99
Scientists welcome these winged ‘infiltrators’ .....	100
Softer, yet more audible: Why birds sang better in lockdown.....	100
The dominance of big tech .....	100
Leaving no older woman behind (Björn Andersson - the UNFPA Regional Director for Asia and the Pacific) .....	102
The UK government’s ‘sex ban’ to limit the spread of Covid-19 .....	103
Infodemic management a serious challenge .....	103
Feluda tests to be available by Oct. 31 .....	104
Using holographic imaging to detect viruses and antibodies.....	104
3D printed nasal swabs effective in Covid testing .....	105
The FDA has approved remdesivir to treat coronavirus. What does this mean?.....	105
How long can the novel coronavirus survive on surfaces? .....	106
The 3 Covid-19 vaccine trials that hit a bump .....	106
Solidarity Trial dampener: What does this mean for the drugs that hopes were pinned on?....	109
How is the novel coronavirus likely to behave in winter? .....	110
Anti-microbe drug can fight coronavirus .....	110
Blocking key protein may guard against severe Covid-19.....	110
A cocktail of antibodies to fight Covid-19 .....	111
Vaccines with a global common good guarantee (Muhammad Yunus and José Ramos-Horta are Nobel Peace Laureates).....	111
China, South Korea join WHO’s COVAX facility .....	112
What is Cat Que virus from China? Does it infect humans?.....	112



INTERNATIONAL AND FOREIGN AFFAIRS

This section will be covered in next sheet



DreamIAS



## NATIONAL

### OFFSET DILUTION IN DEFENCE

Recently, the government diluted the “offset” policy in defence procurement, reportedly in response to a Comptroller and Auditor General (CAG) of India’s report tabled in Parliament last month. Many contend that the move is a setback for augmenting domestic capabilities or for realising the goal of Atmanirbhar Bharat. But why is it a setback for the goals under Atmanirbhar Bharat? The experience with the procedure in the aerospace industry since 2005 seems to offer useful lessons in redesigning defence offsets. What is an offset policy? And how is it expected to boost domestic capabilities? What lessons can we draw from a similar system in the aerospace industry? These questions are addressed below.

#### **Offset ties up the ends**

Most countries restrict trade in defence equipment and advanced technologies in order to safeguard national interest. Yet, for commercial gains and for global technological recognition, governments and firms do like to expand the trade. Negotiated bilateral sales between countries are a way out of the dilemma. Soft credit often sweetens the deals, with restrictions imposed on use, modification and resale of such equipment and technologies, to protect the proprietary knowledge and expertise embedded in them. In such trade negotiations, the price of the product is one of the many other factors. Geopolitics and the technical knowhow involved in the equipment weigh-in considerably since the contracts are for the long term, with technological fixities. The product and technology compel buyers to stick to them for: the advantages of bulk purchase, and dependence on the supplier for spares and upgrades. In other words, there is considerable “path dependency” in such choices, rendering the decisions difficult to reverse. Developing country buyers often lack an industrial base and research and development (R&D) facilities (which take a long time to mature). The price and the terms of the contract often reflect the government’s relative bargaining strength and also domestic political and economic considerations. Large buyers such as India seek to exercise their “buying power” to secure not just the lowest price. They also try to acquire the technology to upgrade domestic production and build R&D capabilities. The offset clause — used globally — is the instrument for securing these goals.

#### **A number of changes**

Initiated in 2005, the offset clause has a requirement of sourcing 30% of the value of the contract domestically; indigenisation of production in a strict time frame, and training Indian professionals in high-tech skills, for promoting domestic R&D. However, the policy has been tweaked many times since. As of November 2019, as in a reply to a parliamentary question, the Defence Ministry had signed 52 offset contracts worth \$12 billion via Indian offset partners, or domestic firms. The duration of these contracts extends up to 2022. According to the recent CAG report mentioned above, between 2007 and 2018, the government reportedly signed 46 offset contracts worth ₹66,427 crore of investments. However, the realised investments were merely 8%, or worth ₹5,457 crore. Reportedly, technology transfer agreements in the offsets were not implemented, failing to accomplish the stated policy objective. We are unable to verify the claim as the government has not put in place an automatic monitoring system for offset contracts, as initially promised. On September 28, the government has diluted this policy further. Henceforth, the offset





clause will not be applicable to bilateral deals and deals with a single (monopoly) seller, to begin with.

### **Setback for defence**

Most defence deals are bilateral (as stated above), or a single supplier deal (given the monopoly over the technology). The dilution means practically giving up the offset clause, sounding the death knell of India's prospects for boosting defence production and technological self-reliance. The government, however, has defended the decision by claiming a cost advantage. It is a lamentable excuse for the reported policy failure. Price is but one of many factors in such deals, as explained above. The higher (upfront) cost of the agreement due to the offset clause would pay for itself by: reducing costs in the long term by indigenisation of production and the potential technology spill-overs for domestic industry. Hence, giving up the offset clause is undoubtedly a severe setback.

### **Shortlived in aerospace**

The offset policy can, however, succeed, if it is designed and executed correctly, as a parallel episode in aerospace industry demonstrates. Despite the heft of Hindustan Aeronautics Limited, India is a lightweight in global civilian aircraft manufacturing, as the public sector giant mostly devotes itself to defence production. The much-touted National Civil Aircraft Development (NCAD) project — to come up with an indigenously designed Regional Transport Aircraft (RTA) — has remained a non-starter from day one. However, with the introduction of the offset policy in 2005, things changed dramatically. For contracts valued at ₹300 crore or more, 30% of it will result in offsets, implemented through Indian offset partners. As aerospace imports rose rapidly, so did the exports via the offsets, by a whopping 544% in 2007, compared to the previous year. By 2014, exports increased to \$6.7 billion from a paltry \$62.5 million in 2005, according to the United Nations Comtrade Database. The offset clause enabled India to join the league of the world's top 10 aerospace exporters; the only country without a major domestic aerospace firm. The success was short-lived, however. Exports plummeted after the offset clause was relaxed, primarily when the threshold for the policy was raised from the hitherto ₹300 crore to ₹2000 crore, in 2016. The offset exports fell to \$1.5 billion by 2019. The 2005 policy helped promote a vibrant aerospace cluster, mostly micro, small and medium enterprises (MSMEs) around Bengaluru. The policy dilution undid success. The moral of the story is there for everyone to see.

### **Aiding self-reliance**

Reportedly because of the CAG's critical remarks in its latest report tabled in the Parliament, the government has virtually scrapped the defence offset policy. Thus, India has voluntarily given up a powerful instrument of bargaining to acquire scarce advanced technology — a system that large and politically ambitious nations seek to exercise. There are successful examples to draw lessons from, as the aerospace industry episode demonstrates. India needs to re-conceive or re-imagine the offset clause in defence contracts with stricter enforcement of the deals, in national interest, and in order to aim for 'Atma Nirbhar Bharat Abhiyaan', or a self-reliant India.

## **WHY DRDO HAS RECENTLY CONDUCTED A FLURRY OF MISSILE TESTS**

Over the last one and half months, the Defence Research and Development Organisation (DRDO) has conducted at least 12 tests of missiles or systems for missiles belonging to a vast spectrum of





ranges and purposes. Some more tests are said to be in the pipeline. These tests have taken place at the time when there is an ongoing stand-off between the Indian and Chinese forces along the Line of Actual Control (LAC) in the Ladakh region. A look at arguably one of the most action packed times for the DRDO, what goes into conducting these tests, what its means in terms of strategic posturing in the context of the stand-off along the LAC, and how COVID-19 restrictions played a role in it.

#### **What are the various tests that the DRDO conducted recently?**

On September 7, the DRDO successfully flight tested the *Hypersonic Technology Demonstrator Vehicle (HSTDV)*, which is an unmanned scramjet vehicle with a capability to travel at six times the speed of sound. The flight test of the vehicle is looked at as a boost to the development of the systems built with hypersonic vehicles including both offensive and defensive hypersonic cruise missiles and also in the space sector. The test was conducted at the Dr APJ Abdul Kalam Launch Complex at Wheeler Island, off the coast of Odisha.

On September 22, a flight test of *Abhyas, a High-speed Expendable Aerial Target (HEAT)*, was conducted from the Integrated Test Range (ITR) Balasore in Odisha when two demonstrator vehicles were test flown. Abhyas has been developed to be used as a target for evaluation of various missile systems.

In another test on September 22, the *Laser-Guided Anti Tank Guided Missile (ATGM)* was test fired from *Main Battle Tank (MBT) Arjun* at a field range in Maharashtra where it hit a target at a 3-km range. The test was repeated for a slightly longer range on October 1. Laser Guided ATGM is a boost to the Armoured Warfare capabilities.

On September 24, a successful night flight test of *nuclear capable Prithvi-II missile with a range of around 400 kilometres* was tested at the ITR. The test was executed by the Strategic Forces Command of India and monitored by the DRDO and other defence forces.

On September 30, *BrahMos surface-to-surface supersonic Land-Attack Cruise Missile (LACM)* featuring an indigenous booster and airframe section along with many other 'Made in India' sub-systems was flight tested from ITR. On October 17, the Naval version of the BrahMos was successfully test fired from Indian Navy's indigenously-built stealth destroyer INS Chennai, hitting a target in the Arabian Sea.

On October 3, DRDO tested another nuclear capable missile *Shaurya, which is a land-based version of the Submarine Launched Ballistic Missile Sagarika or K-15* with a range of around 800 km.

On October 5, DRDO tested the *Supersonic Missile Assisted Release of Torpedo (SMART) system*. It's an indigenously developed mechanism by which the torpedo is launched from an existing supersonic missile system — by making complex modifications — which takes the torpedo to a much longer range than its own.

On October 9, *India's first indigenous anti-radiation missile named Rudram*, developed for the Air Force (IAF), was successfully flight tested from a Sukhoi-30 MKI fighter jet off the east coast.

After the series of successful trials, a flight test of intermediate range cruise missile on October 12, reported a snag and had to be aborted.



On October 19, the DRDO conducted a test of *Stand-Off Anti-Tank Missile (SANT)* off the coast of Odisha.

The missiles tested during this period are crucial for land attack capability and some for Air and maritime security and testing them is a strong signal. At a time when there is a stand off with China which also has rising interests in the strategically crucial Indian Ocean Region, strategic signalling of this volume 'can not happen without a deliberate push from the government even if the COVID factor is considered' said a senior scientist. Officials said some more tests of the strategically important weapons systems are in the pipeline for at least a month ahead.

## WHAT ARE ANTI-TANK GUIDED MISSILES, AND WHY ARE THEY IMPORTANT?

The indigenously developed laser-guided version of the *Anti-Tank Guided Missile (ATGM)* was successfully test fired by the Defence Research and Development Organisation (DRDO) on two separate occasions recently and will undergo more validation tests in coming days before it is ready for the user trials. We look at the importance of the weapons system while countering armoured vehicles.

### When did ATGMs first come into use?

The development of ammunition that can pierce the armours of tanks and the material that can withstand such ammo has been an ongoing race since World War I. But it wasn't until the next World War that armies across the world began to use the ATGMs, missile systems that can strike and neutralise armoured vehicles such as tanks. While Indian Army mainly uses various imported anti-tank guided missiles, the DRDO has been working on ATGMs that can be launched from different platforms as part of the *Integrated Guided Missile Development Programme*. The indigenously developed low weight, fire and forget *Man Portable Anti Tank Guided Missile (MPATGM)* was successfully in September last year. In February 2018, ATGM Nag was successfully tested in desert conditions. All these systems, which are mainly used by infantry units of the Army, are in their various stages of development. In the meantime, the government said in December 2019 that it has procured *Anti-Tank Spike Missiles from Israel* along with the allied systems to meet operational requirements of the Indian Army.

### How are laser-guided ATGMs different?

The laser-guided ATGM, which was successfully tested recently on September 22 and later on October 1, mainly differs in one aspect from other ATGMs developed till date. This ATGM — which is yet to receive an operational name — is designed to be fired from tanks. With its range limited to 1.5 to 5 kilometers, it locks and tracks the targets with the help of laser designation to ensure precision in striking the target. *The missile uses a 'tandem' High Explosive Anti Tank (HEAT) warhead. The term tandem refers to the missiles using more than one detonation in order to effectively penetrate the protective armours. This missile has the capacity of piercing armoured vehicles which use specially designed armour plates to counter the impact of such projectiles.* This Laser Guided ATGM has been developed by two Pune based facilities of the DRDO's Armament and Combat Engineering Cluster — the Armament Research and Development Establishment (ARDE) and High Energy Materials Research Laboratory (HEMRL) — in association with Instruments Research & Development Establishment (IRDE), Dehradun. It is currently undergoing tests to be integrated with India's Main Battle Tank (MBT), Arjun. DRDO scientists said more tests for hitting targets at different ranges and for testing other flight parameters are



planned in coming days. After these series of validation tests, the system will be ready for the user trial by the Army, when it will be tested for various weather conditions, among other things. These tests were conducted from MBT Arjun at the field ranges of the Armoured Corps Centre and School (ACC&S) of the Indian Army, located on the outskirts of Ahmednagar in Maharashtra. In the September 22 test, the missile was tested for a target placed at 3 kilometer range. On October 1, it was successfully test fired for a slightly longer range.

#### Importance in armoured warfare

The role of armoured and mechanised vehicles has remained decisive even in modern day warfare because of their ability to go past conventional defenses. Tank battles are generally fought in a close range of under five kilometers. The objective is to hit the enemy tank before they can take a clear shot. Development of missile systems that can defeat tanks built using modern armour act as a deterrent against enemy tanks from advancing. DRDO scientists say the operability of the missile from a tank is a key feature in armoured warfare. The missile has the capability of engaging with the target even if it is not in the line of sight, thus further enhancing its capability.

#### NAG ANTI-TANK MISSILE COMPLETES FINAL USER TRIAL

The Defence Research and Development Organisation (DRDO) carried out the final user trial of the third generation *anti-tank guided missile (ATGM), Nag*, at the Pokhran firing range. "The missile was integrated with the actual warhead and a tank target was kept at a designated range. This was launched from *NAG Missile Carrier, NAMICA*. The missile hit the target accurately defeating the armour," the DRDO said in a statement. The test was carried out at 6.45 a.m. "With this final user trial, NAG will enter into production phase," DRDO stated. Nag had been developed to engage highly fortified enemy tanks in day and night conditions. *The missile has "fire and forget" and "top attack" capabilities with passive homing guidance to defeat all Main Battle Tanks (MBT) equipped with composite and reactive armour, the DRDO said.*

#### ARMY CHIEF COMMISSIONS INS KAVARATTI AT VISAKHAPATNAM

INS Kavaratti, the last of the four indigenously built *Anti-Submarine Warfare (ASW) stealth corvettes* built under Project 28 (Kamorta class), by Garden Reach Shipbuilders & Engineers (GRSE), Kolkata, was formally inducted into the Navy at the Naval Dockyard in Eastern Naval Command here on Thursday. It was commissioned by General Manoj Mukund Naravane, Chief of the Army Staff, in the presence of Vice-Admiral Atul Kumar Jain, Flag Officer Commanding-in-Chief, Eastern Naval Command (ENC).

#### India-made steel used

The ship, named after the capital of the Lakshadweep group of islands, has been constructed using high-grade DMR 249A steel produced in India. The ship spans 109 metres in length, 14 metres in breadth with a displacement of 3,300 tonnes and is regarded as one of the most potent Anti-Submarine Warships to have been constructed in India. Experts say the induction of the ASW corvettes will be a game changer in the eastern seaboard, especially with the Chinese submarines trying to make sorties in the Indian Ocean.



## WHAT IS INDIA'S FIRST SEAPLANE PROJECT AND HOW WILL IT FUNCTION?

*The first of the five seaplane services in Gujarat, connecting Sabarmati River in Ahmedabad to the Statue of Unity in Kevadia in Narmada district, will be inaugurated on October 31, the birth anniversary of Sardar Vallabhbhai Patel. Officials say Prime Minister Narendra Modi is likely to fly in the first 14-seater amphibian flight that will eventually be open to the public. The other spots are, Dharoi dam in Mehsana district, to connect Ambaji and Shatrunjay dam in Palitana of Bhavnagar district as well as Tapi in the next phase.* Construction of the terminals at both ends is almost complete with prefabricated structures and a complete glass facade. From the proposed terminal building, the passengers will use a 3-metre long aluminum gangway, hop on to the floating walkway and reach the docking pad of the sea plane.

### What is India's first seaplane project?

*The first seaplane project of the country is part of a directive of the Union Ministry of Civil Aviation. As per the directive, the Airports Authority of India (AAI) requested state governments of Gujarat, Assam, Andhra Pradesh and Telangana and the administration of Andaman & Nicobar to propose potential locations for setting up water aerodromes to boost the tourism sector. A seaplane is a fixed-winged aeroplane designed for taking off and landing on water.* It offers the public the speed of an aeroplane with the utility of a boat. There are two main types of seaplane: flying boats (often called hull seaplanes) and floatplanes. The bottom of a flying boat's fuselage is its main landing gear. This is usually supplemented with smaller floats near the wingtips, called wing or tip floats. The hull of a flying boat holds the crew, passengers, and cargo; it has many features in common with the hull of a ship or a boat.

### How will the service function?

Officials say that SpiceJet will operate a 19-seater plane, which will be able to accommodate 14 passengers. SpiceJet said the company has entered into a contract with a French company, which overtook the original Japanese manufacturer of 10-14 seater seaplanes. Officials of SpiceJet, who did not want to be named, said that Spicejet has been conducting trials with different models of seaplanes in Mumbai since over a year and two seaplanes have already arrived in Mumbai from where they will be brought to Sabarmati River in Ahmedabad before the October 31 launch. "There will be four flights a day between Ahmedabad and Kevadia on each side — which means four arrivals and four departures. The ticket price per person will be about Rs.4,800. Anyone wishing to cut down on their travel time between Ahmedabad and Kevadia which currently takes about four hours one way, can do so by turning it into a day's trip. Return tickets can be booked on the seaplane to ensure that the passengers can return to Ahmedabad from Kevadia during the day. The journey by seaplane will be about one hour," the official said. Fuelling and maintenance of the seaplanes will be carried out at the Ahmedabad airport.

### What impact will it have on the environment?

The water aerodrome is not a listed project/activity in the Schedule to the Environmental Impact Assessment Notification, 2006 and its amendments. However, the Expert Appraisal Committee was of the opinion that the activities proposed under the water aerodrome project may have a similar type of impact as that of an airport. In Narmada, the Shoolpaneshwar Wildlife Sanctuary is located at an approximate aerial distance of 2.1 km from the proposed project site in south-west direction while the nearest reserve forest is situated at a distance of 4.7 meters in east direction,





which serves local sensitive species of fauna. The bathymetric and hydrographic survey was conducted by Inland Waterways Authority of India (IWAI) before finalising Dyke 3, which is a rock-filled pond and popularly called the 'Magar Talav' as it is infested with crocodiles. Work on evacuating crocodiles from the lake has been on since January 2019, after which mesh fencing of the boundary was also completed to prevent crocodiles from re-entering from the connecting Dyke 1 and 2. *The site was finalised for the terminal as its dimensions suit the requirements of landing the seaplane, which requires a minimum width of 900 metres in a water body with a depth of at least six feet.* Senior engineers of SSNNL added that while a seaplane does not require any construction of a runway, rubber buoys have been lined up to indicate the landing path for the seaplane. In its proposal seeking environmental clearance, the Director of Aviation, Government of Gujarat, has allayed fears of environmental impact during the stage of construction. In terms of the long-term effects of the seaplane service, the government has said, "During seaplane operations, there will be turbulence created in the water while take-off and landing of seaplanes. This will lead to more operation process i.e. mixing of oxygen in the water. This will have a positive impact on the aquatic ecosystem near seaplane operations increasing oxygen content and decreasing carbon content in this system."

#### Where else do seaplanes operate?

Seaplanes by multiple airline carriers are operational in countries like the Philippines, Canada, Australia, the United States, Finland, the United Kingdom, Sri Lanka, Fiji, New Zealand, Papua New Guinea, United Arab Emirates, Italy, Maldives and Hongkong. *In India, Jal Hans, a commercial seaplane service based in the Andaman and Nicobar Islands was launched as a pilot project on 30 December 2010 by the then Indian Civil Aviation Minister, Praful Patel with a capacity of 10 passengers.*

#### A 'ZERO RAJDHANI' SKIRTS GUWAHATI, CUTS TRAVEL SHORT

*Bogibeel, India's longest rail-and-road bridge across the Brahmaputra, had in December 2018 brought the two "emotionally connected" banks of eastern Assam closer by more than seven hours. A 'Zero Rajdhani' train via this 4.94 km bridge has now brought the people of the two banks closer to New Delhi by more than 100 km.* The 02505/02506 between New Delhi and Dibrugarh on October 12 was *technically not a Rajdhani, whose train number starts with 2 while those of mail, express trains start with 1. The zero makes it a special train, usually operated temporarily.* "The train will officially become the biweekly Rajdhani we had planned to introduce from May 3 once train services become regular. The plan had to be shelved because of COVID-19," said Subhanan Chanda, spokesperson, Northeast Frontier Railway (NFR). *The special 'Rajdhani' could be a first, deviating from the train definition, bypassing Guwahati, the original terminal for Rajdhani, by some 50 km.* For people in Dibrugarh and eastern Arunachal Pradesh, what matters more is the option of reaching Delhi or other stations on the 'normal' Rajdhani route faster. The track via Bogibeel is 117 km shorter.

#### JAGAN VS. JUDGES

*Andhra Pradesh Chief Minister (CM) Y.S. Jagan Mohan Reddy has stirred a hornet's nest by writing to the Chief Justice of India complaining about Supreme Court judge Justice N.V. Ramana for allegedly influencing posting of cases in the State High Court and alleging that some High Court judges are*



*hostile to his government and are deliberately striking down his regime's decisions and orders.* In effect, he has accused many judges of misconduct, corruption and political bias.

Justice N.V. Ramana is no ordinary judge; he is now the seniormost after the CJI, and is due to take over from him come April 2021, if the convention on seniority holds. The Chief Minister's letter begins with a reminder that the executive is an equal partner of the judiciary and the legislature in serving the people. It acknowledges the power of judicial review over acts of the other organs of State, and quickly swings this around to emphasise the consequent need for absolute judicial integrity. The arc thus traversed, the contents are offloaded, and they consist of damning allegations against Justice Ramana. Reference is made to Justice Ramana's proximity to former Andhra Pradesh Chief Minister Chandrababu Naidu and the Telugu Desam Party (TDP) as Additional Advocate General, and we are reminded that former Supreme Court justice Justice J. Chelameshwar has commented adversely on their connection. That Justice Ramana has, through the State Chief Justice, influenced the selection of the roster and allotment of key portfolios to a few judges close to the TDP. That important matters relating to State policy and TDP interests are posted before these judges and invariably orders adverse to the government are passed. That even a decision of the Cabinet appointing a Special Investigating Team to investigate allegations of corruption against the previous TDP administration has been stayed by the High Court. The letter makes mention of cases where the High Court has passed orders negating a slew of key decisions of the Jagan Mohan Reddy government in the last 18 months; presumably, these include shifting the capital out of Amaravati, resolution on the abolition of the Andhra Pradesh Legislative Council, and removal of State Election Commissioner N. Ramesh Kumar, etc.

The Chief Minister's missive makes specific and pointed reference to insider knowledge and purchase of large land transactions in Amaravati at old prices to make a killing when the development plans were unveiled. He mentions the involvement of D. Srinivas, previous Advocate General of the State and also makes reference to close relatives of Justice Ramana. **It is not possible here to discuss the FIR filed by the government in this case owing to a most unusual order passed by the Chief Justice of the Andhra Pradesh High Court, Justice J.K. Maheshwari on September 15. In the face of Supreme Court precedents, Justice Maheshwari injuncted further investigation of the case. Crucially, he went one step further (and this may be the fatal misstep) and placed a gag order on the media from reporting the FIR. Now, this goes against every tenet of freedom of speech, the right of the press to properly report on matters of public importance and our right as citizens to receive such reports, and the tenets of transparency and accountability of high constitutional office-holders in a democracy.** Indeed, one would like the Andhra Chief Justice to explain to us what the crucial aspect of security of the State or integrity of the country involved in this case of alleged land grab through insider knowledge is that we the citizens should not know about it. It is galling in the extreme that a senior judge should think that after 70 years of constitutional freedom, we will meekly consent to have our mouths gagged and our ears clogged. Sadly, that gag order continues, contrary to expectation that the designated sentinel on the watch, the highest court, would order its immediate extinction on becoming aware of its existence.

Such an open conflict between the judiciary and a Chief Minister is without precedent. Questions arise about what can be done about this serious complaint.

#### **How are allegations of misconduct against judges dealt with?**

The Constitution protects the independence of judges of the High Courts and the Supreme Court by making them removable only through a long process of impeachment. However, not all forms



of misconduct will warrant impeachment. There could be other kinds of impropriety too. There are times when serious complaints of this sort are received, and the Chief Justice of India (CJI) is called upon to examine them. Since 1997, judges have adopted an 'in-house procedure' for inquiring into such charges.

#### **When was the procedure adopted?**

*After Justice J.S. Verma took over as Chief Justice of India (CJI) in 1997, he circulated among judges a document called 'Restatement of Values of Judicial life'. This was a set of principles containing the essential elements of ideal behaviour for judges. The Full Court passed a resolution that an 'in-house procedure' would be adopted for action against judges for acts of commission or omission that go against these values. A five-judge committee was constituted to come up with a procedure. Its report was adopted on December 15, 1999. It was made public in 2014.*

#### **How does the in-house procedure work?**

When a complaint is received against a High Court judge, the CJI should decide if it is considered frivolous or if it is "directly related to the merits of a substantive decision in a judicial matter", or it does not involve any serious misconduct or impropriety. If it is serious, the CJI should get the judge's response. He may close the matter if he is satisfied with the response. If a deeper probe is considered necessary, both the complaint and the judge's response, along with the Chief Justice's comments, are recorded for further action. The same procedure holds good if the CJI receives a complaint directly. After considering the High Court's Chief Justice, the judge involved and the complaint, the CJI, if deemed necessary, forms a three-member committee. The committee should have two Chief Justices from other High Courts and one High Court judge. The inquiry it holds is of the nature of a fact-finding mission and is not a formal judicial inquiry involving examination of witnesses. The judge concerned is entitled to appear before it. If the case is against a High Court's Chief Justice, the same procedure is followed, but the probe committee comprises a Supreme Court judge and two Chief Justices. If a Supreme Court judge faces such a charge, the in-house panel will comprise three Supreme Court judges. The in-house procedure does not give any separate provision to deal with complaints against the Chief Justice of India. But in practice, a panel of three other Supreme Court justices is formed.

#### **What happens after the probe is done?**

If the committee finds substance in the charges, it can give two kinds of recommendations. One, that the misconduct is serious enough to require removal from office, or that it is not serious enough to warrant removal. In the former case, the judge concerned will be urged to resign or seek voluntary retirement. If the judge is unwilling to quit, the Chief Justice of the High Court concerned would be asked to withdraw judicial work from him. The President and the Prime Minister will be informed of the situation. This is expected to clear the way for Parliament to begin the process of impeachment. If the misconduct does not warrant removal, the judge would be advised accordingly.

#### **How will the CM's complaint be handled?**

The complaint by the Andhra Pradesh Chief Minister will have to be examined by the CJI from the perspective of whether it can be rejected as baseless, or it requires a deeper investigation. In details annexed to his letter, Mr. Reddy has cited several writ petitions in which adverse orders





were passed against his regime. He also accuses the judges concerned of political bias not only against himself, but also in favour of his rival, N. Chandrababu Naidu, the former Chief Minister. Therefore, a key question would be: do the charges pertain merely to the merits of judicial orders, or are they serious enough to warrant a probe?

## RULES BAR BONUS FOR THOSE FACING SEX ABUSE CHARGES

*Those indulging in sexual harassment of any form could run the risk of losing out on bonus dues from their employers, thanks to a provision in the Code on Wages that the government is currently framing rules for.* Among other things, the Code on Wages lays down norms for annual bonus dues that accrue to employees, replacing the Payment of Bonus Act, 1965. The new Code, expected to become operational once the government notifies the rules, includes '*conviction for sexual harassment*' as a ground for denying bonus payouts to employees. As per the extant law, bonus dues are barred only in case of employees dismissed for fraud, violent conduct and theft or sabotage.

### Move welcomed

Money is important to everyone after all; so this serves as an additional deterrent apart from the *Prevention of Sexual Harassment (PoSH) law of 2013*," Ms. Chakraborty said. As per the PoSH law guidelines, firms are required to form an Internal Complaints Committee (ICC) to inquire into complaints. The Committee is required to make recommendations to employers on the action required pursuant to its inquiry in such complaints. "If the ICC upholds a complaint, it could be construed as a conviction," Ms. Chakraborty said, adding that the ICC has the powers to decide if someone is guilty and report it further to the police, though not all sexual harassment cases translate into a police case.

"The rules under the Code on Wages should clarify whether the conviction would cover cases of outcomes of the investigation by the Internal Complaints Committee arriving at a conclusion to pay compensation to the victim or not."

*While the other disqualification triggers for withholding bonus dues, like theft and violent conduct are explicitly restricted to actions on an employer's premises of the employer, the trigger referring to conviction under sexual harassment doesn't include such a condition about the location of the incident.* "At this point, it is not clear if sexual harassment incidents or related crimes against women outside the workplace could lead to dismissal of employees with loss of bonus payments. But yes, harassing a co-worker irrespective of where it is done, should come under this provision's purview," said a labour law consultant, requesting anonymity.

## HC ORDER TRIVIALISATION OF RAPE VICTIM'S TRAUMA, SAYS PLEA IN SC

Nine women lawyers have approached the Supreme Court against a Madhya Pradesh High Court order which directed a man accused of sexual assault to visit his victim at home on Rakshabandhan and "allow" her to tie a rakhi on him as a condition of bail. The lawyers, led by advocate Aparna Bhat, said the High Court order was a "trivialisation of her [victim's] trauma".

### Rakhi gifts

*The law prescribes the victim to be kept far away from the accused.* Instead, here the High Court has ordered the accused to visit the home of the woman — the very place where the crime is alleged



to have occurred. *The case is that the accused forcibly entered the victim's house to commit the crime.* The petition said the High Court further ordered the accused *to gift the woman ₹11,000 "as a customary ritual* usually offered by brothers to sisters on such occasion and shall also seek her blessings." The High Court also ordered the accused *to offer ₹5,000 to the woman's son* for the "purchase of clothes and sweets".

#### **Stay the order**

The order only succeeds to victimise the woman and retards the years of work done to sensitise the courts about how damaging it would be to attempt a compromise "by way of marriage or mediation between the accused and the survivor". The petition urged the top court to stay the condition for bail passed by the High Court in July.

### WHY NHRC ADVISORY ON SEX WORK HAS SPLIT RIGHTS ACTIVISTS DOWN THE MIDDLE

*The National Human Rights Commission (NHRC) recognised sex workers as informal workers in their advisory issued on October 7 on "Human Rights of Women in the context of COVID 19".* After social activist Sunitha Krishnan, founder of the advocacy Prajwala, opposed the advisory, nearly 10,000 sex workers and more than 900 feminists and activists are up in arms. What is the advisory, and why have objections been raised against it?

#### **What is the NHRC advisory related to sex workers?**

The NHRC in an effort to secure the rights of all women who have been excluded and marginalised during the Covid-19 pandemic, included sex workers as informal workers in their advisory on 'Women at Work'. The advisory, issued on October 7, asked the Ministries of Women and Child Development, Labour, Social Justice, Health, and Consumer Affairs in all states and Union Territories to recognise sex workers as informal workers and register them so they are able to avail the benefits of a worker. *The Ministries have been asked to issue temporary documents so that the sex workers like all other informal workers, can access all welfare measures and health services.*

#### **Why is the advisory important?**

The advisory included sex workers among groups that they were considered as part of vulnerable and marginal sections of society, thereby considering them as citizens who are deserving of protection of human rights in the time of the pandemic, Meena Seshu, founder of Sampada Grameen Mahila Sanstha, an HIV/AIDS prevention, treatment and support organisation in Sangli, Maharashtra said. To do this, NHRC had sought expert advice, and both the government and constitutional bodies had stood by the protection of the human rights and dignity of sex workers, Chaynika Shah of Forum Against Oppression of Women, Mumbai said. "We strongly believe that the NHRC advisory which recommended that sex workers be recognised as informal workers is a welcome move, and an important milestone in achieving constitutional rights for sex workers," Tejaswi Sevekari, Executive Director, Saheli HIV/AIDS Karyakarta Sangh, said.

#### **So who is opposing this advisory, and why?**

The loudest voice in opposition is that of Sunitha Krishnan, a social activist and who was awarded the Padma Shri in 2016, and who runs Prajwala, an organisation based in Hyderabad with a mission to end sex slavery. Krishnan and Prajwala — which has rescued, rehabilitated, or served more than 23,000 survivors of sex trafficking — have asked the NHRC to withdraw the advisory.



In an anguished letter, Krishnan has said that in her experience of more than 25 years, there has not been a single instance where a woman has voluntarily gone into prostitution. "It is an absolute failure on our part to not provide viable options to women to engage in productive work," she wrote. *"Our law — which is the Immoral Traffic (Prevention) Act — lays down that the institution of prostitution is illegal. Sex is either a consensual engagement between two adults or it is rape. Commercial sex, if engaged through any institutional process is illegal and liable for prosecution. Hence Government of India never recognised sex work."* Krishnan urged the NHRC to withdraw Section III (B) of the 'Women at Work' advisory which she said had practically asked the government to legalise sex work by giving it a legitimate registration status. Krishnan posted her letter on Twitter, stating, "There is a point in your life when you have to a clear position publicly. It is now."

#### **What has been the reaction to Krishnan's letter?**

Over 11,000 signatories from 25 states have protested against Krishnan's letter to the NHRC. Over 255 networks and organisations including the Forum against Oppression of Women, Gamana Mahila Samuha, Point Of View, MASUM, Stree Mukti Sanghatana, Mazdoor Kisaan Shakti Sanghatana, Queer Feminist LBT Collective, Telangana Hijra Transgender Samiti, Naz Foundation, and others have written to the NHRC. "We affirm the autonomy and dignity of women, be they sex workers or victims of sexual violence. No organisation or individual can arrogate to themselves the authority to decide their destinies," the letter to the NHRC stated. "Krishnan's letter is a direct attack on the rights of vulnerable communities like sex workers in the context of Covid-19 — the biggest pandemic of our times. It is unfortunate that she is unable to see that her myopic and moralistic objection to the recommendation in the advisory that sex workers be recognised as informal workers and registered in order that they are able to get worker benefits is violative of women's rights at several levels," Madhu Bhushan of Gamana Mahila Samuha, Bengaluru, said.

### **WHAT A 2013 STUDY REVEALED ABOUT INTERFAITH MARRIAGES IN INDIA**

The featuring of an interfaith couple in an advertisement aired by the Tata-owned Tanishq led to accusation of it promoting love jihad. Tanishq finally withdrew the advertisement fearing a larger impact on the brands. The Indian Express explains the trend of interfaith marriages in India.

#### **Is there a record of interfaith marriages that take place in India?**

The Census does not record interfaith marriages in India nor has the government conducted any nationally representative survey to find out about such marriages.

#### **Have there been studies conducted to find out about the impact of interfaith marriages in India?**

A number of studies conducted by research scholars have found that interfaith marriages have limited impact on society at large. For instance, students and faculty of the Central Government-run International Institute for Population Sciences had presented a paper on interfaith marriages in India in 2013 by analysing data from the "India Human Development Survey (IHDS) data, 2005" to explore the extent of mixed marriages in India. "The India Human Development Survey 2005 (IHDS) is a nationally representative, multi-topic survey of 41,554 households in 1503 villages and 971 urban neighbourhoods across India. It was jointly organised by researchers from the University of Maryland and the National Council of Applied Economic Research (NCAER), New Delhi. Funding for the survey was provided by the National Institutes of Health. Though there was



no direct question on inter-religious marriage, the paper has taken the religious affiliation of husband and wife to find the number of inter faith marriages. *The study suggests that 2.21 per cent of all married women between the age of 15-49 had married outside their religion. The proportion of inter-religious marriages is highest at 2.8 per cent among the women of the young age group (15-19) than other age groups which decrease with increasing age at marriage with 2.3 per cent for those in the age group 20-24, 2 per cent for 25-29 and 1.9 per cent for those above 30. Interreligious marriages are greater among the women living in urban areas at 2.9 per cent compared to 1.8 per cent for rural areas.*

#### **How prevalent is interfaith marriage in various religious groups**

*The prevalence of women marrying outside their faith is the highest amongst Christians with 3.5 per cent of women having mixed marriages. Sikhs come second at 3.2 per cent, Hindu's 1.5 per cent and Muslims 0.6 per cent.* The data, however, does not show the religion which the women are marrying into.

#### **Which states show the highest number of mixed marriages.**

*Punjab has the highest mixed marriages at 7.8 per cent. This high number is attributed to the somewhat similar religious customs and practices followed by Sikhism and Hinduism. Jharkhand at 5.7 per cent and Andhra Pradesh at 4.9 per cent also have a high proportion of mixed marriages. The lowest percentage of mixed marriages are in Bengal at 0.3 per cent, Chattisgarh 0.6 per cent and Rajasthan 0.7 per cent.*

#### **How do mixed marriages impact society?**

Sociologists believe mixed marriages, be they inter-religion or inter-race, help in the socio-cultural assimilation of communities and facilitate better integration into society.

### **COAL BLOCKS ALLOCATION CASES: ALLEGATIONS, INVESTIGATION, AND WHAT NEXT**

*A special CBI court convicted Dilip Ray, Minister of State for Coal in the A B Vajpayee government in 1999, for his alleged involvement in the coal block allocation scandal.* Hearings on the quantum of Ray's sentencing are set to begin on Wednesday. While convicting him, the court observed that Ray "abused his official position", as his decision of "relaxation of policy without any logical or legal basis amounts to gross abuse of his powers by the minister".

#### **The case against Dilip Ray**

*It relates to allocation of a coal block in Giridih district of Jharkhand to a private company in violation of guidelines. Ray represented the BJD then; he later joined the BJP only to quit it in the face of these allegations.* The CBI had noted that the Coal Ministry through its guidelines had specifically said no company engaged in production of iron and steel or sponge iron could get a captive coal mine if its production capacity was less than 1 metric tonne per annum (MTPA) in opencast mining. However, when private company Castron Technologies Ltd applied for Brahmadiha Coal Block in Giridih, the minister agreed to relax guidelines and allow the grant despite it not being eligible, the CBI found. Ray has been convicted along with five others: CTL; its director Mahendra Kumar Agarwalla; Castron Mining Ltd; then additional secretary, Coal, and chairman, 14th Screening Committee Pradip Kumar Banerjee; and Nitya Nand Gautam, the then adviser (projects), Coal Ministry, and member-convener, 14th Screening Committee.





### Why it is significant

The 2G spectrum scam and the coal blocks allocation cases were among the reasons that the UPA II government came to be perceived as corrupt. Comptroller and Auditor General (CAG) reports on the two matters had put the loss to exchequer at Rs 1.75 lakh crore and Rs 1.8 lakh crore respectively with the latter being called “the mother of all scams”. While there have been several convictions in the wide range of coal blocks cases, this is the first time that an NDA minister has been convicted. When the allegations surfaced, Ray was a member of the BJP.

### The coal blocks scam

In the early 1990s, the government decided to allocate such coal blocks to private companies that were not part of the production plan of PSUs Coal India Ltd and Singareni Collieries Company Limited (SCCL). Initially a list of 143 coal blocks was prepared, later inflated to 216. At that time there were no concrete guidelines for allocation of blocks as coal mining was largely restricted to PSUs and many geographic locations were seen as unsuitable for profitable mining. The guidelines were periodically revised through 1993, 1998 and 2003. Between 1993 and 2005, 70 coal mines were allocated. Then between 2006 and 2010, a further 146 blocks were allocated taking the total tally to 216. However, some blocks were de-allocated owing to companies not starting work and the final list stood at 194. In March 2012, a leaked draft report of the CAG revealed irregularities in the allocation of blocks and pegged the loss to the exchequer at Rs 10.76 lakh crore. Although the CAG’s final report tabled in Parliament in August 2012 whittled down the loss to Rs 1.8 lakh crore, it was still the biggest scam India had seen. The CAG had argued that the government had the authority to auction the coal blocks but chose not to and as a result allocatees received a “windfall gain”. As the Opposition targeted the Manmohan Singh government on corruption, BJP leaders Prakash Javadekar and Hansraj Ahir approached the Central Vigilance Commission (CVC) with complaints. The CVC referred them to the CBI which over the next few months registered over 40 FIRs. Meanwhile, a Parliamentary Standing Committee report said coal blocks distributed between 1993-2008 were done in unauthorised manner, bringing even the NDA period under scanner. The Supreme Court took matters into its own hands directing the CBI to directly report to it and not the government. Some big names of the political and corporate world got embroiled in the controversy, from Congress politician and industrialist Naveen Jindal and Dasari Narayan Rao (now deceased) to RJD’s Prem Chand Gupta and BJP’s Ajay Sancheti. CBI even examined Manmohan Singh at a later stage.

### UPA’s defence

*Then PM Singh rebutted allegations of fraud and even questioned CAG’s computations in Parliament. He had argued that West Bengal, Chhattisgarh, Jharkhand, Orissa and Rajasthan — which were ruled by Opposition parties then — were strongly opposed to a switchover to competitive bidding as they felt it would increase the cost of coal, adversely impact value addition and development of industries in their areas and would dilute their prerogative in the selection of lessees. On the idea of “windfall gains”, Singh said computation of extractable reserves based on averages would not be correct. He said the cost of production of coal varies significantly from mine to mine even for CIL due to various conditions. He pointed out that CIL had been generally mining in areas with better infrastructure and more favourable conditions, whereas the coal blocks offered for captive mining were generally in areas with more difficult geological conditions. Arguing against a loss to the exchequer, Singh said part of the gains would in any case get appropriated by the government*



*through taxation, with corporates being made to allocate 26% of their profits for local area development.*

### State of the probe

The coal blocks allocation cases are among the CBI's longest running probes, with the agency last registering a fresh FIR in the case in January 2020. It has since 2012 filed multiple chargesheets and even closed many cases for lack of evidence or culpability. *Unlike the 2G spectrum case, where all the accused have been acquitted, CBI has secured multiple convictions in the coal cases.* Through 2017 and 2018, a special CBI court convicted former Coal Secretary H C Gupta in three different cases. Two other bureaucrats — K S Kropha and K C Samria — were convicted in two of these cases. They were all sentenced to imprisonment of two-three years. The court also sentenced several office-bearers of companies associated with these cases. In the Vini Iron and Steel case, where HC Gupta had been convicted, the court also convicted and sentenced former Jharkhand chief minister Madhu Koda to three years of imprisonment.

### MAHARASHTRA GOVERNOR'S INTEMPERATE LETTER

Maharashtra Governor Bhagat Singh Koshyari's intemperate letter to Chief Minister Uddhav Thackeray, in which he mocked the latter, questioned his faith and even took a jibe at secularism, a fundamental tenet of the Constitution, is disgraceful. His letter, written purportedly to seek an early reopening of temples, could have urged that without the accompanying scorn and derision. *The Governor reduced himself to the level of a troll warrior, by declaring that "our gods and goddesses have been condemned to remain in lockdown" and wondering whether the CM has "suddenly turned secular". He wrote to the CM that the latter used to be a "strong votary of Hindutva", and cited his visits to temples as proof.* This forces the conclusion that the intent, purpose and premise of the letter were all wrong. A person's faith in Hinduism and its practice is not Hindutva. *The Constitution envisages no role for a CM's faith in his functioning.* Moreover, it is not the Governor's job to interfere in the daily functioning of an elected government. Communication between the Governor and CM must be perfectly civil and respectful besides being constitutionally appropriate. And at any rate, restrictions on gatherings at places of worship as a measure to combat a pandemic are not related to the concept of secularism.

His warped logic apart, Mr. Koshyari has a track record of privileging his political fealties over norms and propriety. In November 2019, he held *a swearing-in for BJP leader Devendra Fadnavis as the State's Chief Minister*, in a dubious attempt to pre-empt the formation of a Shiv Sena-led alliance government. He continued to wade into political controversies, in a manner unbecoming of his office. NCP Chief Sharad Pawar on the other hand, called out the Governor's ill-advised move in a letter to Prime Minister Narendra Modi, in which he expressed "shock" and "surprise" that the letter was released to the media. The Governor could convey his views to the CM, but the "kind of language" was unsuitable for someone holding a constitutional office, Mr. Pawar pointed out. Maharashtra is fighting a battle against COVID-19, and all steps in this regard must be based entirely on a proper analysis of the situation. Any political considerations can only be damaging, and a communal one will be dangerous. It is unfortunate that the Governor sought to insert himself into the situation in an extremely unhelpful manner. He must retreat and let the Council of Ministers and the Chief Minister take decisions that they consider appropriate and timely.



## GOVERNMENT VS GOVERNOR IN CHHATTISGARH

*Chhattisgarh Governor Anusuiya Uikey on Tuesday (October 20) returned a file from the government seeking permission to convene a special session of the Assembly. This provoked a sharp reaction from Chief Minister Bhupesh Baghel.* Uikey, a BJP Rajya Sabha member from Madhya Pradesh until 2012, was appointed Governor in July 2019, seven months after Baghel was sworn in as Chief Minister on December 17, 2018, following a landslide victory in the Assembly elections. The latest incident comes after several earlier confrontations between the government and the Governor on political and administrative issues over the last seven months.

### Appointment of VCs

The disagreement between the government and the Governor started in March 2020 over the appointment of Baldev Sharma, a staunch RSS man, an editor of RSS mouthpiece Panchjanya, and biographer of former RSS sarsanghchalak K S Sudarashan, as Vice Chancellor of Kushabhau Thakre University of Journalism and Mass Communication (KTUJM), Raipur. The Governor also reinstated the pro-BJP Vice Chancellor of the Bilaspur-based Pandit Sundarlal Sharma Open University, Vans Gopal Singh. The government tried to change the bylaws of appointment to reduce the role of the Governor; however, the Bill is pending with the Governor herself.

### Fifth Schedule area

The Governor in September expressed her displeasure over the government's decision to redesignate Marwahi in the new district of Gaurela-Pendra-Marwahi from a gram panchayat to a nagar panchayat, including the three gram panchayats of Marwahi, Kumhari, and Lohari. Saying that the area was part of the areas notified under the Fifth Schedule of the Constitution, the Governor called a meeting with senior officials of the government on September 29 and asked if they had made the government aware of the "proper procedure", which was to go through Raj Bhavan.

### Critical of crime in state

The Governor has been vocal against the government on several occasions, and has heard petitions from opposition parties like the BJP and the Janta Congress Chhattisgarh, against decisions taken by the government. She intervened recently in the attack on a Kanker-based journalist, and also called for a meeting with the state machinery over the increase in crime, which was put off after the Home Minister allegedly quarantined himself before the meeting. While Home Minister Tamradhwaj Sahu has maintained that he had come in contact with a Covid-19 positive individual, several political observers claim that he had met other Ministers the day after the scheduled meeting.

### Officials in Raj Bhavan

Governor Uikey had written a letter to CM Baghel over the changing and transfer of IAS officers attached to the Raj Bhavan last week. The letter seeking a full-time panel of IAS officials for the Raj Bhavan was full of iterations reminding the government that her position is to be respected in the state, and that changes should not be made by the government without informing her or taking her feedback.





THE RAJ BHAVAN'S NEW ROLE — TAKING CENTRE STAGE (HARISH KHARE - SENIOR JOURNALIST BASED IN DELHI)

When in 2007 at the height of the agitation in Nandigram in West Bengal, Governor Gopalkrishna Gandhi had allowed himself to express his “cold horror” at the ugly violence, Raisina Hill overseers were not pleased and their displeasure was conveyed to the Raj Bhavan in no uncertain terms. There was a definite clarity in New Delhi that a Governor need not get involved in the fracas among the political parties and leaders. That was “old India” and there was a commitment to the federal principle. In the “new India”, a new role is being scripted for the Raj Bhavan, as is for all other constitutional institutions. The Governors in the non-Bharatiya Janata Party-ruled States have been given a licence to convert Raj Bhavans into a rival centre of political activism — even intrigue — against the elected governments.

### The letter in Maharashtra

Hon'ble Jagdeep Dhankhar at the Kolkata Raj Bhavan, so far, had the distinction of being the most active licentiate — till his counterpart in the Mumbai Raj Bhavan decided last week to cross all limits of gubernatorial propriety. *Maharashtra Governor Bhagat Singh Koshyari's by-now famous letter to Chief Minister Uddhav Thackeray, demanding re-opening of the places of worship to the devotees across Maharashtra, is a brilliant but thoroughly unnerving innovation in a Governor's bag of tricks of over-reach.* Various Raj Bhavans, of course, have become embroiled in extremely unsavoury controversies over the decade, partly because the *Constitution of India does allow a certain discretion to the Governor. And a discretion invariably does get abused. The framers of the Constitution had definitely disfavoured the idea of an elected Governor because they were unambiguously clear that political power would only be vested with the Council of Ministers, headed by a Chief Minister; yet, they were not inclined to put in a formal Instrument of Instructions for the Governors and were content to believe that political decencies and correctness would be observed both by the Governor and the Chief Minister.* As the distinguished constitutional expert, Nani A. Palkhivala, saw it, “the Constitution intended that the Governor should be the instrument to maintain the fundamental equilibrium of the people of the State and to ensure that the mandates of the Constitution are respected in the State”. The assumption, of course, was that those appointed to a Raj Bhavan would be endowed with “a buddhi [wisdom] which sets apart a statesman from a politician”.

### A twist to discretion

In the post-Nehruvian era, as our politics became rough and our politicians rougher, that buddhi eluded most Governors. As an appointee of the Union Government, the Governors have, predictably enough, been all too prone to do the bidding of the ruling party at the Centre. Inevitably the “discretion” — be it choosing a Chief Minister, or requiring a Chief Minister to prove his/her majority, or dismissing a Chief Minister, dissolving the legislature, recommending President's Rule — came to be tainted with partisan political considerations. More often than not, the gubernatorial discretion was abused, sometimes absurdly, even whimsically. The Supreme Court did try, through its judgment *in the S.R. Bommai case, to restore some kind of order on the rampant proclivities of Raj Bhavans.* That, of course, did not prevent a Governor from becoming difficult. For example, *a Governor has been known for, once, withholding his assent to the Budget because the Chief Minister was not inclined to accede to the Raj Bhavan's demand for a fourth imported luxury car for “ His Excellency”.* But now, the BJP has accelerated the process of



institutional lumpenisation. A new role for the Governors in the non-BJP ruled States has been devised. Without seeming to abuse his 'discretion', a Governor, like the gentleman in the Kolkata Raj Bhavan, can blatantly put the licence of 'gubernatorial activism' in the service of his bosses' party interests. There is probably nothing in the Constitution that forbids a Governor from making a political nuisance of himself. The Twitter handle comes in handy. Or, no one can fault a Governor for granting an audience to delegations hostile to the Chief Minister. The Maharashtra Governor was all too willing to get himself photographed with a film actress, who was demonstratively brawling with Chief Minister Thackeray. Or, take the case of the West Bengal Governor openly suggesting that the police officials and the bureaucrats should perform their duties as "public servants are not political workers". Almost, a hit-and-run strategy. And, then, leave it to the media to whip up a political cloud over such loaded utterances.

### New low

Article 167 of the Constitution does allow a Governor to call for any information "relating to the administration of the affairs of the State"; but, with a wink from the bosses in the Union Home Ministry, a Governor like Mr. Dhankhar or Mr. Koshyari can become a total partisan. But, *it was a new low when the Maharashtra Governor mockingly asked the Chief Minister if he had suddenly turned 'secular'*. In the "old India", the President of India would have mostly probably found a way of communicating the Rashtrapati Bhavan's displeasure to the Maharashtra Governor for this 'secular' taunt. After all, secularism is very much a part of the basic structure of the Constitution, the very sacred book that *a Governor takes oath to "preserve, protect and defend". "Secularism" is not a dispensable part of the Constitution, nor is it a dirty word, as Governor Koshyari's letter implied.* After all, it has been pointed out by jurists and constitutional scholars that in the Kesavananda Bharati case, the Supreme Court had declared *secularism as a basic feature of the Constitution, even before the Forty-Second Amendment had introduced the word 'secular' in the Preamble to the Constitution.* The political design behind an over-active Raj Bhavan is simple: poke, prod, pinprick and provoke the elected government to waste its political energies and capital in an unwanted war of attrition; the BJP can be the only beneficiary from the resulting skirmishes.

### Reflecting an arrogance

However, there is a certain method to this gubernatorial madness. Governors like Mr. Koshyari and Mr. Dhankhar are too insignificant as political players to have crafted on their own this new gubernatorial meddlesomeness; their overreach is only a reflection of a new arrogant mindset at work. The Narendra Modi-Amit Shah leadership subscribes to a maximalist approach to the obligation of institutionalised sharing of power within our federal framework. Over and above the primacy of the Union, the BJP is allergic to the idea of having to share power and space with other political parties and players. The non-BJP governments, an unafraid Mamta Banerjee and un-intimidated Uddhav Thackeray, are seen as eyesores which need to be removed. To that end, wherever possible, the Raj Bhavans would become the State BJP's extension counters. No one should be surprised if the BJP were to use the contrived Koshyari-Thackeray dust-up in the Bihar election campaign later this month. This itch for political intolerance is a recurring nightmare for the Indian Union. After she returned to power in 1980, Indira Gandhi was determined to use the Raj Bhavans to get rid of unhelpful non-Congress governments. Remember Governor Ram Lal in Andhra Pradesh or Governor Jagmohan in Jammu and Kashmir. But, now, a new righteous of the "new India" is being deployed to beautify an old-fashioned power lust. An over-bearing Centre appeals enormously to wannabe emperors.



## TOP FEATURES OF THE AIR INDIA ONE, THAT WILL FLY THE PRESIDENT, VICE-PRESIDENT, PRIME MINISTER

Air India has received the first of two Boeing 777 aircraft, which will fly the President, Vice-President and Prime Minister on international state visits. Currently, the three premiers travel on Air India's Boeing 747 planes, which have served for nearly 25 years. The new aircraft will have the call sign 'Air India One'.

## THE KEY FEATURES OF THE POLITICAL ECONOMY OF THE MODI MODEL

In his latest column, Pratap Bhanu Mehta (contributing editor, The Indian Express) writes about the key elements of the political economy under Prime Minister Narendra Modi. First, broadly speaking, macro-economic stability matters. But, politically, the government remains convinced that *inflation carries serious political risks*. This is going to remain a cornerstone of the macro-political economy. Second, the *relative bargaining power of capital in relation to labour will continue to radically favour capital*. This has been the trend for the last two decades. In emerging economies, there will be a race to the bottom as far as sensible protections for labour go. Indonesia has, like India, gutted labour protections. Third, in agriculture, the problem is similar to labour — any position that simply involves defending the status quo loses political support. Fourth, state-capital relations. *State and capital relations will remain very politically cosy*. In significant sections of Indian capital, there is a deep commitment to the Hindutva project. The government understands that control of the information order requires control of capital; so it will superintend it. *Corruption will be more structural rather than transactional*. This has the advantage of being able to mobilise all the necessary funds, and yet at the same time giving the impression that transactional corruption has come down. In this regard, Mehta points out that this government is comfortable with greater concentration of capital. The argument that there is *a need to create national champions who can leverage scale will be used to justify the dominance of the Ambanis over the Indian economy to a point that is unhealthy*. Fifth, there is a deepening of the new welfare state. Interestingly, the Modi government's focus here is on six of the new indicators that the Oxford Multi-Dimensional Poverty Index uses to supplement traditional indicators of health and education. Cooking fuel, water, sanitation, electricity, housing and assets are both vital and visible areas of intervention. Finally, there is the political economy of federalism that has come under immense strain because of GST and the government's encroaching on the state's rights in recent legislation. But the blunt truth is that, in the final analysis, the potency of this fault line depends on the states. "If the BJP wins Bihar and Bengal, the potential of significant revolt on federalism issues will diminish," states Mehta.

## HOW MODI GOVERNMENT HAS BEEN BYPASSING PARLIAMENT

In their joint opinion piece in The Indian Express, Christophe Jaffrelot of CERI- Sciences Po/CNRS, Paris and Vihang Junle of the King's India Institute write about Modi government's record of bypassing Parliament. *On average, he has spoken 3.6 times a year in Parliament: 22 times in six years (not more than H D Deve Gowda who was PM for two years). In contrast, Atal Bihari Vajpayee spoke 77 times in six years when he was Prime Minister and Manmohan Singh spoke 48 times in Parliament during his 10 years in office*. These statistical data illustrate the *populist style of communication of*



*Modi, who prefers to communicate directly with the people, either on the radio (like Indira Gandhi in the 1970s) or via social media (like the US President Donald Trump). According to the two authors, these two methods have one thing in common: They reflect a preference for one-way messaging, which obviates the risk of contradiction, and questioning by the receiver. By definition, Parliament is the crucible of criticism, deliberation and even consensus-making. Parliamentarism stands poles apart from populism, not only because it epitomises representative democracy (in contrast to the direct contact of the leader with “his” people), but also because it treats opponents as adversaries, not as enemies. In order to circumvent Parliament, the Modi government has often followed the ordinance route. While ordinances are usually resorted to by minority governments or coalition governments, the Modi government has used it more than any of his predecessors despite the BJP enjoying a majority in the Lok Sabha. The average number of ordinances jumped from six a year under Manmohan Singh to 11 a year under Modi. Clearly, the Lok Sabha and the Rajya Sabha are ceasing to be places for debates. First, the number of Bills that have been referred to parliamentary committees — the deliberative core of parliamentary work — has shrunk dramatically, from 68 (71 per cent of the total) in the 15th Lok Sabha to 24 (25 per cent of the total) in the 16th Lok Sabha — and zero in 2020! Second, several key pieces of legislation have been passed as Money Bills, despite the fact that they did not fit this category. Third, ordinary Bills are not so much discussed, either because their texts are handed over to the MPs at the last minute or because there is little time for debates. “The decline of Parliament is for everyone to see. But does anyone care?” they ask.*

#### A CONCERTED ATTACK ON RTI (ANJALI BHARDWAJ AND AMRITA JOHRI - MEMBERS OF THE NATIONAL CAMPAIGN FOR PEOPLES’ RIGHT TO INFORMATION)

This year marks 15 years of the enactment of the Right to Information (RTI) law, which has empowered millions to assert their citizenship and show truth to power. It was a vibrant grassroots movement, led not just by the educated elite but the working poor across the country, *that eventually resulted in the passage of the historic law in 2005. The right to information has been upheld by the Supreme Court as a fundamental right flowing from Article 19 of the Constitution, which guarantees every citizen the right to free speech and expression. Without access to relevant information, people’s ability to formulate opinions and express themselves meaningfully is curtailed.* Since its enactment, the RTI law has been used by people to seek information to actively participate in decision-making processes and hold governments accountable.

#### The potential of the law

*Every year nearly six million applications are filed under the RTI Act, making it the most extensively used transparency legislation in the world. National assessments have shown that a large proportion of these are filed by the poorest and the most marginalised who have understood the tremendous potential of the law to empower them to access their basic rights and entitlements, especially in the absence of effective grievance redress mechanisms to address service delivery failures.* During the COVID-19 crisis too, the law has been widely used to seek information about availability of medical facilities, like ventilators and ICU beds, and to hold government departments accountable for delivery of foodgrains and social security benefits meant for those in distress, including migrant workers. The RTI Act has also been put to effective use by public-spirited citizens to shine the light on corruption and arbitrary abuse of power by the state. People have used it to question the highest offices. Information has been accessed about the anonymous electoral bonds though which thousands of crores have been channelled into political parties. The Prime Minister’s Office





has been queried about the expenditure of the PM CARES Fund set up to provide relief during disasters like the current pandemic. By giving every citizen of India the right to access government files and records, the law has potentially created 1.3 billion whistleblowers and auditors. It has empowered citizens to question those who govern and hold them to account. Consistent attempts by governments to denigrate the law bear testimony to this tilting of the balance of power.

### Attack on the transparency watchdogs

The worst blow to the RTI regime has come in the form of a persistent and concerted attack on the transparency watchdogs set up under the law. Information Commissions at the Centre and in the States are the final adjudicators empowered to act against violations of the legislation. *In 2019, regressive amendments were made to the RTI Act which did away with statutory protection of fixed tenure and high status conferred on the commissioners. Despite stiff opposition within and outside Parliament, the government pushed the RTI (Amendment) Act which allows the Central government to determine the tenure and salaries of all Information Commissioners, signalling that directions to disclose inconvenient information could invite adverse consequences. The functioning of commissions has been severely impeded by governments not appointing Information Commissioners in a timely manner. Vacancies in Information Commissions lead to large backlogs of appeals/complaints and long delays in the disposal of cases, effectively frustrating the people's right to know.* The track record of the BJP-led government at the Centre has been particularly abysmal. *Since May 2014, not a single commissioner of the Central Information Commission (CIC) has been appointed without citizens having to approach courts. Despite Supreme Court orders to fill all vacancies, six out of 11 posts of commissioners are currently vacant in the CIC, including that of the chief. The CIC is headless for the fifth time in the last six years!* State governments appear to have adopted a similar strategy. *Eight State Information Commissions are functioning without a chief. Two commissions — Tripura and Jharkhand — are totally defunct with no commissioners. The right to question is the hallmark of a democracy.* Any attack on the RTI law, which has empowered citizens to question those in power, is an attack on the foundation of our democratic republic. It is a clear reflection of the lack of political will of governments to be answerable to the people of the country. As the RTI law completes 15 years, it is again time for those whom it empowers — the citizens — to assert themselves and protect their fundamental right to information, which they attained after a long struggle.

## BABY WALKER TO CAPSICUM, HOW THE ELECTION COMMISSION DECIDES ON PARTY SYMBOLS

### What is the significance of symbols in elections?

In a vast and diverse country like India, where several nondescript and small political parties try out their luck in state elections, symbols are crucial campaigning tools to connect with the voters. *Symbols have become a crucial part of the electoral process ever since India held its first national polls in 1951-52. Since nearly 85 per cent of the electorate were illiterate at that point, visual symbols were allotted to parties and candidates to help them identify the party of their choice.*

### How many types of symbols are there?

*As per the Election Symbols (Reservation and Allotment) (Amendment) Order, 2017, party symbols are either "reserved" or "free". While eight national parties and 64 state parties across the country have "reserved" symbols, the Election Commission also has a pool of nearly 200 "free" symbols that*



*are allotted to the thousands of unrecognised regional parties that pop up before elections. According to EC, there are 2,538 unrecognised parties in India. For example, if a party recognised in a particular state contests in elections in another state, it can “reserve” the symbol being used by it, provided the symbol is not being used or bears resemblance to that of any other party.*

#### How are symbols allotted to political parties?

The order, first promulgated in 1968, mandates the Election Commission to provide for “specification, reservation, choice and allotment of symbols at parliamentary and assembly elections, for the recognition of political parties”. *As per the guidelines, to get a symbol allotted, a party/candidate has to provide a list of three symbols from the EC’s free symbols list at the time of filing nomination papers. Among them, one symbol is allotted to the party/candidate on a first-come-first-serve basis. When a recognised political party splits, the Election Commission takes the decision on assigning the symbol.* For example, when the Samajwadi Party split, the EC allotted the ‘bicycle’ to the Akhilesh Yadav faction. Similarly, following Jayalalithaa’s death, the AIADMK split into two factions and both had staked claim to the iconic two leaves election symbol, leading the EC to freeze the symbol. After hearing, the EC allotted the two leaves symbol to the Palaniswami-Panneerselvam faction, ruling that they enjoyed the support of the majority in the AIADMK’s legislative and organisational wings.

#### GOVT. INCREASES POLL SPEND CEILING BY 10%

*The Law Ministry has increased the ceiling on poll expenditure for Assembly and Lok Sabha elections by 10%. The move follows a recommendation by the Election Commission in view of curbs imposed during the coronavirus (COVID-19) pandemic.*

#### State-wise ceiling

The notification will help candidates contesting the Bihar Assembly polls and bypolls to 59 Assembly seats across 11 States and one LS seat. *The ceiling on poll expenditure varies across States, with candidates in Assembly elections in bigger States like Bihar, Uttar Pradesh, and Tamil Nadu now allowed to spend up to ₹30.8 lakhs as against ₹28 lakhs earlier.* For a candidate contesting a Lok Sabha poll in these States, the revised ceiling on poll expenditure is now ₹77 lakh instead of the earlier amount of ₹70 lakh. Goa, Arunachal Pradesh, Sikkim and a few Union Territories, based on the size of their constituencies and population, have a lower ceiling on poll expenditure. *Here while the enhanced ceiling for a Lok Sabha candidate is now ₹59.4 lakhs, those contesting an Assembly seat can spend up to ₹22 lakhs.* The last time the expenditure ceiling was enhanced was in 2014 just ahead of the Lok Sabha polls. Over a month ago, the EC had recommended a 10% increase in expenditure for all elections to be held during the COVID-19 pandemic, keeping in mind the problems that candidates may face while campaigning under the various COVID protocol laid down by the poll panel. *The notification that amended the Conduct of Elections Rules, however, does not mention that the limit has been increased in the wake of the pandemic or if it is only for the COVID-19 period.*



## PARLIAMENTARY PANEL ASKS TWITTER FOR AFFIDAVIT ON GEO-TAGGING GLITCH

The Joint Committee of Parliament on the Data Protection Bill sought an affidavit from Twitter Inc., the U.S.-based parent company of the social media platform, asking them to explain why it had shown Ladakh as a part of China, a panel member said. The decision to seek an affidavit from the parent company was taken after the panel found the explanations offered by the Twitter India representatives, who appeared before them on Wednesday, to be “unsatisfactory and inadequate”. Appearing before the panel headed by Bharatiya Janata Party MP Meenakshi Lekhi, representatives of Twitter India “apologised” and claimed it to be a “mistake” as the app’s geo-tagging had suffered a technical glitch. “The Committee was of the unanimous opinion that Twitter’s explanation on showing Ladakh as a part of China was inadequate,” Ms. Lekhi told PTI after the meeting. She said Twitter representatives told the panel that the company “respects the sensitivities of India”. “But it is not only a question of the sensitivity of India or Indians. It is a question about national integrity and sovereignty of the country, and not respecting that is a criminal offence. And displaying Indian map improperly and incorrectly is an offence of treason and attracts imprisonment of seven years,” Ms. Lekhi said. The panel that questioned Twitter India’s executives for over two hours on the issue of Ladakh, also asked about its “banning policy”. “Shadow banning, banning policy — there is no clarity about it. Such actions are very subjective... Twitter is becoming a law unto itself and, under these circumstances, they are violating Article 19 of the Constitution about the freedom of expression,” Ms. Lekhi said. “The recent geo-tagging issue was swiftly resolved by our teams. We are committed to openness, transparency around our work and will remain in regular touch with the government to share timely updates,” a Twitter spokesperson said in a statement. Twitter faced a backlash from social media users after its geo-tagging feature recently displayed “Jammu & Kashmir, the People’s Republic of China” in a live broadcast from a war memorial in Leh, Ladakh. A senior member told The Hindu that Twitter India was seen as a “marketing arm” of the parent company and, therefore, a written explanation has been sought from Twitter Inc. Some members noted that Twitter Asia, based in Singapore, mainly deals with advertisement revenues and takes all major decisions related to the region. The Twitter India team that deposed before the panel included Shagufta Kamran, senior manager, public policy; Ayushi Kapoor, legal counsel; Pallavi Walia for policy communications, and Manvinder Bali, corporate security.

## HOUSE PANEL MULLS ACTION AGAINST AMAZON

Facebook India’s policy head Ankhi Das appeared before the Joint Committee of Parliament that is examining the draft Data Protection Bill. However, e-commerce giant Amazon declined to depose before the panel on October 28, stating that its “subject experts” cannot take the risk of traveling from the U.S. during the coronavirus pandemic. Stating that Amazon’s “refusal” amounts to a breach of parliamentary privilege, BJP MP and chairperson of the JPC, Meenakshi Lekhi, told reporters that the panel was unanimous about taking “coercive action” if no one from the company appears next Wednesday. Amazon, Twitter, Facebook, Google and Paytm are among the companies from whom the committee has sought views on data security and protection amid concerns that the privacy of users is being “compromised” for commercial interest. The panel questioned Facebook India’s representatives, including Ms. Das, who has been in the eye of a storm over reports of alleged bias towards the BJP and refusal to apply hate speech rules to a BJP politician. The discussions within the JPC, however, were strictly confined to the Data Protection Bill. Facebook India executives were asked whether they obtain the consent of its users before





their data is shared with third parties, a source said. “They told the panel that Facebook does not sell data but arrived at inferences based on user behaviour. So, we asked them if they obtain the consent of the users even to do this,” a JPC member told The Hindu. Members of the committee, cutting across party lines, also asked the social media giant about its decision-making process, revenue model, method of paying taxes, advertisers and the process of choosing target audience for these advertisers, background verification of its users including the process to find out the age of a new user. During the meeting, a member suggested FB India should not share ‘inferential data’ of its users for commercial benefits of its advertisers.

**PROMISED FREE VEHICLES, FUNDS? IT’S ALL FAKE (RAKESH DUBBUDU - FOUNDER OF THE FACT-CHECKING INITIATIVE FACTLY AND AKHIL MOTHE IS A FACT-CHECKER WITH FACTLY)**

Here’s an exercise: Log onto any social media or technology platform, whether Google, YouTube, Facebook or Twitter. Type the name of any of these “schemes” — Free Laptop Scheme, PM Scooty Yojana, PM Kisan Tractor Yojana, Pradhan Mantri Solar Panel Yojana, and PM Kanya Aashirwad Yojana. *You will be promised anything from free vehicles to free funds to fake employment offers.* While fraudsters have been duping the public with non-existent government schemes for some time, this problem has become more widespread during the COVID-19 pandemic. We live in an era where selling personal data can get a fraudster lakhs of rupees. Many of these fake schemes are aimed not only at harvesting the personal data of citizens, but also duping them financially. The extent and spread of fake schemes on these platforms can be quite surprising to some. But while other forms of misinformation (commonly known as fake news) are widely discussed and researched, fake schemes do not figure as often as they should in these debates in India, though they are very common. Like other forms of misinformation, fake schemes also cause immense harm to large sections of the public. Unlike other forms of misinformation, news about fake schemes is shared by people across the ideological and social spectrum.

#### **Modus operandi**

The modus operandi of fake schemes is more or less similar in most cases. In the case of fake employment and loan schemes, people receive a personal or general message informing them that they have been selected for a government scheme (which most often does not exist). They are told that if they wish to avail the benefits of the scheme, they have to pay a certain amount as processing charges. The fraudsters are available for contact till the processing charge is paid, but disappear once they receive the money. Some fake schemes do not leave any digital trace on the Internet despite the times we live in. An example is the Gram Vikas Rozgar Yojana, a fake employment scheme. Letters were directly sent to ‘village pradhans’ (sarpanches) in Telangana, Punjab, Meghalaya and some other States asking them to select candidates from their village and send a demand draft of ₹1,200 per candidate to get their villagers enrolled under the scheme. Unfortunately, without checking with the official agencies, many youngsters sent these amounts. All this was done without leaving any digital trace or no phone number. There were only letters and an address. In some cases, people even lined up before government offices and demanded officials to register them under these fake government schemes. At times, political leaders have had to come on television to clarify that there are no such schemes, as in the case of the PM Scooty Yojana.



### Leaving details online

While communal, social and political fake news gain a lot of attention and mostly get shared on social media platforms, fake government schemes appear to have created their own niche in the world of fake news. They mostly get shared through fake website links on social media platforms, WhatsApp messages and YouTube videos. A simple search with the name of these schemes on platforms like YouTube shows us how deep rooted and successful the fake schemes ecosystem is. Though many people are literate, they still believe these schemes to be true and fall for them. *On many YouTube videos explaining these fake government schemes, individuals have left their personal details like phone numbers, Aadhaar numbers and bank account details in the comments section. So, it is not just people's money but privacy too that is in danger with these fake schemes.* With no proper and quick grievance redress mechanism, most of the duped citizens blame themselves for falling for the scam and remain silent. *There is also the danger that they won't apply for genuine schemes when they constantly come across fake ones.*

### Tackling the problem

*While the Press Information Bureau and a few State governments have set up fact-checking initiatives, the visibility of these initiatives is limited. The need of the hour is an integrated and concerted effort by all stakeholders to tackle the menace of fake schemes. For starters, there is need for a centralised government portal with a toll-free number where people can inquire about the messages and file complaints, like they do in the case of cybercrimes. The portal should direct the complaints of people who get duped to the relevant State Police, who should be equipped to deal with the fraudulent practices in a swift manner. Second, social media and technology companies design dedicated policies, like they do for countering hate speech, to take action against individuals/groups posting such content intended to cheat the public. Third, most of these fake schemes operate through websites which look like government portals. Websites that have names similar to government schemes need to be monitored, and necessary proactive action should be initiated if they resort to malpractices. The same can be done with bank account names that sound similar to real government schemes. Further, the government should not only print and broadcast advertisements about genuine schemes, but also alert people about fake schemes so that people are able to differentiate between what's genuine and what's fake. The mainstream media, both print and electronic, which gets government advertisements, should be mandated to carry some of these alerts. The messages should be available everywhere, including in districts, and in the local languages. It would also help if there is one single website where people can access all the information they need about various government schemes at both the Central and State levels. The website should also have a mechanism for eligible individuals to apply. While some fact-checkers debunk these fake schemes and try to fill the information vacuum, the problem is too huge and widespread for any single stakeholder to solve. It requires a concerted effort and coordination between multiple stakeholders such as governments, the media, fact-checkers, NGOs and the civil society. It is high time the government takes note of the fake scheme menace.*

METRICS OF WORLD HAPPINESS AND THE MUSLIMS OF INDIA (FAIZAN MUSTAFA - VICE-CHANCELLOR, NALSAR UNIVERSITY OF LAW, HYDERABAD)

*Rashtriya Swayamsevak Sangh chief Mohan Bhagwat has again reiterated his oft-repeated statement that the happiest Muslims in the world are in India. But for the Muslims of India, a comparison to Islamic countries is of no relevance at all. In any case, India should compare itself*



with the Scandinavian countries rather than some of the regressive Muslim regimes. Indian Muslims will be more concerned about the health of Indian democracy and how far the country is upholding or violating the high values enshrined in the Constitution. Importantly, Mr. Bhagwat, in a clear departure from the Hindutva stand, has asserted that the Constitution nowhere says only Hindus can live in India, or that to live in India one has to accept the supremacy of Hindus. He has also tried to demolish the Hindutva theory of Muslim rule being exclusively Muslim rule by citing the battle of Haldighati (1576) between the Mughals and Rajputs when, he said, many Muslims were on the side of Maharana Pratap Singh and fought against the Mughal army led by another Rajput, Raja Man Singh. Mr. Bhagwat has repeatedly said that Muslims are equal citizens of this country while Hindutva has been historically making a distinction between indigenous religions and Abrahamic religions. His statement of Hindus not having any superior status in the Constitution is not only consistent with the vision of the Constitution but also signifies abandoning the idea of declaring India as a Hindu Rashtra. Though a welcome departure from the stated position, one should not overnight expect a break from the past on every issue. Any change in the long-held position of the organisation can only be gradual. *How do we assess happiness? In the eighth World Happiness Report of 2020 released in March (<https://bit.ly/2HjQuYt>), India is ranked 144 out of 153 countries. The first five ranks go to Finland, Denmark, Switzerland, Iceland and Norway, respectively. Even India's neighbours are ahead — Bangladesh (107), Sri Lanka (130), Nepal (92) and Pakistan (66). The unhappiest people are in Afghanistan (153), South Sudan (152), Zimbabwe (151), Rwanda (150) and the Central African Republic (149).*

#### Key concerns in the country

The variables taken into account include general well-being; positive emotions; supplemental life; circumstances and social environment; inequalities; unemployment; low incomes; discrimination; GDP per capita; life expectancy; freedom; generosity and absence of corruption. In India, with 45-year high unemployment rates (prior to COVID-19) and over 12.2 crore people losing jobs during the lockdown phase, more Indians (not just Muslims) are today worried and unhappy than ever before. Dalits face rising atrocities against them, farmers are unhappy about the enactment of new farm laws, labour unions are disappointed with the new Labour Code and civil society activists are frustrated over the denial of civil liberties, latest FCRA Amendment and the judiciary's reluctance to even promptly hear habeas corpus petitions. *Coming back to the Report, most Muslims elsewhere seem happier than Indian Muslims — the United Arab Emirates (21); Saudi Arabia (27); Bahrain (40); Kuwait (48); Libya (80) and Malaysia (82).* True, Indian Muslims are certainly better off than Muslims in several Muslim countries due to India's liberal, egalitarian and secular Constitution and Hinduism's tolerance. Most Muslim countries are not really democratic and therefore should not be compared with India. In the recently released *World Hunger Index- 2020 (<https://bit.ly/3omQHuz>), India ranks 94 out of 107 countries; Pakistan (88) and Bangladesh (75) are ahead. Both Kuwait and Turkey are in the top 17. Other rankings are Tunisia (23); Saudi Arabia (35); Iran (39) and Jordan (43).*

#### On civil liberties

Civil liberties are an important component too in ensuring contentment. India's rankings should worry the RSS chief. *In the World Freedom of Press Index-2020 (<https://bit.ly/31BDtQF> and <https://bit.ly/3dRqvDj>), India was ranked 142 out of 180 countries. Several Muslim countries are ahead — Bosnia-Herzegovina (58); Kosovo (70); Tunisia (72) and Malaysia (101). In the World Justice Project Rule of Law Index (<https://bit.ly/2Hr9JiG> and <https://bit.ly/21QvoB4>), it is a grim*



*situation for India (a global rank of 69 out of 128 countries).* Factors such as constraints on governmental power; open government; fundamental rights; order and security, absence of corruption; regulatory enforcement; civil justice system and criminal justice system matter. With verdicts such as the acquittal of all the accused in the Babri Masjid demolition case, India's rank is unlikely to improve in 2021. *Once again, several Muslim countries are ahead even in the rule of law — the UAE (30); Malaysia (47); Jordan (50); Tunisia (56); Indonesia (59) and Kazakhstan (62).* Happiness is also closely related to the state of rule of law. Increasingly, faith in the rule of law is diminishing with some courts becoming more executive minded than the executive itself.

### Religious freedom

Finally, on freedom of religion, the Indian Constitution grants this freedom to everyone including Muslims, yet its definition of the term Hindu is problematic and is criticised by Sikhs, Jains and Buddhists. A denial of Scheduled Caste status to Muslims and Dalit Christians by Presidential order is seen to be discriminatory. Anti-conversion laws of many States require the prior permission of district officials for conversion. Religion being a purely private matter, the state should have no concern with it. Charging protesters against the Citizenship (Amendment) Act and the National Register of Citizens with offences under the Unlawful Activities (Prevention) Act, and alleging so-called 'UPSC jihad' do have a deleterious effect on the emotional health of Muslims, with a predominant feeling of being unwanted and alienation. Even on religious freedom, the United States Commission on International Religious Freedom (USCIRF) has downgraded India's ranking in its 2020 report (<https://bit.ly/3dPcK86> and <https://bit.ly/34psrjv>). It is scathing when it says, "India took a sharp downward turn in 2019. The national government used its strengthened parliamentary majority to institute national-level policies violating religious freedom across India, especially for Muslims." Strangely, Afghanistan, Sudan, Indonesia and Egypt have better rankings, while India has been clubbed with Iran, Saudi Arabia, Pakistan, North Korea, Syria, Burma and China ('Countries of Particular Concern'). The International Religious Freedom Act (IRFA) defines CPCs as "countries where the government engages in or tolerates 'particularly severe' violations of religious freedom." Under U.S. law, these include violations such as 'torture, degrading treatment, prolonged detention without charges and other flagrant denial of right to life, liberty or the security of persons'. *The RSS chief is also not right in saying that in no other society does an alien religion still survive. Europe, the Americas, Australia and Africa have Christianity that originated in Jerusalem. Buddhism, from India, is present in a number of countries.* Islam, from Saudi Arabia, is strong in several European, African and Asian states, and Australia. The RSS chief's statement that Indian Muslims are the happiest lot of Muslims may not be completely true but it would certainly have the much-needed calming effect in assuring Muslims of their rightful and equal claim to India as their country. In an age of majoritarianism, Mr. Bhagwat can certainly help restore sanity, tolerance and accommodation which were essential attributes of classical Hinduism. He should rein in aggressive Hindutva forces and convince them about the values of diversity and the remarkable contribution that Muslims have made to Indian civilisation.

## RECALLING A PAKISTAN MISADVENTURE: WHAT HAPPENED ON OCTOBER 22, 1947?

Kashmiris have traditionally observed October 27 as a Black Day to mark the first landing of Indian troops in the Valley in 1947 to push back Pakistan-backed tribal invaders. But this year, in what appears to be an effort by the government to change that narrative, the Ministry of Culture is marking October 22 — the day the Pakistani invasion began and set the stage for the first India-





Pakistan war — with a string of events, including a symposium in Srinagar on the events of that day.

### The lead-up to Oct 22

By October 1947, Kashmir was in high ferment. For months before the independence of India and the creation of Pakistan, Hari Singh, the Hindu ruler of Muslim-majority Kashmir, was facing a rebellion in Poonch by Muslim subjects who refused to pay taxes and launched an armed insurgency. Hari Singh deployed the Kashmir state forces to crack down. At the same time, with Partition nearing, Hindus and Sikhs had been crossing into Jammu, bringing with them stories of harrowing violence in Rawalpindi and other areas. Jammu had turned into a communal cauldron by the time anti-Muslim clashes broke out. There are varying versions of how many Muslims were killed, but most accounts speak of the riots as a massacre. *At Independence, Hari Singh decided that Kashmir would not accede to either India or Pakistan. Instead, he made an offer of a standstill agreement with both, but only Pakistan signed. Pakistan took charge of Kashmir's post and telegraphs and agreed to continue supplying essentials such as fuel and grains through West Punjab, now part of the new country. But as the clashes continued, the supplies from Pakistan dried up. Lack of petrol immobilised transport; Pakistan stopped the train service from Sialkot to Jammu; banking got disrupted. On the borders, bands of armed raiders were already launching hit-and-run attacks.* The situation grew alarming for Hari Singh and his small army from about mid-October, *and his cables to the Pakistan PM to put an end to the raids were rebuffed.*

### Oct 22 invasion & resistance

*On October 22, thousands of tribal invaders crossed into Kashmir overrunning outposts of Hari Singh's state forces in Muzaffarabad, Domel and other places on the road to Srinagar. The Kashmir forces were too small in number. Plus, the Muslim soldiers, who were in equal numbers with the Dogras in the force, joined hands with the raiders.* According to the Ministry of Defence's official history of the war, "The plan of the invaders was tactfully sound and, in the beginning, brilliantly executed. The main attack had to be frontally launched along the motor road. Apart from the rifles, the standard weapon of the raiders, the main force had also a few light machine guns and travelled in about 300 civilian lorries." Pakistan maintained it had nothing to do with this invasion, but evidence to the contrary has come up in several accounts including that by Major-General Akbar Khan of the Pakistan Army, in his book *Raiders of Kashmir*. *Indian military histories say the invasion was planned two months ahead by the Pakistan Army, and codenamed Operation Gulmarg. One of the most significant episodes was the attack on Baramulla on the night of October 26-27. The targeting of St Joseph's Convent and Hospital on October 27 and the killings on its premises are documented by British journalist Andrew Whitehead in A Mission in Kashmir. Various accounts of the invasion have explained why the Pashtun tribesmen came to form the advance party of the Pakistan military.* Whitehead writes that Pakistan did not want to trigger an open conflict with India, and found its best option in "turning the martial mood of the the Pathan hill tribes to [its] best interests". India's official account says *the use of Pashtun tribesmen by Pakistan sought to divert the demands for Pashtunistan in the North-West Frontier Province. Two Kashmiris are celebrated for their resistance that helped keep the invaders out of Srinagar for a few days, until Indian troops arrived on October 27, a day after Hari Singh signed the Instrument of Accession to India. One is Brigadier Rajinder Singh, who had just been appointed as the new Chief of Staff of the state forces. He had headed out of Srinagar with 200 troops, and his decision to blow up a bridge in Uri slowed the advance of the tribesmen, although it did not stop them.* Singh was killed in action on



October 25. *The other is **Shahid Maqbool Sherwani**, whose story has been immortalised by **Mulk Raj Anand in Death of a Hero**. Sherwani, a National Conference worker in Baramulla, gave the invaders wrong directions to Srinagar airport. He was crucified by them when they realised he had tricked them.* All accounts of the war also ascribe the tribesmen's failure to make progress towards Srinagar to their preoccupation *with looting Baramulla, with some even returning to Pakistan with their loot*. Sardar Qayum Khan, who served as president of Pakistan-occupied Kashmir, is quoted by Whitehead as saying that the tribesmen were "uncontrollable people"; "they went on looting".

#### **Why is October 27 celebrated as Infantry Day?**

It was on this day that first Indian infantry soldiers took part in an action to defend Indian territory from external aggression. On October 26, 1947 the then Maharaja of Jammu and Kashmir, Hari Singh, signed the instrument of accession, making his state a part of Indian dominion, and thus paving the way for Indian troops to be deployed in the state to fight against Pakistani invaders.

#### **Which troops were sent to J&K on October 27?**

The first Indian battalion which was rushed to Srinagar by air was **1 Sikh**, commanded by Lt Col Dewan Ranjit Rai. The battalion was at the time stationed in Gurgaon but out of its four companies two were deployed in aid to civil authorities role away from Gurgaon to tackle the post Independence communal riots. The battalion was intimated late at night on October 26 to move to Palam airport in New Delhi for being airlifted to Srinagar airfield the next morning. Since 1 Sikh had only two companies available with it, one battery of 13 Field Regiment, an artillery regiment, was provided to it in infantry role. All these troops assembled at Palam airport in the early hours of October 27.

#### **How was the arrangement of despatching troops done at short notice?**

*An emergency meeting of the Western Army Commander had been held on October 26 night after a go-ahead had been received from the then Prime Minister, Jawaharlal Nehru, to rush troops to Srinagar as the Pakistani invaders were on their way to the summer capital of J&K. According to Lt Gen SK Sinha, former Governor of J&K and Assam, who was then a Major involved in making arrangements for sending the troops, It was decided to send a brigade-level force at first but since the road link from Pathankot to Srinagar was not in good shape and time consuming, it was decided to rush in troops by air in Dakota aircraft requisitioned for the purpose. Another brigade would then follow by road.*

#### **How was the airlift done on October 27?**

Seven Dakota aircraft were assembled at Palam airport on the morning of October 27 with each scheduled to do two sorties each to airlift the troops of 1 Sikh and their equipment. *Out of these seven Dakotas, only two were from the Indian Air Force while the rest five were from private airlines including that of Biju Patnaik* who would go on to become the Chief Minister of Orissa (now Odisha). As ordered, Lt Col Dewan Ranjit Rai had reached Palam with his troops well in time and at around 3 am on October 27 he was briefed about the task his unit would be performing by Major S K Sinha who recalls that Rai was absolutely cool and calm about the orders that he was given and that this struck to him as a hallmark of a confident commander. Shortly after sunrise, the Dakotas took to air carrying first Indian infantry soldiers and a battery of artillery troops into J&K where they would make history by saving the Srinagar airfield from the Pakistani invaders.



### What was the importance of the induction of troops on October 27?

*Had 1 Sikh not been airlifted into Srinagar on time the airfield would have fallen into the hands of Pakistani invaders. With the road link extremely tenuous, this would have meant that getting Indian troops into Srinagar would have been a time-consuming task and would have given ample opportunity to Pakistan to reinforce its invaders through air and thus occupying the Valley. Appreciating the gravity of the situation, Lt Col Dewan Ranjit Rai first made sure that the Srinagar airfield was secured and then rushed towards Baramulla to take on the invaders and stop them in their tracks. He was able to delay the advance of the invaders towards Srinagar and the extra time that he bought helped in sending more reinforcements to Srinagar by air. However, the gallant Commanding Officer of 1 Sikh laid down his life near Baramulla while taking on the invaders. He was awarded the Maha Vir Chakra for his bravery.*

*The invaders were held off close to Srinagar, at a place called Shalteng, and there was a battle in Budgam, close to the airport. By November 8, the Indian Army had taken control of Srinagar; on November 9, of Baramulla; and by November 13, of Uri. However, with Pakistani forces formally entering the battlefield in support of the tribesmen, the war would continue for over a year, until a ceasefire was declared on the night of December 31, 1948, and the terms of the ceasefire were accepted on January 5, 1949.*

### MUSLIM-HINDU DEMOGRAPHY OF JAMMU AND KASHMIR: WHAT THE CENSUS NUMBERS SHOW

*The land laws that were amended and notified by the Centre for the Union Territory of Jammu and Kashmir on Monday (October 26) have omitted the protection earlier available to its “permanent residents”. It allows the purchase of non-agricultural land by outsiders, even though the government may provide some protection through notifications.* The decision, celebrated by BJP leaders and spokespersons, has given fresh wind to fears expressed by political parties in Kashmir about attempts to fundamentally alter the demography of the Valley. On Tuesday, National Conference leader Omar Abdullah posted on Twitter that the Centre had now ended “even the tokenism of domicile”, and that “J&K is now up for sale”. The Census of 2011 showed that the religious make-up of the erstwhile state of Jammu and Kashmir had remained almost entirely unchanged over the previous half century. The special status of Jammu and Kashmir under the Constitution was removed on August 5, 2019, and the state was split into two Union Territories.

#### What was the demographic make-up of the state of Jammu and Kashmir before Independence?

*The pre-Independence Census of 1941 recorded Muslims as constituting 72.41% of the population, and Hindus 25.01%. Thereafter, the proportion of Muslims in the state’s population fell gradually.*

#### So how did the demography of Jammu and Kashmir change between Independence and now?

*Jammu and Kashmir was not a part of independent India’s first Census in 1951. The 1961 Census showed that Muslims, with a population of 24.32 lakh, constituted 68.31% of the state’s population of 35.60 lakh, while Hindus, numbering 10.13 lakh, made up 28.45%. A full 50 years later, these percentages came out identical: the Census of 2011 recorded the Muslim population at 85.67 lakh — again, 68.31% of the total population of 125.41 lakh (1.25 crore). And the Hindu population was 35.66 lakh — 28.43% of the total.*





**And how did the share of population of the two communities change in the Censuses in between?**

The percentage of Muslims in the (erstwhile) state started to fall after the 1961 Census when the community made up 68.3 per cent of the population. In the Census of 1971, it was 65.83 per cent and, in the Census of 1981, it fell to 64.19 per cent. The beginning of militancy ensured no Census could be conducted in Jammu and Kashmir in 1991. But in the next Census in 2001, the proportion of Muslims in the population touched 66.97 per cent — more than the community's share in 1971. And in 2011, it had risen further to reach exactly what it was in 1961 (68.31%). Consequently, the share of Hindus in the population moved in the opposite direction — increasing from 28.45 per cent in 1961 to 30.42 per cent in 1971, and peaking at 32.24 per cent in 1981; before falling to 29.62 per cent in 2001 and further to 28.43 per cent in 2011.

**How has the demography changed at the level of individual districts?**

Jammu and Kashmir originally had 14 districts — six each in the Kashmir and Jammu divisions, and two in Ladakh. Ten of these districts were Muslim-majority — all six in Kashmir, three in Jammu, and one in Ladakh. The remaining three districts in Jammu had a Hindu majority, and the remaining district in Ladakh was Buddhist majority. In 2006, eight new districts were created, taking the total number of districts in the erstwhile state to 22. Of these, 17 are Muslim majority — 10 in Kashmir, six in Jammu, and one in Ladakh. Hindus are the majority community in four districts of the Jammu division; Buddhists are the majority in Leh. In most districts of Kashmir, the percentage of Hindus went up in the 2011 Census as compared to 2001. The same was the case with Muslims in the districts of Jammu.

**What is the share of migrants in the population of (the erstwhile state of) Jammu and Kashmir?**

Only about 1.64 lakh (1.31 per cent) of the 1.25 crore population of Jammu and Kashmir (as per the 2011 Census) are people who stay there, but who were born elsewhere. In India as a whole, 4.64 per cent of the population lives in a state in which they were not born.

**J&K LAND BUYING EASED**

The changes in land laws in Jammu and Kashmir notified by the Centre on October 26 allow the purchase of land by those who are not permanent residents of the Union Territory, for the first time. Only permanent residents could purchase land in the erstwhile State, which was reorganised as two UTs, J&K and Ladakh, in August 2019. One of the arguments against the now nullified special status of J&K was that the restrictions on land transfers hampered investments. J&K industrial policy had limited land holding of investors to designated enclaves. The changes in land laws were logical steps to follow the end of the special status. *Some restrictions remain on the transfer of agricultural land for non-agricultural purposes, but this too can be cleared by the district collector.* The government has said the changes will encourage investment and advance peace and progress in J&K. The argument that these changes would help the people of the region might have been stronger if these were done in consultation with them. The irony is that in all three regions — Jammu, Kashmir and Ladakh — there is strong opposition to opening the land market to non-residents. Political parties in J&K too have opposed the changes.

Free movement of people, and an integrated national market can advance development but India's governance structure accommodates fears and concerns of local populations in this context in a measured manner. There are several States which have provisions to regulate ownership and



transfer of land under Article 371 of the Constitution. *The Centre is expected to announce new land laws for the UT of Ladakh before October 30*, and it has promised to “safeguard interests of the people” regarding “all issues related to language, demography, ethnicity, land and jobs”. The Centre’s approach towards J&K has been marked by a lack of trust, which has accentuated the alienation of large sections of the population. Fears of deliberate demographic engineering have dominated politics in the Valley for long. After the reorganisation of the State and the loss of its special status in 2019, the people of Jammu and Ladakh also turned nervous on this question. Desirable as it may be, there is no point forcing a particular path of development upon people. The situation is precarious also because of the heavy hand of the state on political and civil society activities in J&K. The unilateralism that has come to define New Delhi’s dealings with J&K is achieving little. There is no wisdom in pushing through measures aimed to promote investment when the end result is political volatility. The Centre’s policy towards J&K must be buttressed by a robust political process that enables people’s participation and ensures stability with growth and development.

#### FAROOQ TO LEAD GUPKAR ALLIANCE

Seven mainstream parties of Jammu and Kashmir on Saturday gave formal shape to their recently cobbled alliance for the restoration of Article 370, electing National Conference’s Farooq Abdullah as its chairman and PDP chief Mehbooba Mufti as vice-chairperson. They asserted theirs was “not an anti-national” grouping. Veteran CPM leader M.Y. Tarigami was elected the convener while Lok Sabha member from South Kashmir Hasnain Masoodi will be the coordinator of the conglomerate, known as the *Peoples Alliance for Gupkar Declaration (PAGD)*. Sajjad Gani Lone of People’s Conference would be the spokesman for the amalgam. After a meeting held at Ms. Mufti’s house, Mr. Abdullah, who turned 84 earlier this week, said the alliance was fighting for the restoration of special status to Jammu and Kashmir and is an “anti-BJP platform” and not an anti-national amalgam.

*As a mark of defiance to the constitutional changes made by the Centre with respect to Jammu and Kashmir last year, the alliance adopted the flag of the erstwhile State as its symbol.* While the Communist Party of India’s Kashmir head A.R. Trukroo joined the PAGD, Jammu and Kashmir Pradesh Congress Committee has quietly distanced itself from the alliance. JKPC chief Ghulam Ahmad Mir, who was part of the meetings that took place before the formalisation of PAGD earlier this month, has skipped the last two meetings. The JKPC had said after the previous meeting that Mir could not attend due to the advice of doctors. Reacting to the announcements, J&K BJP chief Ravinder Raina said, “Conspiracies of the Gupkar Gang” would not be tolerated and anyone challenging the unity and integrity of the country would be jailed.

#### BIMAL GURUNG’S GJM QUITS NDA: WHAT IMPACT WILL THIS HAVE ON WEST BENGAL POLITICS?

Making his first public appearance in three years, Gorkha Janamukti Morcha (GJM) leader Bimal Gurung Wednesday broke ties with the NDA, saying the BJP-led central government had not fulfilled its promise of Gorkhaland. He extended his party’s support to the Mamata Banerjee-led Trinamool Congress (TMC) for the 2021 West Bengal Assembly elections, and vowed to give a befitting reply to the BJP for letting down the people of the hills. Gurung had been absconding since 2017 after he was charged under the Unlawful Activities (Prevention) Act in connection with



a grenade attack at Kalimpong Police Station and an explosion in Darjeeling's Chowk Bazaar area. This was during the time he orchestrated a 104-day shutdown in the hills demanding separate statehood — a longstanding demand of Gorkhas living in the Darjeeling hills. With Assembly polls in West Bengal due in eight months, Bimal Gurung's GJM severing ties with the BJP will lead to paradigm shift in Bengal politics.

### **The developments leading to Bimal Gurung's exit from NDA**

On September 19 this year, BJP MP from Darjeeling Raju Bista, under pressure from GJM leaders, raised the Gorkhaland matter during the monsoon session of Parliament. He said, "I requested the Union government to expedite the process of ascertaining Permanent Political Solution to fulfil the long pending demand of the people from Darjeeling hills, Terai and Dooars regions. I request Parliament to take cognisance of the fact that the demand for Gorkhaland state is a long-pending demand of the people from Darjeeling Hills, Terai, and Dooars." Following his request, the Ministry of Home Affairs (MHA) invited the West Bengal government, the Gorkha Territorial Administration (GTA), and the Gorkha Janmukti Morcha (GJM) for a tripartite meeting to "discuss issues related to Gorkhaland" in Delhi on October 7. However, the Centre was quick to change the subject of the meeting, stating the agenda had been revised from "issues related to Gorkhaland" to "issues related to Gorkhaland Territorial Administration (GTA)". The change in stance, however, did not go down well with the GJM leadership, especially the Gurung-led faction. The GJM began questioning the intent of the Centre in fulfilling its long-standing demand. In the 2019 Sankalp Patra (election manifesto), the BJP had said, "We will recognise the 11 left out Indian Gorkha sub-tribes as Schedule Tribes. We are also committed to implementing reservation in the Legislative Assembly of Sikkim for Limboo and Tamang tribes. We are committed to working towards finding a permanent political solution to the issue of Darjeeling Hills, Siliguri Terai and Dooars region." This promise was made by the BJP in its 2014 and 2009 election manifestos as well. However, despite winning the Darjeeling Parliamentary seat successively since 2009, the BJP has not been able to address the half-a-century old issue. Dilip Ghosh, Bengal BJP chief, had earlier said the party does not believe in the idea of a separate state of Gorkhaland.

### **Why does GJM matter in West Bengal politics?**

Since its formation in 2007, the support of GJM is crucial in hill politics. It is the most popular and powerful party in Darjeeling hills, which can swing an election in anyone's favour. The party, created by Gurung, formed an alliance with the BJP in 2009, helping Jaswant Singh win the Lok Sabha polls. In 2011, GJM won three Assembly seats in Darjeeling district and extended its support to an Independent candidate, Wilson Champamari, who won the election from Dooars region. In 2014, the TMC made attempts to gain the support of GJM for its candidate Baichung Bhutia in the Darjeeling constituency. However, Gurung supported BJP candidate S S Ahluwalia and helped him win the election with the hope that the NDA government at the Centre would finally address the party's demands. In 2016, the GJM again won three Assembly seats from Darjeeling and once again intensified its demand for a separate state of Gorkhaland. However, this time, the TMC tried to break the unity of the people of the hills, engineering defection. Following the violent agitation in 2017, the TMC successfully divided the GJM, leading to the creation of two factions — one headed by Binoy Tamang that pledged support to the TMC, and the other led by Bimal Gurung which supported the BJP. The Gurung faction helped BJP candidate Raju Bista win the 2019 Lok Sabha election, dealing a massive jolt to the TMC's hope of conquering the hills.



### Why does the TMC need the support of GJM now?

In the 2019 Lok Sabha elections, the BJP won 18 seats in West Bengal, including 7 of the 8 constituencies in north Bengal. The TMC drew a blank in north Bengal. Following its success, the saffron party has made inroads in these districts. Recently, national BJP president J P Nadda held several meetings with party leaders, MPs, MLAs and other groups to chalk out a blueprint for next year's 2021 state Assembly polls. The party also set a target of winning 50 of the total 56 Assembly seats from eight districts of north Bengal. Finding itself in a corner, the TMC employed party MP Abhishek Banerjee and political analyst Prashant Kishor, who discreetly held meetings with party functionaries in north Bengal recently. This was done to revive the party and gain some of the lost ground. Winning the support of the GJM could jeopardise BJP's grand electoral plan in north Bengal ahead of 2021 polls. The BJP could be weakened in the hills, while the GJM's support may help the TMC win six Assembly seats in Darjeeling and Kalimpong districts. This would give a major boost to TMC's plans for north Bengal, as winning seats in that region is essential to receive an absolute majority in 294-seat West Bengal Legislative Assembly. By scaling the north Bengal hills, the ruling party will be in a position to send out a message of unity across the state and sharpen its attack against the BJP for harbouring divisive ideas about West Bengal.

### WHAT IS SVAMITVA, THE PROPERTY CARD FOR RURAL HOUSEHOLDS?

*On October 11, Prime Minister Narendra Modi launched the distribution of property cards under the SVAMITVA scheme through video conferencing.* The government aims to provide such property cards to each household in the next three to four years in every village across the country.

#### What is the SVAMITVA card?

The acronym SVAMITVA stands for *Survey of Villages and Mapping with Improved Technology in Village Areas*. It is a Central Sector Scheme aimed at "providing 'record of rights' to village household owners possessing houses in inhabited rural areas in villages and issuance of property cards to the property owners." The plan is to survey all rural properties using drones and prepare GIS based maps for each village. The scheme was launched by the Prime Minister on the occasion of National Panchayati Raj Day, April 24, earlier this year and distribution of property cards began on October 11. During the current financial year, the scheme is being implemented as a pilot project in about 1 lakh villages across 8 states – Maharashtra, Karnataka, Haryana, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Punjab and Rajasthan. The aim is to cover all 6.62 lakh villages in the country by the end of financial year 2023-24.

#### How is a SVAMITVA property card generated?

The framework for implementation of SVAMITVA scheme, finalized by the Ministry of Panchayati Raj, provides a multi-stage process of generating a property card, which starts with signing of a memorandum of understanding between Survey of India (SoI) and respective state governments. The SoI is responsible for preparing the National Topographic database on all scales, using technology for topographical mapping at various scales including the use of airborne photography, drones, satellite imageries, and Unmanned Air Vehicles (UAV) or drone platforms. Once the MOU is done, a Continuously Operating Reference System (CORS) is established. It is a network of reference stations that provide a virtual base station that allows access to long-range high-accuracy Network RTK (Real-Time Kinematic) corrections. "The CORS network supports in establishing ground control points, which is an important activity for accurate Geo-referencing,





ground truthing and demarcation of lands,” says the framework. The next step is the identification of villages to be surveyed during the pilot phase, and make people aware of the process of mapping properties. The abadi area (residential area) of the village is demarcated and each rural property is marked with limestone (chunna). Then, drones are used for large scale mapping of rural abadi areas. Based on these images, a GIS database on 1:500 scale, and village maps — Gram Manchitra — are drawn. After creation of maps, a ground verification process by drone survey teams follows, on the basis of that corrections, if any, are made. At this stage, inquiry/objection process – conflict/dispute resolution is completed. After this, final Property Cards/Title deeds or “Sampatti Patrak” are generated. These cards will be available on digital platforms or as hard copies to the village household owners.

#### **How will the SVAMITVA property data and maps be updated in the future?**

The framework states, “Once the GIS database is prepared encompassing the 6.62 lakh villages, state governments will be responsible for conducting future surveys and updating the GIS database.” They will also decide the update frequency of the re-survey.

#### **Who will own the SVAMITVA data?**

According to the framework, the orthorectified base maps shall be jointly owned by the Survey of India, Ministry of Panchayati Raj and the state government. The GIS data will also be jointly owned by Centre and State. However, the data related to property details will be owned by the State Revenue Department as it has the authority to mutate the Right of Records (RoRs) and update the maps. Hence, the State Revenue Department will be the owner/host of this data and others will have a right to view. Other updated GIS data layers will be shared by the “Talathi/Patwari” level officer once every year incorporating updates that have been done in the preceding 12 months.

#### **What is the benefit of issuing a SVAMITVA property card?**

According to the Ministry of Panchayati Raj, which has piloted SVAMITVA, the scheme will benefit rural residents in many ways. First, it will enable rural households to use their property as a financial asset for taking loans and other financial benefits. Second, it will help in determination of property tax, which would accrue to the Gram Panchayats directly in states where they are empowered to collect such taxes. The cards will help increase liquidity of land parcels in the market and increase the financial credit availability to the village. The scheme will also pave the way for creation of accurate land records for rural planning. All the property records and maps will be available at Gram Panchayat, which will help in taxation of villages, construction permits, elimination of encroachments, etc. The property maps will be made using the GIS technique and the same can also be used for better-quality Gram Panchayat Development Plan (GPDP).

### **MOVE TO DELETE ‘INELIGIBLE’ NAMES FROM ASSAM NRC: WHO, AND WHY**

The National Register of Citizens (NRC) authorities in Assam ordered the deletion of “ineligible” names that had erroneously made it into the prepared register.

#### **Whose names will be deleted?**

*In a letter dated October 13 to all Deputy Commissioners and District Registrars of Citizen Registration, Hitesh Dev Sarma, the state coordinator of the NRC, said that “some names of ineligible persons” — persons ‘declared as foreigners’ (DF) by Foreigners Tribunals, persons marked as*



*'Doubtful Voters' (DV) by election officials, or persons whose cases are 'pending at Foreigners Tribunals' (PFTs), and their descendants — had "found entry to the NRC". Foreigners Tribunals (FTs) are quasi judicial bodies meant to give opinion on whether a person is an "illegal foreigner" as per The Foreigners Act, 1946. They send notices to people who are referred to them by the Border Police, or who have been marked as 'D' (doubtful) voters by the local election office. On December 10 last year, the Ministry of Home Affairs told Lok Sabha that only four persons who were declared 'foreigners' had (until then) been deported to Bangladesh, while a total 1,29,009 persons had been declared as foreigners by the FTs (until then). As per the laws governing the preparation of the NRC, persons falling in the above categories cannot be included in the NRC. Sarma instructed the district incharges of the NRC to "write speaking orders for deletion of such names... after specifically ascertaining the identity of the person".*

**But if these individuals were declared 'foreigners', how could they have made it into the NRC?**

One explanation that is offered is that such persons may have got their names included using fraudulent documents and by deceitful means. The other reason that officials often cite is that there is no synchronised real time database, which reflects the status of a suspected 'foreigner' to the NRC officials. Therefore, an official on the ground may actually have no way of knowing that a particular applicant has earlier been declared a 'foreigner' by an FT.

**So how many names could be deleted?**

Speaking to The Indian Express on Wednesday (October 14), Sarma said no speculation on numbers was possible at the moment. "Yes, we have started the process to delete names from the NRC of 'declared foreigners', 'doubtful voters', those who have cases pending at FTs and their descendants. List of names are still coming in from several districts and it would not be fair to comment on the total number of such erroneous inclusions into the NRC right now. Let us get the complete lists," he said.

**Is there a political context to the new announcement about the "ineligible" names and the deletions?**

The state government has maintained that a 10%-20% re-verification is necessary to get a "correct" register. The Assam government has reiterated that it sticks to its demand of re-verification — 20% in border districts and 10% elsewhere — of the included names in the final NRC, even as it has continued its criticism of the former NRC Coordinator Prateek Hajela, holding him responsible for what it calls an erroneous NRC with allegedly wrongful inclusions and exclusions.

**So where does the NRC stand now?**

*The NRC process has hit a wall as of now since the rejection orders to the 19 lakh excluded persons — which will allow them to appeal against the exclusion in the Foreigners' Tribunals — is yet to be issued.* Officials have cited the Covid-19 pandemic as well as discrepancies in some rejection orders, which need to be re-checked, as reasons for the delay. Meanwhile, without the rejection order, the excluded persons are stuck in a limbo. The Supreme Court, which had proactively supervised the process from 2013 onward, has not heard the matter since January 6.



## ASSAM-MIZORAM, AND THE OTHER BOUNDARY ISSUES IN NORTHEAST

*Over the last one week, residents of Assam and Mizoram have clashed twice over territory, injuring at least eight people and torching a few huts and small shops.* It spotlights the long-standing inter-state boundary issues in the Northeast, particularly between Assam and the states that were carved out of it.

### What were the recent clashes about?

On Saturday, residents of Lailapur village in Assam's Cachar district clashed with residents of localities near Vairengte in Mizoram's Kolasib district. On October 9, a similar clash took place on the border of Karimganj (Assam) and Mamit (Mizoram) districts. On October 9, a farm hut and a betel nut plantation belonging to two Mizoram residents were set on fire. On Saturday, some people from Lailapur started pelting stones at Mizoram police personnel and Mizoram residents. "In turn, Mizoram residents mobilised and went after them," Kolasib Deputy Commissioner H Lalthangliana said.

### What led to this?

"According to an agreement between governments of Assam and Mizoram some years ago, status quo should be maintained in no man's land in the border area. However, people from Lailapur broke the status quo and allegedly constructed some temporary huts. People from Mizoram side went and set fire on them," Lalthangliana said. On the other hand, Keerthi Jalli, the DC of Cachar, told The Indian Express that the contested land belongs to Assam as per state's records. In the October 9 incident, according to Mizoram officials, the land claimed by Assam is being cultivated for a long time by residents of Mizoram. The DC of Mamit, Lalrozama, has urged that status quo be maintained. The Karimganj DC, Anbamuthan MP, said that although the contested land was historically cultivated by Mizoram residents, on paper it fell within the Singla Forest Reserve that is under Karimganj's jurisdiction. Anbamuthan told The Indian Express that the issue was being resolved. *Mizoram borders Assam's Barak Valley; both border Bangladesh.* Mizoram civil society groups blame "illegal Bangladeshis" (alleged migrants from Bangladesh) on the Assam side. "Illegal Bangladeshis are creating all this trouble. They come and destroy our huts, cut our plants and this time pelted stones on our policemen," said B Vanlaltana, president of the students' union *MZP (Mizo Zirlai Pawl).*





### How complex is the boundary dispute?

In the Northeast's complex boundary equations, showdowns between Assam and Mizoram residents are less frequent than they are between, say, Assam and Nagaland residents. Nevertheless, *the boundary between present-day Assam and Mizoram, 165 km long today, dates back to the colonial era, when Mizoram was known as Lushai Hills, a district of Assam. The dispute stems from a notification of 1875 that differentiated Lushai Hills from the plains of Cachar, and another of 1933 that demarcates a boundary between Lushai Hills and Manipur.* A Mizoram minister told The Indian Express that Mizoram believes the boundary should be demarcated on the basis of the 1875 notification, which is derived from the *Bengal Eastern Frontier Regulation (BEFR) Act, 1873.* Mizo leaders have argued in the past argued against the demarcation notified in 1933 because Mizo society was not consulted. MZP's Vanlaltana said the *Assam government follows the 1933 demarcation, and that was the point of conflict.* The last time the boundary saw violence was in February 2018. The MZP had built a wooden rest house in a forest, its stated purpose being to serve as a resting for farmers. Assam police and forest department officials demolished it saying this was in Assam territory. MZP members clashed with Assam personnel, who also thrashed a group of Mizoram journalists who had gone to cover the incident.

### What are the other boundary issues in the Northeast?

*During British rule, Assam included present-day Nagaland, Arunachal Pradesh and Meghalaya besides Mizoram, which became separate state one by one.* Today, *Assam has boundary problems with each of them.* Nagaland shares a 500-km boundary with Assam. According to a 2008 research paper from the Manohar Parrikar Institute for Defence Studies and Analyses, violent clashes and armed conflicts, marked by killings, have occurred on the *Assam-Nagaland border* since 1965. In two major incidents of violence in 1979 and 1985, at least 100 persons were killed, The Indian Express has reported earlier. The boundary dispute is now in the Supreme Court. On the *Assam-Arunachal Pradesh boundary (over 800 km)*, clashes were first reported in 1992, according to the same research paper. Since then, there have been several accusations of illegal encroachment from both sides, and intermittent clashes. This boundary issue too is being heard by the Supreme Court. The 884-km *Assam-Meghalaya boundary*, too, witnesses flare-ups frequently. As per Meghalaya government statements, today there are 12 areas of dispute between the two states. In February this year, the Chief Ministers of the two states spoke to each other about the need to maintain status quo and peace.

## WHAT IS THE ASSAM POLICE SI RECRUITMENT EXAM SCAM?

The leak of a question paper of an examination to recruit sub-inspectors in the Assam Police, followed by scores of arrests and political war of words, has rocked the state for about a month now.

### The exam scam

The recruitment exam for 597 positions at the sub-inspector level in the Assam Police — for which over 66,000 candidates were to appear — was scheduled for September 20 but had to be cancelled following preliminary reports that the question paper had been leaked and circulated via WhatsApp. Assam Chief Minister Sarbananda Sonowal directed the State Level Police Recruitment Board (SLPRB) to re-conduct the examination within a month. The then SLPRB chairperson Pradeep Kumar tendered his resignation taking moral responsibility of the failure to conduct the





examination in a free and fair manner. Assam DGP Bhaskar Jyoti Mahanta was then appointed as the new chairperson of the SLPRB.

### The high-profile arrests

Kumar Sanjit Krishna, an Assam Police Service (APS) officer, currently serving as SP (Foreigners Regional Registration Office) in Barpeta district, was arrested. Until Sunday, he was the SP of the border district of Karimganj. He is the brother of Assam Chief Secretary Kumar Sanjay Krishna. The arrest followed two-day long interrogation and searches at his residences in Karimganj and Guwahati. Earlier, Diban Deka, who was associated with the BJP but expelled upon his arrest, and PK Dutta, a former Assam Police DIG, were arrested in the case. Deka claimed in a Facebook post that he has been a member of the state BJP for the last 24 years. He had contested 2011 Assembly elections on a BJP ticket from Barkhetry constituency and lost. Over 50 persons have been arrested in the case until now from across the state.

### HC ASKS ZEE NEWS TO DISCLOSE SOURCE OF REPORT ON DELHI RIOTS

The Delhi High Court directed Zee Media Corporation Limited to submit an affidavit disclosing the source of its news report on an alleged disclosure statement of a Jamia Millia Islamia student, Asif Iqbal Tanha, who was arrested in a case related to the February riots. Justice Vibhu Bakhru questioned how Zee News got the documents, which even the accused did not have. *"You [Zee News] take out documents from anybody, read it out and sensationalise the issue is not something that the court will countenance. These are documents which should not have been taken out and published,"* Justice Bakhru said. "The officers who have taken out [documents] are going to face vigilance inquiry. 19(1)(a) is not an unrivalled right in our country that has no limitations," the judge remarked. The court also declined the plea of advocate Vijay Aggarwal, appearing for Zee News, who argued that pressing for disclosure of source would amount to interfering with the freedom of press.

### THE POLITICS BEHIND UDDHAV GOVT DECISION TO MOVE CONTENTIOUS SHED OUT OF AAREY

Maharashtra Chief Minister Uddhav Thackeray announced that the Shiv Sena-NCP-Congress government has decided to move the proposed car-shed for the underground Metro 3 rail out of Aarey. This has long been a contentious issue between environmental activists and the government.

#### Why has it been contentious?

The tussle has been ongoing since 2014. While the 33.5-km underground Metro 3 is an ambitious project connecting Colaba-Bandra-SEEPZ, the location for the car-shed was identified as Aarey — 1,800-plus acres of green space in suburban Goregaon, which is home to 290 species wild of flora and fauna, and surrounded on many sides by concrete structures. On October 4 last year, the Bombay High Court dismissed four petitions challenging the decision to cut trees at Aarey. The petitioners had questioned the propriety and legality of the BMC Tree Authority's permission, and asked for Aarey to be declared a flood plain and a forest. Within hours of the court's decision, the MMRCL (an SPV executing the underground project) axed 2,135 trees in 24 hours. This led to activists and Aarey locals pouring out on the street, protesting under the 'Save Aarey' banner. The



then BJP-led government (the Shiv Sena was part of it but opposed to the tree-felling) invoked Section 144 in Aarey, which is home to about 10,000 people living in its 27 tribal hamlets, and deployed about 500 policemen. Twenty-nine protesters were arrested, but released on bail following directions of the Supreme Court. *Activists argue that Aarey is an extension of Sanjay Gandhi National Park, and that the car-shed would pave the way for greater commercial exploitation of the area.*

#### **So, what has the CM announced now?**

Thackeray announced on Sunday that the government had decided to move the car-shed out of Aarey to Kanjurmarg, an eastern suburb. He said the car-shed will be relocated to a plot of government land for which the government will incur no extra cost, a claim senior BJP leader Kirit Somaiya has contested. On September 1, Thackeray had said the government would designate a 600-acre parcel of land in the heart of urban Mumbai as a reserve forest. On Sunday, he said the government had decided to expand the reserve forest in Aarey from 600 acres to 800 acres. Third, he said the government would withdraw the criminal cases registered against the 29 protesters arrested last October.

#### **What does this mean for the Shiv Sena politically?**

Even as an alliance partner in the erstwhile BJP-led government, the Shiv Sena had opposed the felling of trees in Aarey with Yuva Sena leader Aaditya Thackeray in the lead. Having bitterly parted ways with the BJP after the Assembly polls last November, Thackeray is now making an assertion of prevailing over his former saffron ally. This is being seen as Thackeray further distancing the Shiv Sena from the BJP by allowing the car-shed to be shifted out of Aarey, a move the previous Devendra Fadnavis government had fought in court. On November 29 last year, a day after being sworn in as the Chief Minister, Thackeray had stayed the car-shed construction work and ordered a review of the feasibility of relocating it elsewhere. "Biodiversity in Aarey needs to be conserved and protected. Nowhere is there an 800-acre jungle in an urban set up. Mumbai has natural forest cover. We know that jungles are converted to cities, but here, a city is converted to a jungle," Thackeray said in his online address to the state on Sunday.

### **SIGNIFICANCE AND IMPACT OF SC ORDER ON CONFESSIONS IN NARCOTICS CASES**

*The Supreme Court has ruled on a long-pending question of law on whether statements recorded under Section 67 of the Narcotics Drugs and Psychotropic Substances (NDPS) Act can be admissible as confessional statements during criminal trials.* The majority judgment ruled that statements recorded by officers under the NDPS Act cannot be treated as confessions. The ruling will impact evidence in several cases, including the alleged drugs case being investigated by the Narcotics Control Bureau (NCB) where actor Rhea Chakraborty and 24 others have been named as accused.

#### **Why is the Supreme Court judgment significant?**

For over 30 years, multiple court judgments have seen contrary opinion on this point of law – whether officers invested powers under the NDPS Act can be considered “police officers” and therefore, whether statements given to them by accused persons can be considered as confessions. One argument was that since the officers under Section 53 of the NDPS Act are not defined as “police officers” but are given the powers of an “officer-in-charge of a police station”, confessions given to them should be admissible in evidence. The officers in the specialised anti-



drug probe agency, NCB, can be deputed from various departments of the government including Central Excise, Directorate of Revenue Intelligence, Customs. The contrary opinion states that safeguards available for accused in international and Indian law, including the Constitution also extend to accused under the NDPS Act. This includes any statement given by a person to a police officer cannot be considered as a confession and cannot be enough to prove guilt. In 2013, the Supreme Court in 'Tofan Singh vs State of Tamil Nadu' considered arguments on these points and referred the case to a larger bench for consideration. Arguments before a Bench of Justices R F Nariman, Navin Sinha and Indira Banerjee were concluded on September 16, and the order was reserved. It was delivered on Thursday with a 2:1 majority. *While Justices Nariman and Sinha ruled that such statements under the NDPS Act cannot be used as confessional statements, Justice Banerjee has given a dissenting view.* There were many cases before the court against convictions of accused persons based solely on statements recorded by such officials under Section 67 of the NDPS Act. The judgment would clarify whether such statements can be considered as confessions and used to prove the guilt of an accused in many ongoing cases and appeals, including the drugs case being probed by the NCB involving Chakraborty.

#### **What did the Supreme Court say?**

*The majority view by Justices Nariman and Justices Sinha held that confessional statements made before an officer under section 53 of the NDPS Act if held as the basis to convict a person would be "a direct infringement" of constitutional guarantees.* While it was submitted to the court that confessional statements before police officers were considered admissible in other special acts including the now repealed *Terrorism and Disruptive Activities (Prevention) Act and Prevention of Terrorism Act (POTA)*, the court said that they were used with several safeguards contained in the Acts themselves. *The court also held that when a reference is made to "police officers", it does not only mean a police officer belonging to a state police force but includes officers who may belong to other departments.* Justice Banerjee, in her dissenting view, considered the illicit drug trafficking being an organised crime involving hardened criminals. She said that "over-emphasis on the principles of natural justice in drug-trafficking cases can be a major hindrance to the apprehension of offenders". Her judgment said that guilty offenders should not be allowed to go scott-free by reason "overemphasis on technicalities".

#### **What does the judgment mean for ongoing cases, including the one against Rhea Chakraborty and 24 others?**

The Supreme Court's interpretation of the sections pertaining to statements recorded by officers will have an impact on all ongoing cases, appeals and future cases unless it is referred to a larger bench and a different verdict is given. *Statements recorded under Section 67 of the NDPS Act before officials of the NCB, for instance, cannot be the sole basis for convicting an accused.* In the case against Chakraborty and 24 others so far, nearly 20 statements recorded under the Section will not remain admissible in law. In the case, most of the accused including Chakraborty had submitted before the court that they wanted to retract any statement claimed to have been made before the NCB officers stating that they were coerced into giving them and were involuntary. The NCB had said in its remand applications that they were led to some of the accused in the case through statements of their co-accused leading to searches and raids. While their defence lawyers, following the Supreme Court judgment, said that the case was only dependent on the statements and hence could not now stand in court, NCB officials said that there is other corroborative



evidence. An NCB official said that they will submit evidence like the money trial, whereby an accused is alleged to have made a payment to a drug dealer and other digital evidence.

## MAHARASHTRA WITHDRAWS 'GENERAL CONSENT' TO CBI: WHAT THIS MEANS, WHICH CASES IT WILL IMPACT

*The Maharashtra government has withdrawn "general consent" given to the Central Bureau of Investigation (CBI) to probe cases in the state.* The decision means the central agency will have to get consent from the state government for every case it registers in Maharashtra.

### What types of cases is the CBI involved in at a state level?

The CBI is divided into three categories when it comes to investigation. The first is the *Anti-Corruption Division* that investigates cases against public servants under the control of the central government, public servants in public sector undertakings, also under the control of the central government, cases against public servants working under state governments, which have been entrusted to the CBI by the state, and serious departmental irregularities committed by the above mentioned. The *Economic Offences Division* investigates financial crimes, bank frauds, money laundering, illegal money market operations, graft in PSUs and banks. The *Special Crimes Division* handles cases of conventional nature such as offences relating to internal security, espionage, sabotage, narcotics and psychotropic substances, antiquities, murders, dacoities/robberies, and cheating among others. It is this unit that has taken over the Sushant Singh Rajput case.

### Maharashtra govt's fear over TRP scam probe

The Maharashtra government was wary about the Special Crimes Division taking over the probe into the alleged TRP scam being investigated by the Mumbai Police. Republic TV is among the five channels under police scanner in the case. Since the CBI took over a similar case of manipulation of TRPs, registered by the Uttar Pradesh police on Tuesday, the Maharashtra government feared the central agency would include in its purview the case probed by the Mumbai Police, and attempt to take over. Maharashtra Home Minister Anil Deshmukh said the government believed the CBI was a professional and premier investigating agency, but felt it could act under political pressure. He referred to how it was called a "caged parrot" in the past by the Supreme Court. One of the reasons behind the state's anxiety was the similar manner in which the Rajput case had been taken over by the CBI.

### How did the CBI take up the Sushant Singh Rajput case? Will this new development have an impact on the investigation in that case?

While the Mumbai Police was probing the death of the actor, who died by suicide on June 14, the Bihar Police registered an FIR based on the statement of Rajput's father. Soon after this, the CBI was handed the case. *The Maharashtra government believed the CBI would similarly take over the TRP case too, given the new FIR in UP.* However, *the withdrawal of general consent to the CBI will not impact cases which the CBI is already investigating, like the Rajput case.*





**What is the difference between the Sushant Singh Rajput case and the TRP case? Can the TRP case still go to the CBI?**

In the Rajput case, the Mumbai Police had not registered an FIR as its investigation did not point to foul play but a case of suicide. In the TRP case, on the other hand, the Mumbai Police has not only registered an FIR, but has also arrested eight persons. At the time, one of the grounds for handing over the Rajput case to the CBI was the fact that the Mumbai Police hadn't registered an FIR. This, however, cannot be applicable in the TRP case. Editor in chief of Republic TV Arnab Goswami had earlier approached the Supreme Court to transfer the probe to the CBI. The apex court, however, asked him to approach the Bombay High Court. *In future, if the Supreme Court asks the CBI to take over the Mumbai Police investigation into the TRP case, the state government cannot refuse. However, the SC will have to be convinced of reasons as to why the CBI should take over the Mumbai Police case.*

**Does this have an impact on other cases like the Bhima Koregaon case or the ED case against Deputy CM Ajit Pawar in the irrigation scam?**

No. *The National Investigation Agency (NIA) has jurisdiction across the country and does not need special permission from state governments.* This is why, even as the Maha Vikas Aghadi was reviewing the Bhima Koregaon case, the NIA was able to take it over without consent. *Even in the Enforcement Directorate (ED) case in the irrigation scam that began in May this year, it is not going to make any difference as the ED conducts its probe under the PMLA and FERA Act, and has nothing to do with the Delhi Police Special Establishment (DPSE) Act which gives power to the CBI. The government has withdrawn general consent under the DPSE Act which will only impact the CBI.*

**How will this impact the day to day functioning of the CBI?**

The decision will increase work for both the CBI and the state government. *Every time the CBI traps some central government employee taking a bribe, it will need to seek approval from the Maharashtra government before registering a case.* Similarly, the Maharashtra government department too will be burdened with approval requests on a case-by-case basis. *The CBI has, however, recently started taking recourse in a Calcutta High Court judgment. The HC, in its order in the Ramesh Chandra Singh and another vs CBI, observed that "the court is of the view that the central government/CBI's power to investigate and prosecute its own officials cannot be in any way impeded or interfered by the state even if the offenses were committed within the territory of the state."*

## DOES A PERSON HAVE TO BE NAMED IN AN FIR TO BE CHARGED BY THE POLICE?

Stating that Mumbai police is targeting them in the TRP scam, Republic Network has said that though their name was not in the FIR, they have been named as an accused. The Mumbai police, for its part, has said that while the TV channel was not named in the FIR, it cropped up during investigation. What does the law say about this?

**What is an FIR?**

FIR or First Information Report is literally the first information of a cognisable offence – as against a non-cognisable or minor offence where an NC is registered and not an FIR — that is received by a police officer who puts it down in written format. The FIR is filed under Section 154 of the Code of Criminal Procedure that stands for 'Information in cognizable cases'. It reads, " Every



information relating to the commission of a cognizable offence, if given orally to an officer in charge of a police station, shall be reduced to writing by him or under his direction, and be read over to the informant; and every such information, whether given in writing or reduced to writing as aforesaid, shall be signed by the person giving it, and the substance thereof shall be entered in a book to be kept by such officer in such form as the state government may prescribe in this behalf.”

**What is the next step after an FIR is registered?**

Once an FIR is registered on the basis of a complaint given by someone, the police then begins to investigate the complaint and verify the allegations in the complaint by finding evidence to that effect. The police could either find the allegations genuine and proceed to gather evidence and file a chargesheet against people who have allegedly committed a crime. It can, however, also happen that the police find no evidence to substantiate allegations given by the complainant and ‘summarise the case’ which means closing the case.

**Should the FIR have names of the all the accused that the police finds involved in a crime?**

No. Since FIR is just the first information, it will only have the names of people mentioned by the complainant. The investigation may lead the police to conclude that the allegations are false, that the allegations are correct, or that more people are involved in a particular crime who the complainant may have not known. For example, in cases of robbery, apart from the person arrested from the spot, the police may later also arrest the person who bought stolen goods. That person’s name, though not mentioned in the FIR, would be there in the chargesheet. In fact, there have been cases where a person who is the complainant in the FIR turns out to be charged as an accused. For example, in the 2009 murder of Beena Dedhia at Dadar in Mumbai, her husband Jatin was the complainant but the police during the course of investigation found that it was him who planned the crime. Eventually, in the chargesheet, he was named as an accused although he was a complainant in the FIR.

**So does the chargesheet indicate the findings of the police investigation?**

Yes, what the police find during investigation is mentioned in the chargesheet. The police have to substantiate everything they mention in the chargesheet with evidence in the time period mentioned by law. In cases where the punishment awarded is more than 10 years, a chargesheet has to be filed within 90 days of the arrest. Different laws have different time periods for filing of the chargesheet.

**What happens after the chargesheet ?**

The trial in the cases in a court of law goes ahead on the basis of the chargesheet, which is also provided to the defence lawyers of the accused. If the court finds the evidence too flimsy, it may not frame charges in the case and discharge the accused persons. There have been cases like the 2008 Aarushi Talwar-Hemraj murder case where even though the investigating agency filed a closure report in the case, the CBI court took their closure report as chargesheet after it said it had enough evidence to charge the parents of murder in the case.



**What happens if the police investigations conclude that the complaint in the FIR is not true ?**

In that case, the police can file a 'closure report' under Section 169 of the CrPC, which stands for 'Release of accused when evidence deficient.' states, "If, upon an investigation... it appears to the officer in charge of the police station that there is not sufficient evidence or reasonable ground of suspicion to justify the forwarding of the accused to a Magistrate, such officer shall, if such person is in custody, release him on his executing a bond, with or without sureties..."

**What are the types of closure reports? What do they stand for?**

There are three types of closure reports: A summary, B summary and C summary. A summary stands for cases where the police do not have enough evidence to charge an accused. It could be reopened if the police find more evidence. 'B Summary' is where the police find that the complaint is 'maliciously false' and that the complainant lied about charges against an accused. In such cases, the accused can be acquitted and the police could choose to file an FIR against the complainant for giving false complaint. 'C summary' is when the case is neither true nor false and was filed due to a 'mistake in law'. For example, a person approaches the police saying his bike was stolen after he could not find it at the place where he had parked it. An FIR is registered in the case. A day later he comes to know that his brother had taken it away and finds the bike, he approaches the police and informs them about the confusion. In this case, the FIR registered is filed under "C summary".

**WHAT ARE 'CHAPTER PROCEEDINGS', INITIATED BY MUMBAI POLICE AGAINST ARNAB GOSWAMI?**

The Mumbai police last week began "*chapter proceedings*" against Republic Editor-in-Chief Arnab Goswami, who has been summoned Friday evening. What exactly are chapter proceedings and what is the criterion to use it against someone?

**What exactly are "chapter proceedings" that have been initiated against Arnab Goswami?**

*Chapter proceedings are preventive actions taken by the police if they fear that a particular person is likely to create trouble and disrupt the peace in society. These proceedings are unlike punitive action taken in case of an FIR with an intention to punish. Here, the police can issue notices under sections of the Code of Criminal Procedure to ensure that the person is aware that creating nuisance could result in action against him, which includes paying a fine, in the absence of which, he could be put behind bars.*

**What are the sections using which these notices are served?**

Generally a notice is issued to a person under section 111 of the CrPC whereby he is asked to present himself before the Executive Magistrate – an ACP-rank officer in a commissionerate of a deputy collector in rural areas – who has issued the notice. The person has to explain why he should not be made to sign a bond of good behaviour. If the Executive Magistrate is not satisfied with the answer, the person is asked to sign a bond of good behaviour and produce sureties vouching for his/her good behaviour. A fine amount is also decided – in accordance with the crime and the person's financial capability – which the person would have to pay if he violates the conditions set in the bond.



### **What is the notice served to Arnab Goswami?**

Goswami has already been served with a notice under section 111 asking why he should not be made to sign a bond of good behaviour under section 108 of the CrPC, which stands for security for good behaviour from persons disseminating seditious matters. The section states that any person who disseminates information that could lead to ill will among communities and castes should be served this notice. Senior officers, however, said this is used in the rarest of the circumstances. If on Friday, the ACP (Worli division) is not satisfied with the answers given by Arnab, he could be made to sign the bond of good behaviour and asked to pay Rs 10 lakh as fine if he breaks the conditions of the bond.

### **What grounds have been mentioned by Mumbai police for serving this notice to Arnab Goswami?**

*In the notice served under section 111, the Mumbai police has referred to the two FIRs that have been registered against Goswami in the city earlier this year.* The two FIRs are linked to the content on his news shows on Republic in the aftermath of crowding of migrants outside Bandra railway station and the lynching of sadhus at Palghar. It was alleged that the attempt was to communalise the two incidents, following which FIRs were registered. Eventually in June, the Bombay High Court stayed the FIR against Goswami and directed that no coercive steps be taken against him till the time the petition is disposed of.

### **Does a person served with the notice have legal options to appeal against the notice?**

Yes, on receiving the notice under section 111, a person can appeal the notice before the courts. In fact, in the past, courts have come down strongly against chapter proceedings in some cases. In 2017, while striking down a notice issued to the owner of a bar, the Bombay High Court said that “chapter proceedings cannot be initiated on the basis of an incident of trivial nature”. While striking down a notice issued to begin chapter proceedings, the Mumbai sessions court in 2018 said that chapter proceedings cannot be used with the purpose of punishing a past offence. Till Friday evening, it was not clear if Goswami had appealed the notice issued to him.

### **What are the chapter proceedings generally used for?**

Generally, when an ACP receives information that any person is likely to commit a breach of the peace or disturb public tranquillity or do any wrongful act that may probably occasion a breach of the peace or disturb the public tranquillity and is of opinion that there is sufficient ground for proceeding, he may in the manner hereinafter provided, require such person to show cause why he should not be ordered to execute a bond. There is no need for even an FIR against a person for issuing a notice under section 107 of the CrPC (security of keeping peace in other cases). In this case the bond is signed for one year. Under section 110, a notice is served to a habitual offender who has a record of FIRs registered against him. In his case, he is asked to sign a bond for three years.

### **Why are such notices called chapter proceedings? Is it a legal term?**

*It is not a legal term.* According to officers, *since all the sections related to preventing of crime fall under a single chapter, it was colloquially called “chapter proceedings” and has since been used to refer to actions of this nature.*





## BARC SUSPENDS RATINGS OF ALL NEWS CHANNELS

*Days after a probe by the Mumbai police pointed at a possible tampering of Target Rating Point (TRP) by certain news channels, television rating agency Broadcast Audience Research Council announced the suspension of audience estimates and ratings for all news channels for the next three months.* The decision was taken after the BARC Board directed its technical committee to “review and augment” the current standards of measuring and reporting data. It will cover all Hindi, regional and English news and business news channels with immediate effect. The effort will be, BARC said, to improve “statistical robustness and to significantly hamper the potential attempts of infiltrating the panel homes”.

## BOLLYWOOD’S MOMENT OF RECKONING? (KUNAL RAY TEACHES LITERARY AND CULTURAL STUDIES AT FLAME UNIVERSITY, PUNE)

The Hindi film industry, or Bollywood as it is popularly known, has finally woken up. To counter the smear campaign launched by certain news channels to tarnish its image and invade the privacy of its leading actors, several producers and actors have filed a lawsuit in the Delhi High Court. This suit has been filed against two English news channels and their star anchors to restrain them from attributing certain terms and behaviour to the industry and people involved with its functioning.

### **A new soap opera**

The campaign launched by these news channels with unsubstantiated claims has been derogatory and disrespectful to say the least. It is nothing less than the grotesque soap operas that play on several Indian channels every evening. Many of these serials are derived from or try to mimic the iconography and vocabulary of similar Hindi films. Television news in contemporary India is often the new soap opera where willing suspension of disbelief is its *raison d'être*. The campaign that has irked and damaged the image of Bollywood and angered its leading players is a result of the ongoing controversy over Sushant Singh Rajput's death. It was a well-designed campaign to divert attention from pressing issues at hand and other raging debates in the country such as the farmers' agitation, the citizenship debate, the COVID-19 pandemic, the rights of migrant labourers, women's safety and the killing of Dalits, and focus on the untimely and unfortunate death of a promising actor who did not belong to the power cliques of Mumbai. These news channels thus found the perfect plot to be developed across months of prime-time television news where a young actor's aspirations are “crushed” by a powerful Bollywood lobby. This is the same powerful-powerless binary that Hindi cinema has sold to us for decades without delving deep into the power structures of society. When these news channels found very little to link their dubious claims with the death of the actor, the focus of these shows turned to some big names, their apparently amorous lifestyle and purported villainy. It is easy to attribute qualities to the film industry about which very little is known. Even the little we do know about the lives of filmstars and the rumours and gossip pertaining to their films is often the handiwork of their PR machinery for visibility of their films. Hindi cinema by itself is responsible for furthering the myth about the industry. It needs more transparency in its dealings to counter such an image. Others joined the nepotism debate blaming certain industry children, or ‘star kids’, for being favoured and privileged over outsiders. The campaign was relentless and malicious. Perhaps there's no antecedent to an event like this in the history of independent India when an entire industry with enormous soft power has been vilified by some news channels to serve their narrow gains. Also Bollywood is a big draw



to win the TRP race. Unsuspecting audiences believe that the news channels are on the path of satyagraha to perform an act of cleansing.

#### Reason for protest

Bollywood's collective action to expose the fake media trial is welcome. The industry has shown a united front because its interests are being compromised. The news campaign might have an effect on the movie business leading to the boycott of certain films. *This collective outburst shouldn't be misconstrued as a unified condemnation of the quality and health of television news in the country. It is a protest to ensure that Bollywood's economic interests aren't undermined.* Further action should lead to boycott of film awards and magazines that belong to the same media conglomerate that also owns one of these news channels engaged in spewing venom against the industry. *While there may not be a radical shift in Bollywood, we certainly hope that this intervention will help to reduce the toxicity of some news channels and their anchors if not obliterate it.*

### THE NEW AMENDMENTS TO GUJARAT'S DISTURBED AREAS ACT

President Ram Nath Kovind has given his assent to a Bill passed by the Gujarat Assembly last year, which made some important *amendments to The Gujarat Prohibition of Transfer of Immovable Property and Provisions of Tenants from Eviction from Premises in Disturbed Areas Act, a controversial law that is popularly known as the 'Disturbed Areas Act'.*

#### What is the Disturbed Areas Act?

Under the Disturbed Areas Act, a district Collector can notify a particular area of a city or town as a "disturbed area". This notification is generally done based on the history of communal riots in the area. Following this notification, the transfer of immovable property in the disturbed area can take place only after the Collector expressly signs off on an application made by the buyer and the seller of the property. In the application, the seller has to attach an affidavit stating that she/he has sold the property of her/his free volition, and that she/he has got a fair market price. Violation of the Act's provisions, that is, if property in a notified disturbed area is transferred without the Collector's permission, invites imprisonment and a fine. The state government claims it is aiming to check communal polarisation of various parts of the state through the Act.

#### Why did the government amend the Act?

As per the Gujarat government, the Bill to amend the Act was brought in after a large number of complaints were received from MLAs and other people about individuals who had skirted the provisions of the Act by taking advantage of legal loopholes in it. It was argued that this could potentially lead to the communal polarisation of a particular locality. In the earlier version of the Act, the district Collector had to ensure, on the basis of an affidavit by the seller, that she/he had sold the property of her/his own free will, and that she/he had got the fair market price for it. However, there were reports of anti-social elements selling and buying properties after either threatening people or luring them with higher prices, in areas marked as "disturbed". It was reported that at times, these elements had got transfers done even without the Collector's prior permission by getting the transfer deed registered under the provisions of The Registration Act, in which the Collector's prior sanction under The DA Act was not required. This had resulted in clustering or polarisation of localities. To plug such loopholes, and to increase the punishment for



the violation of the Act as deterrence, the amendment Bill was presented and passed in the Gujarat Assembly in July last year.

#### **What are the key provisions in the Amended Act?**

\* The amended Act gives the Collector more powers to ascertain if there is a likelihood of “polarisation” or “improper clustering” of persons belonging to a particular community, thus disturbing the demographic equilibrium in the area. Also, the state government is now authorised to review a decision taken by the Collector.

\* A provision has been made for the creation of a special investigation team (SIT) or committee to probe these aspects. In municipal corporation areas, the SIT will comprise the concerned Collector, Municipal Commissioner, and Police Commissioner as members. In areas other than municipal corporations, the SIT will have the Collector, Superintendent of Police, and Regional Municipal Commissioner as members.

\* The amended Act enables the state government to form an advisory committee that will advise it on various aspects of the DA Act, including adding new areas to the ‘disturbed areas’ list. Minister of State for Home Pradeepsinh Jadeja has said that the advisory committee will be formed after the Rules of the Act are framed.

\* The amendment has added a provision to the original Act that gives the state government supervisory authority to review the Collector’s decision related to the Act, even if there is no appeal filed against the same. Jadeja said that formation of the supervisory authority will be done while framing the Rules for the amended Act.

\* To check the registration of transfer of properties in disturbed areas without the Collector’s prior approval, the amended Act has a provision to enlarge the scope of the term ‘transfer’, and include transfer of right, title or interest in or over such property in disturbed areas by way of sale, gift, exchange, and lease. To achieve this goal, the Act has amended the Registration Act under which no property in disturbed areas can be registered without prior sanction of the Collector.

\* Redevelopment of the property is allowed only if it is for the owner’s purpose. But if the owner is planning to bring new people on the redeveloped property, she/he has to take the permission of the Collector.

\* The provisions of the Act will not be applicable to the government’s rehabilitation schemes in a disturbed area, where it resettles displaced people.

\* As per the government, earlier only those areas which had witnessed (communal) riots would be notified as ‘disturbed areas’. However, now, the government can notify any area as ‘disturbed area’ where it sees the possibility of a communal riot, or where it sees the possibility of a particular community’s polarisation. In Vadodara, two cases of property transfers in a single area have been challenged in the Gujarat High Court.

#### **What are the penal provisions for violation in the amended Act?**

The punishment for the violation of the Act was earlier imprisonment for six months and fine up to Rs 10,000. The amendment has increased the punishment to imprisonment between three and



five years. The fine has also been increased to Rs 1 lakh, or 10% of the jantri rate (ready reckoner of property prices in different parts of the state) of the property, whichever is higher.

#### **Which are the areas where the DA Act is currently applicable in Gujarat?**

The DA Act is applicable in Ahmedabad, Vadodara, Surat, Himmatnagar, Godhra, Kapadvanj and Bharuch.

### WHY ARE ANDHRA FARMERS APPREHENSIVE ABOUT NEW ELECTRICITY METRES FOR FARM MOTORS?

*The Andhra Pradesh government, as part of the power sector reforms initiated by the Centre, has proposed to affix "smart meters" to all agricultural connections. The new meters will record data on electricity consumption every 15 minutes, and the government will credit the farmer's bank account with the amount of the bill.* The farmer can then pay the bill to the relevant power distribution company (discom). While the free power supply for nine hours will continue, albeit after being routed through a direct bank transfer (DBT), farmers are apprehensive that the government will make them pay for the installation of the new meters. The farmers are also doubtful whether they will receive the electricity bill DBT without any hiccups or conditions. Farmers unions supported by the Left and the Congress have staged demonstrations at a few places in the state opposing the new meters.

#### **So what is it that the government aims to achieve?**

*The government wants to understand exactly how much power is consumed by the farm sector. At present, the government pays a fixed sum to the discoms for free power supply to farmers.* But discoms often complain that they are in losses due to the subsidy given to the farm sector without any clarity on how much power is being used. The new meters planned by the government will generate electricity bills, which the government will credit to the farmer's bank account, after which the farmer will be able to pay the bill. While this will clear the accounts of the discoms, with the installation of the smart meters, the load on transformers can be determined, and substations can adjust to the requirements. According to Ajeya Kallam, Principal Advisor to the Andhra Pradesh Chief Minister, *the supply of electricity can be tracked by installing meters to motors, and any problems identified in the supply of electricity can be rectified. Fixing the meters will ensure future short circuits and damage in transformers can be prevented. The discoms will set up the meters, switches, and earth wires.*

#### **What does the government say about the farmers' apprehensions?**

The government says that there will be no burden on the farmers. Energy Minister Balineni Srinivas Reddy has said that farmers don't have to pay anything for the smart meters. For the electricity bill DBT, the government will open bank accounts for free for the farmers. According to Reddy, farmers will not have to pay any additional amount on any additional usage of power either. The discoms will not object to the use of 7.5 HP or 10 HP motors, because these will be regularised. Also, the discoms will bear the cost even if the meters are short circuited, damaged, or stolen. Discoms will bear the cost for the mechanism of reading the meters as well. All unauthorised motors will be regularised.

#### **But given the continuing doubts among farmers, what is the government doing?**





Chief Minister Y S Jagan Mohan Reddy on Monday (October 12) directed state electricity department officials to create awareness among the farmers that the new electricity meters would not burden them, and would in fact pave the way for supplying nine hours of free power to farmers during daytime. The CM said it should be widely publicised that not a single rupee's burden will be put on farmers with the installation of the smart meters on the motors — they will only generate data on consumption and the required load of feeders. The CM told officials to convey to the farmers that the government would directly credit the money into the farmers' bank accounts for the power consumed by them, and they will pay the bills to the discoms. Posters with information about the meters and nine hours of free power supply during the day are being prepared, which will be displayed in the villages. District, divisional, mandal, and village level committees will conduct extensive awareness programmes in this regard. Officials said 14,354 linemen had been trained to create awareness among farmers on the installation of new electricity meters. The feeder capacity has been increased to 97.5%, and the remaining would be completed by November.

#### WHAT IS HARYANA'S 'FLEXI-EXAMINATION' SYSTEM FOR POST-GRADUATE STUDENTS?

The disruption in the education system in the country due to the Covid-19 pandemic has necessitated several education reforms to be put on fast track. One important dimension of the education system is examinations. Considering that the disruption in studies may continue for an uncertain period, Haryana State Higher Education Council has come out with a "flexi-examination system". To begin with, at least seven out of the 17 government-aided universities of Haryana have agreed to introduce the system that will impact thousands of students of post-graduation courses. Gradually, the system will be adopted by all the 17 universities in post-graduation courses, followed by professional courses. If the results are encouraging, then the flexi-examination system will also be introduced to the graduation courses. On average, 1.2 lakh-1.25 lakh students enroll in post-graduate courses in Haryana annually. What is the flexi-examination system, and how is it likely to impact students?

#### What exactly is the flexi-examination system announced by Haryana?

As the name suggests, the examination schedule shall be flexible for the students. There are two dimensions to this system. One, it provides a second chance to weaker students to clear their exams more easily. As of now, those students who are not able to pass their regular examination in the first attempt, have to wait for six months or a year to sit for re-examination, depending on the regulations in force in their universities. If the student is in the final year, he/she has to wait for a full year for the re-examination. As a result, his/her further studies as well as employment opportunities get impacted. *With the flexi-examination system, a student who gets a compartment or wants to re-appear in one, two, or more papers can ask the university for a suitable time when he/she is ready for the re-examination. The university will give the student an opportunity at a mutually convenient time and date to take the re-examination. Two, students who are bright and have the capability of finishing their examination early, will get the opportunity to do so.* Prof B K Kuthiala, chairman of the Haryana State Higher Education Council, said: "In some foreign universities, if there is a four-semester course, the student has an option to complete it in three semesters. The student not only saves on expenses but also on time. Most Indian students who go abroad are very hardworking. With this system, although they have to pay the fee for all four semesters, they will save on their living expenses by completing the four semesters in the duration of three semesters". Prof Kuthiala added: "In Haryana, we have experimented with the first thing



— compartment and re-appear students shall be allowed to opt for the re-examination as and when they want. It may also be called examination-on-demand.”

#### **But would it not put additional burden on examiners to set question papers at short notice?**

Under the flexi-examination system, universities shall keep a comprehensive question bank ready. When a student wants to sit for an examination, either physically or in online mode, a randomised question paper will be generated.

BACK TO BASICS IN ALGORITHMS (S. ARUN-KUMAR AND SUBHASHIS BANERJEE ARE PROFESSORS IN THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING AT IIT DELHI)

It is heartening to note that the National Education Policy 2020 (NEP) envisages putting greater emphasis on mathematical and computational thinking throughout the school years, starting right from the foundational stage of the learning process. Indeed, algorithmics — the abstract process of arriving at a post-condition through a sequential process of state changes — is among the earliest human intellectual endeavours that has become imperative for almost all organised thinking. However, the framing in the NEP appears to put it at the same level of distinction as the more instrumental ‘coding’, and almost as a mere tool towards the utilitarian goals of artificial intelligence (AI) and data science. We think this is misplaced. The notions of computation and algorithms are as old as mathematics and date back to the early stages of representing numbers and geometrical figures and manipulating them for various uses. Their origins can be traced back almost to the beginning of the Mesolithic stone age, when the notions of counting and addition began to take form. All early learning of counting and arithmetic is method-based, and hence algorithmic in nature, and all calculations involve computational processes encoded in algorithms.

#### **Form of expressions**

*Modern algorithms, almost in the same form as we know them today, began to appear around 300 BC. Some of the earliest examples are procedures to compute the greatest common divisor of a pair of numbers, or the factorial, which appeared in Euclid’s books of Elements, and the descriptions of fast exponentiation and the Fibonacci sequence which appeared around 200 BC in the treatise of Chandah-Sutra by Acharya Pingala.* The core algorithmic ideas of modern AI and machine learning are based on some seminal algorithmic ideas of Newton and Gauss, which date back a few hundred years. Though the form of expressions of algorithms — the coding — have been different, the fundamental principles of classical algorithm design have remained invariant. In the modern world, the use of algorithmic ideas is not limited only to computations with numbers, or even to digitisation, communication or AI and data science. They play a crucial role in modelling and expressing ideas in diverse areas of human thinking, including the basic sciences of biology, physics and chemistry, all branches of engineering, in understanding disease spread, in modelling social interactions and social graphs, in transportation networks, supply chains, commerce, banking and other business processes, and even in economic and political strategies and design of social processes. Hence, *learning algorithmic thinking early in the education process is indeed crucial. Coding, however, is merely the act of encoding an algorithmic method in a particular programming language, which provides an interface such that the computational process can be invoked in a modern digital computer.* Thus, it is less fundamental, and indeed great algorithms have been designed through the ages even without this facility. While coding certainly can provide



excellent opportunities for experimentation with algorithmic ideas, they are not central or indispensable to algorithmic thinking. After all, coding is merely one vehicle to achieve experiential learning of a computational process.

### Learning the fundamentals

Rather than the intricacies of specific programming languages, it is more important at an early stage of education to develop an understanding of the basic algorithmic processes behind manipulating geometric figures, computing with numbers, solving systems of equations, modelling road networks and social graphs, and applying algorithmic ideas to everyday problems. In fact, an overemphasis on learning the nitty-gritty of specific programming languages prematurely — even from middle school — may distract from focusing on the development of algorithmic creativity. Indeed, this is a common outcome of the overly utilitarian skills training-based approaches evidenced throughout the country. The devil lies in the details, and, while the NEP guideline of introducing algorithmic thinking early is a welcome step, it must be ensured that it does not degenerate and get bogged down with mundane coding tricks at a budding stage in the education process.

## THE CHRONIC BATTLE WITH MALNOURISHMENT

*India has been ranked 94 on the 2020 Global Hunger Index (GHI), lower than neighbours like Bangladesh and Pakistan.* The GHI showed that nearly 690 million people in the world are undernourished; 144 million children suffer from stunting, a sign of chronic undernutrition; 47 million children suffer from wasting, also a sign of acute undernutrition. The number of young children in India who are very short and thin, reflecting severe undernutrition, puts it alongside the poorest African nations, with some indicators showing actual declines over the last five years.

### What is the Global Hunger Index and what determines its ranking?

*The GHI is an annual peer-reviewed publication by Concern Worldwide and Welthungerhilfe. It aims to track hunger at global, regional and national levels. It uses four parameters to calculate its scores. One third of the score comes from the level of undernourishment in a country, which is the share of the population with insufficient caloric intake, and uses Food and Agriculture Organization data. The other three parameters are based on children under the age of five years. A third of the score comes from child mortality rate, which often reflects the fatal mix of inadequate nutrition and unhealthy environments. The remaining third of the score is based on child wasting, which is the share of children who have low weight for their height, reflecting acute undernutrition, and child stunting, which is the share of children who have low height for their age, reflecting chronic undernutrition.* These parameters use information from the World Health Organization, the World Bank and the United Nations, although all these international organisations draw from national data, which, in India's case, includes the *National Family Health Surveys (NFHS)*. There is always a time lag in such data, so the 2020 scores are based on data from 2015-19. *This results in a 100-point scale, with zero meaning no hunger at all. Countries scoring 9.9 and less are classified as having a low severity. A score between 10 and 19.9 is considered moderate, that from 20 to 34.9 is serious, and a score of 35 or more is alarming.* These classifications are comparable over time, but the rankings themselves are not comparable, as the number of countries included in each particular year varies.



### How does India fare on the different parameters in comparison to other countries?

*In 2020, India falls in the 'serious' category on the Index, with a total score of 27.2. This is a definite improvement from the situation two decades ago, when it scored 38.9 and fell into the 'alarming' category.* However, its scores are abysmal when compared to its peers in the BRICS countries. *China and Brazil both scored under five, and are considered to have very low levels of hunger. South Africa is ranked 60 with a score of 13.5, indicating moderate levels of hunger.* In the serious category, India stands with some of the poorest African nations, as well as its own South Asian neighbours, all of whom have better scores except Afghanistan. *India is tied at the 94<sup>th</sup> rank out of 107 countries, sharing the rank with Sudan. In terms of overall undernourishment, 14% of India's population does not get enough calories, an improvement from almost 20% in 2005-07. The child mortality rate is 3.7%, a significant drop from 9.2% in 2000. Many countries fare worse than India on these two parameters. India's poor score comes almost entirely from the child stunting and wasting parameters. Almost 35% of Indian children are stunted, and although this is much better than the 54.2% rate of 2000, it is still among the world's worst. Also, 17.3% of Indian children under five are wasted, which is the highest prevalence of child wasting in the world.* There is no change from two decades ago, when it was 17.1%. In fact, the situation improved to 15% in the 2010-14 data period, but worsened again by 2015-19. However, experts say this decline may also be partially due to vagaries in data collection. Hunger is a seasonal phenomenon in many parts of the country, with families dependent on agriculture for their livelihoods, facing lean periods based on the sowing and harvesting cycle. There are seasonality differences between NFHS's third and fourth rounds, meaning that higher levels of wasting may have been seen in the fourth round, on which the latest scores are based, because field data was collected after a lean period. However, even the Comprehensive National Nutrition Survey (2016-18) shows the same 17.3% rate of wasting.

### What is the main cause for such high levels of child stunting and wasting in India?

There is an interesting difference observed between child wasting in South Asia and the poorer nations of Africa, according to researchers. African babies are usually healthy at birth, but as they grow up into their toddler years, undernourishment starts to kick in. South Asian babies, on the other hand, show very high levels of wasting very early in their lives, within the first six months. "This reflects the poor state of maternal health, more than anything else," says Purnima Menon, a senior nutrition researcher at the International Food Policy Research Institute. "To talk about solutions, we must recognise that this is the root cause. *Mothers are too young, too short, too thin and too undernourished themselves, before they get pregnant, during pregnancy, and then after giving birth, during breast-feeding. It is more than a health issue, there are social factors like early marriage ...* If so many young women are starting their pregnancies so badly, then everything else you may do to help child nutrition later is like simply putting a band-aid on a serious wound." Almost 42% of adolescent girls aged 15 to 19 have a low body mass index (BMI), while 54% have anaemia. Almost 27% of girls are married before they reach the legal age of 18 years, and 8% of adolescents have begun child bearing in their teens. Almost half of all women have no access to any sort of contraception. These poor indicators of maternal health have dire consequences for the child's health as well. Poor sanitation, leading to diarrhoea, is another major cause of child wasting and stunting. At the time of the last NFHS, almost 40% of households were still practising open defecation. Only 36% of households disposed of children's stools in a safe manner. One in ten children under the age of five suffer from diarrhoea.





### How do different Indian States compare?

*The Comprehensive National Nutrition Survey shows wide variability across States. Almost one in three children in Jharkhand show acute undernutrition, with a 29% rate of wasting. Although this is the worst State by far, other large States such as Tamil Nadu, West Bengal, Madhya Pradesh, Chhattisgarh and Karnataka also have one in five children who are wasted. Interestingly, other States that usually fare poorly on development indices, such as Bihar, Rajasthan and Odisha, actually do better than the national average, with 13-14% rates of wasting. Uttarakhand and Punjab, along with several north-eastern States, have levels of child wasting below 10%. In terms of stunting, Bihar performs the worst, with 42% of children too short for their age. Other populous States like Madhya Pradesh and Uttar Pradesh also have stunting rates just below 40%, and so does Gujarat. At the other end of the scale, Jammu and Kashmir has only 15% stunted children, while Tamil Nadu and Kerala are around the 20% mark.*

### What needs to be done?

Experts caution that there is no magic bullet. Food insecurity, poor sanitation, inadequate housing, limited access to healthcare — all result in maternal distress that leads to the kind of slow, chronic wasting seen in Indian children. Although India has overall food security with record levels of foodgrain production in recent years, access to healthy food is still difficult for poor households. A recent study showed that three out of four rural Indians cannot afford the cheapest possible diet that meets the requirements set by the government's premier nutrition body. Over the last five years, the Swachh Bharat Mission's push for toilets for all and ending open defecation may have resulted in better sanitation outcomes which could reflect in better maternal and child health in the NFHS round five, which started collecting field data in 2018-19. The Integrated Child Development Services programme aims to provide food, primary healthcare and immunisation services to young children and mothers. "There is no single solution. Every kind of household deprivation that makes life difficult for women needs to be dealt with. The focus needs to be on healthy mothers," says Dr. Menon.

# DreamIAS



## BUSINESS & ECONOMICS

### GST: AN INCOMPLETE SOLUTION

The past week witnessed some forward, albeit inexplicably delayed, movement towards breaking the deadlock between the Centre and States on bridging this year's shortfall in cess collections to recompense States for adopting the GST. Following a lack of consensus at a third meeting of the GST Council on the issue last Monday, Finance Minister Nirmala Sitharaman said States that had agreed to the Centre's proposal could begin borrowing from the market. To recap — the Centre had argued that just ₹1.1-lakh crore of the estimated ₹2.35-lakh crore shortfall in GST cess inflows was due to GST implementation; the rest was due to COVID-19. States could borrow ₹1.1-lakh crore with interest and principal payments to come from future cess collections; or borrow the ₹2.35-lakh crore, but bear the interest from their coffers. By Wednesday, 21 States had agreed to the Centre's first option and were permitted to raise about ₹79,000 crore (0.5% of their gross State domestic product) as additional borrowing linked to their acceptance of the option. On Thursday, however, the Centre changed tack and said it was now willing to borrow the ₹1.1-lakh crore and lend it onward. Calling this an administratively easier measure to ensure States do not end up borrowing at different interest rates, the Ministry asserted this would neither increase the fiscal deficit nor the general government debt.

States and economists have welcomed this change of heart, especially as it helps bring in much needed cash for States to fight the pandemic. However, it is odd that the 'administrative ease' of the Centre borrowing and lending to States, had not struck North Block mandarins earlier — given that the cess collection worries surfaced soon after the lockdown was imposed. Over the course of the negotiations, States had urged the Centre to borrow and pay them, but the Finance Ministry had repeatedly stressed that this would push up interest rates and upset its fiscal math. Precious time could have been saved had the Centre made this offer earlier — seven months into a year that has seen economic activity and revenue sources dry up, and States have only received ₹20,000 crore from the GST cess. Kerala, which was considering a petition in the Supreme Court with other Opposition-ruled States, has cooled off on the legal route, but sought full payment of the ₹2.35-lakh crore shortfall this fiscal. On Friday, Ms Sitharaman wrote to Chief Ministers suggesting that the ₹1.1-lakh crore, in addition to the 0.5% of GSDP borrowing, would give them ₹2.16-lakh crore, or almost 90% of the compensation shortfall. Cash flow assurances aside, the Centre must now talk to States to ensure greater clarity on the unanswered questions — including when the States will get the balance GST compensation. That is imperative to sustain the fragile peace attained for now.

### GST CESS WILL STAY: FINANCE PANEL CHIEF

The levy of compensation cess on Goods and Services Tax (GST) may have to be extended for quite a few years, perhaps till as late as 2025-26, to pay off the States' GST dues, Chairperson of the Fifteenth Finance Commission N.K. Singh has said. The Commission's report on the devolution of funds between the Centre and the States for the five-year period of 2021-22 till 2025-2026, will be submitted to the government soon. It will factor in unpaid compensation dues while working out States' revenue flow calculations beyond 2022.



## INDIA'S ECONOMY TO CONTRACT BY 10.3% THIS FISCAL, SAYS IMF

*India's economy is expected to contract 10.3% in the current fiscal year as the country and the world reel from the COVID-19 pandemic, according to the International Monetary Fund (IMF). Global output is projected to shrink 4.4% in 2020, the IMF said in its World Economic Outlook October 2020 report titled, "A Long and Difficult Ascent". The projection for India is a downgrade of 5.8 percentage points from its June forecast. India is expected to rebound in the fiscal year beginning in April 2021 with 8.8% growth — an upgrade of 2.8 percentage points relative to the June update. "Revisions to the forecast are particularly large for India, where GDP contracted much more severely than expected in the second quarter," the IMF said. Consumer prices in India are expected to grow at 4.9% this year and by 3.7% in the next fiscal. The current account balance is projected to grow by 0.3% this year and -0.9% next year. For the world as a whole, the 2020 growth projection has been revised upwards by 0.8 percentage points relative to June — the result of a less dire second quarter and signs of a stronger recovery in the third quarter, partly offset by downgrades in certain developing countries and emerging economies (except China). The recovery in 2021 is projected to be at 5.2%, lower than the June 2020 projections. After 2021, global growth is expected to ease off at 3.5% in the medium term. Except for China, where output this year was expected to exceed 2019 levels, the advanced, developing and emerging market economies were expected to see lower output even next year, IMF Chief Economist Gita Gopinath said in a note that illustrated the uneven recovery across country groups. The U.S. economy is expected to shrink 4.3% this year and grow by 3.1% next year. The corresponding numbers for the euro Area are -8.3% and 5.2%. For China, they are 1.9% and 8.2% respectively. "The crisis is however far from over," Ms. Gopinath noted. She warned that the labour market had become more polarised, with low-income workers, women and youth being hit harder. The world would not catch up fully to its pre-pandemic 2020-25 projected growth trajectory, the IMF said, reversing the progress made since the 1990s in reducing poverty and increasing inequality and causing a "severe setback" to projected improvements in living-standards across all groups of countries. The Fund projects that close to 90 million people could fall below the \$1.90/day extreme poverty threshold (the World Bank last week projected that there could be up to 150 million additional extreme poor in 2020, 2021). Along with subdued growth for the medium term, the stock of sovereign debt is expected to increase. The projections are based on the assumption that social distancing continues into 2021 fading as vaccine coverage expands and therapies improve. By the end of 2022 local transmission is expected to be low in the forecasting model. However, these projections come with "unusually large" uncertainties.*

## THE COMPARISON BETWEEN INDIA AND BANGLADESH PER CAPITA GDP

The International Monetary Fund's latest update on the World Economic Outlook released. In the IMF's estimation, in 2020, growth of India's gross domestic product (GDP) will witness a contraction of over 10%. This more than doubles the level of contraction — from 4.5% — that the IMF had projected for India just a few months ago. *But more than the sharp contraction, what has caught everyone's attention is that in 2020, the per capita income of an average Bangladeshi citizen would be more than the per capita income of an average Indian citizen.*

**How did this happen? Isn't India one of the world's biggest economies?**

Typically, countries are compared on the basis of GDP growth rate, or on absolute GDP. For the most part since Independence, on both these counts, India's economy has been better than Bangladesh's. India's economy has mostly been over 10 times the size of Bangladesh, and grown



faster every year. However, per capita income also involves another variable — the overall population — and is arrived at by dividing the total GDP by the total population. As a result, there are three reasons why India's per capita income has fallen below Bangladesh this year.

\*The first thing to note is that Bangladesh's economy has been clocking rapid GDP growth rates since 2004. However, this pace did not alter the relative positions of the two economies between 2004 and 2016 because India grew even faster than Bangladesh. But since 2017 onwards India's growth rate has decelerated sharply while Bangladesh's has become even faster.

\*Secondly, over the same 15-year period, India's population grew faster (around 21%) than Bangladesh's population (just under 18%). The combined effect of these two factors can be seen in how the per capita GDP gap had closed considerably even before Covid-19 hit. Bangladesh's per capita GDP was merely half of India's in 2007 — but this was just before the global financial crisis. It was roughly 70% of India's in 2014 and this gap closed rapidly in the last few years.

*\*Lastly, the most immediate factor was the relative impact of Covid-19 on the two economies in 2020. While India's GDP is set to reduce by 10%, Bangladesh's is expected to grow by almost 4%. In other words, while India is one of the worst affected economies, Bangladesh is one of the bright spots.*

#### **Has this ever happened earlier?**

Yes. In 1991, when India was undergoing a severe crisis and grew by just above 1%, Bangladesh's per capita GDP surged ahead of India's. Since then, India again took the lead.

#### **Is India expected to regain the lead again?**

Yes. The IMF's projections show that India is likely to grow faster next year and in all likelihood again surge ahead. But, given Bangladesh's lower population growth and faster economic growth, India and Bangladesh are likely to be neck and neck for the foreseeable future in terms of per capita income.

#### **How has Bangladesh managed to grow so fast and so robustly?**

In the initial years of its independence with Pakistan, Bangladesh struggled to grow fast. However, moving away from Pakistan also gave the country a chance to start afresh on its economic and political identity. *As such, its labour laws were not as stringent and its economy increasingly involved women in its labour force. This can be seen in higher female participation in the labour force. A key driver of growth was the garment industry where women workers gave Bangladesh the edge to corner the global export markets from which China retreated.* It also helps that the structure of Bangladesh's economy is such that its GDP is led by the industrial sector, followed by the services sector. Both these sectors create a lot of jobs and are more remunerative than agriculture. *India, on the other hand, has struggled to boost its industrial sector and has far too many people still dependent on agriculture.* Beyond the economics, a big reason for Bangladesh's progressively faster growth rate is that, especially over the past two decades, *it improved on several social and political metrics such as health, sanitation, financial inclusion, and women's political representation.* For instance, despite a lower proportion of its population having access to basic sanitation, the mortality rate attributed to unsafe water and sanitation in Bangladesh is much lower than in India. On financial inclusion, according to the World Bank's Global Findex database, while a smaller proportion of its population has bank accounts, the proportion of dormant bank accounts is quite small when compared to India. *Bangladesh is also far ahead of India in the latest gender parity*





*rankings.* This measures differences in the political and economic opportunities as well as the educational attainment and health of men and women. *Out of 154 countries mapped for it, Bangladesh is in the top 50 while India languishes at 112.* The same trend holds for the Global Hunger Index. The GHI goes beyond treating hunger in terms of calorie intake. It looks at four factors: Undernourishment (which reflects inadequate food availability), Child Wasting (which reflects acute undernutrition), Child Stunting (which reflects chronic undernutrition) and Child Mortality (which reflects both inadequate nutrition and unhealthy environment).

#### **Besides the advances it has made, what challenges does Bangladesh face?**

The past 15 years have witnessed a tremendous turnaround in Bangladesh's standing in the world. It has left Pakistan far behind and extricated itself from the tricky initial years to establish a democratic system. But its progress is still iffy. For instance, its level of poverty is still much higher than India's. In fact, according to the World Bank, "Poverty is expected to increase substantially in the short term, with the highest impact on daily and self-employed workers in the non-agricultural sector and salaried workers in the manufacturing sector." Moreover, it still trails India in basic education parameters and that is what explains its lower rank in the Human Development Index. But Bangladesh's biggest worry is not on the economic front, even though its loosely regulated garment industry is known to cut corners on labour safety and the onerous work conditions are beginning to have adverse health repercussions. The bigger threat to its prospects emerges from its everyday politics. *The leading political parties are routinely engaged in violent oppression of each other.* Its everyday public life is riddled with corruption. In the 2019 edition of *Transparency International's rankings, Bangladesh ranks a low 146 out of 198 countries (India is at 80th rank; a lower rank is worse off).* Add to this a massive surge of radical Islam, which has resulted in several bloggers being killed for speaking out unpopular views. *These developments have the ability not just to arrest Bangladesh's progressive social reforms that have empowered women but also to derail its economic miracle.*

#### **WHAT GOVERNMENT HAS PROPOSED IN NEW LTC SCHEME**

Finance Minister Nirmala Sitharaman Monday announced two sets of measures to generate consumption demand and boost capital spending in the economy. The measures announced by the government, along with participation of states and the private sectors, are, according to the government, projected to create "additional demand" of Rs 1 lakh crore in the economy. Sitharaman said supply constraints in the economy have eased, but consumer demand is still affected. Some proposals are aimed at advancing expenditure while others are "directly linked to increase in GDP (Gross Domestic Product)", she said. *The ministry has decided to allow government and private sector employees to use their Leave Travel Concession tax-free benefit for various types of purchases subject to certain conditions while an interest-free festival advance of Rs 10,000 is being given to government employees.* Measures have been announced to step up capital expenditure by the Centre and the states.

#### **How does the LTC benefit impact you?**

*The government announced that Central Government employees will be provided tax benefits on LTC component without them having to actually travel. These employees would, however, be required to spend three times of the LTC fare component for purchasing items that attract 12 per cent or more GST. What this effectively means is that if your fare component of LTC is ₹40,000, you need to spend*



*Rs 1.2 lakh on goods that fall in 12% or more GST slab in order to save tax on ₹ 40,000.* On the other hand, if you don't spend that amount, you may have to pay tax as per your marginal tax rate on the LTC component. So if you fall in 10% tax slab, you will have to pay additional tax of Rs 4,000 and if you fall in 30% tax slab, you will have to pay additional tax of around Rs 12,000 on the LTC fare amount of Rs 40,000. *As for the leave encashment component of LTC, the employee will have to spend an equivalent amount towards the purchase of goods that attract GST of 12 per cent or more.*

#### **What benefit will it give to the economy?**

Through the LTC consumption boost plan, the government expects a demand generation of Rs 28,000 crore in the economy. While it expects additional demand creation of around Rs 19,000 crore on account of demand from central government employees, it expects additional demand generation of another Rs 9,000 crore from state government employees. Besides, the government has said that the same benefits will be available to private-sector employees if the employers decide to offer the scheme to their employees and they decide to avail it.

#### **How does it benefit the government's revenue?**

While GST collections have been severely impacted in the first half of the fiscal due to Covid-19 pandemic, a consumption boost from LTC component of the salary of central and state government employees will lift GST collections in the second half of the year as the scheme calls for *expenditure to be done till March 31, 2021*. If private sector employees also participate, it may lead to a significant jump in overall consumption and rise in GST collections.

#### **What is the special festival advance scheme?**

*The government has restored festival advance, which was abolished in line with recommendations of the 7th Pay Commission, for one time till March 31, 2021. Under this, all central government employees will get interest-free advance of Rs 10,000 that the government will recover in 10 instalments. It will be given in the form of a pre-loaded Rupay card of the advance value and the government expects to disburse Rs 4,000 crore under the scheme.* According to the finance ministry, if all states provide similar advance, another Rs. 8,000 crores is likely to be disbursed. This is expected to generate consumption demand ahead of festivals like Diwali.

#### **What are the measures to boost capital expenditure and their impact?**

Special assistance will be provided to states in the form of interest-free 50-year loans of Rs 12,000 crore with certain conditions. States have been categorised among three groups: Group 1 having north-eastern states (Rs 1,600 crore) and Uttarakhand and Himachal Pradesh (Rs 900 crore), Group 2 having other states which will get Rs 7,500 crore in proportion of their share as per Finance Commission devolution, and Group 3 having states which will get total Rs 2,000 crore if they meet three out of four reforms including One Nation One Ration, outlined in the government's Atma Nirbhar package announced earlier in May. The funds, which need to be spent by March 31, 2021, can be used by states for ongoing and new projects and settling contractors' bills on such projects. The funds provided to states will be over and above their borrowing ceilings. For its part, the Centre has proposed an additional budget of Rs 25,000 crore for capital expenditure on roads, defence infrastructure, water supply, urban development, allocations for which will be made to various ministries in the upcoming discussions for formulating revised estimates. Sitharaman said



that capital expenditure has “a high multiplier effect” on the economy and it is expected to boost demand for a number of sectors across the economy.

*The headline numbers looked good: total ₹73,000 crore demand infusion, of which ₹36,000 crore is additional demand from consumer spending, and the balance ₹37,000 crore is additional Central and state capital expenditure. But in terms of additional fiscal spending, it is just 0.2 per cent of GDP.*

## PHASED MANUFACTURING POLICY

The Ministry of Electronics and Information Technology (MeitY) said it had approved 16 firms in the mobile manufacturing sector for the Production Linked Incentive (PLI) scheme (for large-scale electronics manufacturing, notified on April 1, 2020; <https://bit.ly/3nPqgNK>) to transform India into a major mobile manufacturing hub. These are five domestic and five foreign mobile phone producers and six component manufacturers. *The PLI comes on the back of a phased manufacturing programme (PMP) that began in 2016-17 and was supposed to culminate in 2019-20. The PMP incentivised the manufacture of low value accessories initially, and then moved on to the manufacture of higher value components. This was done by increasing the basic customs duty on the imports of these accessories or components. The PMP was implemented with an aim to improve value addition in the country.*

### More imports in India

Firms such as Apple, Xiaomi, Oppo, and OnePlus have invested in India, but mostly through their contract manufacturers. As a result, production increased from \$13.4 billion in 2016-17 to \$31.7 billion in 2019-20. However, analysis of factory-level production data from the Annual Survey of Industries (ASI) shows that in 2017-18, value addition for surveyed firms (barring two outliers) ranged from 1.6% to 17.4%, with most of the firms being below 10%. For the majority of the surveyed firms, more than 85% of the inputs were imported. *Comparable UN data for India, China, Vietnam, Korea and Singapore (2017-2019), show that except for India, all countries exported more mobile phone parts than imports — which indicates the presence of facilities that add value to these parts before exporting them. India, on the other hand, imported more than it exported, the least being in 2019 when its imports of mobile phone parts were 25 times the exports. Therefore, while the PMP policy increased the value of domestic production, improvement in local value addition remains a work-in-progress. Further, in September 2019, Chinese Taipei contested the raise in tariffs under the PMP. If the PMP is found to be World Trade Organization (WTO) non-compliant, then we may be flooded with imports of mobile phones which might make the local assembly of mobile phones unattractive. This will affect the operations of the mobile investments done under the PMP.*

### Focus on value of production

The new PLI policy offers an incentive subject to thresholds of incremental investment and sales of manufactured goods; these thresholds vary for foreign and domestic mobile firms. Thus, focus remains on increasing value of domestic production, and not local value addition. According to our calculations, if implemented in toto, an additional capacity of 60 crore mobile phones per year may be onstream at the end of the PLI, i.e. FY25.



### Shift from China is unlikely

Chinese firms that dominate the Indian market are not a part of the PLI policy. Thus their capacity expansion, if any, will be in addition to this. India produced around 29 crore units of mobile phones for the year 2018-19; 94% of these were sold in the domestic market, with the remaining being exported. This implies that much of the incremental production and sales under the PLI policy will have to be for the export market. Recently, a study by Ernst & Young for the India Cellular & Electronics Association showed that if the cost of production of a mobile phone is say 100 (without subsidies), then the effective cost (with subsidies and other benefits) of manufacturing mobile phone in China is 79.55, Vietnam, 89.05, and India (including PLI), 92.51. This shows that incentives under the PLI policy may not turn out to be a game-changing move, and it may be premature to expect a major chunk of mobile manufacturing to shift from China to India.

### Difficult for domestic firms

*The five foreign firms that have been chosen are Samsung and four of Apple's contract manufacturers. Samsung and two of Apple's contract manufacturers already have facilities in India, and can be expected to continue with their strategy of dependence on imported inputs.* Domestic firms have been nearly wiped out from the Indian market. So, their ability to take advantage of the PLI policy and grab a sizeable domestic market share seems difficult. Domestic firms may have the route of exporting cheaper mobile phones to other low-income countries. However, their performance in the last couple of years has not been promising. For example, among the chosen domestic firms, Lava International reported exports of ₹324 crore in FY18, while Optimus Electronics exported ₹83 crore in FY18 and ₹4 lakh in FY19. Thus, how well they respond to the opportunity that the PLI policy provides is an open question.

### Supply chain colocation

*Finally, the six component firms that have been given approval under the 'specified electronic components segment', though a welcome step, do not complete the mobile manufacturing ecosystem.* For example, literature shows that when Samsung set up shop in Vietnam, it relied heavily on its Korean suppliers which co-located with it to produce intermediate inputs, so much so that 63 among Samsung's 67 suppliers then were foreign. It was a surprise when it was found through our primary survey that though Samsung is invested hugely in India, it has not collocated its supply chain in the country. In summary, the PMP policy, since 2016-17 has barely been helpful in raising domestic value addition in the industry even though value of production expanded considerably. As backward integration via tariff protection is likely to come up against WTO rules, the new PLI focus is on increasing domestic production, and not value addition. The policy has separately licensed six component manufacturers to start domestic manufacturing. This may not succeed as the assemblers and component manufacturers move together. A first step in this direction could be to encourage foreign firms chosen under the PLI policy to collocate their supply ecosystems in the country.

## WHY WORKERS' BODIES FROM RSS, LEFT AND CONGRESS ARE FIGHTING CORPORATISATION OF ORDNANCE FACTORIES

The Centre's move to corporatise the Ordnance Factory Board (OFB) has been strongly opposed by the federations of the workers from 41 ordnance factories and allied units across the country.





The workers' opposition to the BJP-led government's new policy has formed an unlikely front of the federations affiliated to the Rashtriya Swayamsevak Sangh (RSS), the Left and the Congress. How have these ideologically distinct outfits have come together? What is the process of corporatisation that they are fighting against? And, where does the process stand? We explain.

#### **How have the three federations joined hands?**

The three main federations of the recognised defence workers' trade unions who have come together are — the All India Defence Employees' Federation (AIDEF), which is federation of the Left unions, the Indian National Defence Workers' Federation (INDWF) affiliated to Indian National Trade Union Congress (INTUC) of the Indian National Congress and the Bharatiya Pratiraksha Mazdoor Sangh (BPMS), which is the part of the Bharatiya Mazdoor Sangh (BMS) of the Rashtriya Swayamsevak Sangh (RSS).

#### **What does corporatisation of the OFB entail?**

*The OFB, an umbrella body for the ordnance factories and related institutions, is currently a subordinate office of the MoD. The organisation dates back over 200 years and is headquartered in Kolkata. It is a conglomerate of 41 factories, nine training Institutes, three regional marketing centres and five regional controllers of safety. A major chunk of the weapon, ammunition and supplies for not just armed forces but also paramilitary and police forces comes from the OFB-run factories now. Their products include civilian and military-grade arms and ammunition, explosives, propellants and chemicals for missiles systems, military vehicles, armoured vehicles, optical devices, parachutes, support equipment, troop clothing and general store items. The corporatisation will result in the conversion of the OFB into one or more 100 per cent government-owned entities under the Companies Act, 2013 like other public sector undertakings. While at least three committees on Defence reforms set by the governments between 2000 and 2015 have recommended the corporatisation, it had not been implemented till now. The notion of corporatisation was listed as one of the 167 'transformative ideas' to be implemented in the first 100 days of the Narendra Modi government's second term. It can be recalled that in the fourth tranche of the Atmanirbhar Bharat initiative, Finance Minister Nirmala Sitharaman had in May this year announced the decision of Corporatisation of OFB for 'improving autonomy, accountability and efficiency in ordnance suppliers'. One of the main apprehensions of the employees is that corporatisation would eventually lead to privatisation. Another key concern has been that the corporate entities would not be able to survive the unique market environment of defence products that has very unstable demand and supply dynamics. They also fear job losses.*

#### **How has MoD moved forward? Where do the two sides stand?**

The decision to go on an indefinite strike from October 12 was announced by the three federations following a strike ballot conducted in June amongst the workers who voted in favour of a nationwide strike against the government move. In the first week of July, the Department of Defence Production (DDP) of the MoD had invited Expression of Interest (EOI) cum Request for Proposal (RFP) for the selection of a consultant for strategising and implementing the proposed corporatisation of the OFB. On September 10, the ministry said it had selected a KPMG Advisory Services-led consortium as a consultant. On September 11, the MoD announced that the government has constituted an Empowered Group of Ministers (EGoM) for Corporatisation, under the chairmanship of Defence Minister Rajnath Singh 'to oversee and guide the entire process, including transition support and redeployment plan of employees while safeguarding their wages



and retirement benefits'. While the MoD was taking these steps towards finally implementing corporatisation, the federations kept opposing every move of the ministry and said they were firm on going on strike. On October 1, responding to notice of the strike by three major workers' federations, the ministry termed the strike "invalid and illegal" on various grounds, especially the ongoing conciliation talks mediated by the Chief Labour Commissioner (Central). On October 9, after a marathon meeting between three federations and the MoD officials, the latter announced that they had deferred their indefinite strike pending conciliation talks with the ministry. The ministry, on the other hand, has agreed not to proceed with corporatisation till talks are on and the top officials and EGoM will discuss the matter with the federations.

## HOW FERTILISER SUBSIDY WORKS

The Centre is working on a plan to restrict the number of fertiliser bags that individual farmers can buy during any cropping season. What are the implications, including for its fertiliser subsidy bill?

### What is fertiliser subsidy?

*Farmers buy fertilisers at MRPs (maximum retail price) below their normal supply-and-demand-based market rates or what it costs to produce/import them. The MRP of neem-coated urea, for instance, is fixed by the government at Rs 5,922.22 per tonne, whereas its average cost-plus price payable to domestic manufacturers and importers comes to around Rs 17,000 and Rs 23,000 per tonne, respectively. The difference, which varies according to plant-wise production cost and import price, is footed by the Centre as subsidy. The MRPs of non-urea fertilisers are decontrolled or fixed by the companies. The Centre, however, pays a flat per-tonne subsidy on these nutrients to ensure they are priced at "reasonable levels". The per-tonne subsidy is currently Rs 10,231 for di-ammonium phosphate (DAP), Rs 6,070 for muriate of potash (MOP) and Rs 8,380 for the popular '10:26:26' complex fertiliser, with their corresponding average MRPs at Rs 24,000, Rs 17,500 and Rs 23,500 per tonne, respectively. Decontrolled fertilisers, thus, retail way above urea, while they also attract lower subsidy.*

### How is the subsidy paid and who gets it?

*The subsidy goes to fertiliser companies, although its ultimate beneficiary is the farmer who pays MRPs less than the market-determined rates. Companies, until recently, were paid after their bagged material had been dispatched and received at a district's railhead point or approved godown. From March 2018, a new so-called direct benefit transfer (DBT) system was introduced, wherein subsidy payment to the companies would happen only after actual sales to farmers by retailers. Each retailer — there are over 2.3 lakh of them across India — now has a point-of-sale (PoS) machine linked to the Department of Fertilisers' e-Urvarak DBT portal. Anybody buying subsidised fertilisers is required to furnish his/her Aadhaar unique identity or Kisan Credit Card number. The quantities of the individual fertilisers purchased, along with the buyer's name and biometric authentication, have to be captured on the PoS device. Only upon the sale getting registered on the e-Urvarak platform can a company claim subsidy, with these being processed on a weekly basis and payments remitted electronically to its bank account.*



### What was the new payment system's underlying purpose?

The main motive is to curb diversion. This is natural with any under-priced product, more so in urea, whose basic MRP (excluding taxes and neem-coating cost) has been raised by hardly 11% from Rs 4,830 to Rs 5,360 per tonne since April 2010. The same period — from when all other fertilisers were decontrolled — has seen the per-tonne MRP of DAP rise from Rs 9,350 to Rs 24,000, while similarly going up for MOP (Rs 4,455 to Rs 17,500) and '10:26:26' (Rs 7,197 to Rs 23,500). *Being super-subsidised, urea is always prone to diversion for non-agricultural use — as a binder by plywood/particle board makers, cheap protein source by animal feed manufacturers or adulterant by milk vendors — apart from being smuggled to Nepal and Bangladesh. The scope for leakage was more in the earlier system, right from the point of dispatch till the retailer end. With DBT, pilferage happens only at the retailer level, as there is no subsidy payment till sales are made through POS machines and subject to the buyers' biometric authentication.*

### What is the next step being proposed?

*At present, the Centre is following a "no denial" policy. Anybody, non-farmers included, can purchase any quantity of fertilisers through the PoS machines. That obviously allows for bulk buying by unintended beneficiaries, who are not genuine or deserving farmers. While there is a limit of 100 bags that an individual can purchase at one time, it does not stop anyone from buying any number of times. One plan under discussion is to cap the total number of subsidised fertiliser bags that any person can buy during an entire kharif or rabi cropping season. This, it is expected, would end even retail-level diversion and purchases by large buyers masquerading as farmers.*

### What is the fertiliser requirement of a typical farmer?

It depends on the crop. A farmer growing irrigated wheat or paddy may use about three 45-kg bags of urea, one 50-kg bag of DAP and half-a-bag (25 kg) of MOP per acre. A total of 100 bags would easily cover the seasonal requirement of a 20-acre farmer. And that could possibly be a reasonable cap to impose; those wanting more can well afford to pay the unsubsidised rates for the extra bags.

### How much subsidy does a farmer really get per acre?

For three bags urea, one bag DAP and half-a-bag MOP per acre, the farmer would spend a total of Rs 2,437 at existing MRPs. The corresponding subsidy value — at an average of Rs 13,000 per tonne (Rs 585/bag) for urea, Rs 511.55/bag for DAP and Rs 303.5/bag for MOP — will add up to Rs 2,418.3 per acre. But then, farmers are also taxed on other inputs. Take diesel, where the incidence of excise and value added tax is Rs 42.19 on a litre retailing at Rs 70.46 in Delhi. On 30 litres of average per-acre consumption for paddy or wheat, that will be nearly Rs 1,266. So, for every Re 1 spent on fertiliser subsidy, more than half is recovered as diesel tax. In addition, farmers pay goods and service tax (GST) on inputs, ranging from 12% on tractors, agricultural implements, pumps and drip/sprinkler irrigation systems to 18% on crop protection chemicals. Fertiliser itself is taxed at 5%. *And since there's no GST on farm produce, they cannot claim any input tax credit on their sales, unlike other businessmen.*

### What's the way forward?

The time has come to seriously consider paying farmers a flat per-acre cash subsidy that they can use to purchase any fertiliser. The amount could vary, depending on the number of crops grown



and whether the land is irrigated or not. This is, perhaps, the only sustainable solution to prevent diversion and also encourage judicious application of fertilisers, with the right nutrient (macro and micro) combination based on proper soil testing and crop-specific requirements.

## WHAT PUNJAB'S THREE NEW FARM BILLS SAY, AND WHAT THEY SEEK TO ACHIEVE

After over a month of protests by farmers against the three farm laws enacted by the central government, a special session of the Punjab Assembly on Tuesday (October 20) not only rejected the laws by a unanimous resolution but also passed three farm amendment Bills removing Punjab from the ambit of the central laws.

### What is the rationale given by the state to amend the three central farm laws?

In each of the three Bills, the Punjab government has claimed that the application of central laws to the state is being changed to “restore the agricultural safeguards for the farmers through the regulatory framework of Punjab Agricultural Produce Markets Act, 1961 to secure and protect the interests and livelihoods of farmers and farm labourers as also all others engaged in agriculture and related activities”. The three Bills mention the agriculture census 2015-16 to underline that 86.2 per cent of farmers in the state are small and marginal, with the majority owning less than two acres of land. Consequently, they have limited access to multiple markets, and lack the negotiation power needed to operate in a private market. All the three Bills underscore the importance of farmers getting a level playing field in the form of a fair price guarantee. The Bills also point out that agriculture, agricultural markets, and land is the primary legislative domain of the state.

### So, what are the key features of the Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services (Special Provisions and Punjab Amendment) Bill, 2020?

The Bill seeks to address the fears of state farmers about being forced to sell their produce at less than the minimum support price (MSP) with an amendment whereby *sale of wheat and paddy shall be valid only if the seller pays a price equal to or greater than the MSP announced by the central government. It states that any person or company or corporate house will be punished with imprisonment of not less than three years and a fine if he signs a contract wherein the farmer is compelled to sell his produce at less than the MSP. This Bill also allows the farmer to approach a civil court, besides seeking remedies available under the central act in case of any differences with the buyer of his produce. The thrust on only wheat and paddy can be explained by the dominance of these two crops in the state. According to Punjab Mandi Board, Punjab contributes 32 per cent of these two foodgrains to the central pool despite its relatively small land area.*

### What do experts say about the amendments?

The amendments received a mixed response from agronomists of the state. Dr Sucha Singh Gill, former director general of the Centre for Research in Rural and Industrial Development (CRRID) said, “This has been done to meet the demands of the farmers, and will discourage private players to buy at rates less than MSP.” However, he asked, “Why have they covered only two crops? They should cover the whole gamut of crops; we have marketable surplus of cotton, maize, some pulses and even milk, for which the state decides the MSP.” Dr S S Johl, a former Vice Chancellor of Punjab Agricultural University and national professor of agricultural economics at Indian Council of





Agricultural Research, however, called the Bill a part of “vote-bank politics”, and said the amendments will all but block private players from the state.

**Besides MSP, what is the other big change made under the amended Bills?**

*While the central law abolished any market fees or licences for private players outside the APMCs, the Punjab bills have reintroduced it. The Bills say the state government can notify a fee to be levied on private traders or electronic trading platforms for trade and commerce outside the mandis established under the Punjab Agricultural Produce Markets Act, 1961.* These fees will go towards a fund for the welfare of small and marginal farmers.

**And what are the amendments in The Farmer’s Produce and Commerce (Promotion and Facilitation) Special Provisions and Punjab Amendment Bill 2020?**

By bringing the entire state under its ambit, the Bill ensures that the private players will also be regulated by the rules of government mandis. They will have to procure licences and pay the market fees to buy produce from the state. The Bill also states that no punitive action will be taken against anyone for violating the provisions of the central Act.

**Finally, what are the amendments in The Essential Commodities (Special Provisions and Amendment) Bill, 2020?**

This Bill, says the state, aims to protect consumers from hoarding and black marketing of agri produce. Underlining that production, supply, and distribution of goods is also a state subject, the Bill claims the central Act seeks to give unlimited power of stocking essential commodities to traders. Under this Bill, the state of Punjab will have the power to order, provide for regulating or prohibiting the production, supply, distribution, and imposing stock limits under extraordinary circumstances, which may include famine, price rise, natural calamity or any other situation.

#### HOW PUNJAB MANDIS PROCURE MORE PADDY THAN STATE PRODUCES; THE UP-BIHAR LINK

For the past few years, mandis in Punjab have been procuring at Minimum Support Price (MSP) more paddy (non-Basmati) than the state produces. This is because a large amount of paddy from Uttar Pradesh and Bihar is illegally brought to Punjab, to be sold at the higher price it would fetch in the mandis here. Several cases have been registered in the recent past, including during the current procurement season, against this practice. The government’s action generally ends at confiscating some trucks, carrying a few thousand tonnes of paddy, and registering some cases. The illegal trade, however, is of far more than a few thousand tonnes of paddy. If the total production and total purchase of paddy in Punjab in the past three years are taken into account, the figure of illegally sold paddy arrived at is in millions of tonnes. How?

**How much paddy was purchased by the government in these years?**

Almost all the crop brought to mandis by the farmers is purchased by the government. In Punjab, government agencies bought 163.82 lakh tonnes (LT), 170.46 LT and 179.56 LT paddy in 2019-20, 2018-19 and 2017-18 respectively, as per data from the Food Corporation of India (FCI), which purchases it for the central pool.

**How much area was under paddy cultivation in Punjab in these three years?**



Punjab agriculture department's records show that 22.91 lakh hectares were under paddy cultivation in 2019-20, 25.94 lakh hectares in 2018-19 and 25.19 lakh hectares in 2017-18.

#### **What was the average paddy yield of the state?**

According to the state agriculture department, the total average yield of paddy in Punjab was recorded at 6,635 kg (6.6 tonnes) per hectare in 2019-20, 6,532 kg (6.5 tonnes) in 2018-19 and 6,516 kg (6.5 tonnes) in 2017-18.

#### **What should be the total production of paddy in Punjab in this period?**

As per the crop cutting experiments across Punjab by the state agriculture department, the total production should be 152 Lakh tonnes (15.2 million tonnes) in 2019-20, 169.44 LTs (16.9 Million tonnes) 2018-19 and 164.14 LTs (16.4 million tonnes) in 2017-18. Thus, in all the three years, government agencies purchased more paddy than Punjab's total production, as per the average yield. Experts said that even if we take 1% or 2% more than the actual average yield (though the government's estimates are more or less equal to the actual), the amount of the paddy coming to mandis is still much higher. Moreover, farmers don't bring their entire crop to mandis -- they keep some for self-consumption and for seeds. A senior officer in the Food Corporation of India (FCI) said: "Even if they keep 2-3 million tonnes of the crop for self- consumption, one can well imagine how much extra paddy is being transported to Punjab, from Bihar and UP."

#### **Difference in total production and total purchase**

In 2019-20, 11.82 lakh tonnes (1.2 million tonnes) more paddy was sold in Punjab's mandis than produced in the state. In 2018-19, the figure around 1.02 lakh tonnes, and in 2017-18, it was nearly 15.42 lakh tonnes (1.5 million tonnes). "If the amount of paddy Punjab farmers consumed themselves is also factored in, the transportation from other states is not less than 4-5 million tonnes (40 to 50 lakh tonnes) every year," said a senior officer in the state agriculture department.

#### **Who is getting this profit?**

In UP and Bihar, paddy is hardly procured by the government, and is sold much below the MSP to traders. According to officials, several rice millers and a large number of rice exporters, with the connivance of some procurement agencies officials, are involved in the Punjab racket. They get paddy in UP and Bihar at the rate of Rs 900 to Rs 1,200 per quintal, depending upon quality. Adding milling and transportation charges, it costs them around Rs 1,200 to Rs 1,500 per quintal. In Punjab, they sell at a far higher rate of the MSP, Rs 1,888 per quintal, illegally in the name of state's farmers. An official said traders sitting in Delhi are controlling the markets of UP and Bihar and facilitating the millers of Punjab. And such millers in Punjab are earning Rs 400 to 600 per quintal by selling the paddy to the government.

### **WHY GUJARAT HAS A GLUT OF MILK POWDER, AND WHY EXPORT COULD HELP**

Milk cooperatives in Gujarat are of late finding it difficult to sell the 90,000 metric tonnes of skimmed milk powder, worth ₹1,850 crore, they have in stock. On October 13, the state government came forward to offer an export assistance of ₹150 crore which will provide ₹50 for every kilogram of milk powder exported by the cooperatives under the Gujarat Cooperative Milk Marketing Federation (GCMMF) which sells milk and milk products under the Amul brand.



### **How did the milk cooperatives in Gujarat end up with such a larger stock of skimmed milk powder?**

When the Covid-19 lockdown was announced, the government had instructed GCMMF and its 18 member unions to buy milk from desperate private milk producers who were unable to sell. This had led to 15 per cent increase in milk procurement by GCMMF. Secondly, due to Covid, the consumption of milk and milk products was less, as the hotels and restaurants were closed. There were hardly any weddings and milk demand during the festivals, even for desserts, was low. Every 10 litres of excess milk collected by the cooperatives during this period, got converted into one kilogram of milk powder.

### **Why is export seen as a solution to tackle the existing stock of milk powder?**

Every day GCMMF procures 200 lakh litres of milk from the villages. Of these 160-170 lakh litres are either sold as fresh milk or converted into various milk products. The excess 30-40 lakh litres gets converted into skimmed milk powder. According to Sodhi, once the surplus quantity of milk powder gets exported, the remaining stock will fetch a good price. "Moreover, despite the low prices, 60,000-70,000 metric tonne of milk powder gets sold every month in the international markets. Selling is not a problem," says Sodhi.

### **What will happen if the milk powder continues to be sold at the existing prices?**

The cost of manufacturing milk powder is ₹250-260 per kilogram. If GCMMF sells now, the milk cooperatives —which are powerful bodies headed mostly by BJP leaders — will book a loss, as the domestic prices of milk powder is ₹160-170 and the prices in the international market is around ₹190 for a kilogram. To counter this loss, the milk cooperatives will have to reduce the prices of milk in the upcoming festive season. If GCMMF did not export now it would have to reduce the milk prices by ₹4-5 per litre in Gujarat. But with the state government stepping in this can be averted. This move to provide export assistance is important as in the coming winter months, the market will be flush with more milk. Production is expected to increase from the present 200 lakh litres per day to 250 lakh litres per day during winters. "The prices of skimmed milk powder decides the farm gate prices. Any drop in milk prices will have a direct effect on the farmers from whom we buy milk," explains Sodhi.

### **A similar glut of milk powder happened in 2018. What steps were taken then?**

"The government had promised to provide an export assistance of Rs 300 crore. We had managed to export 30,000 metric tonnes and had used up an assistance of Rs 140 crore. During that year, the domestic price of skimmed milk powder was ₹135-145 per kilogram. As soon as we started exporting, the domestic prices increased to ₹300 per kilogram. The move also had a ripple effect in prices of milk in other states. For instance in Maharashtra, farmers who were earning just Rs 18 per litre of milk, started getting ₹22 per litre. The move also led to increase in prices of milk in Maharashtra, Uttar Pradesh, Punjab, Haryana and Rajasthan by ₹8-10 per litre... It is a smart move by the state government, where the Return on investment will be more than 20 times," Sodhi said.

## **DIGITAL PAYMENT SUPERHIGHWAY**

Digital payments have found strong ground, especially in India, increasingly relegating all other modes of payments to the background. It is through a faster system of simultaneous debits and credits that the money value is transferred from one account to the other across banks. It



embraces all kinds of operators (including direct benefit transfer by the government) across the country and even internationally, subject to regulatory forbearance. With such versatility and ease of settling financial transactions, the growth of digital payments is going to be phenomenal, supported by banks and Fin-Tech, or financial technology, companies.

### Steered by the RBI

There is a long and interesting history behind the evolution of digital payments in India, piloted by the Reserve Bank of India (RBI) and succinctly captured in the “Payment Systems in India”, published in 1998. *A major thrust toward large value payments was effected through the Real Time Gross Settlement System, or RTGS, launched by the RBI in March 2004.* The large value payments on stock trading, government bond trading and other customer payments were covered under the RTGS, providing finality of settlement, thereby reducing huge risks such as the Harshad Mehta scam; besides this, it substantially reduced the time taken for settlements. *The RBI introduced National Electronic Funds Transfer, or NEFT, and bulk debits and credits to support retail payments around the same time.* Now, *NEFT is available round the clock and RTGS will follow from December 2020 — only a few countries have achieved this.* Such historical changes brought about by the RBI triggered major changes in the corporate and capital market transactions as well. *Today, the Securities and Exchange Board of India (SEBI), the market regulator, is contemplating a T+1 settlement (T is for transaction date) because the underlying consideration of the sale proceeds of the shares get exchanged very fast under the payments system. This is expected to attract more international capital into the Indian market, in turn broadening and deepening the financial market.*

### An umbrella system

*The sterling contribution of this robust payment system, especially retail payments, was seeded and reinforced with the setting up of the National Payments Corporation of India (NPCI) by 10 lead banks at the instance of the RBI in 2009.* The idea for this umbrella retail payments institution emerged in the vision document on payments system, 2005-08 released by RBI in 2005. Very few people know about the unwritten history of the background under which this umbrella organisation was mooted. In 2004, a four-member team visited the Riksbank, the central bank of Sweden, on a study tour. This included a visit to the Bangirocentralen (BGC AB), a not-for-profit organisation owned by eight Swedish banks for providing retail payment and related services. The model appeared as an attractive proposition as payments is basically a public good. *Thus the idea of the NPCI as a not-for-profit company has a link from the BGC.* The setting up of such an umbrella organisation to build a super highway for digital payments has a strong appeal which was well-appreciated by Dr. Y.V. Reddy, the then RBI Governor, taking a number of policy decisions to spread digital payments and protect consumer interest. However, there were many within and outside the RBI, including in the Indian Banks’ Association, who had apprehensions about the success of such a model for the NPCI.

### Indicators of success

With digital payment being a public good like currency notes, it was necessary that the corporation was fully supported by the RBI and the government as an extended arm of the sovereign. It was also necessary to contain expectations on profits, avoiding gyrations of the stock market along with direct or indirect control by powerful private interests which had the potential to dilute the public good character of the outfit. The NPCI’s success against deeply entrenched formidable international players, supported by innovative technology, viz. *Unified Payments Interface (UPI) and Immediate Payment Service (IMPS)*, is well recognised by central banks in many





other countries. *The Bank for International Settlement's endorsement of the NPCI model in 2019 is a major accolade.* If the NPCI has gained such a rare distinction in just 10 years of its successful and path breaking journey, we should be proud to preserve this precious jewel. *There is a demand from some quarters that the NPCI should be converted into a for-profit company to withstand competition. The shareholders of the NPCI can have windfall gains too. But this will be a retrograde step with huge potential for loss of consumer surplus along with other strategic implications. Instead, like the RBI providing free use of the RTGS and other products, the strategy should be to assist the NPCI financially, either by the RBI or the government, to provide retail payment services at reduced price (in certain priority areas). This may also help support expansion of the payment system network and infrastructure in rural and semi-urban areas in partnership with Fin-Tech companies and banks.*

#### On merchant discount rate

*In Budget 2020-21, the government prescribed zero Merchant Discount Rate (MDR), the rate merchants pay to scheme providers, for RuPay and UPI, both NPCI products, to popularise digital payments benefitting both customers and merchants. There is justification in this prescription by the government because depositors implicitly pay around 3% to banks as net interest margin, being the difference between saving and risk free bond rate, for enjoying certain payments services traditionally. When banks enjoy such a huge amount of current account savings account (CASA) deposits, in return, is it not incumbent on them to provide such payment services, costing only a small fraction of such a gain? For reasons unknown, the government left out other providers of digital payment products from this MDR prescription, which is unjustified and had adverse effects. Taking advantage of this dichotomy, many issuing banks switched to mainly Visa and Master cards for monetary gains. As customers were induced by such supplier banks, it created a kind of indirect market segmentation and cartel formation, though there is hardly any quality difference in payment products. It may be noted that even the European Central Bank imposed a ceiling on MDR for all, protecting consumer interest. It is hoped that the government will take corrective action in the next Budget to ensure a level playing field and to relieve the NPCI from such policy-induced market imperfection.*

#### MPC WARY OF INFLATION: MINUTES

A second wave of COVID-19 remains a threat to the Indian economy and the central bank believes monetary policy needs to remain accommodative despite inflationary pressures, according to the minutes of the monetary policy committee's latest meeting, released on Friday. *The Reserve Bank of India (RBI) left interest rates unchanged at that meeting, as expected. Almost all members of the MPC said they see room for further easing, but a recent rise in price pressures would need to abate for them to use that space.*

#### RBI: SIGNALLING OPTIMISM

*The RBI has used its latest monetary policy review to unequivocally indicate that it will prioritise the revival of economic growth over inflation, at least through the end of the current financial year.* The bank's reconstituted Monetary Policy Committee (MPC), with three new external members, unanimously voted to keep policy interest rates unchanged even as it categorically stated that the RBI would "continue with the accommodative stance as long as necessary to revive growth on a durable basis and mitigate the impact of COVID-19 on the economy". Interestingly, *the MPC none-*



*too-subtly tilted away from its inflation targeting mandate by downplaying the risks on the price pressures front when it assessed that supply shocks were mainly responsible for keeping inflation above the tolerance band for months.* These shocks, it posited, should dissipate as the economy unlocks, supply chains are restored, and activity normalises. As part of the shift in priority it also made bold to project that it would stick with the accommodative stance “at least during the current financial year and into the next financial year”, a forward looking guidance that immediately prompted one of the new members, Jayanth R. Varma, to dissent and vote against the wording. *He agreed with the MPC’s intention to keep policy accommodative during the current financial year and into the next financial year, he said, but he opposed using the word “decided”.*

## HOW DOES DELISTING WORK, AND WHY DID VEDANTA FAIL AT IT?

Vedanta announced on Saturday that it had failed to garner the number of shares required to complete its delisting process from the stock market. We take a look at the process of delisting and the how Vedanta fell short of garnering the threshold amount of 90% of shares of the company, even after public records initially showed that offers by shareholders had crossed that threshold.

### How does the delisting process work?

In the delisting process, the promoters of a company launch a reverse book building process in which shareholders can tender their shares for purchase by promoters at a set price. The discovered price is the price tendered by shareholders at which the company is able to cross the threshold of 90% stake required to complete the delisting process. Therefore, the lowest price at which the company can complete the acquisition of 90% of shares is the discovery price.

### What were the problems in the Vedanta delisting?

Vedanta announced that it was able to garner offers for only around 125 crore shares instead of the 134 crore shares required for the delisting process to go through. Earlier public records, however, show that Vedanta had received offers of over 137 crore shares. Experts note this discrepancy was a result of certain offers of share sales not being confirmed by foreign shareholders. “Foreign shareholders hold shares through a custodian, but custodians are not allowed to participate in the secondary market and therefore bids are tendered by brokers,” explained Ravi Dubey, partner at law firm Indus Law. Dubey added that therefore, any bids placed by the broker were required to be confirmed by the custodians and that in this case, there were an unusually large number of unconfirmed bids leading to the company not meeting the 134 crore share threshold. *An expert who did not wish to be named said this process could be used to artificially reach the 90% threshold in cases where some bidders do not even own the shares, thereby giving a push to smaller shareholders to participate in a delisting process that they believe is likely to succeed. The expert noted that the investigation ordered by SEBI was necessary to ascertain why there had been such a large number of unconfirmed bids*

### Were unconfirmed bids the only reason the delisting failed?

The key issue according to some experts was the discovered price at which Vedanta would be required to acquire a significant portion of shares. According to sources while a number of institutional investors had offered their stakes at around Rs 170, LIC, which holds 6.37% stake in Vedanta, and some smaller investors had offered shares at a price of Rs 320. Therefore, Vedanta



would have been required to pay well over the Rs 160-Rs170 per share they had budgeted for a significant proportion of shares and would likely have rejected the offer at the end of the process even if they had been able to meet the 90% threshold of shares offered through the process. “The key issue was that while the promoters wanted to delist at a price of around Rs 160, they were only able to collect bid at this level for around 96 crore or 70% of the shares,” said Naveen Kulkarni, CIO at Axis Securities, noting that some shareholders may have felt that the value of the stock was much higher as it was trading at around Rs 320 in 2018.

#### **How can the issue of unconfirmed bids be resolved?**

Dubey of Indus Law said SEBI should consider allowing custodians of shares held by foreign investors to bid directly in the reverse book building process, eliminating the issue of needing bids by brokers to be confirmed by custodians. Under the current process, he added, a single large investor may have too much influence over the reverse book building process and SEBI could consider setting price bands to restrict the prices at which shareholder can offer shares in the process. Dubey did note that such a change would require adequate safeguards to ensure that promoters were not able to take advantage of a depressed market situation to delist their companies.

### **WHAT FLIPKART PICKING UP STAKE IN ADITYA BIRLA RETAIL MEANS FOR BOTH GROUPS**

Walmart-owned online retailer Flipkart has picked a 7.8% stake in Aditya Birla Fashion and Retail Ltd, which houses lifestyle brands such as Allen Solly, Peter England, Van Heusen, Louis Philippe, in addition to the Pantaloons chain of multi-brand stores. The deal comes at a time when India's retail market has witnessed an uptick in activity with Reliance Retail on the one hand acquiring Future Group's assets and on the other raising funds from foreign investors.

#### **What does the deal mean for Aditya Birla Group?**

Flipkart has picked up the 7.8% stake for an aggregate of Rs 1,500 crore, which adds to the Rs 1,000 crore that Aditya Birla Fashion raised through a rights issue earlier this year. According to the company, the deal will result in Aditya Birla Fashion “aggressively accelerating” its omni-channel strategy through which it will expand the reach of its portfolio brands. Flipkart's investment will also bring its technological know-how – through its various platforms like digital money app PhonePe, and e-commerce platforms Flipkart and Myntra – which according to sector experts will be crucial for a company like Aditya Birla particularly given the transformation in the physical to online retailing equation in the aftermath of Covid-19.

#### **What does this deal mean for Flipkart?**

The deal will strengthen the range of brands offered on the e-commerce company's platforms Flipkart and Myntra and will enhance the range of premium international and Indian brands on offer. For Flipkart the deal also means having a strong offline partner in Aditya Birla Group to raise the stakes in its battle with Amazon, which had invested in Future Group last year. Currently, Aditya Birla Fashion has a network of 3,004 stores, presence across approximately 23,700 multi-brand outlets in addition to over 6,700 point of sales in department stores across India.



### Are there any roadblocks for this deal?

The transaction is subject to regulatory and other customary approvals such as from the **Competition Commission of India**, etc. *Another potential roadblock for the deal could be the revised foreign direct investment norms notified by the government in December 2018, which barred any entity in which an e-commerce firm or its group companies have a stake from selling on their online platform. Both Aditya Birla Fashion and Flipkart will have to enter into an arrangement with a third-party seller to expand presence of the former's portfolio on the e-commerce platform.*

## WHY AMAZON IS OBJECTING TO FUTURE GROUP-RELIANCE RETAIL DEAL

Kishore Biyani-led Future Retail's Rs 24,713 crore deal to sell its retail, wholesale, logistics and warehousing units to Mukesh Ambani's Reliance Retail and Fashionstyle, has run into legal trouble with global e-commerce giant Amazon claiming its "contractual rights" have been violated.

### What is the Future-Reliance deal?

In August this year, Biyani's Future Group entered into an agreement with Reliance Retail, a subsidiary of the umbrella Reliance Industries Limited (RIL) group, to sell its retail, wholesale, logistics and warehousing to the latter. As a part of the deal, Future Retail will sell its supermarket chain Big Bazaar, premium food supply unit Foodhall and fashion and clothes supermart Brand Factory's retail as well as wholesale units to Reliance Retail. *The Future group was under immense pressure from its lenders, led by the State Bank of India, to manage its debt, and the deal is seen as a bid by the group to cut down on the same.* Before the August sale to Reliance, Biyani had been wooing several business groups to sell shares in several companies of Future Group in an attempt to cut down on the debt, but had not seen much success. Following the nationwide lockdown in March, to contain the spread of Covid-19, the retail business of Future Group had come under more stress. Sales in many of its premium food sales arm Foodhall and Brand Factory had come to a near halt in the lockdown, which lasted more than two months.

### Why is Amazon objecting to the Future-Reliance deal?

*Last year, Biyani's Future Retail had signed another deal with global e-commerce giant Amazon. As part of the deal, Amazon had acquired 49 per cent stake in Future Coupons, the promoter firm of Future Retail in a deal worth nearly Rs 2,000 crore. While Future Retail would be able to place its products on Amazon's online market place, the two had also agreed that the Future Retail's products would also be a part of Amazon's new plan, which intended to deliver products in select cities within two hours of a customer ordering them. Future Retail has more than 1,500 stores pan India. The deal had also given Amazon a 'call' option, which enabled it to exercise the option of acquiring all or part of Future Coupon's promoter, Future Retail's shareholding in the company, within 3-10 years of the agreement.* After Future's agreement with Reliance, Amazon said the deal was a violation of a non-compete clause and a right-of-first-refusal pact it had signed with the Future Group. *The deal also required Future Group to inform Amazon before entering into any sale agreement with third parties.* On its part, the Future Group has said that it had not sold any stake in the company, and was merely selling its assets and had therefore not violated any terms of the contract.





### What happens now?

Both Amazon and Biyani's Future Group have shown the *willingness to opt for an arbitration to be decided in an international arbitration centre. While reports say the two companies could settle on going to the Singapore International Arbitration Centre, it is yet to be finalised.* As the two companies opt to go for arbitration, it remains unclear if the Future-Reliance deal may go through in the event of this legal tussle.



# DreamIAS



## LIFE & SCIENCE

### THE ECONOMICS OF AUCTIONS

*The Royal Swedish Academy of Sciences awarded this year's Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel — popularly, albeit incorrectly, referred to as the Nobel Prize for Economics — to Paul R Milgrom and Robert B Wilson.* Both winners are currently with Stanford University, where they teach in different departments. In its announcement, the Academy said the pair were receiving the award for “for improvements to auction theory and inventions of new auction formats”. They will equally share the 10 million Swedish kronor award money — roughly Rs 8.33 crore.

#### What is auction theory?

Essentially, it is about how auctions lead to the discovery of the price of a commodity. Auction theory studies how auctions are designed, what rules govern them, how bidders behave and what outcomes are achieved. When one thinks of auctions, one typically imagines the auction of a bankrupt person's property to pay off his creditors. Indeed, this is the oldest form of auction. This simple design of such an auction — the highest open bidder getting the property (or the commodity in question) — is intuitively appealing as well. But over time, and especially over the last three decades, more and more goods and services have been brought under auction. The nature of these commodities differs sharply. For instance, a bankrupt person's property is starkly different from the spectrum for radio or telecom use. Similarly, carbon dioxide emission credits are quite different from the spot market for buying electricity, which, in turn, is quite different from choosing which company should get the right to collect the local garbage. In other words, no one auction design fits all types of commodities or seller. This is also true because the purpose of an auction also differs with the commodity and the entity conducting the auction. *More often than not, private sellers want to maximise their gains while public authorities may have other goals in mind. For instance, when selling telecom spectrum, a government could either think in terms of maximising its revenues or aim at making telecom more affordable to everyone. If it wants to maximise revenues, the auction has to be designed one way, but doing so will imply that the company eventually winning the contract will make telecom services costlier and, in the process, deprive the poorest sections of affordable telephony and Internet access.* The up-side, however, is that the government will get more money in its kitty and can use it whichever way it likes — possibly even subsidise the telecom costs of the poorest. On the other hand, *if the government's goal is to enable the broader society to access the benefits of the telecom revolution and allow even the poorest to use the Internet at an affordable rate, it may want to focus more on how best a company can ensure that.* In fact, before auctions became the norm for limited resources such as radio waves, governments used to allocate them as one would conduct a beauty contest. This would involve asking how a company might use the spectrum and assessing which company is best suited to receive the license. This approach, however, led to a proliferation of lobbying. But even when a beauty contest approach was replaced with an auction, it mattered how the auction was designed. For instance, *if spectrum is auctioned at the regional level, national players may not get seamless access to optimum quality of spectrum across the country; as a result, they may not bid as aggressively.* In the US, such a mistake led to a second-hand market where companies traded among themselves with little revenue accruing to the government. *How an auction is designed, therefore, has a tremendous impact not just on the buyers and the sellers but also on the broader society.*



### What are the key variables that determine the outcome of an auction?

Three key variables need to be understood while designing an auction. One is the rules of the auction. Imagine participating in an auction. Your bidding behaviour is likely to differ if the rules stipulate open bids as against closed/sealed bids. The same applies to single bids versus multiple bids, or whether bids are made one after another or everyone bids at the same time. The second variable is the commodity or service being put up for auction. In essence, the question is how does each bidder value an item. This is not always easy to ascertain. In terms of telecom spectrum, it might be easier to peg the right value for each bidder because most bidders are likely to put the spectrum to the same use. This is called the *“common” value of an object*. But this may not be the case with some other commodities, say a painting. Person A may derive considerably more *“private” or personal value* — just by looking at it endlessly — than person B. In most auctions, bidders allocate both “common” as well as “private” values to the object being auctioned and this affects their eventual bids. The third variable is *uncertainty*. For instance, which bidder has what information about the object, or even the value another bidder associates with the object. Milgrom and Wilson have done pioneering work on auction theory and much of our current understanding is due to their research. As the Academy notes, “Wilson developed the theory for auctions of objects with a common value — a value which is uncertain beforehand but, in the end, is the same for everyone”. Wilson showed what the *“winner’s curse”* is in an auction and how it affects bidding. It is possible to overbid — \$50 when the real value is closer to \$25. In doing so, one wins the auction but loses out in reality. The winner’s curse explains “why rational bidders tend to place bids below their own best estimate of the common value: they are worried about the winner’s curse — that is, about paying too much and losing out”. Milgrom “formulated a more general theory of auctions that not only allows common values but also private values that vary from bidder to bidder”. He “analysed the bidding strategies in a number of well-known auction formats, demonstrating that a format will give the seller higher expected revenue when bidders learn more about each other’s estimated values during bidding”. With each passing year, as societies have become more complex Milgrom and Wilson responded by inventing new formats “for auctioning off many interrelated objects simultaneously, on behalf of a seller motivated by broad societal benefit rather than maximal revenue”.

### ‘GENETIC SCISSORS’

#### What is CRISPR/Cas9?

the CRISPR are a part of bacteria’s immunological systems that help them in recognising threatening viruses. When they sense a lurking virus, the bacteria produce customised RNA, which is necessary to translate DNA into protein, gleaned from the CRISPR libraries. This also contains Cas (CRISPR-associated) genes that are used to produce enzymes such as Cas-9. These enzymes — the Cas-9 being a particularly popular one — can be used to chop the DNA of the virus and destroy them.

#### How can this be used to edit genomes?

Using the tool, researchers can change the DNA of animals, plants and microorganisms with precision. Emmanuelle Charpentier, who is now director, Max Planck Institute for Infection Biology, Berlin, had studied *Streptococcus pyogenes*, a species of bacteria known to be associated with a range of illnesses such as pharyngitis, tonsillitis and scarlet fever. While studying this, she



discovered a previously unknown molecule, tracrRNA. Her work showed that tracrRNA is part of bacteria's ancient immune system, CRISPR/Cas, that disarms viruses by cleaving their DNA, the Nobel release explains. Dr. Charpentier published her discovery in 2011. The same year, she initiated a collaboration with biochemist Jennifer Doudna, now a professor at the University of California, Berkeley. "Together, they succeeded in recreating the bacteria's genetic scissors in a test tube and simplifying the scissors' molecular components so they were easier to use," says an explainer on the Nobel Prizes website on their work. In a significant experiment, they reprogrammed the genetic scissors. "In their natural form, the scissors recognise DNA from viruses, but Charpentier and Doudna proved that they could be controlled so that they can cut any DNA molecule at a predetermined site. Where the DNA is cut it is then easy to rewrite the code of life," the note adds.

#### How is the tool different from other editing systems?

Other genome editing systems like *TALENs* and *Zinc-Finger Nucleases* can do similar jobs, but several users consider the Charpentier-Doudna tool more adaptable and easier to use. It is less than a decade since this system gained wide research and commercial interest, but in the past few years, scientists have been able to make precise single-base-pair changes or larger insertions. Coupled with the availability of genome sequences for a growing number of organisms, the technology allows researchers to find out what genes do, move mutations that are identified and associated with disease into systems where they can be studied and tested for treatment, or where they can be tested in combinations with other mutations. The commercial potential of the system is so compelling that within years of its development, there was a battle over the ownership of the intellectual property rights of the CRISPR/Cas9 involving the University of California and the Massachusetts Institute of Technology's Broad Institute. The essence of this was that Feng Zhang of the Broad Institute had discovered a way to deploy the system in eukaryotic cells (that make up animal cells), whereas Dr. Doudna's patent application covered the process more generally. Dr. Zhang's patent was granted before Dr. Doudna's application. The patent dispute is still ongoing, and both sides claim victory in terms of the commercial application of the patents. The prize to CRISPR/Cas9 may be unusual as it is rare for a method to be announced and conferred a Nobel within a decade of its discovery, but it underlines its game-changing potential. In the last five years, both Dr. Doudna and Dr. Charpentier have been recipients of several important prizes in sciences.

#### To what uses has the CRISPR/Cas9 been deployed so far?

Earlier this year, a person with hereditary blindness became the first to have a CRISPR/Cas-9-based therapy directly injected into her body. Gene-editing company CRISPR Therapeutics announced in June that two patients with beta thalassemia and one with sickle cell disease would no longer require blood transfusions after their bone marrow stem cells were edited using CRISPR techniques. Earlier this week, according to a report in Chemistry World, Dr. Doudna launched a new company, Scribe Therapeutics, to begin work on treatments for amyotrophic lateral sclerosis. Reuters reported that Dr. Doudna is already employing CRISPR in the battle against the COVID-19 as a co-founder of biotech startup Mammoth, which has tied up with GlaxoSmithKline to develop a test to detect infections. This year, the CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB) in Delhi developed a COVID-19 testing kit, nicknamed 'Feluda', after the fictional Bengali detective, based on the CRISPR/Cas9 system. There are commercial CRISPR-based home kits that allow amateur researchers to develop their own biotechnology applications, triggering a sub-





culture called 'bio-hacking'. Research is already underway for using proteins that are smaller and more efficient than Cas-9, though the system purportedly holds promise for treating more complex diseases, such as cancer, heart diseases, mental illnesses, and the human immunodeficiency virus (HIV) infection.

## WORLD FOOD PROGRAMME

In September 1962, the WFP faced its first test. A deadly earthquake in northern Iran had claimed the lives of more than 12,000 people and rendered tens of thousands homeless and desperate for succour. The UN's infant agency flew in 1,500 tonnes of wheat, 270 tonnes of sugar and 27 tonnes of tea, marking its baptism. By 1965, the experimental agency with an initial mandate of three years had proved its worth to the world after responding to multiple crises and was enshrined as a fully fledged UN programme: it is to last for "as long as multilateral food aid is found feasible and desirable".

### Largest operation

The next two decades saw the organisation facing some of its sternest tests in terms of the scale of humanitarian crises it had to address. From the famines in the Sahel in northern Africa in the 1970s to the famine in Ethiopia in 1984 and the conflict in southern Sudan in the late 1980s, the WFP learnt to marshal resources as varied as camel caravans and flotilla of cargo planes provided by national air forces. "In 1989, Operation Lifeline Sudan is launched: leading a consortium of UN agencies and charities alongside UNICEF, WFP releases 1.5 million tonnes of food into the skies above what has since become South Sudan. The dawn-to-dusk, 20-aircraft, three-sorties-a-day airdrop remains, to this day, the largest in history. It saved hundreds of thousands of lives," the WFP says on its website. In the six decades since its founding, the WFP has now grown to become the world's largest humanitarian agency, providing aid to almost 100 million people in more than 80 countries. Commanding one of the biggest non-military and non-commercial logistics operations worldwide, the Rome-headquartered agency on any given day has up to 5,600 trucks, 30 ships and almost 100 aircraft engaged in delivering food and other assistance to those needing aid as well as developmental support, including in some of remotest and often conflict-stricken parts of the globe. The organisation has widened its operational remit and is now a leading provider of not just emergency food aid but also an agency engaged in supporting the nutritional requirements of communities through food assistance programmes. These vary from supporting school meals projects in different countries, including India, to the provision of cash and vouchers as a complement to in-kind food distributions. While theatres of conflict remain the largest areas of widespread deprivation and hunger, the WFP's interventions have been witnessed in the wake of multiple natural disasters: the 2004 Indian Ocean tsunami, the 2010 earthquake in Haiti and closer home Nepal's devastating temblor five years ago. The organisation has also honed its response capabilities to the point where it is able to serve as the frontline telecommunications and logistical support provider to all UN agencies and NGOs in any crisis situation — from the Ebola outbreak in West Africa to the Nepali earthquake of 2015.

### Not free from criticism

For an agency funded entirely by donors ranging from governments, companies and individuals, the WFP has had to face its share of criticism. These range from charges that the aid it provides encourages corruption among local politicians and officials, who often sell the food supplies in the



black market hurting local farmers and traders, to complaints that it destabilises whatever rudimentary market conditions that may be prevailing by making it hard for small local producers to compete. But with conflicts still raging from Syria to Yemen and Afghanistan, communities threatened by climate change and the fallout of the COVID-19 pandemic pushing millions more to the brink of starvation, as the WFP's executive director David Beasley says in a statement acknowledging the 2020 Nobel Peace Prize: "Every one of the 690 million hungry people in the world today has the right to live peacefully and without hunger. Without peace, we cannot achieve our global goal of zero hunger; and while there is hunger, we will never have a peaceful world."

## CENTURY-OLD DATA HELP MEASURE THE SUN'S MAGNETIC FIELD

The magnetic field of the Sun is unique in that, unlike many other celestial bodies, it reverses its polarity roughly every 11 years. Regular observations of the Sun's magnetic field begin in 1967, and, so far, we have data for the period from 1967 almost to the present, spanning the solar cycles 20-24. Now, an Indo-Russian collaboration has added to this with a plot of the solar magnetic field from 1915 to 1965 (solar cycles 15-19). Using a novel approach, they have calibrated and calculated the field using data from the archives of the *Kodaikanal Solar Observatory* of the Indian Institute of Astrophysics.

## WHY MARS IS THE BRIGHTEST THIS MONTH

*Due to an event referred to as "opposition", which takes place every two years and two months, Mars will outshine Jupiter, becoming the third brightest object (moon and Venus are first and second, respectively) in the night sky during the month of October. This year, while Mars' closest approach to Earth was on October 6, the opposition will happen on October 13, which will give the planet its "biggest, apparent size of the 2020s", according to NASA. Mars's next close approach will happen on December 8, 2022, when the planet will be 62.07 million km away from the Earth.* Even so, the closest approach does not mean that Mars will appear to be the same size as that of the moon.

### So what is opposition?

Opposition is the event when the sun, Earth and an outer planet (Mars in this case) are lined up, with the Earth in the middle. The time of opposition is the point when the outer planet is typically also at its closest distance to the Earth for a given year, and because it is close, the planet appears brighter in the sky. An opposition can occur anywhere along Mars' orbit, but when it happens when the planet is also closest to the sun, it is also particularly close to the Earth.

### When does opposition happen?

Earth and Mars orbit the sun at different distances (Mars is farther apart from the sun than Earth and therefore takes longer to complete one lap around the sun). In fact, *opposition can happen only for planets that are farther away from the sun than the Earth.* In case of Mars, *roughly every two years, the Earth passes between sun and Mars, this is when the three are arranged in a straight line.* Further, *as the Earth and Mars orbit the sun, there comes a point when they are on the opposite sides of it, and hence very far apart.* At its farthest, Mars is about 400 million km from the Earth. In case of opposition, however, *Mars and sun are on directly opposite sides of the Earth. In other words, the Earth, sun and Mars all lie in a straight line, with the Earth in the middle. Significantly, the closest distance is relative and hence can vary. As per NASA, Mars made its closest approach to Earth in 2003*



*in nearly 60,000 years and it won't be that close to the planet until 2287. This is because the orbits of Earth and Mars are not perfectly circular and their shapes can change slightly because of gravitational tugging by other planets. For instance, Jupiter influences the orbit of Mars.*

#### **But why is it called opposition?**

As per NASA, from an individual's perspective on the Earth, Mars rises in the east and after staying up all night, it sets in the west just as the sun rises in the east and sets in the west. Because from the perspective on Earth, the sun and Mars appear to be on the opposite sides of the sky, Mars is said to be in "opposition". Essentially, opposition is a reference to "opposing the sun" in the sky.

#### **And how can one view Mars?**

Opposition is the best time to view Mars. During this time, Mars will appear as a bright star to the unaided eye and when viewed from a telescope, "it will grow dramatically in size", as per NASA. Using a telescope shows more of the planet's details such as dark and light regions, the solar ice caps and Mars' surface. But the clarity of these details depends on the turbulence of the atmosphere and local weather conditions.

### THE MILKY WAY'S SECRET

#### **What is the early history of the black hole?**

Over a hundred years before Albert Einstein published his theory of relativity, John Michell and Pierre-Simon Laplace had speculated that extremely dense stars could have such high gravity that not even light could escape them. These would become invisible (dark stars). This idea came back to life in 1916, when just a few weeks after Einstein had published his theory of relativity, German astrophysicist Karl Schwarzschild found a solution to these equations, having a feature that was later named 'event horizon' — the point of no return, beyond which even light, the fastest object in the world, cannot escape. However, these concepts and their implications were so bizarre then that even Einstein refused to believe that it was possible. An Indian researcher, B. Datt, and independently, Robert Oppenheimer and Hartland Snyder, made the first calculations of the gravitational collapse of a star in the 1930s. However, they had made the simplifying assumption of spherical symmetry. By the early 1960s, observations of 'quasars', which are now called active galactic nuclei, were preparing the ground for the eventual observational evidence for supermassive blackholes.

#### **What were the key questions when Dr. Penrose came into the picture?**

The scenario of a spherically symmetric massive star collapsing under its own gravity until it falls below the Schwarzschild radius (event horizon) to form an infinitely dense singularity had been described independently by Datt and Oppenheimer and Snyder. "This was, however, conditional on the high degree of symmetry [spherical symmetry], which almost certainly does not hold for realistic astrophysical collapse," says Prof. Ghanashyam Date, Chennai Mathematical Institute. The question was: would a complete gravitational collapse happen without spherical symmetry?

#### **How did observations of the supermassive black hole at the centre of the Milky Way begin?**

American astronomer Harlow Shapley, about a hundred years ago, was the first person to identify the centre of the galaxy. By the 1960s, we learnt that there was a source of radio waves sitting



there. This was named 'Sagittarius A\*', and it is approximately 26,000 light years away, i.e., light from this point would take 26,000 years to reach us. In comparison, light from the Sun takes approximately eight minutes to reach the Earth. In the 1990s, larger telescope facilities became available and Dr. Ghez started a research programme from the Keck Observatory atop Mauna Kea in Hawaii. Dr. Genzel's group first used the New Technology Telescope in La Silla, Chile, and later moved to the Very Large Telescope on the Cerro Paranal mountain in Chile.

#### How did they determine that there was a black hole?

All the stars in the Milky Way orbit the centre. For example, the Sun orbits Sagittarius A\* in more than 200 million years. For nearly three decades, the groups observed some thirty stars, particularly one that was named S2 by one group and S02 by the other. *They found that the stars move in perfect elliptical orbits, just as if the object about which they were orbiting (Sagittarius A\*) is a concentrated mass [compact object] and not diffused or scattered.* Given its calculated mass of about four million solar masses, and its invisibility, this could only be a supermassive black hole, they deduced.

#### Dr. Ghez is the fourth woman to receive the Physics Nobel. Who are the other three?

Since 1901, a total of 114 physics Nobel prizes have been awarded. Before Dr. Ghez, only three had gone to women: Marie Curie (1903, for radiation phenomena), Maria Goeppert-Mayer (1963, nuclear shell structure), Donna Strickland (2018, ultrashort, high-intensity laser pulses).

## EARLY CHILDHOOD STRESS AND MENTAL ILLNESS

It is known that adversity in early life can have long-term effects on mental health of adults. Now, a study using mice led by scientists from Tata Institute of Fundamental Research, Mumbai, finds that stimulating a particular pathway in the brain in early life can cause anxiety, depression and even schizophrenia-like symptoms later in life. This does not happen if the stimulation is carried out in adolescent or adult mice. The study has been published in the journal eLife.

#### Engineering the mice

Using genetic engineering the researchers modulated a specific pathway in the brains of mice which is known to stimulate the excitatory neurons in the forebrain region. When they carried out prolonged stimulation in two-week old mice and observed them when they grew into adults, the researchers found that the adult mice exhibited signs of increased anxiety, depression-like behaviour and even symptoms of schizophrenia-like behaviour. Such behaviour was not observed in mice that had been subjected to the stimulation as adolescents or adults. The group used bigenic mouse models that were engineered to express Designer Receptors Exclusively Activated by Designer Drugs (DREADDs) in excitatory neurons of the forebrain. Vidita Vaidya of TIFR who led the research says, "The DREADD in question results in increased Gq signalling when it is stimulated by [specific] drugs..." This increased Gq signalling stimulates the excitatory neurons in the forebrain. Prof. Vaidya further explains the observation of schizophrenia-like behaviour thus: Usually when someone is surprised by a sudden, loud sound, they show a startled response. But if the loud sound is preceded by a softer sound of lower volume, they show inhibition of the startled response. This is called pre-pulse inhibition.





### Pre-pulse inhibition

In the case of individuals with schizophrenia, the pre-pulse inhibition does not happen. The behaviour of the experimental mice that had been subjected to stimulation of excitatory neurons in their infancy was interesting. “We study the pre-pulse inhibition behaviour which is a hallmark of a behavioural change noted in patients of schizophrenia. Animals in which we have stimulated Gq signalling in forebrain excitatory neurons go on to exhibit pre-pulse inhibition deficits in adulthood,” she explains.

### Early-life window

The researchers had several controls for different aspects of the experiment: “We checked whether the genetic strategy itself has behavioural effects which it didn’t. We tested the effects of DREADD activation in adolescent and adult mice and that also had no effect,” says Prof. Vaidya. Thus, there is a “tight time-window in early life” when animals are highly sensitive to this perturbation. The study throws open several interesting questions. “If we can mimic the effects of early stress using these chemogenetic strategies, can we also reverse the effects of early stress? If so, is there a restricted window of time in which reversal would work?” says Prof. Vaidya.

## NEW ORGAN IN THE THROAT?

Researchers from the Netherlands Cancer Institute have discovered a new location of salivary glands, which, they believe, is good news for patients with head and neck tumours as radiation oncologists will be able to bypass this area to avoid any complications during treatment. The researchers have described their findings in a research published in the journal Radiotherapy and Oncology last week.

### So, what exactly have the researchers found?

When researchers who investigate the side-effects of radiation on the head and neck were studying a new type of scan as part of their research work, they found two “unexpected” areas that lit up in the back of the nasopharynx. These areas looked similar to known major salivary glands. *The salivary gland system in the human body has three paired major glands and over 1,000 minor glands that are spread throughout the mucosa. These glands produce saliva necessary for swallowing, digestion, tasting, mastication and dental hygiene.* When researchers were studying scans from about 100 people, they found a bilateral structure at the back of the nasopharynx and these glands had characteristics of salivary glands. *Researchers have proposed the name “tubarial glands” for their discovery.* Even so, it is not clear yet if these glands will be classified as a conglomerate of minor glands, as a major gland, a separate organ or a new part of an organ system. *The researchers believe that these glands would qualify as the fourth pair of major salivary glands.* The proposed name is based on their anatomical location, the other three glands are called parotid, submandibular and sublingual.

### Why are these glands being discovered only now?

Researchers note that the location of these glands is at a poorly accessible anatomical location under the base of the skull, which is an area that can only be visualised using nasal endoscopy. Further, conventional imaging techniques such as a CT scan, MRI and ultrasound have not allowed the visualisation of these glands. For the scans done on the 100 patients, a new type of scan called



the PSMA PET/CT scan was used, which was able to provide the high sensitivity and specificity required to detect these glands.

#### **What is the purpose of these glands?**

So far, researchers suspect that the physiological function of the glands is to moisten and lubricate the nasopharynx and the oropharynx, but this interpretation needs to be confirmed with additional research, they have said. Researchers believe that their discovery is potentially good news for some cancer patients with head and neck cancers. *Patients with head and neck cancers and tumours in the tongue or the throat are treated with radiation therapy that can damage the new salivary glands, whose location was not previously known. Now, with their discovery, radiation oncologists will be able to circumvent these areas and protect them from the side effects of radiation which can lead to complications such as trouble speaking and speaking.* Some patients may even face an increased risk of caries and oral infections that can significantly impact their life. The major salivary glands whose location is already known are regarded as organs-at-risk while conducting radiation therapy and need to be spared, researchers note. The next step is for researchers to find out how to avoid delivering radiation to these newly discovered glands so that patients experience less side effects and lead a better quality of life.

### WHY SCIENTISTS ARE TRYING TO CULTIVATE HEENG IN THE INDIAN HIMALAYAS

Asafoetida, or heeng, is a common ingredient in most Indian kitchens -- so much so that the country imports Rs 600 crore worth of this pungent flavoured herb every year. Now, scientists at CSIR-Institute of Himalayan Bioresource, Palampur (IHBT), are on a mission to grow heeng in the Indian Himalayas. The first sapling has been planted in Himachal Pradesh's Kwaring village in Lahaul valley last week.

#### **What is asafoetida and where is it commonly cultivated?**

Ferula asafoetida is a herbaceous plant of the umbelliferae family. It is a perennial plant whose oleo gum resin is extracted from its thick roots and rhizome. The plant stores most of its nutrients inside its deep fleshy roots. *Asafoetida is endemic to Iran and Afghanistan, the main global suppliers. It thrives in dry and cold desert conditions.* While it is very popular in India, some European countries too use it for its medicinal properties.

#### **How is India entering into heeng cultivation?**

Heeng is not cultivated in India. Government data states that India imports about 1,200 tonnes of raw heeng worth Rs 600 crore from Iran, Afghanistan and Uzbekistan. Between 1963 and 1989, India once attempted to procure asafoetida seeds, the ICAR - National Bureau of Plant Genetic Resources (NBPGR), New Delhi stated. However, there are no published results of the same. In 2017, IHBT approached NBPGR with an experimental project idea to cultivate heeng in the Indian Himalayas. For research, heeng seeds were imported from Iran and they remained in the custody of NBPGR. There, the seeds were subjected to a number of tests while being kept under quarantine, to rule out fungal or infectious diseases, possibility of pest attacks and other adverse effects to an area if these seeds were cultivated in fields.

Regions with sandy soil, very little moisture and annual rainfall of not more than 200mm are considered conducive for heeng cultivation in India. Some initial experiments were conducted in



high altitude districts of Mandi, Kinnaur, Kullu, Manali and Palampur in Himachal Pradesh. Besides, the researchers plan to expand their experiments to Ladakh and Uttarakhand. The institute will provide cultivation knowledge and skilling to local farmers. Seed production centres are also in the offing.

#### **What are some of the benefits of asafoetida?**

Published studies list out a range of medicinal properties of heeng, including relief for digestive, spasmodic and stomach disorders, asthma and bronchitis. The herb is commonly used to help with painful or excessive bleeding during menstruation and pre-mature labour. Being an anti-flatulent, the herb is fed to new mothers.

#### **How promising is cultivation in India?**

It is very early to comment on the output of asafoetida cultivation as yet. Experts say the plant takes about five years to produce the extractable oleo gum resin. With the first sapling sown this October, scientists will have to monitor the plants over the next five years in realistic soil, weather and other conditions. By the end of this year, the target is to cover one hectare with heeng cultivation and take it to 300 hectares during the next five years.

### **WERE INDIANS MAKING CHEESE 4,500 YEARS AGO?**

*A study published last month in the journal Nature presents what could be the earliest evidence of cheese-making in South Asia. The study, led by Kalyan Sekhar Chakraborty, a researcher at University of Toronto Mississauga, is based on archaeological finds from the Kotada Bhadli settlement -- located in modern day-Gujarat's Kutch district -- which was an agro-pastoral settlement in the Indus Valley civilisation, occupied from the mid to the late third millennium BCE.*

#### **What is the evidence?**

*The findings are based on analysis of the absorbed lipid residues in unglazed ceramic vessels. In simpler terms, this means that residues of fatty acids -- organic compounds found in plant and animal products -- which had been absorbed into pottery remnants found at archaeological sites were extracted and analysed to identify what the people who used these vessels might have eaten. Among other types of food is evidence of dairy processing, that is, the preservation of milk through fermentation and other techniques.*

#### **Why is this important?**

The significance of the finding lies in the revelation that cheese was very likely made and consumed in the subcontinent during what is known as the Mature Harappan period. This would make it the earliest evidence of cheese-making in the region.

#### **Does this mean cheese making originated in India?**

While the new study could establish the existence of dairy processing in India as far back as 4,500 years ago, previous studies have shown that cheese was likely being made even earlier in other parts of the world. In 2018, a study used carbon dating of lipid residues in pottery from the Dalmatian Coast of Croatia to establish the practice of dairy processing in the Mediterranean over 7,000 years ago in 5200 BPE. In another paper published in 2012, researchers from the University



of Bristol found chemical evidence in pottery shards from Neolithic sites in northern Europe that showed the existence of cheese-making in the region about 7,500 years ago, in the sixth millennium BCE.

## WHAT IS KETO DIET?

Actor Mishti Mukherjee, 27, who had worked in Bangla, Telugu and some Hindi films, died on October 2 in a hospital in Bengaluru. Her family said Mukherjee suffered from kidney failure as she had been following a ketogenic diet.

### **What is a ketogenic, or 'keto' diet, and when can it turn unhealthy?**

The ketogenic diet is one of the most popular weight loss diets the world over. It is a high-fat, moderate-protein and low-carb diet that helps in weight loss by achieving ketosis — a metabolic state where the liver burns body fat and provides fuel for the body, as there is limited access to glucose.

### **What constitutes a keto diet?**

A classic keto requires that 90 per cent of a person's calories come from fat, six per cent from protein and four per cent from carbs. "But there are many versions doing the round, since this one was designed for children suffering from epilepsy to gain control over their seizures. Typically, popular ketogenic diets suggest an average of 70-80 per cent fat, 5-10 per cent carbohydrate, and 10-20 per cent protein," explains nutritionist Ruchi Sharma, founder of EAT.FIT.REPEAT. "Many versions of ketogenic diets exist, but all ban carb-rich foods. In the beginning, it may seem easier to follow a keto diet as there's no need to count calories and the rules are very simple, but eventually adherence becomes very difficult," she says.

### **How does keto impact the body?**

"If you starve the body of carbohydrate, after burning out the glucose, the liver starts breaking down fats for energy. Ketosis is common in all kinds of fasting, but in a keto diet, when one is feeding it by giving a lot of fats from outside without carbs, it can become mildly toxic," says endocrinologist Dr Ambrish Mithal, Chairman and Head of Endocrinology and Diabetes at Max Healthcare – Pan Max, Saket, New Delhi. It may lead to many nutrient deficiencies such as carbohydrates, proteins, vitamins (especially vitamin A, D, E, & K) and minerals like calcium, phosphorus, sodium. "These are essential food groups, and their absence in the diet can be the cause of numerous deficiency diseases," says Sharma. Extreme carbohydrate restriction can lead to hunger, fatigue, low mood, irritability, constipation, headaches, and brain fog, which may last days to weeks

### **What impact does it have on our kidneys?**

"This diet could lead to increased stress on the kidneys and result in kidney stones, as they are made to work overtime,"

### **How did the Keto diet become popular?**

Keto had become popular as a therapy for paediatric epilepsy in the 1920s and 30s. "But it gained considerable attention as a potential weight loss strategy when the low-carb diet craze started in





the 1970s with the Atkins diet (a very low-carbohydrate, high-protein diet, which was a commercial success and popularised low-carb diets to a new level),”

#### Why is it so popular?

Because it has turned out to be one of the quickest ways of losing weight. In the first few days after starting the diet, one experiences a significant loss of water weight, and to the average person, the diet appears to be working, says Sharma. “Everyone these days is looking for quick fixes. Many have failed on conventional diets, and want something extreme. Like with most fad diets, you can quickly lose weight on keto, but it is hard to maintain as the compliance is very low,” says Sharma.

#### How is keto different from a low-carb diet?

Most of the modern weight loss diets are low on carbohydrates, but the distinction there is that some of them are low only in refined carbohydrates, and high in protein. But in keto, the carbs are below 10 per cent, which discourages you from having fruits and vegetables, says Dr Mithal. “When following a low carb diet, it’s common to increase your intake of protein, healthy fats, and vegetables to replace the carbs and promote fullness. By restricting carbs, you eliminate many high calorie foods from your diet. All these factors may work together to reduce your overall calorie intake and promote weight loss.” A low-carb diet has been linked to several health benefits in people with diabetes, including weight loss and improved blood sugar control and cardiovascular risk factors. Whereas when following a keto diet, the goal is to reach nutritional ketosis. “This is achieved by consuming fewer than 50 grams of carbs per day while keeping protein intake moderate and increasing fat intake drastically,” explains Sharma.

### POLL TO SELECT NATIONAL BUTTERFLY TAKES WING

A citizen campaign to drum up support for identifying a national butterfly has gained momentum with close to half a lakh people joining the movement from across the country. Spearheaded by butterfly researchers, scientists and enthusiasts, the National Butterfly Campaign has revived focus on the relevance of the charming, scaly winged insects in enhancing biodiversity. Kalesh Sadasivan, research associate, Travancore Nature History Society, points out that *India is yet to designate a national butterfly despite being home to over 1,300 species belonging to six butterfly families. Several countries, including Malaysia, Taiwan, Indonesia and Bhutan, have national butterflies.* As part of identifying butterfly species that could make it to the coveted status, the National Butterfly Campaign Consortium prepared a long-list of 50 butterflies that was further trimmed to seven.

A citizen poll to identify the national butterfly has concluded with three species garnering the highest number of votes. *Krishna Peacock (Papilio krishna), Indian Jezebel (Delias eucharis), and Orange Oakleaf (Kallima inachus),* the frontrunners, have unique features such as ability to camouflage as a dead leaf, exhibit iridescence to stave off predators, and aid farmers in getting rid of pests. The organisers will submit the names of the top three to the Ministry of Environment, Forests and Climate Change. *The onus is on the Centre to choose one among them to join the ranks of the Bengal Tiger, Indian Peacock, Indian Lotus, banyan tree, and mango as yet another national symbol,* says Kalesh Sadasivan, one of the core members of the organising group. The nationwide poll organised by the National Butterfly Campaign Consortium, a collective of 50 butterfly experts and enthusiasts, from September 10 to the midnight of October 8 yielded 59,754 votes. Blessed with a vibrant colour pattern, including vermilion (haldi – kumkum), the Indian Jezebel (or



Common Jezebel) is known to deter its predators with its flashy wing colours. Widely distributed, the species can be spotted in gardens and other lightly wooded areas. Krishna Peacock, a flagship species for biodiversity and conservation, is generally found in large numbers in the Himalayas. Orange Oakleaf is commonly known as 'dead leaf' for its ability to camouflage as a dry autumn leaf while striking a stationary pose with its wings closed. The masquerade enables the species to prevent it from being devoured by birds in the moist forests of northern Western Ghats, central, northern and north-eastern parts of India where they are generally found.

## CHINA'S CLIMATE COMMITMENT: HOW SIGNIFICANT IS IT FOR THE PLANET, AND INDIA?

It's that time of the year when countries start preparing for negotiations at the year-ending UN climate change conference. This year, the conference is not happening because of the pandemic. But last week, China made an unexpected announcement that ensured that there was no lack of climate change excitement this season. Speaking at the UN General Assembly, Chinese President Xi Jinping made two promises that came as a welcome surprise to climate change watchers.

### What has China announced?

First, Xi said, China would become carbon net-zero by the year 2060. Net-zero is a state in which a country's emissions are compensated by absorptions and removal of greenhouse gases from the atmosphere. Absorption can be increased by creating more carbon sinks such as forests, while removal involves application of technologies such as carbon capture and storage. Second, the Chinese President announced a small but important change in China's already committed target for letting its emissions "peak", from "by 2030" to "before 2030". That means China would not allow its greenhouse gas emissions to grow beyond that point. Xi did not specify how soon "before 2030" means, but even this much is being seen as a very positive move from the world's largest emitter.

### Why is net-zero an important target?

For the last couple of years, there has been a concerted campaign to get countries, especially the big emitters, to commit themselves to achieve "climate neutrality" by 2050. This is sometimes referred to as the state of net-zero emissions that would require countries to significantly reduce their emissions, while increasing land or forest sinks that would absorb the emissions that do take place. If the sinks are not adequate, countries can commit themselves to deploying technologies that physically remove carbon dioxide and other greenhouse gases from the atmosphere. Most of such carbon dioxide removal technologies are still unproven and extremely expensive. Scientists and climate change campaign groups say global carbon neutrality by 2050 is the only way to achieve the Paris Agreement target of keeping global temperatures from rising beyond 2°C compared to pre-industrial times. At the current rate of emissions, the world is headed for a 3° to 4°C rise in temperatures by 2100.

### How significant is China's commitment?

*China is the world's largest emitter of greenhouse gases. It accounts for almost 30% of global emissions, more than the combined emissions in the United States, the European Union and India, the three next biggest emitters.* Getting China to commit itself to a net-zero target, even if it is 10 years later than what everyone has in mind, is a big breakthrough, especially since countries have been reluctant to pledge themselves to such long term commitments. *So far, the European Union was*



*the only big emitter to have committed itself to a net-zero emission status by 2050. More than 70 other countries have also made similar commitments but most of them have relatively low emissions because of which their net-zero status would not help the planet's cause in a big way.* The real heavyweights whose climate actions are crucial to achieving the Paris Agreement targets are the *Big Four — China, the US, the European Union and India — who together account for more than half the global emissions, followed by countries such as Russia, Brazil, South Africa, Japan and Australia.* A week earlier, *South Africa declared its intention to become carbon-neutral by 2050*, but other countries have been holding back. *The United States, under the Donald Trump administration, has walked out of the Paris Agreement, and does not even believe in these targets.*

#### **What is India's commitment?**

India has resisted pressure to make a long-term commitment, citing the fact that developed countries had utterly failed in keeping their past promises, and never delivered on the commitments they made earlier. India has also been arguing that the climate change actions it has been taking are, in relative terms, far more robust than those of the developed countries. Until now, China had been making more or less similar arguments as India. The two countries have historically played together at the climate change negotiations, even though vast differences have emerged in their emissions and development status in the last couple of decades. Therefore, China's decision is a big shot in the arm for the success of Paris Agreement. According to Climate Action Tracker, a global group that offers scientific analysis on actions being taken by countries, the Chinese goal, if realised, would lower global warming projections for 2100 by about 0.2° to 0.3°C, the most impactful single action ever taken by any country.

#### **So, what are the implications of China's commitment for India?**

*The Chinese announcement is naturally expected to increase pressure on India to follow suit, and agree to some long-term commitment even if it was not exactly 2050 net-zero goal. That is something that India is unlikely to do.* "It is the wrong kind of demand being put on us. In fact, if you look at the pledges that have been made in the Paris Agreement, India is the only G20 country whose actions are on track to meet the 2° goal. The other developed countries actually have to make efforts towards a 1.5° world, but they are failing even to do enough to meet the 2° target. So, yes, there would be enhanced pressure, and we will have to deal with it. But it is an unfair demand, and we will have to resist it as we have been doing all along," said Ajay Mathur, head of Delhi-based The Energy and Resources Institute. Mathur's contention is corroborated by Climate Action Tracker as well, which puts India's actions as "2°C compatible", while the US, China and even the European Union's current efforts are classified as "insufficient". Earlier this year, India was in the process of formulating a long-term climate policy for itself, but that effort seems to have been shelved as of now. *Another side-effect of the Chinese decision could be an increased divergence in the positions of India and China at the climate negotiations. China might now have fewer grounds to align itself with India as a developing country.*

### **NEW FINDINGS STRENGTHEN LINK BETWEEN CLIMATE CHANGE AND WILDFIRES**

*In an updated review of scientific articles that try to establish a link between climate change and fire risk published since January 2020, scientists note that human-induced climate change promotes the conditions on which wildfires depend, enhancing their likelihood and challenging suppression efforts.* The update focuses on the ongoing wildfires in the western US and the bushfires that ravaged



south-eastern Australia in 2019-2020. Further, the authors note that climate change increases the frequency and severity of fire weather around the world and that land management alone “cannot explain recent increases in #wildfire because increased fire weather from climate change amplifies fire risk where fuels remain available”. Earlier this month, US President Donald Trump dismissed concerns that climate change could be fuelling the wildfires in California that have forced thousands of people to leave their homes and have destroyed millions of acres of land. Instead, Trump has blamed poor forest management as the reason for the wildfires and said, “It’ll start getting cooler, you just watch”. However, this is not the first time that Trump has made such a claim.

#### **What factors can influence fire weather?**

The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), which was published in 2013, identified a few factors that could influence the way wildfires play out. These include global increase in average temperatures, global increases in the frequency, intensity and extent of heatwaves (breaching of historically extreme temperature thresholds) and regional increases in the frequency, duration and intensity of droughts. If wildfires are usual in areas with warm and dry weather conditions, why are scientists interested in studying them further? *While wildfires are typical in both California and parts of Australia in the summer months, the intensity and scale of wildfires that these areas have seen in recent years has raised some concerns among scientists about the linkages between human-induced climate change and fire risk.*

#### **What does the new analysis tell us?**

Scientists are wary of attributing any single contemporary event to climate change, mainly because of the difficulty in completely ruling out the possibility of the event having been caused by some other reason, or a result of natural variability. However, in the results of the new analysis, the authors note that natural variability is superimposed on the increasingly warm and dry conditions that have resulted from climate change, which has led to more extreme fires and more extreme fire seasons. Further, they note that there is an “unequivocal and pervasive role of climate change in increasing the intensity and length in which fire weather occurs”. Significantly, the authors have said that while land management is also likely to contribute to the wildfires, it does not alone account for the recent increases in the extent and severity of the wildfires in the western US and in southeast Australia.

#### **What happened in Australia last year?**

Last year, photographs of Australian towns and villages that were ravaged by the bushfires made global headlines. While bushfires are routine in Australia in the summer months, the scale and intensity of the fires last year was unprecedented. The fires killed thousands of animals and impacted more than 10 million hectares of forest land, which is an area the size of South Korea. Scientists suggested at the time that there was strong evidence to suggest that the bushfires, which were especially fierce last year, could be linked to climate change.

### **WHAT IS THE GIANT CAT DRAWING AT A UNESCO WORLD HERITAGE SITE IN PERU?**

*Peru’s famous Nazca Lines, a UNESCO World Heritage Site known for its depictions of larger-than-life animals, plants and imaginary beings, grabbed the spotlight on social media recently after the discovery of a hitherto unknown massive carving -- that of a resting cat on the slope of a steep hill.*





The discovery of the etchings, believed to be more than 2,000 years old, was announced by the South American country last week.

### What are the Nazca Lines?

Considered among the top places to visit in Peru, the Nazca Lines are a group of geoglyphs, or large designs made on the ground by creators using elements of the landscape such as stones, gravel, dirt or lumber. These are believed to be the greatest known archaeological enigma, owing to their size, continuity, nature and quality. The images on the ground are so big in size that the best way to get a full view of them is overflying them. *Drawn more than 2 millennia ago on the surface of southern Peru's arid Pampa Colorada ("Red Plain" in Spanish), the geoglyphs feature different subjects, but mainly plants and animals.* The figures include pelicans (the largest ones sized around 935 feet long), Andean Condors (443 feet), monkeys (360 feet), hummingbirds (165 feet), and spiders (150 feet). There are also geometric shapes, such as triangles, trapezoids and spirals, and some have been associated with astronomical functions. *The Lines were first discovered in 1927, and were declared a World Heritage Site by UNESCO in 1994.* The site is around 450 km away from capital Lima southwards along the South Pan-American Highway.

### The newly discovered lounging cat

The cat geoglyph, believed to be older than the ones previously found at Nazca, was discovered by archaeologists carrying out maintenance in the area during the Covid-19 pandemic, according to Euro News. Peru's culture ministry said, "The figure was scarcely visible and was about to disappear, because it's situated on quite a steep slope that's prone to the effects of natural erosion." According to the ministry, the figure is 37 meters long when seen horizontally, and dates from the late Paracas era (500 BC – 200 AD). Restoration work carried out this month shows the feline figure in profile with its head in front, with lines marking it varying in width between 30 and 40 cm. "Representations of felines of this type are frequent in the iconography of ceramics and textiles of the Paracas society," the press release said.

## CELEBRATING SKINKS, ZSI LISTS 62 SPECIES IN INDIA

With long bodies, relatively small or no legs, no pronounced neck and glossy scales, skinks are common reptiles around homes, garages, and open spaces such as parks and school playgrounds, and around lakes. Although they are common reptiles and have a prominent role in maintaining ecosystems, not much is known about their breeding habits, and ecology because identification of the species can be confusing. *A recent publication by the Zoological Survey of India (ZSI) reveals that India is home to 62 species of skinks and says about 57% of all the skinks found in India (33 species) are endemic.* The publication, Skinks of India, was released earlier this month by Union Minister of State, Ministry of Environment Forest and Climate Change Babul Supriyo. "It is the first monograph on this group of lizards, which are found in all kinds of habitats in the country, from the Himalayas to the coasts and from dense forests to the deserts," Kaushik Deuti, scientist of ZSI and one of the authors of the publication, said. Director ZSI Kailash Chandra, said while a lot of work is done on other groups of reptiles like snakes or geckos, skinks are an ignored species. Skinks are highly alert, agile and fast moving and actively forage for a variety of insects and small invertebrates. The reduced limbs of certain skink species or the complete lack of them make their slithering movements resemble those of snakes, leading people to have incorrect notion that they are venomous. This results in several of these harmless creatures being killed.



## A TALE OF MANGROVE MIGRATION

*In 2008, Punarbasu Chaudhuri, mangrove ecologist from the University of Calcutta spotted an interesting mangrove plant at the bank of river Hooghly inside Kolkata city. It was quite unusual, as mangroves require a cyclic supply of saline water, and this growth at an upstream zone was remarkable.* He then started an investigation on their distribution in the Hooghly estuary, and his recent paper suggests that the mangroves have started moving upstream, growing in less-saline regions.

### Redistributing plants

After surveying the banks near Kolkata, he was able to spot a few mangroves belonging to *Sonneratia*. He says that over the years due to gradual environmental changes and anthropogenic activities, mangroves have started to redistribute. The paper, published in *Marine Pollution Bulletin*, notes that they have reclaimed even the upper course of the river, which was completely devoid of mangroves before 1995. His team spent years mapping the distribution of mangroves and associated species using ground surveys and satellite data. They also studied the sediments and water samples along the river banks. ***“Sewage disposal has increased the pollution load in the river waters. Globally, there is also rapid mean sea-level rise. All these might have played a role in this upstream migration,”*** explains Dr. Chaudhuri who is with the University of Calcutta’s Department of Environmental Science.

### Associates found

Between Barrackpore and Birlapur, in a non-saline region, about 239 mature trees and numerous saplings of *Sonneratia caseolaris* (commonly known as mangrove apple) have grown naturally. They were just four to five years old with fruits and flowers, exhibiting luxuriant growth. The team also found the redistribution of several other mangrove associate trees, shrubs and climbers in that region. ***“This is not welcome news. They directly indicate changes in the micro-environment. The rate of sedimentation, quality of the sediment and biogeochemistry of the river has all been affected by elevated anthropogenic activities and global climate change events,”*** says Somdeep Ghosh, first author of the paper.

### Change in ecology

The team emphasised the fact that the construction of Farakka Barrage in 1975 has increased fresh water flow in River Hooghly, thereby causing change in ecology and chemistry of the river. They also found high chemical oxygen demand in the river because of increased release of harmful chemicals from multiple point and non-point sources. Studies from China have shown that *Sonneratia caseolaris* grow well in the presence of high chemical oxygen demand of water. ***“This shows the potential of *Sonneratia caseolaris* to act as a bio-indicator of regional environmental changes. The decline in the mangrove area along with this migration may increase the amplitude of coastal hazards such as storm surges, erosion and flooding. More studies are needed to understand in detail this new horizon of mangrove adaptation and dispersion ecology. We are also planning to study more rivers in this region,”*** adds Dr. Chaudhuri.



## APPROACHING THE MISINFORMATION STORM

In the 1980s, the penultimate decade of U.S. newspaper ascendancy, hundreds of news organisations existed to serve these sorts of towns, much like they still do in multilingual India today. The Internet put paid to all that. One would have thought that democratic access to a large variety of news from all corners of the globe would have opened up the echo chambers in towns and rural areas, but the hard fact is that the Internet has pulled the other way. There are far fewer news outlets now than there were some years ago. The travesty is that many of these organisations are not news outlets; they are social networks such as Facebook, WhatsApp, and Twitter. These have no journalistic norms. Anyone can say anything at any time about any topic with scant respect for the truth. Everything is an opinion, but not clearly labelled as such. As a result, *much of the 'news' available on these platforms is biased*. The unscrupulous sale of personal information and meddling by inimical foreign regimes can potentially even influence the outcome of an election. Worse, the spread of false and malicious news can stoke violence at short notice. We have already seen this in India, when WhatsApp came under Indian regulatory scrutiny after a doctored video that originated as an innocent advertisement in Pakistan spread on that medium and stoked violence.

### A stark warning

The ascendance of Jio and the response from its competition means that anywhere between 500 million and 700 million people are now newly online, almost all from towns and rural areas. The U.S.'s experience with the Internet should serve as a stark warning to India. Most Americans now get their news from dubious Internet sources. The hardening of political stances on both sides of the divide is plain to see, and the acute polarisation of the average American's viewpoint is painful to watch. For India, the danger is that like the U.S., such extreme polarisation can happen in a few short years. Also, *the echo chamber has been greatly enhanced by the highly targeted algorithms that these companies use*. The algorithms were built around making users stay online longer and click through to advertisements. They are likely to bombard users with information that serves to reinforce what the algorithm thinks the searcher needs to know. For instance, if I search for a particular type of phone on an e-commerce site even once, future searches are likely to autocomplete that search by showing that phone when I next open the app. It is the same with news. If I show a preference for right-wing leaning posts, for instance, the algorithms are likely to provide me with ever more right-wing posts from people and organisations. *As they familiarise themselves with the Internet, newly online Indians are bound to fall prey to the echo chamber algorithms that social network firms use, as well as other algorithms that ensure that they spend inordinate amounts of time within the bubble of one social network, therefore becoming easy marks for targeted advertising — both for products and of political viewpoints*. Much can be said about how we should approach the impending Internet misinformation storm. I shall attempt to make a beginning here.

### Things to do

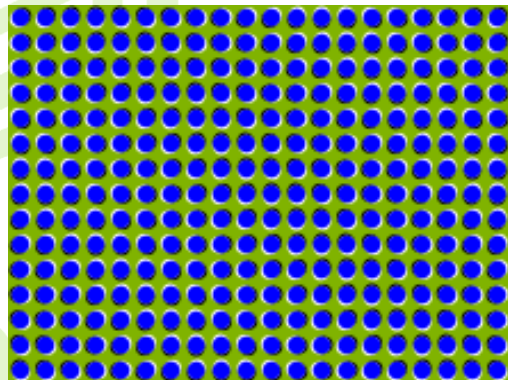
First, we know that tech firms are already under fire from all quarters. Just as they are struggling to meet calls to contain the online spread of misinformation and hate speech online, they are being accused of suppressing both left-wing and right-wing views. There is no pleasing anyone on this issue. Nonetheless, we need to act. Second, unlike the U.S., which has now become unlikely to directly regulate such firms, India might need to chart its own path by keeping them under check



before they proliferate. In the U.S., these issues were not sufficiently legislated for and have existed for over a decade. Existing legislation has been tested by the American court system which has held that companies like Google and Facebook clearly engage in both free speech and press activities when they display content created by third-parties. Free speech is inherent in the Constitution of many other democracies, including India's. This means that *new Indian legislation needs to preserve free speech while still applying pressure to make sure that Internet content is filtered for accuracy, and sometimes, plain decency*. Let us remember that our courts do not legislate; they ensure adherence to existing legislation. The third issue is corporate responsibility. Facebook, for instance, has started to address this matter by publishing 'transparency reports' and setting up an 'oversight board' to act as a sort of Supreme Court for Facebook's internal matters. However, for all these companies' efforts at transparency, we cannot ignore the fact that these numbers reflect judgements that are made behind closed doors. What should be regulatory attempts to influence the transparency of information that members of the public see are instead being converted into secret corporate processes. We have no way of knowing the extent of biases that may be inherent inside each firm. The fact that their main algorithms target advertising and hyper-personalisation of content makes them further suspect as arbiters of balanced news. This means that *those who use social media platforms must pull in another direction to maintain access to a range of sources and views*. Whether this will be possible as the hinterland of India comes online is doubtful. We need strong intervention now. Else, in addition to the media, which has largely been the responsible fourth estate, we may well witness the creation of an unmanageable fifth estate in the form of Big Tech.

#### IN THE EYES OF A FRUIT FLY

*Neuroscientists from Yale University have finally found the answer to why people perceive illusory motion in some stationary images by studying the eyes of fruit flies (Drosophila). They found that fruit flies too perceive motion in stationary images that evoke illusory motion percept in humans (PNAS, August 2020). They found that illusory motion percept is generated by unbalanced contributions of direction-selective neurons' responses to stationary edges.*



In the case of flies, perceiving motion in static images is an artefact of the brain's strategies for efficiently processing motion in natural scenes. Perceptual tests in humans suggest that our brains may employ similar mechanisms for this illusion. The scientists presented flies with optical illusions and then measured the flies' behaviour to check if they perceived motion in the optical illusions much the same way as humans do. They found that flies turned their bodies instinctively towards any perceived motion. The direction the flies turned, the scientists found, was the same as that of the motion that humans perceive in the pattern. *The perception was abolished when the elementary motion detector neurons T4 and T5 were silenced. They could also manipulate both the magnitude and direction of the fly's illusory percept by selectively making either T4 or T5 neurons non-functional (silencing).* In human volunteers, the scientists were able to manipulate the magnitude and direction of their perception by moving light edges or dark edges.





## SCIENTISTS WELCOME THESE WINGED 'INFILTRATORS'

Unlike human migrants, rare winged visitors from across India's western and eastern borders have been welcomed by naturalists and included in lists of indigenous species. Miles away from their native habitats, a Pakistani butterfly and Chinese dragonfly have been recorded by citizen scientists — non-professionals who contribute to scientific research and data collection — for the first time in the India. *The butterfly, Spialia zebra, was found in Dungarpur district of Rajasthan, far south of its known habitat of Pakistan-occupied Kashmir, Khyber-Pakhtunkhwa and Punjab province of Pakistan. The dragonfly Atratothemis reelsi was recorded in southern Arunachal Pradesh's Namdapha Tiger Reserve, about 1,170 km west of its previously known nearest locality of Xiaoqikong Park in China's Guizhou Province.* The sighting of the two insects was published in the latest issue of Bionotes, a quarterly newsletter for research on life forms. *"The zebra skipper has added to the richness of Rajasthan's orchid belt comprising Phulwari ki Nal Wildlife Sanctuary and Sita Mata Wildlife Sanctuary,"* Mukesh Panwar told The Hindu from Sagwara in Dungarpur. He collected a specimen of the zebra skipper and provided photographs for the Butterfly Research Centre at Bhimtal in Uttarakhand to record it as the first of its kind in the country. "India now has 1,328 species of butterflies. The zebra skipper is difficult to observe because it is quite small and flies rapidly low over the ground," said Peter Smetacek of the Bhimtal centre.

## SOFTER, YET MORE AUDIBLE: WHY BIRDS SANG BETTER IN LOCKDOWN

In the reduced noise pollution during the lockdown, birds sang more effortlessly and more effectively than earlier, a study published in the journal Science has found. Songbirds sing to attract mates and defend their territories. In noisy surroundings, they need to sing louder to be heard by one another. The lockdown reduced vehicle traffic and noise, potentially reducing the auditory pressures on songbirds, the authors said.

## THE DOMINANCE OF BIG TECH

*A US House of Representatives panel submitted the report of a bipartisan investigation into the working of Amazon, Apple, Google and Facebook. The 449-page report called for the big technology companies to be broken up and for a "presumptive prohibition against future mergers and acquisitions by the dominant platform".*

### Why was the House of Representatives probing big tech companies?

*These companies have been on the government radar in many countries for being big spenders and trying to steamroll competition by either buying out their rivals or pushing vendors to avoid working with their competitors.* For example, the US Congress wanted to know from Apple if it had, in order to promote an app that allows parents to limit screen time for children, thrown out a rival app on the pretence that it was not safe. *As part of reviewing the state of competition online, the US House panel from June 2019 probed Apple, Amazon, Google and Facebook, and how they controlled the flow of data for themselves as well as their competition.* It collected 1.3 million documents, listened to secret testimonies from several employees in these firms, and questioned company heads Jeff Bezos (Amazon), Tim Cook (Apple), Mark Zuckerberg (Facebook) and Sundar Pichai (Google) over the evidence that suggested the companies have exploited, entrenched and expanded their power over digital markets in anti-competitive and abusive ways.



### What are the findings?

The panel observed that the answers by Bezos, Cook, Zuckerberg and Pichai were often “evasive and non-responsive”. This, it said, raised fresh questions on the powers assumed by these big tech companies and whether they considered themselves “beyond the reach of democratic oversight”. The panel said each of these companies was now acting as a “gatekeeper” over a key channel of distribution, which meant that they had full control over what went on in their respective domains. “By controlling access to markets, these giants can pick winners and losers throughout our economy. They not only wield tremendous power, but they also abuse it by charging exorbitant fees, imposing oppressive contract terms, and extracting valuable data from the people and businesses that rely on them,” the chair of the House panel said in his remarks. In a way, the panel said, these companies ran the marketplace for their respective domains, while also competing in it. And to ensure they retain the number one position, the companies have restored to “self-preferencing, predatory pricing, or exclusionary conduct”, it noted.

### What has the panel recommended?

One recommendation is to push for “structural separations” of the big tech companies. What this essentially means is that the panel wants these companies *to be broken into smaller companies* to ensure that they would not be able to have as much influence as they have currently over the digital marketplace. Another recommendation of the panel is that these companies *be prohibited from operating in an “adjacent line of business”*. A third recommendation is that there should be a *“presumptive prohibition” against big tech companies going for mergers and acquisitions*. Zuckerberg, whose companies had bought Instagram and WhatsApp in some of the biggest deals in technology space, has been accused of using money power to outright buy competition and then pushing them aggressively against other competitors.

### What did the probe find about big tech influence in India?

The role of the of big tech companies in stifling competition in India finds mention in the US panel’s report. It refers to the various antitrust probes going on against Google in India. Google has had run-ins with regulators, especially the Competition Commission of India (CCI). In the last two years, the CCI has raised issues with Google’s commercial flight search option, its dominant position in the search marketplace, the abuse of its dominant position in the Android phone and smart television market, and others. In 2019, for example, India’s antitrust body had held Google guilty of misuse of its dominant position in the mobile Android market and said the company had imposed “unfair conditions” on device manufacturers to prevent them from using other operating systems. In its 14-page order, *CCI had held that requiring mobile phone makers to pre-install the entire Google mobile services pack was unfair*. Recently, Google has also been accused of following a high and unfair commission mechanism for apps listed on its Play Store. With the US House panel focusing on the dominance of big tech companies across the world, the companies are likely to come under more scrutiny from regulators including the CCI in India. In coming years, as India plans to regulate the use of personal and non-personal data, these tech companies could face scrutiny over how they manage and use the data they collect from users in India, according to experts. Amazon and Facebook, which are trying to enter the retail space in India, are also likely to be under the lens for the way they price their products and the space they give/deny to their competition.



### What global impact could the US panel recommendations have?

Although the recommendations of the House panel are not legally binding on either the US government or any other agency, it could set the ball rolling in the direction of more controls. For example, the panel has said Congress should bring back its culture of probing and asking tough questions of companies that seem to break monopoly and anti-competitive laws. It has also said the law on vertical mergers and overriding problematic precedents in the law should be given a rethink. These recommendations may not impact any big tech companies directly as of now, but could increase the scrutiny of regulators and probe agencies worldwide. Apart from increased federal scrutiny, big tech companies are also likely to face more questions and probes from states in the US, which have in the recent past hauled these firms up for not doing more to control their influence on day-to-day aspects of life.

### LEAVING NO OLDER WOMAN BEHIND (BJÖRN ANDERSSON - THE UNFPA REGIONAL DIRECTOR FOR ASIA AND THE PACIFIC)

Perhaps one of the terrible aspects of COVID-19 is the harm it inflicts on older persons who face multiple and compounding threats, including being physically more vulnerable than others, at greater peril of the impacts of social isolation, and at significant risk from the likely long-lasting socioeconomic shocks of the pandemic. In the Asia-Pacific region, these impacts are particularly acute, adding to the challenge of grappling with accelerating population ageing. Women, who generally outlive men, constitute the majority of older persons in the region, but represent an even greater majority of the 'oldest old' population of 80 years and over.

#### A vulnerable category of people

Even before the COVID-19 crisis, elderly women in a majority of Asia-Pacific countries were facing significant challenges, exacerbated by the fact that many societies have been moving from traditional, nuclear family-oriented patterns to far more fluid, fragmented structures. The result has been that many older women, with a higher tendency to live alone, face poverty and are more likely to lack family and other socioeconomic support. The majority of older people do not have reliable and sustained access to a caregiver. Facing non-existent or only minimal safety nets, many have already slid into poverty during the pandemic or are on the cusp of doing so. The pandemic has brought into focus the urgent need for both governments and civil society to address the complex demographic shift of population ageing, with strategic solutions. To do so successfully, we need a life cycle approach to healthy ageing, with particular emphasis on girls and women, firmly grounded in gender equality and human rights. To unpack this, let us consider a woman in her 70s in the small village where she was born and raised. As with so many of her generation, she was made to marry early, with minimum education. She had children early, pregnancies were unplanned, childbirth was risky. Her husband, many years older, died a while ago, leaving her a widow, unprepared to enter the workforce or properly fend for herself. Her children left the village for the city, adding to her isolation. This is the scenario many older women now face, with the added risks and effects of COVID-19. *But imagine if, as an adolescent, this woman had been able to complete higher education; achieve gainful employment; marry as an adult and of her own choice; have healthy children and invest in their well-being; and enjoy a secure old age.*



## Plans in place

If there are better policies, more resilient social systems and gender equality, the lives of older people, especially women, can be improved significantly. This would also allow societies to harness the valuable experiences of older persons as they age. In fact, the commitment to advance a better world in an ageing society has already been articulated by the *2002 Madrid International Plan of Action on Ageing*. This agreement commends the development of evidence-based policies that help create “a society for all ages”. *In addition, the Programme of Action of the International Conference on Population and Development (ICPD) and the 2030 Agenda for Sustainable Development Goals underscore the basis of this approach to healthy ageing.* We must collectively prioritise greater action, funding and implementation. Our mandate in the United Nations Population Fund (UNFPA) incorporates the need to enable and strengthen the self-reliance of older persons. The ICPD Programme of Action is our foundation, and our guiding principle. UNFPA is committed to helping governments in full partnership with civil society and communities. This is the Decade of Healthy Ageing as well as the Decade of Action to achieve the SDGs. As Asia-Pacific, with the rest of the world, seeks to ‘build back better’ from the devastating effects of the COVID-19 pandemic, let us seize this moment to transform the challenge of population ageing into an opportunity.

## THE UK GOVERNMENT’S ‘SEX BAN’ TO LIMIT THE SPREAD OF COVID-19

As part of its strict new Covid-19 lockdown strategy to control rising infection rates, the UK government has said that couples living apart in high-risk areas will no longer be able to meet indoors — a rule, which is widely being described as a “sex ban”. Couples and single people will be permitted to meet outdoors in some hotspots, but are expected to comply with social distancing norms and are strictly forbidden from touching one another, a spokesperson for Prime Minister Boris Johnson told The Guardian on Friday. According to the new rules, the only way people can meet during the lockdown is if they reside together already or are part of the same ‘support bubble’. With more than half of England’s population presently living in high and very high-risk zones, many residents fear that sex may be off bounds over the next few months.

### Is this the first ‘sex ban’ in the country since the pandemic started?

No, even after the government rolled out new lockdown guidelines that include a clause that bans two people from separate households meeting indoors, many residents began half-jokingly accusing the government of instituting a ‘sex ban’. The government later eased the restrictions in September by allowing people the option of forming ‘support bubbles’. However, many people quickly pointed out that the revised restrictions still ruled out casual sex. In September, the government updated its rules once again to say that social distancing was not necessary if it is “someone you’re in an established relationship with”, however they failed to specify what sort of relationships qualify. Many interpreted this rule to mean that while couples who do not live together can have sex, casual sex is still not permitted.

## INFODEMIC MANAGEMENT A SERIOUS CHALLENGE

Managing the “infodemic” has been a serious challenge during the COVID-19 pandemic, said Soumya Swaminathan, Chief Scientist, World Health Organization (WHO), on Wednesday. *Defining “infodemic” as having too much information, including false or misleading information, particularly*





*on social media, she said that it led to confusion, risk-taking and ultimately mistrust towards governments and the public health response.* She said that the WHO has been working with technology companies to address this challenge by directing the public to credible sources of information, taking down false and misleading information from online platforms, and developing chatbots in different languages that the public could use for accessing information. Dr. Swaminathan, however, stressed that tackling this was not a straightforward business as it was linked to people's belief and behaviour. Pointing out the *"shared appointments"* initiative tried by Aravind Eye Hospital in Puducherry, in which more than one patient with similar problems are provided a consultation at the same time, she said that combining this with telemedicine could bring in a paradigm change. Highlighting that telemedicine was increasingly being used during COVID-19, she said that shared consultations could provide benefits such as learning from others, higher follow-up rates, and higher compliance to medication. She said that COVID-19 had exposed existing social inequities and the importance of investing in public and primary health infrastructure. "We see examples of countries where investments in primary healthcare over the past decade or two have paid off," she said. She also emphasised the differential impact of the pandemic on women and children, and stressed on the need for governments to focus more on them. Poonam Muttreja, executive director, Population Foundation of India, highlighted the achievements of PFI in the past 50 years.

#### FELUDA TESTS TO BE AVAILABLE BY OCT. 31

The Feluda test, a coronavirus detection test developed by the Council of Scientific and Industrial Research (CSIR) and to be commercialised by Tata Sons, will be commercially available in laboratories this month. The test, which still requires a nasal swab to be collected and sent to a lab, promises to be quicker than the gold-standard test because *it does not need the expensive RT-PCR (reverse transcription-quantitative polymerase chain reaction) machine that can set back a lab by at least ₹25 lakh.*

#### CRISPR-Cas9 method

A smaller, cheaper and more portable machine called a thermocycler, which costs around ₹25,000, is employed and once the viral RNA is extracted, it takes anywhere from *45 minutes to an hour* to confirm presence of the virus. *FELUDA, that stands for FNCAS9 Editor-Limited Uniform Detection Assay*, is also unlike antigen tests in that it *uses a CRISPR-Cas9 based system* and is therefore more accurate in detecting the virus. CRISPR-Cas9 is a genome-editing tool whose discovery won the Nobel Prize for chemistry this year. *Though initially conceived to treat sickle cell disease, it can be used to hone in on a specific sequence of DNA (in this case unique to the coronavirus) and thereby infer its presence.* "Our future plans do involve being able to make it a purely home-based test but that's still some time away," Mr. Mande said.

#### USING HOLOGRAPHIC IMAGING TO DETECT VIRUSES AND ANTIBODIES

Scientists have developed a method using holographic imaging to detect both viruses and antibodies. The method is described in the journal *Soft Matter*. If fully realised, this proposed test could be done in under 30 minutes, is highly accurate, and can be performed by minimally trained personnel, the researchers said. Developed by scientists from New York University, the method uses laser beams to record holograms of their test beads. The surfaces of the beads are activated with biochemical binding sites that attract either antibodies or virus particles, depending on the intended test. Binding antibodies or viruses causes the beads to grow by a few billionth parts of a



metre. Researchers have shown they can detect this growth through changes in the beads' holograms. The test can analyse a dozen beads per second. This can mean cutting the time for a reliable thousand-bead diagnostic test to 20 minutes. The holographic video microscopy is performed by an instrument, xSight, created by Spheryx, a New York-based company co-founded by NYU's David Grier.

### 3D PRINTED NASAL SWABS EFFECTIVE IN COVID TESTING

Amid a potential shortage of nasal swabs to collect samples for coronavirus testing, researchers have come up with an alternative: 3D-printed nasal swabs. A clinical trial has provided evidence that 3D-printed alternative nasal swabs work as well, and safely, as the standard commercial nasal swabs. The results are published in the journal *Clinical Infectious Diseases*. Researchers designed, tested and produced a 3D printed nasal swab prototype. The large-scale clinical trial began in late March at three sites: Tampa General Health (Florida), Northwell Health (NY), and Thomas Jefferson University Hospital (Philadelphia). Other sites joined later. The only adverse reaction was a few instances of slight nasal bleeding. The cost of materials per 3D-printed nasal swab ranges from 26 to 46 cents; commercial swabs cost about \$1 each, the authors said.

### THE FDA HAS APPROVED REMDESIVIR TO TREAT CORONAVIRUS. WHAT DOES THIS MEAN?

The US Food and Drug Administration (FDA) approved remdesivir as the first drug to treat COVID-19, it said. The drug is designed to obstruct the replication of the virus in the body and has become the first drug to get official approval from the FDA for the treatment of the disease. Since the pandemic began, there has been debate about the efficacy of this drug, which was originally developed for treating Ebola, which is not caused by a coronavirus. So what does its approval mean and how does the FDA approve drug treatments?

#### So, what has the FDA said?

The FDA has approved the use of the antiviral drug remdesivir to treat hospitalised adult and pediatric patients of COVID-19 who weigh at least 40 kg. The agency has clearly stated that the drug should be administered only in hospitals or healthcare settings that are capable of providing acute care.

#### How does the FDA approve drugs?

In a guidance document the FDA released in May, it said that drugs to treat or prevent COVID-19 should be evaluated in *randomised, placebo-controlled, double-blind trials*. Approval of a new drug requires substantial evidence of effectiveness and a demonstration that it is safe for use by the patients. To approve a drug, the agency conducts a benefit-risk assessment that is based on scientific standards. Therefore, FDA approved remdesivir after it analysed data from three randomised, controlled phase 3 clinical trials that included patients who were hospitalised and experienced mild to severe COVID-19. One of the most important trials among these was the National Institute of Allergy and Infectious Diseases (NIAID) sponsored trial that compared 10 days of treatment with the antiviral drug versus with placebo. *The trial found that for the group that took the drug, the median days to recovery was 11 days versus 15 days in the placebo group.* Further, the odds of improvement after 15 days of treatment favoured the drug. The second trial was a phase three trial sponsored by Gilead and evaluated the safety and efficacy of the drug when administered for five days versus ten days in hospitalised COVID-19 patients who were



experiencing severe disease. The trial found that the treatment effects were the same with both treatment plans. The third trial, also sponsored by Gilead evaluated the efficacy of a 5-day versus a 10-day treatment plan in case of hospitalised patients experiencing moderate disease. The trial found that the odds of improvement at day 11 favoured the 5-day treatment plan.

#### **What are the different types of treatments for COVID-19 being studied by the FDA?**

The FDA is studying over five different treatment types for COVID-19. These include antiviral drugs such as remdesivir that stop the virus from multiplying once it's inside the body. Such drugs are used to treat diseases including HIV, Herpes and Hepatitis C among others. Other treatment types being studied are immunomodulators (supposed to control the body's immune response from going overboard), neutralising antibody therapies (should help the infected individual to fight the virus with the help of manufactured antibodies or animal-sourced antibody therapies), cell therapy (cellular immunotherapies) and gene therapy (making use of products to manipulate or modify the expression of a gene).

#### **How does remdesivir act against coronavirus?**

When the novel coronavirus enters the body, it releases genetic material, which is then copied using the body's mechanism. At the replication stage, the key viral protein is an enzyme called RdRp that makes copies of the virus and enables it to spread. Further, in order to make the copies of the genetic material, raw material from the viral RNA is broken down by another enzyme. When a patient is given remdesivir, it mimics some of this material and gets incorporated in the replication site. With remdesivir replacing the material it needs, the virus fails to replicate further. Even so, remdesivir does not prevent deaths in COVID-19 patients, the drug is simply meant to halt the replication of the virus. *A study sponsored by the WHO that studied the effects of antiviral drugs on mortality including remdesivir, hydroxychloroquine and lopinavir found that the antiviral drugs had little to no effect on hospitalised COVID-19 patients, when overall mortality, ventilator initiation and duration of stay were considered.*

#### **What are the possible side-effects of the drug?**

Possible side-effects include increased levels of liver enzymes, which can be a sign of liver injury, allergic reactions, changes in blood pressure and heart rate, low oxygen blood levels, fever, shortness of breath, wheezing, rash, nausea, swelling of the lips, around eyes or under the skin and sweating or shivering.

### HOW LONG CAN THE NOVEL CORONAVIRUS SURVIVE ON SURFACES?

The virus that causes COVID-19 can survive on banknotes, glass, and stainless steel for up to 28 days, much longer than the flu virus, Australian researchers said last week, highlighting the need for frequent cleaning and handwashing. Findings from the study by Australia's national science agency, CSIRO, appear to show that in a very controlled environment the virus remained infectious for longer than other studies have found.

### THE 3 COVID-19 VACCINE TRIALS THAT HIT A BUMP

*The quest in finding a fast and effective treatment for Covid-19 suffered twin setbacks in a span of 24 hours after two major American drugmakers — Johnson & Johnson and Eli Lilly and Company —*



*announced they were halting late-stage clinical trials over safety concerns. Eli Lilly and Company said it was halting the phase III trial, named ACTIV-3, of its coronavirus antibody drug LY-CoV555 in hospitalised patients without specifying what the safety concerns were.* Recently, US President Donald Trump touted the Lilly drug, along with the antibody treatment from Regeneron Pharmaceuticals Inc that he received for his COVID-19 treatment, as “a cure” for the disease. A day earlier, Johnson & Johnson became the second company after AstraZeneca to have halted Covid-19 vaccine trials. Johnson & Johnson, however, said it was a “study pause” and not a “regulatory hold”. AstraZeneca, which has jointly developed a vaccine with Oxford University, has resumed late-stage trials except in the US after the September adverse event. Interestingly, both J&J and AstraZeneca use a common cold virus known as adenovirus to ferry coronavirus proteins into human cells, thereby causing the body to mount an immune defense against SARS-CoV-2. However, experts have said it was not uncommon to pause drug trials to investigate safety concerns, and such actions do not necessarily indicate a serious problem. Covid-19 drugs, vaccines whose trials have been halted:

#### **Eli Lilly and Company Covid-19 antibody treatment**

As part of its antibody therapy, US pharmaceutical firm Eli Lilly has developed a drug named LY-CoV555, and sought emergency use authorisation from the US FDA earlier this month. The firm, which is jointly developing the treatment with Canadian biotech AbCellera, had begun its ACTIV-3 trial in August and is aiming to recruit 10,000 patients, primarily in the United States. The ACTIV-3 trial seeks to compare patients who receive its LY-CoV555 drug plus Gilead’s antiviral drug remdesivir with those who receive remdesivir alone.

**What is LY-CoV555:** *The drug LY-CoV555 is basically a manufactured copy of an antibody from a patient who recovered from Covid-19. It is administered intravenously by drip. Known as monoclonal antibodies, such treatments work by recognising and locking on to foreign invaders to block infection of healthy cells. They are best known for treating certain types of cancer and autoimmune diseases.*

**Recent research:** Clinical trial data released by Eli Lilly has shown that its therapy may help reduce hospital stays and emergency room visits for Covid-19 patients. While filing for emergency use authorisation, the firm had asked US regulators to give the drug to higher-risk patients recently diagnosed with mild to moderate Covid-19 symptoms.

#### **Why was it halted?**

Without releasing any information on the adverse event, Lilly said on Tuesday it had paused its clinical trial for the Covid-19 drug “out of an abundance of caution” over a potential safety concern. “Out of an abundance of caution, the ACTIV-3 independent data safety monitoring board (DSMB) has recommended a pause in enrollment,” Reuters quoted Lilly spokeswoman Molly McCully as saying. “Lilly is supportive of the decision by the independent DSMB to cautiously ensure the safety of the patients participating in this study,” the statement said. However, Reuters reported that US drug inspectors uncovered serious quality control problems at an Eli Lilly pharmaceutical plant that was ramping up to manufacture the Covid-19 drug.

#### **Johnson & Johnson coronavirus vaccine**

Johnson and Johnson had begun a 60,000-person phase III trial of its JNJ-78436735 vaccine last month and said it is likely to submit results by the end of the year or early 2021. The antidote





stands out from other frontrunners like Moderna or Pfizer Inc since it is the first one that could potentially be a single-shot vaccine.

**What is JNJ-78436735 vaccine:** *The vaccine is based on a single dose of a human adenovirus, known as Ad26, which causes common cold. The virus has been modified so that it cannot replicate and is combined with a part of the coronavirus called the "spike protein" that it uses to penetrate human cells. J&J had used the same technology in its Ebola vaccine.*

**Recent trial results:** An early-to-mid stage clinical trial showed that a single dose of the vaccine induced a strong neutralising antibody response in nearly all participants aged 18 years and older and was generally well-tolerated. Participants aged 65 years of age also showed strong humoral and cellular immune responses.

#### Why was it halted?

Johnson & Johnson has said it temporarily paused clinical trials of its vaccine due to an "unexplained illness" in a study participant. J&J said it was not clear if that person was given the vaccine or a placebo. "The participant's illness is being reviewed and evaluated by an independent data and safety monitoring board as well as the company's clinical and safety physicians," the company said in a statement. The pause — decided by the company and not US regulators — basically means the firm will temporarily halt recruitment and dosing of participants.

#### AstraZeneca-Oxford coronavirus vaccine

Late-stage trials of the Oxford University's ChAdOx1 vaccine (also christened AZD1222 and Covishield in India) are taking place in the UK, India, South Africa and Brazil. Trials, however, are on hold in the US. The vaccine candidate may get required clearances by Christmas in the UK, a report in The Times said.

**What is ChAdOx1 vaccine:** *The vaccine incorporates the same approach as J&J, but uses a genetically engineered chimpanzee adenovirus.*

**Recent trial results:** A report on early-stage human trial data of the vaccine candidate showed it had triggered a dual immune response in humans. The vaccine induced neutralising antibodies that rendered the virus non-infectious in "all participants" who had been administered a second dose, a paper published in The Lancet said.

#### Why was it halted?

On September 9, the vaccine trials were halted after one of the participants in the UK developed an "unexplained illness" in an adverse event. The participant reportedly had developed a serious spinal inflammatory syndrome called transverse myelitis. The Serum Institute of India, which is sponsoring mid- and late-stage human clinical trials for the vaccine candidate in India, also halted trials a day later. Trials, however, resumed in the UK and India on September 12 and September 22 respectively.



## SOLIDARITY TRIAL DAMPENER: WHAT DOES THIS MEAN FOR THE DRUGS THAT HOPES WERE PINNED ON?

The World Health Organization (WHO) made available interim results from the Solidarity Therapeutics Trial — a large-scale global trial studying the effectiveness of various repurposed therapies in Covid-19 treatment. The findings put a dampener on expectations from these therapies — including remdesivir, once seen as promising.

### What is the Solidarity Trial?

The world's "largest" multinational human trials on Covid-19 therapeutics, it was initiated by WHO and its partners in March to help find an effective treatment for Covid-19. It covers four repurposed drugs or drug combinations — remdesivir, hydroxychloroquine, lopinavir/ritonavir and interferon (in combination with rotinavir and lopinavir). The study spans over 400 hospitals in more than 30 countries and looks into the effects of these treatments on various indicators, including their ability to prevent deaths and shorten hospital stays. The trial involved more than 11,300 participants. The main aim was to help determine whether any of these repurposed therapies could at least moderately affect in-hospital mortality, and whether any effects differed between moderate and severe disease, said Dr Sheela Godbole, national coordinator of the Solidarity Trial in India. The initiative included 26 trials in parts of India with a high burden of cases. As of October 15, 937 hospitalised Covid patients were participating, Dr Godbole said.

### What have the trials found?

*None of the drugs was able to prove benefits across the parameters studied, especially in reducing mortality among hospitalised patients. The interim results, made available on a pre-print server, said these drugs had "little or no effect" on hospitalised Covid-19 patients "as indicated by overall mortality, initiation of ventilation and duration of hospital stay. Drugs like hydroxychloroquine and lopinavir, in fact, had already been dropped over the course of the last six months for not showing much promise.*

### What are the findings on remdesivir?

"The mortality findings contain most of the randomized evidence on Remdesivir and Interferon, and are consistent with meta-analyses of mortality in all major trials," the paper stated. Interferon was dropped from the trial on Friday. The findings struck a nerve with American biopharmaceutical firm Gilead Sciences, which developed and patented remdesivir. In a statement, it said the emerging data "appear inconsistent" with the "more robust" evidence from "multiple" other studies on remdesivir's clinical benefits that have been published in peer-reviewed journals. It said at least three randomised, controlled clinical trials have demonstrated remdesivir's "benefits". Other experts have questioned the findings of the trials cited by Gilead Sciences. Dr Srinath Reddy, president of the Public Health Foundation of India and a member of the executive group of the Solidarity Trial's steering committee, referred to a trial on over 1,000 patients in the US. "The numbers were relatively small for a clinical trial — and it turned out that the remdesivir group had better prognostic indicators than the control arm. So, in a sense, we can't say time to recovery was because of remdesivir and not due to the other factors. "Personal experiences are valuable. However, that does not help to compare in the clinical setting. The Solidarity Trial has commented on the value of remdesivir in hospitalised patients," said Dr Soumya Swaminathan, WHO Chief Scientist.



### What now for Covid-19 therapeutics, pending a vaccine?

The findings don't necessarily impact the use of other drugs and assisted therapies that have been proven to help reduce deaths and improve clinical outcomes, including oxygen and steroids like dexamethasone, according to experts. Newer therapies like antibody cocktails may also be in focus as part of the Solidarity Trial going forward. "We are continuing with the Solidarity Trial and looking at immuno modulators like repurposed anti-cancer drugs and monoclonal antibodies," said Dr Swaminathan.

### HOW IS THE NOVEL CORONAVIRUS LIKELY TO BEHAVE IN WINTER?

After surviving the summer and the monsoon, how will SARS-CoV-2 behave in winter? While the World Health Organization (WHO) says that there is no reason to believe that cold weather can kill the coronavirus, the jury is still working on to find out the exact impact of temperature on the coronavirus. Experts agree, in fact, that most of the evidence for seasonal viruses indicate they are more active during the cooler months of the year. For instance, in many parts of the world, there is a winter seasonality for influenza, and in India and regions of similar climate, there is a monsoon peak and a smaller winter peak. Experts, however, also point out that there has been no definite trend for Covid-19 yet.

### ANTI-MICROBE DRUG CAN FIGHT CORONAVIRUS

An affordable anti-microbial drug used to treat stomach ulcers and bacterial infections has shown promise in combating the coronavirus in animals, scientists in Hong Kong announced. *Researchers set out to explore whether metallo drugs — compounds containing metal that are more commonly used against bacteria — might also have anti-viral properties that could fight the SARS-CoV-2 coronavirus.* Using Syrian hamsters as test subjects, they found that *one of the drugs, ranitidine bismuth citrate (RBC), was "a potent anti-SARS-CoV-2 agent".* "RBC is able to lower the viral load in the lung of the infected hamster by tenfold," Hong Kong University researcher Runming Wang told reporters on Monday as the team presented their study. "Our findings demonstrate that RBC is a potential anti-viral agent for COVID-19." The Hong Kong scientists said RBC was a commonly available drug used against stomach ulcers with a safe and comprehensive pharmacological profile. "It's been used for decades, so it's pretty safe," Mr. Wang said. They added that their research has been published in the journal Nature Microbiology.

### BLOCKING KEY PROTEIN MAY GUARD AGAINST SEVERE COVID-19

A new study suggests that blocking a human protein may curtail the potentially deadly inflammatory reactions that many patients have to the novel coronavirus. The protein is known as factor D, and the researchers say there may already be drugs in development for other diseases that can block this protein. The study, by Johns Hopkins Medicine researchers, is published in the journal Blood. Scientists already know that spike proteins on the surface of SARS-CoV-2 are the means by which it attaches to cells targeted for infection. *The spikes first grab hold of a molecule called heparan sulfate, then uses the human protein ACE2 as its doorway into the attacked cell.* In a series of experiments, researchers in the new study used normal human blood serum and three subunits of the SARS-CoV-2 spike protein to discover exactly how the virus hijacks the immune system and endangers normal cells. The team found that by blocking factor D, they were able to stop the destructive chain of events triggered by SARS-CoV-2.



## A COCKTAIL OF ANTIBODIES TO FIGHT COVID-19

*Swedish-British drug giant AstraZeneca recently said it was moving an antibody combination developed for Covid-19 treatment into late-stage human trials. The firm has also received around \$486 million from the US government for the development and supply of this combination.*

### What is this therapy?

AZD7442, a similar class of the drug cocktail used to treat US President Donald Trump recently, is a combination of two long-acting monoclonal antibodies (LAAB). AstraZeneca developed it using its proprietary technology with the aim of preventing Covid-19 infection for a long duration. LAABs mimic natural antibodies, and a combination of LAABs could be “complementary” to vaccines as a prophylactic agent, according to AstraZeneca. This means it could either be used on people for whom a vaccine may not be appropriate or it could be given as added protection for those at high-risk, it said.

## VACCINES WITH A GLOBAL COMMON GOOD GUARANTEE (MUHAMMAD YUNUS AND JOSÉ RAMOS-HORTA ARE NOBEL PEACE LAUREATES)

History has shown us how to eradicate diseases for the global good of our own countries — but also for all. The successful eradication of major diseases such as smallpox or polio required a global effort and the availability of vaccines to all who needed it anywhere in the world. *When Dr. Jonas Salk came up with a polio vaccine that was approved for the general population to use, he refused to patent it. When asked who owns the patent, his answer was this. “Well, the people, I would say,” he told journalist Edward R. Murrow in 1955. “There is no patent. Could you patent the sun?” We need this sort of leadership — a leadership which will guide us away from incredible profits to humanity’s survival, and lay stress on the need for the open source production of vaccine without any commercial ownership of any COVID-19 vaccine.*

### A message for the rich

For the rich world, we would say that this proposed act of human solidarity, to ensure that medicines and vaccines get to the whole human family simultaneously, is really in their own self-interest; not just an act of charity. Surely, nobody will want the virus persisting in many parts of the poor world ready to re-infect the rich world and create new surges where it was under the pleasant thought that the rich had protected themselves from the pandemic. Compared to the cost of the trillions that have gone in the stimulus packages, that is a minuscule cost. The positive news is that we are confronted with clear and simple action that comes at an eminently affordable cost that would save hundreds of thousands of lives, if not millions of future lives. And that is in the self-interest of everyone, especially the rich world. Already, many Nobel Laureates and global personalities have signed on to an Appeal to Declare the COVID 19 Vaccines as a Global Common Good (<https://bit.ly/3iPo8Sz> and <https://bit.ly/3lAQEc6>). We now urge all the countries of the world to unite to pass a resolution at the United Nations to make novel coronavirus vaccines as a product without any commercial ownership to turn this collective wish into reality. This must be done soon.





## CHINA, SOUTH KOREA JOIN WHO'S COVAX FACILITY

A WHO-led initiative to make coronavirus vaccine accessible to all received a boost with China announcing its intention to join the initiative. The COVAX facility seeks to accelerate the development and production of coronavirus vaccines through pooling in resources from the member countries, and then ensure that it is equitably distributed amongst them. It is also meant to be aG counter to the individual efforts of some rich countries, like the United States, which have been getting into bilateral billion-dollar deals with vaccine manufacturers for prioritised and assured supply of doses, when these vaccines become available. The United States, for example, has booked 800 million doses through six developers. The United Kingdom has booked 350 million doses. The prioritised supplies during the initial months of production of the vaccine could potentially starve other countries of the vaccines, because of limited production capacities. *The COVAX facility also intends to get into similar deals with vaccine manufacturers, but the vaccines that come out of it would be meant for all the member countries, and the initial supplies would be restricted to a maximum of 20 per cent of the most vulnerable population groups in each of these countries.* The idea is to ensure that those who need the vaccine the most, in every part of the world, get access first. But the COVAX facility has been struggling to find enough money to fund those deals. WHO has said the initiative requires US\$ 16 billion in total to get going, but all it has right now in pledges is about US\$ 2 billion. It is not clear how much is China willing to bring on the table. A statement issued by the Chinese Foreign Ministry did not specify the financial contribution that it was willing to make to the COVAX facility, but Reuters reported that Chinese President Xi Jinping had committed US\$ 2 billion in May this year for the pandemic over the next two years. China's decision to join the COVAX initiative could be prompted by a desire to earn some international goodwill at a time when it is facing intense criticism for its handling of the coronavirus outbreak. The move could also help China in pushing its own vaccines through the COVAX facility. Right now, there is only one Chinese vaccine candidate in the list of nine that the COVAX facility is backing. China has the maximum number of vaccines at the clinical trial stage, at least nine. WHO director general Tedros Ghebreyesus said on Friday that South Korea had also decided to join the COVAX initiative this week. *So far, 171 countries and economies have joined the platform.* "Initially, supply of vaccines will be limited. But by sharing supply equitably, countries and economies that are part of COVAX can distribute vaccines simultaneously to priority populations, including health workers, older people and those with underlying conditions. The aim of COVAX is to ensure that 2 billion doses are manufactured and distributed equitably by the end of 2021," Ghebreyesus said.

## WHAT IS CAT QUE VIRUS FROM CHINA? DOES IT INFECT HUMANS?

In a study published in July in the Indian Journal of Medical Research, scientists from the Pune-based Maximum Containment Laboratory and ICMR-National Institute of Virology have noted the presence of antibodies against the Cat Que virus (CQV) in two human serum samples.

The presence of the Cat Que virus has been largely reported in Culex mosquitoes in China and in pigs in Vietnam.

### What is the Cat Que virus?

For CQV, domestic pigs are considered to be the primary mammalian hosts. Antibodies against the virus have been reported in swine reared locally in China, which indicates that the virus has



formed a “natural cycle” in the local area and has the ability to spread in pigs and other animal populations through mosquitoes. A paper published in the journal Vector Borne and Zoonotic Diseases in 2015 says that CQV belongs to the Simbu serogroup and infects both humans and economically important livestock species. It was first isolated in 2004 from mosquitoes during the surveillance of arbovirus activity in northern Vietnam. In this study, researchers reported a CQV strain (SC0806), which was isolated from mosquito samples collected in China in 2006 and 2008.

**So, is this virus dangerous?**

It is not clear. Other viruses that belong to the same genus as CQV and are similarly transmitted through mosquitoes include the Cache valley virus that can cause meningitis, the La Crosse virus that can cause paediatric encephalitis, the Jamestown Canyon virus that causes Jamestown Canyon encephalitis and the Guaroa virus that causes febrile illness.



# DreamIAS