

CURRENT AFFAIRS for UPSC

8TH TO 14TH AUGUST, 2021

DreamIAS



INTERNATIONAL

THE LOOKING GLASS OF HISTORY IN AFGHANISTAN (VIVEK KATJU - A FORMER DIPLOMAT)

Mikhail Gorbachev became General Secretary of the Communist Party of the Soviet Union in March 1985. By then Soviet forces had been in Afghanistan for over five years. They had failed to successfully combat the mujahideen groups, most of whom were based in Pakistan. The mujahideen received crucial support from the United States but the critical factor was their Pakistan base. *Secure with the U.S. fully behind it, Pakistan knew that the Soviet Union would not risk crossing the Durand Line to take armed action on Pakistani territory.* In his insightful book, *The Great Game in Afghanistan: Rajiv Gandhi, General Zia and the Unending War*, Kallol Bhattacharjee records that immediately after becoming the Soviet Union's supreme leader, Mr. Gorbachev had met the Pakistani dictator in Moscow. He had warned him that "Moscow would ensure that Pakistan faces the consequences of backing the mujahideen". Zia was unfazed by the threat because he knew that the new Soviet leader was posturing.

From the USSR to the U.S.

Thirty-two years later, the wheel of history had turned. It was the United States which was bogged down in Afghanistan. For 16 years it had, despite a military surge, failed to quell the Taliban insurgency even though the group merely had the support of Pakistan. *The reason for the U.S.'s failure was no different from that of the Soviets. It could not carry the war into the territory of Pakistan, now armed with nuclear weapons; destabilising such a state would have incalculable consequences.* Now, a new U.S. leader, President Donald Trump announcing his Afghanistan policy in August 2017, said, "We can no longer be silent about Pakistan's safe havens for terrorist organizations, the Taliban, and other groups that pose a threat to the region and beyond. Pakistan has much to gain from partnering with our effort in Afghanistan. It has much to lose by continuing to harbor criminals and terrorists (<https://bit.ly/3f1giLP>)." He followed this with a tweet on new year's day 2018 accusing Pakistan of "lies and deceit". For sometime, the Pakistani leadership was concerned by the mercurial Trump but then realised that his were empty threats, signs of the U.S.'s frustration. It continued with its Afghan policy as before.

A thread in these approaches

Within a year of taking over, Mr. Gorbachev was convinced that the Soviet Union's Afghan quest was futile. In February 1986 he told the Communist Party that Afghanistan had become a "bleeding wound". He now decided to prepare for the retreat of the Soviet forces. His aim was to have an orderly withdrawal. *He also abandoned the idea of leaving behind a "socialist" government and sought to have a broad-based one which would include the mujahideen.* Fourteen months after warning Pakistan of serious consequences in his August 2017 policy announcement, *Mr. Trump too caved in and authorised talks between U.S. diplomats and Taliban representatives in Doha.* In these talks, the U.S.'s principal objective was to secure a Taliban guarantee that it would not harbour international terrorist groups in territories under its control. And, *like the Soviet Union over three decades ago the U.S. too accepted the idea of an Afghan interim administration which included the Taliban.* The *February 2020 U.S.-Taliban agreement* (<https://bit.ly/3xw1yFG>), which *Mr. Trump's successor President Joe Biden has honoured, marked the strategic defeat of the world's*



pre-eminent global power. It was reminiscent of the Geneva Accords of 1988 which were a strategic defeat of a then superpower, the Soviet Union. They both paved the way for the safe withdrawal of foreign forces. From 1986 to 1988, the Soviets tried hard to put in place an inclusive government in Afghanistan. Najibullah, a forceful if brutal Afghan leader of Pashtun ethnicity, became President in 1986. He virtually abandoned communist ideology for Afghan nationalism and stressed the country's Islamic heritage. He reached out to all sections of Afghan society. The U.S. and Pakistan seemed to go along with the idea of an inclusive government as long as the final assurance of Soviet withdrawal was not gained.

The Indian initiative

Significantly, *India too advocated a broad-based government and Prime Minister Rajiv Gandhi was in the forefront in advocating it. India took active measures, including contacting the former King Zahir Shah, living in exile in Rome, to lead it. This annoyed the U.S. and Pakistan. Both wanted India to assume a non-operational position on Afghan developments and restrict its role to pressing the Soviets to leave.* Once it became clear that Pakistan wanted a mujahideen government without Najibullah's participation or Zahir Shah's leadership, *India decided to fully support the Najibullah government. This even before the last Soviet soldier left Afghanistan in February 1989.* As part of its outreach to all Afghan parties in 1987 and 1988, India was also in contact with the mujahideen. In February 1988, Rajiv Gandhi met Peter Galbraith, a staffer with the U.S. Senate Committee on Foreign Relations, and whom he had known from his youth. Mr. Bhattacharjee records, "To Galbraith's surprise, Rajiv said that India had reached out to all sections, including the mujahideen inside Pakistan and Afghanistan and was now assessing the entire formula for a broad-based government in Kabul". This shows that Rajiv Gandhi pursued the requirements of realpolitik: even while firmly supporting Najibullah he was not averse to acknowledge, at the highest political level, that if Indian interests demanded so, India would not hesitate to do business with any Afghan group howsoever regressive its ideology. *India's 2021 Afghan dilemma mirrors, to an extent, the one it faced post the Soviet withdrawal in 1989.* There is a major difference though. In 1989, Kabul was led by a strong Afghan leader, Najibullah, who had the capacity to hold the situation together with Soviet assistance. That was forthcoming, for while the Geneva Accords provided that neither side would help their protégés, they continued to do so. Thus, *for three years, Najibullah kept the mujahideen at bay. It was with the collapse of the Soviet Union in 1991 that the political unity of Kabul frayed. With that the army fragmented, paving the way for the mujahideen to take over in April 1992. Soon enough, intra-mujahideen conflict resulted in complete instability in the country. That set the stage for the rise of the Taliban with Pakistani assistance.* The *internecine mujahideen hostilities, fortunately, provided India strategic opportunities to influence the ground situation in Afghanistan along with Iran and Russia.* But fortune does not smile at all times.



NATION

ROAD AHEAD FROM GOGRA

After the talks on July 31, India and China have taken one more step towards restoring peace and normalcy on the LAC by disengaging at **Gogra**. It is, however, only one step, and the road ahead towards returning to the status quo of April 2020, before the tensions of last summer upended years of a carefully managed even if uneasy peace along the LAC, remains uncertain. It has taken 12 rounds of military-level talks to see both sides disengage and put in place buffer zones in the **Galwan Valley**, the site of the June 2020 clash that marked the worst violence since 1967, **Pangong Lake**, and now **Patrolling Point 17 in Gogra**. The disengagement process at PP17 took place on August 4 and 5, with a return to permanent bases. The next round of talks will discuss PP15 in Hot Springs. **Demchok**, where China has transgressed in relatively smaller numbers than the deployments seen in Pangong Lake, also remains unresolved. Beijing has appeared unwilling to discuss the strategically significant **Depsang plains**, where the Chinese side has been blocking Indian patrols. **The buffer zone model, where both sides temporarily cease patrolling in disputed areas, has appeared to work so far in keeping the peace.** It is, however, only a temporary measure, and one that India should not accept as permanent as it would prevent India from enforcing its territorial claims and favour the PLA, which can deploy faster in larger numbers owing to more favourable terrain and better logistics. The next step will be full de-escalation, and a withdrawal of some of the new forward deployments that have come up close to the LAC. India has signalled that it is prepared for the long haul; its message: relations cannot return to normal without a full restoration of normalcy on the borders. While the strategic motivations of China's border deployments last year are not clear, the tactical objectives are not difficult to ascertain. **Since the 2017 Doklam crisis, China has consistently stepped up building new permanent airbases and air defence units closer to the LAC, with at least 13 new positions coming up since then, according to an analysis of satellite images from Stratfor.** India has been moving to rapidly upgrade its own infrastructure to close the gap. The result is an entirely changed security dynamic along the LAC. There is a need to come up urgently with new protocols and confidence-building measures, as both sides gradually resume patrolling in the buffer zones. **The multiple transgressions by China and the violence of last year have set back years of efforts to carefully manage the borders and thrown into doubt whether the four agreements regulating the behaviour of both sides still remain valid.** While the recent moves towards restoring the peace are certainly welcome, finding a more long-lasting solution to ensure peace along the LAC will present a taller challenge.

TILL DEBT DO US PART: PUNJAB'S 'CONTRACT MARRIAGES' ARE CASES OF CHEATING

According to official data, 4,266 complaints were received by the NRI wing of the Punjab police in 2019, which included cases of cheating, matrimonial dispute and property dispute. The complaints were filed by both men and women. In 2020, the number of complaints stood at 3,829, while in 2021, so far, 2,248 complaints have been lodged. A large number of people, especially youth from Punjab, travel abroad in the hope of a better life. Marriages of convenience are known to facilitate these aspirations. To do this, the bride, the groom or their families enter into an informal contract in which the boy, or his family, is willing to pay for the girl's education and travel abroad, provided that once she completes her education and gets a Permanent Residency (PR) in



the foreign country, she will apply immediately for a spouse visa. However, many young men find that “the women go abroad and dupe” them. “It is basically an arrangement to facilitate the immigration of boys who are not scoring good grades in the IELTS. In certain countries, one can take spouses along, but in some others, it is not allowed. Canada has certain conditions and it is only after fulfilling those conditions that spouses are given a visa. Hence, the cases of cheating surrounding Canada are a tad higher,” A.S. Rai, Additional Director-General of Police (NRI Affairs), told The Hindu. Mr. Rai said it had been observed that the cases were not of matrimonial dispute, but instead that of cheating “where one party has entered into a contract with the other person, who has the promised delivery of some service, and one has paid a certain amount of money, but the person has rescinded on that contract”. “In such cases, we check the financial transactions. The finances have to be routed through legal channels, for instance, air tickets have been purchased, university fees paid, etc. We are then able to establish a case of cheating,” he said. “Around 2.5-3 lakh students move abroad annually from Punjab, apart from the 2 lakh who leave for jobs, etc. The trend of going abroad soon after passing Class 12 slowed down in 2020 because of the pandemic.” Mr. Rai added that the Punjab government was cognisant of such cases, and the ‘Ghar Ghar Rozgar and Karobar Mission’ provides free counselling for youth interested in foreign study. The initiative is beneficial for Punjabi youth, he said.

HUMAN RIGHTS AT RISK IN POLICE STATIONS

Chief Justice of India N.V. Ramana on Sunday said police stations pose the “highest threat” to human rights and dignity, which are “sacrosanct”. “The threat to human rights and bodily integrity is the highest in police stations... Going by recent reports, even the privileged are not spared third-degree treatment,” the Chief Justice said. **Custodial torture and police atrocities still prevail despite constitutional guarantees, he said.**

A word of advice

Lack of effective legal representation at police stations is a huge detriment to arrested or detained persons. The first hours of arrest or detention often decide the fate of the case for the accused, the CJI said. He was speaking at the release of the National Legal Services Authority’s legal services app and vision statement at Vigyan Bhavan. **Chief Justice Ramana had a word of advice for his fellow judges. He noted that if the judiciary wants to gain the trust of the poor and the vulnerable, it has to assure the marginalised that it exists for them. For the longest time, he noted, the vulnerable sections have lived outside the system of justice.**

Faith of citizens

“If we want to remain as a society governed by the rule of law, it is imperative for us to bridge the gap of accessibility to justice between the highly privileged and the most vulnerable. For all times to come, we must remember that the realities of socio-economic diversity which prevail in our nation cannot ever be a reason for denial of rights. Let our past not determine our future...”

ADOPTION NOT LIMITED BY RELIGION

The Delhi High Court has declared a Christian couple, both U.S. citizens, as ‘adoptive parents’ to a minor girl born out of Hindu parents while reprimanding them for trying to adopt the child under

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



a wrong law. The High Court reiterated that Christian and Muslim couples could not adopt a Hindu child under the Hindu Adoptions and Maintenance Act (HAMA), as was sought to be done in this case. "The Adoption Deed drawn up under the HAMA is invalid as the parties are Christians and not Hindus," Justice Asha Menon said, taking note of the fact that the child, now more than six-years-old, had been under the custody of the adoptive parents since her birth. Justice Menon said the child was being well taken care of by the foster parents and their family and hence "there is no cause to remove the child from their charge and custody." The High Court said the personal law of the Hindus recognised adoption. *"Therefore, the adoption ceremony known as 'Datta Homam', where the biological parents voluntarily surrender and hand over the child to the recipient, following religious ceremonies, was considered sufficient to result in a valid and legal adoption,"* it said. The relationship of the biological family to the child given in adoption extinguished when this ceremony was conducted. However, this right to adopt had been brought under the HAMA, which laid down certain limitations on who could adopt and who could be adopted and what were the other conditions for a valid adoption. HAMA was applicable only to Hindus, and specifically provided that it applied to "any other person who is not a Muslim, Christian, Parsi or Jew by religion". However, Justice Menon said that a person interested in adopting a child was not limited by his or her religion, if adoption was sought under the Juvenile Justice (Care and Protection of Children) Act.

CBI ARRESTS FIVE FOR POSTING 'DEFAMATORY' CONTENT AGAINST JUDGES

Two days after CJI N V Ramana criticised the CBI for not helping the judiciary in matters relating to the security of judges, the agency on Sunday said it has arrested five people for allegedly posting defamatory content against the judiciary in Andhra Pradesh. The CBI said it arrested two individuals on Saturday, a day after the CJI's remarks, and three earlier. The investigative agency said it has also questioned a Member of Parliament and a former MLA from Andhra Pradesh in connection with the case. "The Central Bureau of Investigation has arrested two more accused on 07.08.2021 in an on-going investigation of a case relating to making derogatory posts on social media against judges and the judiciary," the CBI said in a statement. The accused, identified as Pattaru Aadarsh and Lavanuru Samba Siva Reddy, were produced before a Guntur Court in Andhra on Sunday. CBI had earlier arrested Dhami Reddy Konda Reddy, Pamula Sudhir and Lingareddy Rajshekhar Reddy in the case. Sources said it has earlier questioned YSR Congress MP Nandigam Suresh and former MLA Amanchi Krishna Mohan earlier. Criticising the CBI and IB, the Supreme Court had on Friday said that the agencies are "not helping the judiciary at all" in matters relating to security of judges. It also said that the police and CBI do not respond to complaints from judges. Heading a two-judge bench which took up the suo motu case registered by the Supreme Court in connection with the death of Dhanbad Additional Sessions Judge Uttam Anand, CJI Ramana had said, "There are several cases in the country which involve gangsters and where high profile people are accused" and that judges are sometimes "threatened mentally also by sending messages on WhatsApp, SMS" or harassed through social media posts. The CBI had registered a case on November 11, 2020 against 16 accused and taken over the investigation of the case in connection with the 12 FIRs by the CID, Andhra Pradesh in pursuance of the orders of High Court of Andhra Pradesh. The original FIRs were registered on the complaints from the Registrar General of the high court. "It was alleged that the accused, by intentionally targeting the Judiciary, made derogatory posts on social media platform against Hon'ble Judges and Judiciary, following some Court verdicts delivered by the Judges of Hon'ble High Court of Andhra Pradesh,"

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



the CBI said in a statement. “After registration of the case, CBI traced 13 of the 16 accused named in FIR in the case on various digital platforms. Three out of them were found to be abroad. CBI so far examined 11 out of above 13 accused persons and arrested 5 out of them. Evidence against remaining 6 accused persons is being evaluated for further necessary legal action. CBI is pursuing to secure the presence of two other accused said to be abroad, for their examination,” it added. Searches were also conducted by the CBI at the premises of accused persons which led to the recovery of several incriminating documents, it claimed. “It was also found that one accused was allegedly using a passport with a name different from his real identity. To investigate larger conspiracy, CBI has also examined certain persons including an MP, ex-MLA and also continued investigation into the role of other persons who were not mentioned in the FIR,” it said. The CBI also said that it has taken action to get objectionable posts removed from social media platforms. A lot of such posts/accounts were removed from the internet, it stated. “Investigation is continuing including through the channels of MLAT, INTERPOL to collect evidence from abroad,” it said.

UNDERMINING JUSTICE

It was only a matter of time before the controversy over the Union government delaying judicial appointments hit the headlines again. In recent days, the Supreme Court has voiced concern over the Government’s lackadaisical attitude towards the large number of vacancies in High Courts and tribunals. Chief Justice of India N.V. Ramana confronted the Government with a list of 240 vacancies in various tribunals. He asked rather bluntly whether there was a plan to close down some tribunals. Many tribunals lack presiding officers, and recommendations made by selection committees have not been acted upon. The vacancies in High Courts are at a staggering 455, as on August 1. It appears that exhortations from the courts, and even a judicial order from the top court in April — fixing time-frames for the Intelligence Bureau and the Government to process names forwarded by the Collegium for making appointments to the High Courts or returning files and for accepting names reiterated by the judges’ body — has not imparted a sense of urgency. A two-judge Bench has noted that the Centre’s delay in making appointments to the High Courts is adversely affecting the adjudication of commercial disputes. *The judiciary’s concern over the vacancies in the tribunals is quite justified, as the jurisdiction previously exercised by High Courts is now being exercised by the tribunals, and the failure to adjudicate or dispose of disputes in these fields would amount to denial of justice to the parties. The present regime’s eagerness to undermine the independent functioning of tribunals is quite apparent.* It has been repeatedly framing rules that seek to provide for greater executive control over the tenure, emoluments and conditions of service of those manning the tribunals. If specialisation, domain expertise and relatively quicker adjudication are the reasons for which certain kinds of disputes are being resolved through tribunals, these purposes are lost if these bodies are rendered nearly dysfunctional through a large number of vacancies. To compound the problem, the Union government has been inexplicably reluctant to create a national body for overseeing the work related to the appointment of members on tribunals as well as the appraisal of their functioning. As far as higher judiciary appointments are concerned, there is little to enlighten the public on what is causing the delay. Whether it is a dispute over the undoubtedly problematic memorandum of procedure, or the desire of the executive to subject the Collegium recommendations to its own political scrutiny is not clear. In any case, the delay is causing great harm to India’s justice delivery system.



HC NOD MUST TO CLOSE CASES AGAINST LAWMAKERS

Questioning the Centre's commitment towards the speedy trial and prosecution of criminal politicians, the Supreme Court on Tuesday directed that a criminal case against an MP or MLA can be withdrawn only after getting the consent of the State High Court concerned. *"We deem it appropriate to direct that no prosecution against a sitting or former MP/MLA shall be withdrawn without the leave of the High Court... Various State governments have resorted to withdrawal of numerous criminal cases pending against MP/MLA by utilising the power vested under Section 321 CrPC. The power under Section 321 CrPC is a responsibility which is to be utilised in public interest, and cannot be used for extraneous and political considerations. This power is required to be utilised with utmost good faith to serve the larger public interest," a three-judge Bench led by Chief Justice of India N.V. Ramana directed. The court mulled the formation of a Special Bench to monitor the progress of investigation and trial of criminal cases involving politicians.* The court agreed to several suggestions given by amicus curiae Vijay Hansaria and advocate Sneha Kalita in a report, including a freeze on the transfer of judicial officers trying criminal cases involving lawmakers. "To ensure expeditious disposal of pending cases, it is necessary for this court to direct the officers presiding over Special Courts or CBI Courts involving prosecution of MPs or MLAs to continue in their present posts until further orders. This direction, barring transfer of Judicial Officers, will be subject to their superannuation or death," the court directed. The court accepted Mr. Hansaria and Ms. Kalita's recommendation to adopt video conferencing facilities to examine witnesses and for the release of funds to establish and improve virtual court facilities. It voiced doubts about the government's resolve to bring criminal politicians to justice. The Bench pointed to how central government agencies like the Enforcement Directorate have filed sketchy affidavits about their cases against sitting and former MPs and MLAs.

Status report

"You delay even in filing status reports... This report filed by the ED just mentions some random names and random cases... There are no details about the States or which is the oldest case..." Chief Justice Ramana addressed Solicitor General Tushar Mehta, appearing for the government. "We are committed. There is no reluctance on our part, maybe just a lack of coordination... The government is committed to ensure speedy investigation and prosecution of elected representatives involved in criminal cases," Mr. Mehta assured the court. The Bench gave the Centre a last opportunity to submit detailed reports on the cases registered by CBI, ED and other central agencies against MPs and MLAs. These cases range from corruption to money laundering. The court listed the case for arguments on August 25.

PARTIES GET 48 HOURS TO PUBLISH CANDIDATES' CRIMINAL RECORDS

The Supreme Court on Tuesday warned Parliament that the nation is losing patience with the advent of criminals in politics even as it imposed fines on major political parties, including the BJP and the Congress, for covering up from voters the criminal past of the candidates they fielded in the Bihar Assembly poll last year. The court had directed political parties to publish the criminal history, if any, of their election candidates on the homepage of their websites under the caption 'Candidates with criminal antecedents' within 48 hours of their selection.



'Nation losing patience'

"The nation continues to wait, and is losing patience. Cleansing the polluted stream of politics is obviously not one of the immediate pressing concerns of the legislative branch of the government," a Bench consisting of Justices Rohinton F. Nariman and B.R. Gavai told the lawmakers. Justice Nariman, who authored the 71-page judgment based on a plea by advocate Brajesh Singh, said the Supreme Court's repeated appeals to legislators to amend the law to weed out the criminals amidst them had fallen on deaf ears. The court said it did not take political parties much time to flout its February 2020 judgment, which directed them to prominently publish the criminal antecedents of their candidates in newspapers and on social media accounts, including Twitter and Facebook.

Inadequate information

Eight months from the February judgment, in the run-up to the Bihar Assembly election in October-November last year, these parties had already subverted the verdict by either publishing inadequate information about their candidates' criminal antecedents or by cleverly printing them in obscure newspapers. The court imposed a penalty of ₹1 lakh each on the BJP, Congress, JD(U), RJD, Lok Janshakti Party and the Communist Party of India for subverting the February 2020 judgment. It imposed fines of ₹5 lakh each on the Communist Party of India (Marxist) and the Nationalist Congress Party for completely ignoring the February judgment. In a series of directions to make the right of information of a voter "more effective and meaningful", the court further *ordered the Election Commission of India to launch a dedicated mobile app for voters to get details of the criminal history of the candidates at the touch of a button. The Commission should also form a separate cell to monitor political parties on their compliance with the court's judgment.* The court said any violation on the part of a political party, if brought to its attention by the Election Commission, would be viewed "very seriously". In fact, Justice Nariman reasoned that publishing the details of their candidates may even benefit the parties in the Indian scenario where political vendettas were a reality. The court finally said its hands were tied from taking any further action. "We cannot transgress into the area reserved for the legislative arm of the State. We can only appeal to the conscience of the lawmakers," Justice Nariman wrote.

PARLIAMENT IS ABDICATING ITS OVERSIGHT ROLE

The monsoon session of Parliament which ended on Wednesday was a disappointment in several ways. *This was the fourth straight session that ended ahead of the original schedule — other than the cancelled winter 2020 session.* This meant that many important issues had not been discussed such as the COVID-19 response and strategy, the Chinese incursion into Ladakh, the economic situation, rising prices of many essential items, and farmers' problems, to name a few. And of course, the news of snooping using the Pegasus system broke out just ahead of the session.

Shrinking work time

But Parliament hardly functioned. Both Houses were frequently disrupted as the Government and Opposition parties could not agree on the topics to be debated. *The Lok Sabha worked for just 19% of its originally scheduled time, and the Rajya Sabha for 26%. The Government pushed through 20 Bills, mostly without any discussion. Of the 18 Bills passed by the Lok Sabha, only one saw discussion*



over 15 minutes. While the Rajya Sabha crossed this low bar for most Bills, only two Bills were discussed for over an hour. In 15 of these Bills, not even one member of the Lok Sabha spoke; each Bill was passed after a short statement by the respective Minister. The Lok Sabha proceedings show one Bill — the Scheduled Tribes (Order) Amendment — as being discussed for 10 minutes within which seven members spoke, two Ministers intervened, and the Minister replied. *Every Bill introduced during the session was passed within the session. This means that there was no time for any scrutiny by members. While we have seen such behaviour in State Assemblies (in 2020, 91% of all Bills in 19 Assemblies were passed within five days of introduction), this is a new development for Parliament. In the period of the Fifteenth Lok Sabha (2009-14), 18% of the Bills were passed within the same session. This rose to 33% in the Sixteenth Lok Sabha and is at 70% halfway through the current Parliament.*

No scrutiny

None of the Bills was referred to a parliamentary committee for examination. These committees provide a forum for parliamentarians to engage with experts, stakeholders and government officials to understand the implications of Bills. They deliberate on the consequences of various provisions, and recommend amendments. In recent years, we have seen significant changes made in Bills such as the Insolvency and Bankruptcy Code and Motor Vehicles (Amendment) Bill as a result of the recommendations made by parliamentary committees. There has been a sharp downward trend in Bills being referred to them — from 71% in the Fifteenth Lok Sabha to 27% in the Sixteenth, and 12% in the current one till date. There was an amendment moved in the Rajya Sabha to refer the Tribunals Reform Bill to a select committee of that House, and the motion was rejected by 79 votes to 44. Given that there are currently 232 members, this indicates that nearly half the members were absent during the vote. Thus, we see that Bills are being passed without any serious examination by parliamentarians. They are most often not being referred to committees, there is hardly any discussion on the floor of the House, and in most instances, Bills are passed within a few days of introduction.

Crucial Bills

There were some important Bills passed this session. The Constitution was amended to allow States to identify backward classes (i.e., Other Backward Classes) for the purpose of providing reservations. A recent Constitution Amendment has converted the National Commission for Backward Classes from a statutory body set up by an Act of Parliament to a constitutional body. That amendment also specified that the President of India shall specify the list of OBCs. Recently, the Supreme Court of India had interpreted this provision to imply that the State government cannot issue the list of backward classes. The Amendment passed this session clarified that States have the power to do so. In 2012, the Income Tax Act was amended with retrospective effect from 1961 to cover certain transactions. A Bill passed this session reversed this provision of retrospective taxation. Famously, Vodafone was required to pay a large sum under the now repealed provision. The Deposit Insurance and Credit Guarantee Corporation insures all bank deposits against default (currently up to ₹5 lakh). The Act was amended to require an interim pay-out within 90 days if a bank was going through a liquidation or reconstruction. The General Insurance Business (Nationalisation) Act was amended to enable the Government to bring its shareholding in general insurance companies below 51%. The Tribunals Reforms Bill was passed. The Bill replaced an ordinance which specified the process of appointment of members and their tenure and service conditions. It retained two



provisions struck down last month by the Supreme Court: the four-year tenure which the Court changed to five years, and a minimum age of 50 years for judicial members which the Court revised to allow lawyers with experience of 10 years. It would be interesting to see whether the Act is challenged in court, and how the Court reacts. There was no discussion in Lok Sabha on any policy issue. The Rajya Sabha had just one such discussion on the management of COVID-19 which lasted nearly five hours. The supplementary demand for grants for ₹23,675 crore was passed by the Lok Sabha without any discussion.

Course correction needed

To sum up, *Parliament appears to be quite ineffective in all its functions. The reason for having a legislature separate from the executive is to have a check on executive power. This session, the Government got every Bill that it introduced passed as an Act, without any debate, and without any scrutiny by committees. Question Hour hardly worked. There was just one debate in the Rajya Sabha and none in the Lok Sabha on policy issues. A large supplementary Budget was passed in less than 10 minutes without even one member speaking on it. Parliament will have its 70th anniversary next year. Parliament also plans to move to a larger building. We will see many speeches celebrating these occasions. They will be just empty words in a brand new building unless parliamentarians get their act together.*

DEBATE ON OBC BILL SHOWS NEW AVATAR OF MANDAL POLITICS

The debate on the Constitution (One Hundred and Twenty-Seventh Amendment) Bill, 2021 in both Houses of Parliament during the monsoon session saw growing demands by political parties across the board, including National Democratic Alliance (NDA) allies, that a caste-based census be undertaken. Such an exercise, revealing the true extent of the Other Backward Classes (OBC) population, will lead to raising the 50% cap on reservations currently in place. The two demands made with more strength than before are significant in the way they point to the fulcrum around which Mandal politics, in its third avatar, is likely to revolve. Regional parties, especially those that came up following the implementation of the Mandal Commission recommendations in the 1990s, are at the forefront of these demands. In the past few elections, especially in Uttar Pradesh and Bihar, these parties have seen a successful campaign by the BJP, headed by Prime Minister Narendra Modi, in parsing the non-dominant sections of the OBC from the dominant communities belonging to that category, reaching out to them to build a powerful coalition of upper castes and non-dominant communities among the OBCs and among the Scheduled Castes (SC) as well. In ticket distribution and in terms of Ministry berths and in certain legislative interventions, the BJP has managed to make its version of Mandal work for it, along with a powerful Hindutva rhetoric. The Union government under Mr. Modi, however, has not revealed the findings of the Socio-Economic Caste Census (SECC) done in 2011, and the Justice G. Rohini Commission set up to look into sub-categorisation of OBCs for reservations in jobs and educational institutions is yet to submit its report and is currently on its 11th extension since being set up in October 2017. Demands by regional parties such as the Samajwadi Party (SP), the Rashtriya Janata Dal (RJD) and the Nationalist Congress Party (NCP) for the BJP to empirically establish the correct number of OBCs and take the matter to its logical conclusion of raising the 50% cap on reservations are, therefore, seen as ways to call the BJP's bluff on its commitment to OBCs and seize the political momentum as well. Coupled with this demand, the Mandal parties especially point to the 10%



sub-categorisation within the general category reservation for Economically Weaker Sections (EWS) among the upper castes. The message being conveyed by regional parties is clear — that the BJP's actions over the OBCs is to be balanced out by imperatives to keep upper castes on its side. For the BJP, despite having the largest number of OBC MPs, it is important to balance the upper caste sentiments, especially in Uttar Pradesh where they make up nearly 18-20% of voters.

Delicate situation

It puts the government led by the BJP at the Centre in a delicate situation. A situation that party MPs say could be ameliorated by finally pushing through a sub-categorisation plan for reservations in jobs. "It is an inevitable development and it would be better if the party pushes for it and seizes the initiative," a former Union Minister and current MP from the BJP told The Hindu. There is speculation that a fresh SECC may be undertaken after the 2021 census is concluded. The forces of social and political mobility unleashed by the Mandal Commission recommendations are unfurling in each decade in a different way. For political parties, especially the BJP, it may be time to draft plans to re-engineer their social engineering formula, this time to accommodate the third coming of Mandal politics.

LS CLEARS BILL RESTORING STATES' RIGHTS TO SPECIFY OBC GROUPS

The Lok Sabha on Tuesday passed the 127th Constitution Amendment Bill, 2021, with unanimous support from the House and not a single vote against, with Social Justice and Empowerment Minister Virendra Kumar stating that there was a need for careful examination of the demand made by several Lok Sabha MPs to remove the 50% cap on reservation currently in place.

Orderly debate

Replying to the debate on the Bill, the first such debate in an orderly manner in a session marked by three weeks of disruptions and adjournments, Dr. Kumar said the issue required a careful going over of legal and constitutional issues. "In the Indra Sawhney case the court has observed that the limit can be increased beyond the 50% but only in certain special circumstances. The government is aware of the wishes of the members," he said. The Minister said the current Constitution Amendment Bill was historic legislation as 671 castes in the country would benefit from it and restore the States' rights to make their own list of Other Backward Classes (OBCs) and should be considered as the 105th Constitution Amendment Bill after being renumbered. *The Bill seeks to restore the power of State governments to identify OBCs that are socially and educationally backward after a Supreme Court order in May 2021 empowered only the Centre to do so. The amendment was thought necessary because the SC, in its order on Maratha reservation, upheld the 102nd Constitutional Amendment Act that inserted Articles 338B and 342 A (with two clauses) after Article 342, which said the President of India, in consultation with the Governors, would specify socially and educationally backward classes, taking away the powers of State governments to do so.* Lead speaker for the Opposition, Congress leader Adhir Ranjan Chowdhary accused the government of turning a deaf ear to suggestions of the Opposition during the debate on the 102nd Constitutional Amendment in 2018. Supporting the Bill, Mr. Chowdhary said, "You (BJP) tweaked the Constitution by bringing the 102nd Constitutional Amendment Bill, 2018, which gave people the opportunity to go the courts and finally the Supreme Court removed the States' power." "We support the Bill but our demand is to remove 50% ceiling in reservation. You should listen to the



States, make it legal for States to cross the 50% ceiling,” he said. He received support on this from DMK’s T.R. Baalu and Samajwadi Party leader Akhilesh Yadav who also demanded the lifting of a 50% ceiling. Intervening in the debate, Minister for Labour Bhupendra Yadav said the Congress had buried old reports including the Kaka Kallekar and Mandal Commission report on backward classes. He responded to Mr. Chowdhary’s charge of the government having created the need for this bill through its own actions. “When the 102nd Amendment was brought in 2018, the government’s intent was that both at the Central and the State level, OBC lists will be maintained. The same arguments were made in the Supreme Court, and its judgement on taking the States’ power away was not by consensus,” he said. He quoted the observations of two of the judges to bolster his argument. “It is our job to develop the legislative process,” Mr Yadav said, and asserted the Centre’s commitment to social justice.

Maratha quota

Nationalist Congress Party (NCP) leader Supriya Sule, whose party, a constituent of the Maha Vikas Aghadi government in Maharashtra is pushing for Maratha reservation in connection with which the Supreme Court delivered its verdict on the Centre being the only enumerator of OBCs, necessitating this Bill, said the credit should be given to the Maharashtra government which requested the Centre to move the Bill to address the issue. She too put her heft behind the removal of the 50% cap on reservations.

COUNTING IN

Constituents of the NDA have called for a caste census in recent days, and during the passage of the 127th Constitution Amendment Bill, which restores the rights of state governments to make their own OBC lists, in Parliament. The Janata Dal (United), Apna Dal, and RPI (Athawale) have spoken in favour of conducting the exercise. Opposition parties such as the SP, RJD, DMK and TDP have also asked for a caste count. *The UPA government held a Socio-Economic Caste Census in 2011, but the data was not released. In July this year, the Union Minister of State for Home Affairs told Parliament that “the Government of India has decided as a matter of policy not to enumerate caste-wise population other than SCs and STs in Census”. This position is increasingly untenable. The architecture of India’s affirmative programme is based on caste. Public policy must not be formulated on the basis of hazy projections and blurry extrapolations.* Accurate data on the caste composition of the population is needed to maximise the gains of policies such as reservation in education and employment. *A caste census was last held in 1931 and discontinued thereafter. National parties such as the Congress and BJP opposed its reintroduction ostensibly on the ground that enumeration will lead to congealing and perpetuation of caste identities, defeating free India’s aim of annihilation of the caste system. But the stark fact is that caste continues to be an influential determinant in public affairs and access to resources.* In the absence of updated data, therefore, political parties and public institutions extrapolate from the 1931 Census and National Sample Survey to make claims, arrive at conclusions and even policies. The Mandalisation of the polity in the 1990s has failed to break political resistance to the caste census — it may even have strengthened it. By all accounts, despite the BJP’s hectic social engineering on the ground, the Sangh Parivar’s apprehension seems to be that a caste census will shine the light on faultlines in Hindu society and undermine its grand project of creating a monolithic vote bank. The predominantly upper caste leaderships of major political parties are against generating caste numbers, probably because enumeration would



expose the dominance and privilege certain castes have continued to enjoy in social, cultural, political and economic spheres — despite the rhetoric of equality, and promises of social justice and a level playing field. Sanghamitra Maurya, the lead speaker for the BJP in the discussion on the OBC bill in Lok Sabha, claimed that the Narendra Modi government is in favour of a caste census — the party is yet to clarify its position on her statement. However, the BJP has been wooing OBC leaders by offering them posts in the party and administration. And the Modi government has been focussed on targeted delivery of public goods and services through initiatives such as JAM (Jan Dhan, Aadhaar and mobile). Accurate data on caste will help both party and government — the latter in plugging the gaps and leaks in its schemes, and the former in focusing its political outreach.

CENSUS ACTIVITIES PUT OFF DUE TO PANDEMIC

Owing to the outbreak of COVID-19 pandemic, Census 2021 and other Census-related field activities have been postponed until further orders, the Union Home Ministry said in the Lok Sabha on Tuesday. *“In the Census, data is collected on demographic and various socio-economic parameters like education, SC/ST, religion, language, marriage, fertility, disability, occupation and migration of the individuals. The forthcoming Census is to be the first digital Census and there is a provision for self-enumeration,”* Minister of State for Home Affairs Nityanand Rai said in a written reply to Congress leader Shashi Tharoor’s question. *A mobile application for data collection and a Census portal for managing and monitoring various Census-related activities have been developed.* The questionnaire for the first phase of Census was notified in the Gazette. *“The individual data collected in Census under the Census Act, 1948, are not made public as per the provisions contained in the Act. The individual data are not used for the preparation of any other database, including the National Register of Citizens.* Only the aggregated Census data at various administrative levels are released,” it said.

Faster processing

Special emphasis was given to scientifically designing the Census questions for faster processing and early release of data, said the Minister. In response to another query from MP S. Jothimani, the Minister said the Census Schedule was designed in consultation with various stakeholders, including State governments. The intent of the government for conducting Census 2021 was notified in the Gazette of India on March 28, 2019, but the Census activities were postponed due to the COVID-19 outbreak. *“In the Census, the castes and tribes which are specifically notified as Scheduled Castes (SCs) and Scheduled Tribes (STs) as per the Constitution (Scheduled Castes) Order 1950 and the Constitution (Scheduled Tribes) Order, 1950, as amended from time to time, are enumerated,”* he said.

MODI LAUNCHES UJJWALA 2.0 SCHEME

Prime Minister Narendra Modi on Tuesday launched the second phase of the Ujjwala gas connection scheme for the poor, and said that *it would provide the biggest relief to lakhs of migrant worker families in the country. Under Ujjwala 2.0 (Pradhan Mantri Ujjwala Yojana), migrant workers would no longer have to struggle to get address proof documents to get the gas connections, Mr. Modi said.*



Only self-declaration

Now migrant workers would only be required to submit a self-declaration of their residential address to get the gas connection, he added. "The government has full faith in your honesty," Mr. Modi said, speaking virtually at the launch of the scheme under which LPG (liquefied petroleum gas) connections were handed over to beneficiaries at Mahoba in Bundelkhand. *Mr. Modi launched the first phase of the scheme in 2016 from Ballia, also in Uttar Pradesh, ahead of the previous Assembly election. Uttar Pradesh is scheduled to go to the polls in early 2022.* Mr. Modi lamented that the country had to wait several decades to provide certain basic facilities to its citizens and that the brunt of this was faced by women, especially from poor families. Only when women came out of homes and kitchens could they contribute to nation building, he stated. "When a society keeps struggling for basic facilities, then how can it fulfil its bigger dreams," the Prime Minister asked. Under his government, 11,000 new LPG distribution centres had come up in the country, Mr. Modi said, adding that the figure had doubled in Uttar Pradesh from fewer than 2,000 to 4,000. Mr. Modi interacted with women beneficiaries of the Ujjwala scheme from Uttarakhand, Punjab, Madhya Pradesh, Goa and Uttar Pradesh. While Bundi Devi of Dehradun told him that the gas connection had allowed her to take care of her aged father, Kiran Devi of Gorakhpur said now she saved time and her life was made easier.

CONNECTING INDIA BY INLAND WATERWAYS: WHAT CHANGES IN CENTURY-OLD VESSELS LAW

Last week, Parliament passed a new law that will bring uniformity in the rules and regulations governing inland waterways and navigation on them. It is aimed at developing India's inland waterways as a viable, thriving mode of transport, especially for cargo. The inland waterways network spans close to 15,000 km across rivers, channels, backwaters, creeks etc.

Limitations of old law

The Inland Vessels Bill, 2021 replaces the Inland Vessels Act, 1917. *It seeks to bring all inland waterways in India and movement of vessels on them for any purpose under a central regulatory regime.* The 1917 Act was seen as a purely consolidating legislation with limited applicability and purposes, the government said. It had undergone several amendments, the last major ones in 1977 and 2007. "This Act had provisions for restrictive movement of mechanically propelled vessels within the jurisdiction of the state government, requirement of endorsements, limited applicability and validity of certificates, non-uniform standards and regulations that varied from one State to another led to hindrances and hurdles in seamless navigation across States and development of the sector," says an official statement.

What's new

The Bill defines mechanically propelled vessels as ships, boats, sailing vessels, container vessels, and ferries. The Centre will frame classification, standards of design, construction, and crew accommodation. Construction or modification will require approval of a designated authority. All such vessels are to be registered with respective states or Union Territories. Their movement and identities will be logged in a central database.



National Waterways

In 2016, the government notified 111 inland waterways as National Waterways of India under the National Waterways Act, 2016. Of these, 13 National Waterways are operational for shipping and navigation and cargo/passenger vessels are moving on them, according to the government. The Inland Waterways Authority of India under the Ministry of Shipping is developing the National Waterways for commercial navigation, including with assistance from the World Bank. The government wants to promote inland waterways especially as a supplement to freight movement across India. This mode of transport has been recognised worldwide as environmentally friendly and economical, especially for cargo that do not depend on speed of delivery. According to a government study conducted by RITES, one litre of fuel moves 24 tonne-km on road; 95 tonne-km on rail and 215 tonne-km on inland waterways. To move a tonne of cargo over a kilometre, it takes about Rs 1.36 on railways, Rs 2.50 on highways, and Rs 1.06 on inland waterways. Underutilised right now, India's inland waterways carry about 55 million tonnes of cargo every year. The movement is currently restricted to Ganga-Bhagirathi-Hooghly, Brahmaputra, Barak, rivers in Goa, the backwaters in Kerala, inland waters in Mumbai and deltaic regions of Godavari-Krishna rivers.

More centralised

The Opposition has criticised *the Bill on the ground that it takes away a lot of rights of the states and vests them with the Centre.* The new law prescribes certain dos and don'ts. For example, to operate in inland waters, vessels must have a certificate of survey, and registration. *Those with Indian ownership must be registered with the Registrar of Inland Vessels (appointed by the state government). Once registered, it will be valid across India. While the state government will issue the certificate, the form will be prescribed by the Centre, much like in the case of motor vehicles. Like motor vehicles, the vessels must be insured. Mechanical vessels must adhere to specifications for signals and equipment to ensure navigation safety, as specified by the central government.*

Other features

The new law mandates that if any distress or SOS signal is sent out by the master of a vessel, any other vessel nearby must respond — much like maritime custom and rules on sea. If the master of a nearby vessel fails to come for help, he or she will be fined up to Rs 10,000 unless they failed to provide assistance on some specified grounds. In case of accidents, the nearest police station is to be involved for inquiry and action. The Centre will prescribe the minimum number of people that vessels must carry for various roles, and what the qualification of the personnel must be. Non-compliance will attract a penalty of up to Rs 10,000 for the first offence, and Rs 25,000 for subsequent offences. The new law empowers the Centre to prescribe what kind of pollutants and sewage vessels and can discharge, and how much. The Bill envisages maintaining a fund, which will be used for emergency preparedness, checking pollution and boosting navigation. The fund will source from state governments schemes, sale of cargo and wreck and contribution from stakeholders.

DELHI 'HATE SPEECH': ACCUSED HAVE HISTORY; BJP EX-SPOKESMAN, 5 HELD

Six men, including Supreme Court lawyer and former Delhi BJP spokesperson Ashwini Upadhyay, have been arrested by the Delhi Police in connection with alleged inflammatory and anti-Muslim slogans raised at Jantar Mantar on Sunday. "Apart from Upadhyay, we have arrested Preet Singh,



president of Save India; Deepak Singh Hindu, president of Hindu Force; Vinod Sharma, head of Sudarshan Vahini; Deepak Kumar Gausewak, and Vineet Bajpai Kranti,” DCP (New Delhi district) Deepak Yadav said. Police said they are conducting raids to nab Pinky Bhैया, who had earlier taken responsibility for the January 2020 violence at JNU, and one Uttam Malik, who claims to be a follower of Dasna Devi temple’s head priest. A closer look at the activities of some of those picked up suggests they often work in tandem — from protests against a proposed Haj House in Dwarka and a mazaar in Patparganj to the event at Jantar Mantar. Two of the arrested accused, Deepak Singh Hindu and ‘Azad’ Vinod Sharma, not only ran coordinated social media campaigns to mobilise people at such gatherings, but also broadcast the events on a YouTube channel titled ‘Mission CyberSipahi’, which has upwards of 1,75,000 subscribers. It describes itself as a platform for “like-minded nationalists” and aims to raise funds for its “mission”. On Monday evening, lawyer Ashwini Upadhyay, who had organised the Jantar Mantar event against “Colonial-era laws”, went live on the channel, seeking to dissociate himself from the inflammatory slogans that were raised. In fact, just hours before they were detained, both Singh and Sharma were live on YouTube on Monday night. At one point Sharma, who has over 14,000 followers on Facebook, pointed to news reports indicating that organisers of the event would be arrested, to which Singh responded, “Haan hum gaye thhai Jantar Mantar... jo hum kar rahe hain, ek hazar baar zyada karenge (We went to Jantar Mantar... what we are doing, we will do a thousand times more).” Singh, however, sought to distance himself from the provocative slogans raised by Uttam Malik, who also goes by Uttam Upadhaya, at the event, saying: “I even got a call from security agencies asking if I know him, but I don’t.” Police are looking for Malik. A week ago, he had turned up outside the mazaar at Patparganj’s Hasanpur along with three other men and recited a devotional hymn which he also streamed live on his Facebook account. “Hindus should unite. We will ensure that this mazaar is removed,” he said. On August 3, a protest was held against the mazaar. Both Singh and Sharma were present at the site and streamed the event live, during which they made several inflammatory comments.

AFTER AMAGARH MEENAS, UDAIPUR BHILS: ASSERTION OF TRIBAL IDENTITY

A dispute in Rajasthan’s Udaipur district over hoisting of a flag on August 9 on the statue of Rana Punja Bhil, a historical figure considered as a hero by the tribal Bhil community, has triggered tensions between Adivasi groups and BJP members. After the Amagarh fort dispute, this is the second issue in Rajasthan within a month when Adivasi groups and Hindu outfits are at odds over tribal history.

Who was Rana Punja Bhil?

According to historians, *Punja Bhil was a contemporary of 16th century ruler of Mewar, Maharana Pratap*. While tales of Pratap’s bravery are synonymous with Rajasthan, *Punja is considered to be a significant character who bolstered the strength of Pratap during his battles with Mughal emperor Akbar*. “When Maharana Pratap was readying for the battle with Akbar, the tribal Bhil community voluntarily came to his assistance and at the time the Bhil army was commanded by Punja. Owing to his status as a commander, he was bestowed the title of Rana,” says historian Rima Hooja. She added that Punja was highly respected and there are still awards and scholarships named after him. “Bhils are an ancient tribe, whose history goes back to even mythologies. Due to their



unmatched knowledge of the hills and forests of Mewar, the community has always exercised a strong influence in the region,” said Hooja.

Why is there an effort by various groups to appropriate the legacy of Rana Punja Bhil?

Historians and political analysts from Mewar say that in recent years, various groups are trying to appropriate the legacy Rana Punja Bhil. *“It is not yet clear if Punja himself was a Bhil or a Rajput chieftain who commanded a large army of Bhils. But there is no doubt that during Maharana Pratap’s campaign against Akbar, including the battle of Haldighati, Bhils played a crucial role. Due to lack of soldiers, a shift was seen from the earlier custom wherein only kshatriyas were allowed to take part in battle,”* says Bhanu Kapil, associate professor and head, Department of History, BN University, Udaipur. He added that in recent years, repeated attempts have been seen to establish Punja as a tribal hero. *“Much like Maharana Pratap, Rana Punja Bhil too has become a character with various political parties wanting to appropriate his legacy.* In the past three decades, Punja has been styled as a tribal icon and this positioning of him has coincided with the rise of political parties such as the *Bharatiya Tribal Party (BTP)*, which talks of tribal assertion. The demand for a separate Bhil Pradesh comprising the tribal districts is also related to the issue, wherein legacies of historical figures are being claimed by one political party or another,” he added. *Earlier a bastion of the BJP, the Mewar region has in recent years been witness to the rise of the BTP, which won two seats in the 2018 Rajasthan Assembly elections banking on tribal support.*

Why did Bhils exercise significant influence in Mewar?

Historians say that the Bhil community-classified as a scheduled tribe in Rajasthan-, which is a forest dweller group has exercised significant influence in the Mewar region and throughout the past, the Rajput rulers of the region have forged alliances with the tribal group. “Bhils have always had control over the forest produce from Mewar which is rich in natural resources. The Bhils were also adept in guerilla warfare with bows, arrows and slingshots and were a significant part of the Rajput resistance against the Mughal Army during the battle of Haldighati owing to their knowledge of the region’s topography. Later during the British period as well, the Bhils and the colonial powers were often engaged in confrontations,” said Kapil. *Historian Hooja said that the Rajput rulers consistently recognized the importance of Bhils in their kingdoms and the emblem of the Mewar royal family also has a Bhil alongside a Rajput, reflecting the importance of alliance between the two.*

What is the present dispute about?

On the occasion of World Tribal Day on August 9, when members of the Akhil Bharatiya Adivasi Mahasabha gathered near a statue of Rana Punja Bhil in Udaipur, they objected to a flag hoisted on it. Tribal leaders have alleged that a saffron flag was put up by the BJP and Sangh Parivar on the statue, which is against the culture and identity of the community. An FIR has been lodged in the matter by members of the Adivasi Mahasabha, with the accused including a former BJP councillor. The BJP has denied that the saffron party or the RSS was involved in any way and it has said that the flag in question was not saffron but kesariya, the sigil of Maharana Pratap and the flag of Mewar. *Tribal groups along with outfits such as the Bhim Army protested on Monday against the hoisting of the flag, following which it was taken down after the intervention of the administration.*



Why is it being compared to Amargarh row?

Days before the incident in Udaipur, a similar dispute in Jaipur's Amargarh fort had snowballed into a major controversy with tribal groups and Hindu outfits targeting each other. After a saffron flag was taken down from the fort on July 21, Hindu outfits had accused Independent MLA Ramkesh Meena and other members of the Meena community of tearing it down. While the MLA had rejected the accusations, some members of the Meena community had accused Hindu groups of trying to appropriate Adivasi symbols and erasing tribal culture. MLA Meena had also maintained that Meenas are not Hindus and have their own indigenous culture. The dispute had led to four FIRs being lodged, including one against Suresh Chavhanke, the editor-in-chief of Sudarshan TV, for allegedly hurting tribal and Meena sentiments. BJP Rajya Sabha MP Kirodi Lal Meena had led the pushback against the narrative that Meenas are not Hindus by insisting that the community comes under the Hindu fold. He had also dodged the police and hoisted a flag of a Meena deity on the Amargarh fort.

MISINFORMATION THROUGH A FEMINIST LENS

The online world amplifies the social norms of the physical world. Women face aggressive and offensive trolling on the Internet, designed to undermine and discredit them professionally and shame them into silence. A perfect example is the 'Sulli Deals' app recently created on GitHub that auctioned Muslim women. The active participation of vocal women, especially from minority communities, is resisted by those who do not wish the social order to be disrupted. *This isn't to say that men are not targeted online, but the attacks faced by both sexes are vastly different. Misinformation/disinformation also targets men and women differently and unsurprisingly so, especially in India where gender disparity among Internet users is high.*

Gendering misinformation

Take, for instance, the type of misinformation used against Congress leaders Sonia Gandhi and Rahul Gandhi who come from the same socio-economic and political background. *Mr. Gandhi is referred to as 'Pappu' by his critics. The usual misinformation targeting him questions his intellect. But the same cannot be said for his mother. Whether it's Hollywood actresses sporting bikinis misidentified as Ms. Gandhi or a morphed photo that shows her sitting on a man's lap, she is portrayed to be an 'indecent' woman to undercut her politics.* Ms. Gandhi's position of power does not shield her from vulgar misinformation. A report by Amnesty International last year said that 95 female politicians out of 724 received nearly one million hateful mentions on Twitter between March and May, one in five of which was sexist or misogynistic. But misinformation like other forms of abuse has inter-sectional challenges. *While actor Swara Bhaskar receives some of the most sexist troll attacks, activist Safoora Zargar is targeted for being a woman as well as a Muslim.* After her arrest for participating in protests against the Citizenship (Amendment) Act, *pornographic videos were shared in Ms. Zargar's name on social media. Organised disinformation and sexism intersect with Islamophobia, casteism, religious bigotry and other forms of discrimination to threaten vocal women from minority communities.* The harassment is so rampant that more often than not, women are asked to either ignore the abusers or block such handles. *As always, women are expected to take precautionary measures instead of men being asked to behave.* We also seldom question Twitter on its failure to stop the spread of pornographic content. The women of Shaheen Bagh were targeted in a similar fashion. Surely a social media giant has the ability to detect and

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



purge nudity, especially when shared with hateful captions? Gendering misinformation should be a part of the feminist discourse. *The world has drastically changed after the advent of the Internet and the digital space has the power to impact democracies. But women do not get an equal opportunity to make themselves heard because they are shut down with sexism or, worse, the threat of sexual violence.* Former Jawaharlal Nehru University Students' Union leader *Shehla Rashid was forced to delete her Facebook account after receiving rape threats for speaking in favour of interfaith marriage. Journalist Rana Ayyub has also complained several times of rape threats making their way into her Twitter messages.* A report that I wrote in 2018 revealed how thousands of men on a closed Facebook group, 'Sharing is Caring', sold Instagram and Facebook pages featuring young women. Many of these metamorphosed into political pages after gaining a substantial following. I was targeted with sexist attacks after the workings of the group were made public. Its members shared my pictures while commenting 'sharing is caring', a sexist pun on the group's name. But while on the one hand women are targeted with sexist attacks, on the other, their sexuality is used to further misinformation. *Some men hide behind female pseudonyms to get attention.* Last year, the Chhattisgarh Police arrested a 31-year-old man for running multiple fake Facebook accounts posing as a woman and "posting provocative comments that could hurt social harmony". *Men are at the centre of the disinformation ecosystem in India — an ecosystem created by them and for them. While women also share false news, the number of men disseminating misinformation is higher for the simple reason that they are greater in number on the Internet (almost double the female population). Men manufacture false news and also fall for such news. They are proof that 'women gossip more' is a gender stereotype.* Even if we look at this phenomenon from a greater perspective, there are more men in politics and they rely on disinformation to keep propaganda alive. *A recent report by UNESCO on online harassment faced by women journalists says that political actors instigate and fuel online violence campaigns against women journalists.* India is privy to such abuse — *women journalists and activists are targeted not only by troll armies but also by office-bearers of political parties.* One of the most recent incidents that exposes gendered disinformation in India is the Rhea Chakraborty saga. *Actor Sushant Singh Rajput was hailed as a self-made man without faults but Ms. Chakraborty was trashed on television and on social media — both spaces dominated by men — as a 'gold-digging seductress'.* The whole episode was a reminder of deep-rooted internalised misogyny in the country. Women also participated in propagating Ms. Chakraborty as the 'culprit' and rejoiced when she was arrested. Why did they not show solidarity? Because *patriarchal norms, while subordinating women, also give them the power to oppress women more vulnerable than them.*

A symbiotic relationship

Misinformation and sexism have a symbiotic relationship. Misinformation piggybacks on sexism to discredit vocal women and sexism uses misinformation to reinforce patriarchal norms. *While organised misinformation and trolling affect women on a personal level, the issue that is often ignored is the effect they have on democracy. A healthy democracy is participatory and promotes gender inclusiveness. Sexism and misinformation intimidate women from taking vocal stands and are antithetical to a progressive society. Historically, feminist movements have led to democratisation. Women empowerment cannot be separated from a modern society.* Savitribai Phule could reform modern education in the 1800s because her husband Jotirao Phule, a 'Shudra' himself, equipped her with knowledge restricted for the Brahmin community. Jotirao was also fortunate to receive education in the first place because of the foresight of his widowed aunt.



Menaka Guruswamy and Arundhati Katju, the only openly gay women lawyers in India, reformed the LGBTQ movement in the country by winning the landmark case in 2018 that decriminalised gay sex. These women went against the social norms of their time to make India more democratically sound. There is no extent to the reforms that women are capable of bringing and progress can happen faster with solidarity. *But women who don't conform to social norms are almost never supported and the intersection of sexism and misinformation justifies their abuse. While social media gives a platform for women to raise issues, repeated abuse takes away that freedom. Social media, the place that bolstered the #MeToo movement, is the same place used to shut women down.*

SLANTING POSTS

Several Twitter handles associated with the Congress and its leaders including its former president Rahul Gandhi were blocked by Twitter in the last few days, for violating its user policy and the law of the land. The violation pertains to posts shared by these handles that identified the family of a child who was allegedly raped and murdered in Delhi. The platform has since revealed that the NCPCR brought the violation to its notice. A petition in the Delhi HC seeking legal action against Mr. Gandhi has pointed out that his post was in violation of Section 74 of the Juvenile Justice Act, 2015 and Section 23(2) of the POSCO Act 2012, both of which mandate that any material that might reveal (directly or indirectly) the identity of a child victim of a crime shall not be published. Additionally, the post also violated Twitter's own rules. The Congress has not addressed the substantive question raised by the platform regarding these violations. It has alleged double standards by the platform, and questioned its impartiality. That is not a mature response. The party transgressed the norms of discussion in a sensitive case in its campaign. It must, without qualifiers, accept that mistake, and commit to better standards in social media campaigns. Twitter had flagged posts on several handles associated with the BJP in May, which were intended to target the Congress, as 'manipulated media'. The BJP and the Centre took umbrage over the decision, claiming that only a police investigation could establish whether the content was altered. Twitter insisted that it had its own mechanism to check whether files uploaded on the platform were tinkered with. Herein lies the core conflict between the state and private companies over controlling the information flow in a democratic society. Both the state and the companies invoke public order and interest to justify their control over information, but the protocol for exercising that enormous power over lives remains open to question. Additionally, private companies also claim a right to unilaterally decide their user policy. *This raises the pertinent question of whether a private company that is providing a service that is essential — connectivity in this instance — can set the terms of usage arbitrarily.* The state has often shown itself unable to control speech in a fair and even-handed manner. It does even wilfully misuse such powers, going by experience. The age of acceleration has thrown up many such complicated moral and governance questions that society needs to resolve. In the meantime, state agencies must exercise control over speech only in the rarest instances, for the briefest periods, and in the most transparent manner. Private companies must be more transparent in enforcing their guidelines and reassure users that their standards for those in power and those in the Opposition are one.



29% OF STUDENTS EXPOSED TO SECOND-HAND SMOKE

More than 29% of students in India were exposed to second-hand smoke, said the Global Youth Tobacco Survey (GYTS-4), India, 2019, which was released by Health Minister Mansukh Mandaviya on Tuesday. The National Fact Sheet said there has been a 42% decline in tobacco use among 13-15-year-old schoolchildren in the past decade. It added that use of any form of tobacco was higher among boys and tobacco use among schoolchildren was highest in Arunachal Pradesh and Mizoram and lowest in Himachal Pradesh and Karnataka. The report also found that 38% of cigarettes, 47% of bidi smokers and 52% of smokeless tobacco users initiated the use before their 10th birthday. The median age of initiation to cigarette and bidi-smoking, and smokeless tobacco use was 11.5 years, 10.5 years and 9.9 years, respectively.

Role of teachers

Releasing the report, the Health Minister emphasised the role of teachers as most crucial in creating awareness among children and their parents of the harm due to tobacco use and for shaping the attitude of children in this regard. He said, "The more and the sooner, we create awareness among children about harms due to tobacco use, the better will be the outcomes in terms of reduction in prevalence of tobacco use among children and consequently among adults." Harmful effects of tobacco use should be incorporated in school curricula at various levels starting right from the primary school level, he added. The fourth round of Global Youth Tobacco Survey (GYTS-4) was conducted in 2019 by the International Institute for Population Sciences (IIPS) under the Ministry of Health and Family Welfare (MoHFW). The survey was designed to produce national estimates of tobacco use among school going children aged 13-15 years at the State level and Union Territory (UT) by sex, location of school (rural-urban), and management of school (public-private). The first three rounds of GYTS were conducted in 2003, 2006 and 2009. A total of 97,302 students from 987 schools (public-544; private-443) participated in the survey. Of which, 80,772 students aged 13-15 years were considered for reporting.

SAFE AT SCHOOL

Almost every child got left behind for more than a year in India, as COVID-19 shuttered schools and forced pupils to study online at home, if they could. This long period of learning loss is a major setback in itself, affecting the physical and mental health of many students and depriving them of a year of vital skill development. It is understandable, therefore, that at least 14 States and Union Territories have tempered caution with calculated risk and opted to reopen campuses, mostly for secondary and higher secondary students. These governments are not alone in looking for the golden mean to manage the pandemic. In several countries, leaders are exploring ways to reduce the risk of coronavirus infection among pupils who are not yet eligible for vaccination, while getting them back on campus. At the end of the second wave, in July, Haryana and Nagaland went back to in-person teaching for higher classes, while Punjab, Uttarakhand, Himachal Pradesh, Puducherry and Lakshadweep are doing so this month. Andhra Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh and Odisha are to follow. As schools reopen, there are positive indicators available from countries experimenting with back-to-school decisions, and red flags, in the wake of the Delta variant's wildfire spread. One study of a million students and staff members who returned to school this year in the United States, where children must be 12 years old to get a vaccine,



showed that in spite of the resultant exposure to 7,000 COVID-19-positive children and adults, only 363 other children and adults acquired the infection. This is attributed to a universal mask mandate. *In India, with a school student population of over 250 million, resumption of in-person schooling is advocated by some public health professionals based on the understanding that younger children are less at risk, as they do not have well-developed ACE-2 receptors in the lungs that enable the virus to enter.* This must, of course, be considered along with the impact of the Delta variant on children who do get infected, sometimes severely, even though their numbers may be small. In Ludhiana, 20 students in two schools tested positive eight days after reopening on August 2, underscoring the need for strict protocols, testing and quarantining. Maharashtra has followed the textbook in setting up committees headed by Collectors and civic officials to decide on reopening, with optional student attendance. Such a decentralised effort is welcome, as it enables closures only in areas with high incidence. It is important to note that after 18 months of the pandemic, there is consensus on ventilation and distancing norms as low-cost interventions with efficacy next only to vaccination. In the Indian context, this should favour outdoor classes under natural or built shade, wherever possible. It is disappointing that teachers and staff have not been universally vaccinated yet, a lacuna that must be urgently filled.

MOST PARENTS TRUST IN CONVENTIONAL LEARNING

A survey conducted among 5,000 respondents, including parents, students and around 70 academicians from 30 major cities across the country, suggests that around 93% parents strongly believe that traditional methods of learnings like in-person interactions, writing and learning and practical learning are best suited for their children and that they were worried about the physical and mental well-being of their children. Feedback Insights, a *B2B2C research-based consulting firm, in association with the Centre for Innovation & Entrepreneurship (CIE) at the Indian School of Business (ISB), carried out the survey "Schooling in the time of pandemic",* in order to determine how online classrooms impacted various aspects of learning and student development. *As per the survey, around 33% parents expressed concern over the effectiveness of online learning and how a virtual learning environment might be hampering their child's ability to be competitive in the future. Also 36% parents were worried about the long-term psychological impact of online learning on their children. On an average, students spend three hours a day on online sessions. S. Arunachalam, Academic Director, Centre for Innovation and Entrepreneurship, ISB, says, "The ability of faculty and teachers to monitor student activities has significantly gone down and so has participative learning. It has a socio-psychological impact on both the faculty as well as the students." Connectivity issues, both for the teachers and the students and lack of a dedicated study space at home were seen as some of the most common deterrents to online learning and retention.* 67% of the students said they found it difficult to study due to Internet connectivity issues. Better educated parents were more capable of supporting children's education through direct assistance, having higher expectations, and providing more resources. This shift was definitely not a boon for this stratum of society. Hence, a hybrid model seemed more effective, observed the report.

THE MANY HURDLES FOR STUDENTS

Students from China and India accounted for 47% of all active foreign students in the U.S. in 2020, as per the Student and Exchange Visitor Programme, part of U.S. Immigration and Customs Enforcement. Indian students comprised the second largest student community in the U.K. and



Australia in 2019-2020. In recent years, Canada has emerged as a sought-after destination for Indian students. One of the biggest beneficiaries of the Donald Trump administration's restrictive student visa policies was Canada. Indian students are now the largest group within the international student community in Canada. But in spite of their role in enhancing India's soft power internationally, through their excellent academic performance as well as seamless integration into these countries, Indian students face several problems. These are often overlooked. However, in recent years Indian student associations have been trying to draw attention to these concerns.

Three major challenges

Ever since the outbreak of the COVID-19 pandemic, Indian students already studying overseas as well as those seeking to go abroad have faced several challenges. First, *most Indian students were forced to delay their plans in 2020 due to the imposition of lockdowns, disruption of flights, and embassies not issuing student visas.* This led to a drop in the number of Indian students going abroad to study in 2020. According to the Ministry of External Affairs, while in 2019 nearly 5.9 lakh students went overseas for higher education, in 2020 only 2.6 lakh were able to go. While the first two months of 2021 saw 72,000 students going overseas, the devastating second wave impacted the career plans of students. This is not to say that the enthusiasm to go overseas has waned; embassies and high commissions are unable to deal with the backlog of applications. Furthermore, many countries have closed their borders and/or restricted flights from India. As a result, students have to look for circuitous routes and end up paying higher air fares. While students are able to make it to Canada through expensive and indirect routes right now, Australia is likely to keep its borders closed well into 2022 given the surge in cases there. The U.K. and the U.S. have tried to make exceptions to their rules for international students, but there remain a number of rules and regulations which have made it very cumbersome to enter these countries, if not impossible. *The second problem is that of vaccination. As universities abroad open up for international students and begin allowing in-person classes from fall 2021, many require students to get vaccinated before they go. Covaxin and Sputnik V are yet to be recognised by the World Health Organization. Countries like the U.S. do not accept students who have been inoculated with these vaccines and have told them to get re-vaccinated.* Many students who have been vaccinated with Covishield are waiting for the 12-week gap to pass in order to get their second dose. To help them, States which send a large number of students abroad have prioritised vaccines for international students. *Third, due to the disruption caused by COVID-19, students overseas are finding it difficult to get jobs.*

Addressing issues

In a post-COVID-19 world, there are likely to be numerous disruptions, but it is important for officials and universities to work jointly to address the challenges which overseas Indian students face. It is impossible to predict when things will get back to normal and when logistical issues relating to Indian students seeking to study overseas will be addressed. While there are certain issues which specifically impact students, there are others such as policies pertaining to air travel and recognition of Covaxin which need to be addressed at the earliest to facilitate smooth travel for tourists seeking to go overseas.



AN URBAN JOBS SAFETY NET

During the pandemic, we have again and again faced the difficult choice of saving lives versus protecting livelihoods. *According to the World Economic Outlook report of April, 2021 of the International Monetary Fund (IMF), almost all countries, except China, experienced economic contraction last year. The global GDP shrunk by 3.3%. The contraction in the U.S., Brazil, Japan, Canada and Euro Area was in the range of 3.5%-7%. India's GDP plummeted by 8%. China, on the contrary, posted a growth of 2.3%.* The report stated that 95 million people have fallen into the ranks of the extreme poor category. The *unemployment rate* in the Euro Area, the U.S. and Canada shot up to 7.1%, 8.1% and 9.6%, respectively. Spain, Greece, Turkey, the Philippines, Argentina, Brazil, Colombia, and Peru among others are grappling with unemployment rates in double digits. *As per the Centre for Monitoring Indian Economy's estimates, the unemployment rate in India peaked to 23.5% in April 2020 before falling to 6.9% in February 2021.*

Rural-urban livelihood divide

In the wake of economic deceleration, the challenge is to minimise livelihood losses. Traditionally, governments have addressed this issue from a sectoral viewpoint. Given the contemporary realities, the need is to approach this from a rural-urban perspective for two reasons. First, *when there is an economic shock, it is essential to provide people with formal access to a livelihood safety net. Second, the livelihood safety net must have comprehensive coverage. Such a net, provided by the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), exists only in rural areas. Urban India does not have any such cushion.* Though the Indian government operates the National Urban Livelihoods Mission, which is focused on self-employment through skill up-gradation and credit linkages through banks, the scheme does not have guaranteed wage employment provisions akin to what MGNREGS provides. During the lockdown last year, we saw migrant labour moving in large numbers from the urban to rural areas, which is symptomatic of the *rural-urban livelihood security divide*. This divide needs to be bridged if the livelihood loss is to be minimised. *Policy experts have considered migration in India to be essentially a rural to urban phenomenon. This pandemic has demolished that myth. MGNREGS, designed to check such migration, provides a livelihood safety net in rural India. Last year's migration tragedy and the economic slowdown have highlighted the need for a similar livelihood safety net in urban India.*

Insights from Himachal Pradesh

A few States have experimented with a wage employment-based urban livelihood scheme. Himachal Pradesh (H.P.) launched the Mukhya Mantri Shahri Ajeevika Guarantee Yojana (MMSAGY) last year with the objective of enhancing livelihood security in urban areas by providing 120 days of guaranteed wage employment to every household at minimum wages in FY 2020-21. Any adult member of a household, less than 65 years of age, residing in the jurisdiction of the urban local body (ULB) and willing to engage in unskilled work at projects being executed or in sanitation services being provided by the municipality can register under the scheme. A job card is issued to the beneficiary within seven days of registration and employment is provided within a fortnight. Otherwise, the beneficiary is eligible to be compensated at a rate of ₹75 per day. Initially, when the scheme was conceived, there was scepticism due to lack of fiscal space during the pandemic to launch a new scheme. The government then decided to fund the wage component from the grants already available to ULBs under the State and Central Finance Commissions. In a year of its

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



operation, a quarter million man-days, benefiting about 3% of the total urban households in H.P., were generated. If the scope of MMSAGY is broadened to include muster-roll based works, other municipal services, etc., it could enhance livelihood opportunities. H.P.'s experience has provided some crucial insights. One, an urban livelihood scheme can be launched within the existing fiscal space. If not, the Union and States can provide resources together. Two, separate minimum wages for rural and urban areas do not cause migration to urban areas since the higher cost of living in urban areas has an offsetting effect. Three, *the focus must shift from asset creation to service delivery. Restricting it to asset creation or wage-material ratios may be sub-optimal in urban settings.* The focus should be on enhancing the quality of municipal services. Four, such a scheme is like an 'economic vaccine' and will protect people against unemployment. It should be administered at the national level rather than at the State level.

TUNING THE PRIVATE SECTOR SHARE IN VACCINE ADMINISTRATION

When the Indian government, under 'Liberalised Pricing and Accelerated National Covid-19 Vaccination Strategy', earmarked for the private sector 25% of total monthly covid-19 vaccines produced in the country, it did not seem to have considered the evidence. In India – a mixed healthcare system – though the private sector provides a majority of curative and diagnostic services, when it comes to preventive and promotive services, the private sector's contribution is relatively small. *In the almost four-decade-old universal immunisation programme of India, private facilities deliver 10% to 15% of total vaccines. The share of the private sector in mass vaccination campaigns such as Japanese encephalitis, polio, measles, etc has been even smaller.*

Differential rates

Then, as part of the liberalised strategy, manufacturers were also allowed to charge differential rates in which the cost of vaccines to the private sector was fixed at four-to-nine-fold higher than the rate for the government. The stated rationales for differential rates and earmarked allocations were *to allow manufacturers to earn profit* and to push the private sector to support the vaccination drive in India. *Ever since the liberalised vaccination strategy was implemented in early May, while Private Sector COVID-19 Vaccination Centres (PSCVC) received sustained and uninterrupted vaccine supply; the COVID-19 Vaccination Centres (CVC) in the government facilities struggled and had regular vaccine 'dry days' and were often shut down intermittently.* The outcome was that those who could afford to pay had easier availability and early access to vaccination than the rest; further widening the vaccine inequity. *Many public health experts flagged that PSCVC was just 3% to 5% of total CVCs in India; however, these had been assured a quarter of total vaccines produced every month.* Yet, the vaccine sharing formula was not revised when the government announced a partial amendment in the liberalised strategy on June 7. *In the last three months, there have been major impacts of differential pricing and vaccine sharing formula. One, the four-nine times higher price of vaccines for the private sector essentially meant that of the total cost of COVID-19 vaccination in India, people would have ended up spending more than the government spending on vaccines. This effectively counters the government's claim that COVID-19 vaccination is free in India.* Second, the differential rate of vaccines in two segments of a market, under government oversight, *implicitly legitimised high differential pricing and has weakened the moral right and stand of the government to regulate the prices in future.* Third, *an easier access to paid vaccination (majority were in urban settings and major cities) skewed the vaccine availability (by income groups*



and geography) and introduced inequities, contrary to what a government policy should to- to ensure equity, against a stated principle in India's National Health Policy 2017. On August 3, Union Minister for Health and Family Welfare, Government of India, responding to a question, informed the parliament that *in the last three months the private sector has contributed only 7% of total vaccination in India against the allocated vaccine share of 25%.* The minister also informed that the vaccine manufacturer has now been informed not to earmark the entire 25% of the vaccine and should supply as per the demand from the private sector and allocate remaining vaccine to the government.

Tacit acknowledgement

This is a tacit acknowledgement of failure of the private sector vaccine sharing formula. There is a long way to go for India's vaccination drive. The country has administered 50 crore doses, and at least around 1.38 billion more vaccine doses are yet to be administered to the adult population. However, it is time more is done, and the policy makers need to review the entire vaccination policy and do more corrective actions.

Refining strategy

To start with, policy makers need to consider emerging evidence to refine strategy. First, the fourth national seroprevalence-survey has estimated a variable pool of susceptible populations amongst States. There is sustained transmission in a few States, high test positivity rate in many districts and effective reproduction number rising above in many States. These demand *implementation of a better targeted vaccination by geography, population groups and other parameters.* However, the availability of vaccines continues to be a constraint. Second, only 7% of total vaccine being administered by private sector, a capped service fee of Rs. 150 in private sector has been termed unviable by them, and a high differential price is arguably a 'lose-lose situation' for all stakeholders including vaccine manufacturers, private sector, government and the citizen, where none is gaining much and it is affecting vaccination drive. It is time the government should consider a few steps. First, *revert to 100% procurement by Central Government (in any case, now 93% would be administered by government) as before April 30. This would give the government more flexibility in allocation, facilitate the targeted vaccination and tackle inequities.* Second, renegotiate single price with each vaccine manufacturers for both public and private sectors. This could be higher than what the government currently pays but uniform for a vaccine. Third, once the government provides free vaccines to the private sector, an ideal situation would be that the cost of service charge in the private sector is also paid by the government; however, a more pragmatic way is that government revises the service charge in private sector upward to make these viable. The COVID-19 vaccination in India is a tale of a series of policy and delivery failures never witnessed in the history of health programmes in India. However, the bigger threat is that in failing to implement COVID-19 vaccination drive effectively, the trust of the citizen in government health service delivery has been further eroded. It is call for urgent policy corrections to regain the trust.

J&J VACCINE FIFTH TO GET EMERGENCY NOD

The single-dose COVID-19 vaccine of Johnson and Johnson (J&J) was on Saturday given approval for Emergency Use Authorisation (EUA) in India, making it the fifth COVID vaccine to get the clearance in the country. The exact road map for making the vaccine available in Indian markets

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



is still under discussion, Health Ministry officials said. Responding to a query by The Hindu on the vaccine availability timeline, the Johnson & Johnson India spokesperson said, "While we look forward to meeting our delivery commitments, it is premature for us to speculate on the timing of our vaccine deliveries." Union Health Minister Mansukh Mandaviya, in a tweet, announced that the EUA had been granted to the vaccine and that India now had five EUA vaccines. The Drugs Controller General of India (DCGI) had allowed the emergency use of Covishield, Covaxin, Sputnik V and Moderna vaccines. Earlier this week, NITI Aayog member (Health) V.K. Paul said the "Indian government is still in talks with Moderna and Pfizer on the indemnity issue to allow their vaccines into India. Moderna's vaccine had earlier received the EUA, but is still not available in India." The Health Ministry has maintained that it is continuously working towards ensuring increased supply of COVID-19 vaccines. In a response given in the Lok Sabha during this session, it maintained that "COVID-19 vaccination protects from severe manifestation of disease and improving herd immunity and is accordingly likely to mitigate the impact COVID-19 may have with any future resurgence. Vaccines currently being utilised for immunisation offer substantial protection against COVID-19 besides reducing severity of disease, hospitalisation and deaths." It said the *Central Drugs Standard Control Organisation had granted permission to conduct the Phase 1 clinical trial of an intranasal adenoviral vector COVID-19 vaccine (BBV154) (in the age group of 18 and above) to Bharat Biotech, Hyderabad.*

Trials for children

Also so far as injectable vaccine for children was concerned, the CDSCO had granted permission to conduct clinical trials of vaccines in children as follows: *Phase 2/3 clinical trial to Bharat Biotech, Hyderabad (in the age group of two to 18) for Whole-Virion Inactivated SARS-CoV-2 Vaccine and Phase 3 clinical trial to Cadila Healthcare Ltd., Ahmedabad (in the age group of 12 years and above) for a DNA-based vaccine. "Further, the CDSCO has not granted permission to conduct clinical trial of any imported COVID-19 vaccine on children in the country,"* the Ministry noted.

MADE-IN-INDIA CARRIER

On August 4, India's first indigenous aircraft carrier (IAC-1), a freshly minted warship displacing 40,000 tonnes, set out to sea for its maiden set of trials, propelling India to a select group of nations capable of designing and building a complex platform such as this.

It marked a watershed.

The vessel, to be named Vikrant after the first carrier operated by the Indian Navy, is the largest and the most complex platform so far designed by the Directorate of Naval Design, and is slated to join the Navy next year. It was nothing short of a baptism by fire for the *Cochin Shipyard*, which built the carrier. While the public sector shipbuilder had built mammoth commercial vessels and taken care of the now-retired Viraat through its lifetime, the IAC-1 offered it a steep learning curve which it thinks will stand it in good stead as the Navy contemplates building a second indigenous carrier. *Having operated two British-origin carriers, Vikrant and Viraat, the Navy wanted to build an air defence ship right from the 1980s but the idea crystallised into a project in the late 1990s. The Cabinet Committee on Security (CCS) accorded approval for the project in 2002, its keel was laid in 2009 and the financial estimate was revised in 2014.* Roughly about ₹20,000 crore has been spent for the construction of the vessel. But it led to a giant leap in military shipbuilding in India as it



resulted in the *development of warship-grade steel indigenously by Steel Authority of India (SAIL)* and the *Defence Metallurgical Research Laboratory (DMRL)* besides capability and skill-development at the shipyard.

Advanced platform

The IAC-1 is an advanced platform in comparison with Vikramaditya, the only aircraft carrier in service with the Indian Navy, in terms of capabilities, automation and net-centricity. And its degree of indigenisation is about 76%. Unlike Vikramaditya, which is steam-propelled, Vikrant is propelled by four gas turbines that were produced by GE but integrated and commissioned by its Indian partner, the public sector Hindustan Aeronautics Ltd (HAL). Similarly, the COGAG (combined gas and gas) gear boxes from Germany were integrated by an Indian company named Elecon. About 550 Indian companies, including about 100 medium and small scale industries (MSME), had a role to play in the construction of the carrier. *The IAC-1 is 262 metres long, 62 metre at its widest part and has a height of 59 metres, including its super structure.* Its diesel alternators, eight of them, generate as much as 24 MW power, which is enough to light up an entire city. The ship has about 2,000 km of cabling, 120 km of piping and 2,300 compartments. It has 14 decks, including five in the super structure, and will have a complement of a little less than 1,700 personnel. *It's the first ship with purpose-built gender-specific accommodation, as the Navy has begun deploying women officers on board ships.* The largest alleyway of the vessel is on the fifth deck, with a length of 240 metres. *The ship can carry up to 30 aircraft, fighter jets and helicopters, and is capable of cruising at 18 knots speed with an endurance of about 7,500 nautical miles.* It has a very high degree of automation for machinery operation, ship navigation and survivability.

'One of the best'

It's believed that it's going to have an integral fleet of MiG29-K aircraft, a la Vikramaditya. The twin-engine deck-based fighter (TEDBF) being developed by HAL could also be part of it. Reports suggest that the dimensions of the elevators which bring the aircraft from the hangar to the flight deck are a little constricted to take on bigger aircraft. "But it's our design and a little modification is always possible," says a naval officer. *The carrier will also have Kamov 31 early warning and Kamov 26 anti-submarine warfare helicopters.* It's not the USS Nimitz for sure, but the IAC-1, equipped as it is with the Barak 8 LR-SAM (long range surface to air missile), the AK-630 close-in-weapon system and the Israeli MF-STAR radar for tracking and fire control, is among the best with self-defence capabilities, says an officer. "The significance of the IAC-1 is that it has given us a capability that can be built upon," he says.

LANDSLIPS IN HIMACHAL PRADESH CAUSE CONCERN

A bus accident killed at least 14 following a landslide in Kinnaur, Himachal Pradesh on Wednesday. It was the second landslide this month, raising concern that they are part of a larger climate shift.

How vulnerable is Himachal Pradesh?

The mountainous terrain of Himachal Pradesh means that erosion and geological forces will always be at work making the region particularly prone to natural disaster. Between July and the first week of August, the State has experienced four major natural disasters and over the past



three months, at least 200 have lost their lives to natural disasters, according to a report by the Centre for Science and Environment. In 2012, the State Environment Division prepared a State Climate Change Strategy and Action Plan as part of the National Climate Change Action Plan. “Deforestation, landslips, land degradation, desertification and Glacier Lake Outbursts Floods (GLOF) are some of the common but critical environmental issues in the Himalayan regions. The major challenges currently faced by the Himalayan environment are the escalation of such issues through atmospheric as well as man-made interferences,” the report noted. “Himachal Pradesh, though a small Himalayan State, is nevertheless playing a very crucial role in sustaining the livelihoods of downstream areas. “The conservation, sustenance of these ecologically fragile regions is the biggest challenge being faced at the moment, which can get further aggravated due to financial constraints and limited resources.”

Is climate change to blame for the landslips?

Attributing single events to climate change is hard because the latter refers to a broader shift in the average weather over a region. *The most recent report by the Intergovernmental Panel on Climate Change (IPCC) while pointing out that a global rise of 1.5 degrees Celsius (from pre-Industrial times) was inevitable in the next two decades, it also references studies that show rising temperatures would lead to increased glacier melt as well as snowlines (the portion of mountain tops that are perennially snowy) rising higher.* This ties into forecasts of extreme events being on the rise — that is longer, more intense bouts of droughts as well as short, intense spells of rain. This implies that activities such as road-building, heavy-concrete constructions at higher elevation are all at increased risk at being besieged by natural disasters and will have knock-on effects on people and their habitations.

Have impacts of climate change manifested in Himachal Pradesh?

The environment report has already noted such effects. *The temperature in the north-west Himalayan Region has risen by 1.6 degrees Celsius in the last century. The warming rate of Shimla was higher from 1991 to 2002 as compared to earlier decades. About 17% decrease in rainfall in Shimla was observed from 1996 onwards.* The decreasing trend in seasonal snowfall in Shimla has been very conspicuous since 1990 and it was lowest in 2009. Monsoon discharge in the Beas has shown a significant decrease. Winter discharge in the Chenab too has shown a significant increase. The Sutlej is showing an increasing trend in winter and spring discharge. The quality of apples, a major crop, has been affected and cultivation has shifted upwards. Areas that traditionally grew apples are being diverted to vegetables due to rising temperature. Incidence of pest and disease had also increased.

KAZIRANGA GUARDS GET SATELLITE PHONES

Kaziranga has become the first national park in India to have been equipped with satellite phones, officials said on Wednesday. The decision to provide satellite phones for boosting anti-poaching measures was taken at a meeting chaired by Chief Minister Himanta Biswa Sarma on May 27. The State’s Chief Secretary, Jishnu Barua, handed over 10 phones to the Kaziranga forest personnel. The satellite phones will be used in pockets of the park’s six ranges with no wireless or mobile connectivity. “Kaziranga has become the first in the country to use satellite phones, which are generally used by the law-enforcing agencies. The satellite phones will give an edge to the forest



personnel over the poachers and also during emergencies like floods,” Forest Minister Parimal Suklabaidya said. The public is barred from using satellite phones in India. The Assam State Disaster Management Authority had procured the 10 satellite phones for Kaziranga at an estimated cost of ₹16 lakh. The park authorities will bear the monthly expenses for the service provided by Bharat Sanchar Nigam Ltd.

A CIRCULAR ECONOMY FOR PLASTIC

The Confederation of Indian Industry (CII) has long been at the forefront of addressing issues challenging the well-being of society. Of the many sustainability challenges that impact societies, climate change and plastic waste have a special significance. A 2019 report by the Center for International Environmental Law suggests that by 2050, greenhouse gas emissions from plastic could reach over 56 gigatonnes, 10-13% of the remaining carbon budget. However, viewed from the angle of livelihoods, post-consumer segregation, collection and disposal of plastics make up about half of the income of 1.5- 4 million waste-pickers in India. A 2021 report commissioned by Google, Closing the Plastics Circularity Gap, suggests that unless large-scale global interventions are made, “we should expect to mismanage more than 7.7 billion metric tonnes of plastic waste globally over the next 20 years... [which is] equivalent to 16-times the weight of the human population...” Among the many applications of plastic, plastic packaging is the largest.

The solution

For India, the solution must be multi-pronged, systemic, and large scale, to create a visible impact. *The Plastics Pacts model offers such a solution and is active in a number of countries including the U.K., South Africa, and Australia. It is now being brought to India by CII and WWF India. The Plastics Pacts are business-led initiatives and transform the plastics packaging value chain for all formats and products.* The Pacts bring together everyone from across the plastics value chain to implement practical solutions. All Pacts unite behind four targets: to eliminate unnecessary and problematic plastic packaging through redesign and innovation; to ensure all plastic packaging is reusable or recyclable; to increase the reuse, collection, and recycling of plastic packaging; and to increase recycled content in plastic packaging. The India Plastics Pact, the first in Asia, will be launched in September at the CII Annual Sustainability Summit. It can be expected to boost demand for recycled content, investments in recycling infrastructure, jobs in the waste sector, and beyond. *The first Plastics Pact was launched in the U.K. in 2018, by WRAP, a global NGO based in the U.K., in partnership with the Ellen MacArthur Foundation. The U.K. Pact helped channel over £120 million worth of investments in recycling infrastructure resulting in 300,000 tonnes of new recycling capacity. The Pact will support the Extended Producer Responsibility framework of the government and improve solid waste management as envisioned in the Swachh Bharat Abhiyan. Integral to the Pact's framework is the involvement of the informal waste sector crucial to post-consumer segregation, collection and processing of plastic waste. The India Plastics Pact is supported by WRAP, which supports many Pacts globally. This association will ensure access to expertise and knowledge from different Pacts worldwide.*

The India Plastics Pact

The India Plastics Pact focuses on solutions and innovation. Members' accountability is ensured through ambitious targets and annual data reporting. The Pact will develop a road map for

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



guidance, form action groups composed of members, and initiate innovation projects. While the India Plastics Pact will be active in India, it will link globally with other Plastics Pacts. Many Indian businesses and organisations have expressed an interest in signing up to the Pact. Deeper and long-lasting benefits will be felt across the supply chains of these businesses, most of which comprise MSMEs. The Pact will encourage development and maturing of the entire plastics production and management ecosystem. Apart from benefits to society and economy, delivering the targets will drive circularity of plastics and help tackle pollution. They will lead to significant reduction in greenhouse gas emissions.

THE RIGHT SHADE OF GREEN

Ecological restoration involves the careful planting of the right species in the right places in the right mix and right manner. Unfortunately, many large-scale tree planting programmes carried out today ignore each of these vital criteria even as they make headlines for having used hundreds or thousands of volunteers to plant lakhs or millions of saplings over hundreds of hectares, sometimes in a single hour or day. A case in point is *Telangana's Haritha Haram programme* that aims to plant 2.3 billion tree seedlings in four years. The programme also adopts the recent fad of lobbing seed balls (seeds embedded in balls of soil) across the State, one district vying for a record of 20 million. *Telangana has a diverse range of natural ecosystems including grasslands, tree savannas, dry thorn forests, and deciduous forests, with hundreds of native plant species, from grasses and shrubs to trees.* Yet, the official website of the project lists just a hundred tree species, including many invasive alien species such as *Prosopis juliflora* (mesquite), acacia wattles, casuarina, and ornamental trees. These species are not just inappropriate for Telangana, some are downright harmful. Yet, millions of seedlings are being planted and millions of seed balls tossed around, unmindful of whether the right species are being planted or even whether trees should be planted in that ecosystem at all. *Large-scale record-breaking tree planting makes news, not forests.* Which explains why politicians, bureaucrats, and celebrities throng these events, while botanists, ecologists, and indigenous people are conspicuously absent. Besides failing to monitor or nurture the large numbers planted, such tree planting can cause more harm than good. *Across India, tree planting efforts suffer from five main problems: planting trees in the wrong places, planting the wrong species and species mix, planting too few species, failing to consider seed provenance, and planting without considering the rights of local people.*

Rich deserts

The most egregious harm comes when people plant trees in areas that do not naturally support many trees: *open natural ecosystems (ONEs)*. India has a remarkable diversity of ONEs from the hot desert dunes of Jaisalmer to the cold desert steppes of Spiti and Ladakh; from the thorn scrub and savanna woodlands of the Deccan Plateau to the ravines of the Chambal; from the dry grasslands of Banni to the wet grasslands of Kaziranga; from the montane grasslands of the Western Ghats to the alpine meadows of the Himalayas. ONEs span about 3,29,000 sq.km. or 15% of India's land area, according to a recent study by ATREE, a Bengaluru-based NGO, and maps by scientists M.D. Madhusudan, Abi Vanak, and Abhijeet Kulkarni. *These open natural ecosystems, mislabelled 'wastelands', are ecosystems in their own right, home to many specialised and endangered plants and animals. Two of India's most endangered bird species — the great Indian bustard and Jerdon's courser — are birds of open drylands. When tree plantations, including alien*



or introduced trees, smother open grassland and scrub, native plant and animal species decline and disappear. Tree planting in ONEs can also affect local hydrology and reduce water availability. Native grasses and dryland plants are adapted to use little water in keeping with local rainfall patterns and infiltration, while helping recharge groundwater. But tree plantations in such areas can increase water uptake and transpiration, depleting the water table. For these reasons, open natural ecosystems deserve protection, including from tree planting. The ATREE study estimates that about 6,452 sq. km. or half the ONEs in Telangana could suffer from inappropriate tree planting. Across India, 51% of ONEs are similarly threatened. *Tree planting in forests can go wrong, too, as best seen in India's flawed compensatory afforestation, where plantations are established ostensibly to compensate for forests destroyed for development projects.* A November 2017 report by Community Forest Rights–Learning and Advocacy (CFR-LA), a group working on forest rights issues, examined 2,479 compensatory afforestation plantations in 10 States listed in the Government's E-Green Watch website, and found that 70% were on forest lands instead of non-forest lands. This signifies a double-loss: the original forest is wiped clear for built infrastructure, while double the area in a new 'afforestation' site is scoured by earthwork, trenches, and concrete structures, only to introduce alien and inappropriate trees neither native to the original destroyed forest nor to the ecosystem in the new location. In effect, *three times the area of some of India's most remarkable forests are being destroyed or disturbed at taxpayer expense in the name of compensatory afforestation.* Planting the wrong species and species mix is legion in tree planting programmes. The species planted are often alien, such as eucalyptus, mesquite, senna, and wattles, or include naturalised species such as gulmohar or neem. *Even where planters claim to use native species, they are generic native species found widely elsewhere in India (such as amla, banyan, or jack) rather than those native to the ecosystem at the planting location.* Worse, the seeds or seedlings are not sourced from local ecosystems or appropriate seed zones, but randomly sourced and trucked in from whichever nursery or market happens to sell them. Only a few tree planting programmes take the required care to identify the correct natural ecosystem and vegetation and bother to ethically source seeds or raise seedlings in local, native plant nurseries.

Without people

In afforestation sites, State forest departments and implementing agencies also plant a pitifully small number of tree species, usually less than 10, often as few as two or three. One study found that more than half of the 2,35,000 ha afforested between 2015 and 2018 used five or fewer species. To take just one random example from 2015, to offset the diversion of 103 ha of forest land for the trans-Arunachal highway, the State planned compensatory afforestation in 310 ha of land in a village forest reserve. Both the original forest and the village reserve would have had hundreds of plant species, but the afforestation, according to details published online, planted five unnamed species at a cost of ₹28 lakh. *Tree planting programmes often fail to consider the roles and rights of local communities, enshrined in the landmark Forest Rights Act (FRA) of 2006.* The CFR-LA report found that of 52 compensatory afforestation plantations in Chhattisgarh, Jharkhand, and Odisha, all were established on community forest lands vested in the village gram sabhas by the FRA, but all were carried out without gram sabha permission. Even during the pandemic in 2020, States such as Chhattisgarh and Odisha continued such afforestation on lands belonging to and used by indigenous people, excluding them by building fences and walls. *Under rules framed by the present government in August 2018, the requirement for gram sabha consent has been done away with, violating local rights and compromising traditional land use, such as for*



fodder and grazing. Crucially, it also fails to empower communities as agents of restoration. Meanwhile, *destructive development projects are poised to destroy millions of native trees in some of our best forests.* A science college in Dehradun set to fell over 25,000 trees, *the Buxwaha diamond mine in Bundelkhand set to hack over 2.15 lakh trees, the Ken-Betwa river-linking project slated to destroy 23 lakh trees, the proposed trans-shipment terminal on Great Nicobar island that will kill untold millions in some of India's most extraordinary forests,* and the list goes on and on. Efforts to protect these existing trees in our forests could do a lot more good than misguided tree planting.

ELEPHANT COUNT NEXT YEAR, WILL BE SIMILAR TO TIGER CENSUS

The Ministry of Environment, Forests and Climate Change will embark next year on a comprehensive elephant count project, on the lines of tiger population assessment and estimation. To be conducted along with the ministry's partners such as Wildlife Institute of India, it will involve identification of each elephant, their clusters as well as health and nutrition level of each elephant – for the first time. *To mark World Elephant Day, Environment, Forest and Climate Change Minister Bhupender Yadav on Thursday released the population estimation protocol to be adopted for the project. This will also be the first time tigers, leopards and elephants will be counted together, said ministry officials.* Speaking on the occasion at an event at Indira Paryavaran Bhavan, the minister stressed on the involvement of local communities and indigenous people in the conservation of elephants and said that a bottom-up approach is the way forward, which will also help in minimising human-elephant conflict. "It is important to have a scientific approach to conservation. But it is also equally important to involve local communities and their traditions as a part of the conservation," Yadav said. Later in the day, he tweeted: *"There has been a need to harmonise population estimation methods along more scientific lines. The MoEFCC for the first time is converging elephant and tiger population estimation." Asian elephants are listed as "Endangered" on the IUCN Red List of threatened species.* This has been done as most of the range nations, except India, have lost their viable elephant populations due to loss of habitat and poaching. *According to current population estimates, there are about 50,000-60,000 Asian elephants in the world, with more than 60 per cent of them in India. The procedure for next year's assessment involves "rigorous statistical analyses of ground data on animal signs, human impacts, habitat attributes and absolute density; it is far more accurate than earlier methods",* said ministry officials. The assessment will be conducted in three phases and *involve ground surveys, analyses of remotely sensed data and camera traps. While this process has always been used for tigers and leopards, elephant population will be assessed using this method for the first time. The agencies will also assess human footprint indices, landscape characteristics and habitat quality. Individual elephants will be identified using a panel of microsatellite markers from dung DNA. As part of Phase III, trained biologists and department personnel will sample elephant groups for demographic parameters and body condition. Elephants will be aged based on size and body characteristics like ears and tusks. Animals will be scored for nutritional status based on body condition.*

NEW MUSEUMS ON J&K, BUDDHA, FREEDOM STRUGGLE

New museums on Jammu and Kashmir, Gautam Buddha, Indian armour and the freedom struggle are expected to be completed this year, according to the Culture Ministry. The museum on Jammu and Kashmir will be set up at a cost of ₹13 crore in the Capital, as per data provided with Culture Minister G. Kishan Reddy's reply to a question in the Lok Sabha on August 9. The museum was

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



expected to be completed by December 31, 2021. "The museum on Jammu and Kashmir, first of its kind in India, captures the essence and spirit of Jammu, Kashmir and Ladakh as an integral part of the nation since ages as Bharat, Hindustan, India. The museum elaborates this by tracing the roots of Jammu, Kashmir and Ladakh since prehistoric times to the present day and telling unheard stories of the region and people which have been lost in the centuries of time," the written reply stated. The Ministry was also working on five other museums to be set up this year, including a museum on Gautam Buddha, being established by the National Museum at a cost of ₹7.5 crore by September 30. *"The museum is being developed in a renovated century-old majestic building and spread over an area of about 15,000 square feet, surrounded by a lush green landscape. Seen through the masterpieces in the National Museum collection, the museum on Gautama Buddha focuses on the religious and traditional aspects of Buddhist heritage in India, forging a new outlook on its spread, development, and cultural synthesis over centuries,"* the reply stated. A first of its kind museum on Buddha, the new museum would have over 200 objects from the 1st Century CE to 19th Century CE, including stone and bronze sculptures, terracotta heads and costumes. In addition, the Ministry was setting up a museum dedicated to the freedom struggle at a renovated barrack at the Red Fort. The museum would be completed by the end of 2021 at a cost of ₹13 crore, the Minister's reply said. "The museum will narrate the story of the country's freedom struggle in an interactive manner with more emphasis on the unheard stories of people's participation in India's freedom movement representing contribution of all regions," the reply said. Another museum being developed at the Red Fort by end of October would showcase arms and armour of India through the ages. *The Ministry is also in the process of setting up a museum dedicated to freedom fighters at the Victoria Memorial Hall in Kolkata, called 'Biplobi Bharat', in August, and the Prime Ministers' Museum at the Nehru Memorial Museum and Library by October.*

LOCATION OF DARA SHIKOH'S GRAVE STILL A MYSTERY

The final resting place of Mughal prince Dara Shikoh remains a mystery, with the Archaeological Survey of India saying it has not located the grave within the Humayun's Tomb complex over a year after a committee was formed for the job. In response to a Right to Information query by The Hindu, the ASI on July 28 replied "no" when asked if it had located the grave of Dara Shikoh inside the complex. The government's quest for locating the grave, which some believe is among the many unmarked graves inside the complex, started in February 2020. *Then Culture Minister Prahlad Singh Patel had announced the setting up of a committee to locate the grave. Dara Shikoh, who was Mughal emperor Shah Jahan's son and expected heir, was killed on the orders of his brother Aurangzeb in 1659 after losing the war of succession.* While there are some mentions of his grave in texts, there has not been a consensus among historians as to where exactly he was laid to rest. *On December 17, 2020, speaking during a ceremony at Rahim's Tomb, Mr. Patel said the committee had submitted its interim report and that after one more meeting, it would be publicly released. Mr. Patel said it was Dara Shikoh who was responsible for making the Upanishads available to the West as he had them translated.* Then, on March 9 this year, Mr. Patel replied to a question in the Rajya Sabha that a *committee had been formed to study the tangible and cultural heritage of Dara Shikoh and Rahim Khan-e-Khana. "Tangible remains of Dara Shikoh are expected outcome. Report of the committee is awaited,"* his reply stated. Members of the panel have failed to reach a consensus. One of the members of the committee, retired ASI Additional Director-General B.R. Mani, was of the opinion that there was enough evidence to say that one of the three unmarked cenotaphs in a row marked Dara Shikoh's resting place. Mr. Mani told The Hindu on Saturday that he had

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



submitted his own opinion to the ASI a few months ago. Interestingly, a South Delhi Municipal Corporation (SDMC) engineer Sanjeev Kumar Singh had claimed that Alamgirnama, the history of Aurangzeb's reign, said that Dara Shikoh was buried with emperor Akbar's sons, Daniyal and Murad. Mr. Mani said he agreed.

Some sceptical

Other committee members, however, were sceptical. Former Joint Director-General of ASI R.S. Bisht said "there was no irrefutable evidence" about the location of the grave. He added that *Alamgirnama was written by the court historian of Aurangzeb who would have wanted to paint him in a better light. "If he [Aurangzeb] really cared, he wouldn't have had his brother killed and his body paraded through Delhi," Mr. Bisht said. He added that there were other ways to honour Dara Shikoh, "a man of letters" who was known for his "tolerance and academic aspects", like restoring his library and the dargahs of Sufi saints he followed. A committee member and former ASI Director (Archaeology), Syed Jamal Hassan, said it was difficult to identify the grave as there were no inscriptions, and references did not confirm the site as well. He added that he had submitted his opinion to the ASI, that he disagreed with the SDMC engineer's claim. He said the three cenotaphs in question were on one platform and looked to be made at the same time.* ASI Director-General V. Vidyavathi could not be reached for comment.

ANCESTRAL DRAVIDIAN TONGUES SPOKEN ON INDUS VALLEY SITES

A recent publication has provided crucial evidence that ancestral *Dravidian languages were possibly spoken by a significant population in the Indus Valley Civilisation*. The paper titled "*Ancestral Dravidian Languages in Indus Civilization: Ultraconserved Dravidian Tooth-word Reveals Deep Linguistic Ancestry and Supports Genetics*", by Bahata Ansumali Mukhopadhyay was published this month in a Nature Group journal *Humanities and Social Sciences Communications*. This study seeks to resolve a crucial part of this perennial puzzle of South Asian prehistory, through establishing the certain existence of ancestral Dravidian language(s) in the Indus Valley Civilisation. In the absence of any deciphered written documents of Indus Valley Civilisation, there are no direct ways of identifying Harappan languages. Thus, the only feasible starting point is to find certain proto-words whose likely origin in Indus Valley Civilisation gets confirmed through historical and linguistic evidence, whereas archaeological evidence indicates that the objects signified by those proto-words were prevalently produced and used in the Indus Valley Civilisation. *Analysing numerous archaeological, linguistic, archaeogenetic and historical evidences the study finds some such proto-words. It claims that the words used for elephant (like, 'pīri', 'pīru') in Bronze Age Mesopotamia, the elephant-word used in the Hurrian part of an Amarna letter of ca. 1400 BC, and the ivory-word ('pīruš') recorded in certain sixth century BC old Persian documents, were all originally borrowed from 'pīlu', a Proto-Dravidian elephant-word, which was prevalent in the Indus Valley civilisation, and was etymologically related to the Proto Dravidian tooth-word '*pal' and its alternative forms ('*pel'/*pīl'/*pi'/). Analysing Dravidian grammar and phonology, Ms. Bahata, a software technologist in Bengaluru, says the elephant words 'pīlu', 'palla', 'pallava', 'pillavam', etc., which are attested in various Dravidian dictionaries, are related to the Proto-Dravidian tooth-word "pal". The paper points out that elephant-ivory was one of the luxury goods coveted in the Near East.* The researcher, however, makes a disclaimer, saying that it would be wrong to assume that only a single language or language-group was spoken across the one-million



square kilometre area of the Indus Valley civilisation. “Even today, people across the greater Indus Valley speak several tongues including Indo-Aryan, Dardic, Iranian, along with the isolated Dravidian language Brahui and the language isolate Burushaski,” she added.

GOLDEN ARM

India took on a golden glow at Tokyo on Saturday as Neeraj Chopra hurled the javelin to fetch the country its first Olympics gold in track and field. Neeraj’s winning effort at 87.58m capped the finest ever performance by Indian sportspersons in the quadrennial global stage. India won seven medals — one gold, two silvers and four bronzes — and cumulatively edged past the previous best of six at the 2012 London Games. For a country resigned to a meagre yield or none at the Olympics since its debut in 1900, the latest edition was laden with riches. At 23, Neeraj has the world at his feet and the skies to aim for. The Indian Army man has grown in stature, and to supplant German Johannes Vetter, until now the world’s best javelin thrower, was no mean task. Neeraj’s golden tryst was special at many levels; it was India’s maiden gold in athletics at the Olympics while Norman Pritchard had won two silvers in 1900. It was also India’s second individual gold at the Games after shooter Abhinav Bindra hit bullseye at Beijing in 2008. That Neeraj had previously won golds in the Asian Games and Commonwealth Games are all pointers to a journey that is on cruise-mode while his coach Klaus Bartonietz keeps a close watch. Neeraj’s dash of magic seasoned in sweat and muscle, found mirror-images within the Indian contingent. Wrestler Bajrang Punia won bronze in the men’s freestyle 65kg bout, pinning down Kazakhstan’s Daulet Niyazbekov. It also bolstered India’s medals’ kitty that had prior contributions from Mirabai Chanu, Lovlina Borgohain, Ravi Kumar Dahiya, P.V. Sindhu and the men’s hockey team. What stood out was the Indian contingent’s belief that they can compete on level terms with their fancied rivals. It showed in Aditi Ashok’s golfing endeavour as she came tantalisingly close to silver before a rain-marred day out at the greens undid her rhythm and the Bangalorean finished at the fourth spot. When the curtains were lowered on the latest Olympics on Sunday, the India-story was largely driven by Neeraj, hockey-renaissance and women-power while shooting proved under-whelming. Among the rest, it was status quo as the United States of America and China led the medals tally with host Japan and Great Britain following while India was placed 48th in the table. Usain Bolt’s stardust was missed but Jamaica’s Elaine Thompson-Herah added zest while setting a new Olympic record of 10.61 seconds in the women’s 100m sprint. The pandemic delayed the Games by a year but it marches on unhindered while the fans look forward to the 2024 version at Paris.



BUSINESS & ECONOMICS

WHY ARE SOME STATES AGAINST ELECTRICITY BILL

The Central government is facing opposition to the Electricity Amendment Bill 2021 even before it is introduced in Parliament. West Bengal Chief Minister Mamata Banerjee has written to the Prime Minister requesting that the Bill not be brought before Parliament claiming it was “anti-people” and would promote crony capitalism. We examine key provisions of the Electricity Amendment Bill 2021 and why they are raising key concerns.

What are the key changes in the Electricity Act that the amendment seeks to bring?

The Amendment is bringing in provisions *to de-license power distribution allowing private sector players to enter the sector and compete with state-owned power distribution companies (discoms)*. The move would allow consumers to choose between power distribution companies. Finance Minister Nirmala Sitharaman had announced in the union budget that the government would bring a framework to allow consumers to choose between power distribution companies. *Power distribution in most of the country is currently controlled by state-owned distribution companies with some cities including Delhi, Mumbai and Ahmedabad being exceptions where private players operate power distribution. Discoms are however struggling with high levels of losses and debt. The government has brought out a number of schemes to restructure the outstanding debts of discoms while incentivising them to reduce losses.* However, such schemes have only brought short term financial space for discoms which have tended to continue to accumulate losses and debts post restructuring schemes such as the UDAY scheme launched by the government in 2015.

What are the objections to delicensing of power distribution?

States have highlighted concerns that *allowing the entry of private players could lead to “cherry-picking”, with private players providing power to only commercial and industrial consumers and not residential and agricultural consumers.* Tariffs for power currently vary widely in India with commercial and industrial players *cross subsidise* the power consumption of rural residential consumers and agricultural consumers by paying far higher tariffs. *Mamata Banerjee said in her letter to the Prime Minister that the amendment would lead to “a concentration of private, profit-focussed utility players in the lucrative urban-industrial segments while poor and rural consumers would be left to be tended by public sector discoms.”*

What are other key concerns?

Other key concerns that states have raised are *higher penalties for failure to meet Renewable energy Purchase Obligations (RPOs) and the requirement that Regional Load Dispatch Centres and State Load Dispatch Centres follow instructions by the National Load Dispatch Centre.* Mamata Banerjee said in her letter to the Prime Minister that the proposed amendment “strikes at the roots of federalism”. States have also thus far failed to meet earlier RPOs and had also requested a rationalisation of penalties for not meeting RPO requirements.



GROWTH NEEDS STEPS BEYOND REFORMS

The Indian economy has travelled through an eventful period through the last three decades. In the post-independence economic history of our country, *1991 stands out as a watershed year*. This was the year in which the economy was faced *with a severe balance of payments crisis*. In response, *we launched a wide-ranging economic programme, not just to restore the balance of payments but to reform, restructure and modernise the economy*. Thus, the crisis was converted into an opportunity to bring about fundamental changes in the approach and conduct of economic policy. A near tragedy was averted and a new path was laid out before the country. The words of Charles Dickens in somewhat reverse order seem appropriate: "It was the worst of times, It was the best of times,... it was the winter of despair, it was the spring of hope."

The shift, key players

It is important to recognise in what way the new regime was different from the earlier one. The break with the past came in three important ways: *in dismantling the vast network of licences, controls and permits that dominated the economic system; in redesigning the role of the state and allowing the private sector a larger space to operate within, and in abandoning the inward looking foreign trade policy and getting integrated with the world economy and trade*. The last was particularly important because it was the opposite of what we normally did when faced with a balance of payments crisis. Dr. Manmohan Singh as Finance Minister spearheaded the new policy. He articulated the need for change and provided not only the broad framework but also the details of the reforms. P.V. Narasimha Rao as Prime Minister gave the valuable political support and shield which were very much needed. It must be noted that as Prime Minister, P.V. Narasimha Rao also held the portfolio of Industry which was directly responsible for initiating the changes that led to the dismantling of various types of controls and licences related to the industrial sector. This was indeed a key element of the reform programme. At the ministerial level, strong support came from P. Chidambaram as Commerce Minister who oversaw the transformation of the external sector.

The metrics

There is a common thread running through the various measures introduced since 1991. *The objective has been to improve the productivity and efficiency of the system by creating a more competitive environment*. Thus, barriers to entry and growth were removed. As the saying goes, the proof of the pudding is in the eating. It is therefore appropriate to look at three broad parameters to judge the performance of the economy after liberalisation — growth rate, current account deficit and poverty reduction. *Between 1992-93 and 2000-01, GDP at factor cost grew annually by 6.20%. Between 2001-02 and 2010-11, it grew by 7.69% and the growth rate between 2011-12 and 2019-20, was 6.51%. The best performance was between 2005-06 and 2010-11 when the GDP grew by 8.7% showing clearly what the potential growth rate of India was. This is the highest growth experienced by India over a sustained period of five to six years*. This is despite the fact that this period included the global crisis year of 2008-09. *The recent decline in growth rate which started even before the advent of COVID-19 should make policymakers reflect and introspect*.



Foreign reserves

The balance of payments situation had remained comfortable. There were three years in which the current account showed a small surplus. Most of the years showed a small deficit. The exceptions were 2011-12 and 2012-13 when the current account deficit exceeded 4%. This was taken care of quickly. Foreign exchange reserves showed a substantial increase and touched \$621 billion as of last week. The opening up of the external sector, which included liberal trade policy, market determined exchange rate and a liberal flow of external resources, has greatly strengthened the external sector. Of course, we still run a high merchandise trade deficit which is offset to a large extent by the surplus in services.

Poverty ratio

Besides growth, the other major objective of economic policy is to reduce the number of people living below the poverty line. There are many problems associated with the definition of poverty and the kind of data required to measure it. *Going by the procedure adopted by the erstwhile Planning Commission using the Tendulkar expert group methodology, the overall poverty ratio came down from 45.3% in 1993-94 to 37.2% in 2004-05 and further down to 21.9% in 2011-12.* The per year reduction in percentage points in poverty ratio between 2004-05 and 2011-12 was 2.18. The post-reform period up to 2011-12 did see a significant reduction in poverty ratio because of *faster growth supplemented by appropriate poverty reduction programmes such as the Rural Employment Guarantee Scheme and the Extended Food Security Scheme.* With the decline in growth rate since then and with a negative growth in 2020-21, this trend must have reversed, i.e. the poverty rate may have increased. Had the growth trend seen up to 2011-12 continued, we would have an unqualified answer to the impact of reforms on growth. Growth requires more than reforms. Reforms are, in the words of economists, only a necessary condition. *It is not sufficient. In a developing economy, in the final analysis, growth is driven by investment. It is the decline in investment rate of nearly five percentage points since 2010-11 that has led to the progressive decline of the growth rate.* Reforms normally create a natural climate for investment. But 'animal spirits' are *also influenced by non-economic factors such as social cohesion.* Reforms supplemented by a careful nurturing of the investment climate are needed to spur growth again. This should become the sole concern of policy makers.

Need for continuity

The reform agenda must continue. It will be incremental in character. It has to be. Policymakers should be clear about the directions in which they should move. First of all, there is a need to move in the same direction in which we have been moving in the past three decades. Policymakers should identify the sectors which need reforms in terms of creating a competitive environment and improving the performance efficiency. From this angle, we need to take a relook at the financial system, power sector and governance. Centre and States must be joint partners in this effort. Second, in terms of government performance, there should be increased focus on social sectors such as health and education. In terms of the provision of services, the emphasis must be not just on quantitative expansion but also quality. To achieve the latter is even more difficult. The advent of COVID-19 has clearly shown our inadequate health facilities and preparedness. Reforms are necessary to improve the productivity of the economy and achieve higher growth. But the story does not end there. We cannot ignore equity considerations. *Growth and equity must go*



together. They must not be posed as opposing considerations. They are truly interdependent. It is only in an environment of high growth, equity can be pushed aggressively.

MFIS URGE RBI TO DROP URBAN, RURAL DIFFERENCE FOR BORROWERS

*Microfinance lenders have urged the Reserve Bank of India (RBI) to drop the distinction between urban and rural households in its proposed new definition of eligible borrowers and allow the use of ration cards to identify households. Currently, a microfinance borrower is identified by annual household income not exceeding ₹1.25 lakh for rural areas and ₹2 lakh for urban and semi-urban areas. As per fresh norms drafted for the sector in June, the RBI proposed retaining these thresholds while tweaking the definition of households in line with that used by the National Sample Survey Office — a group of persons normally living together and taking food from a common kitchen. Sa-Dhan, a self-regulatory body representing microfinance institutions (MFIs), has suggested that the central bank peg the annual income limit at ₹2 lakh for both urban and rural households, and revise the threshold based on inflation, perhaps once in 2-3 years. Stressing that the household definition may not work for migrant labourers, Sa-dhan said that using the ration card as an identifier should help. “While they won’t be living together and using the common kitchen, migrant labour contribute in the household income. “Therefore, exclusion of these members will give an improper household income assessment,” it noted, adding that **around 19% of the rural population and 33% of the urban population, however, do not possess any ration card.***

TIGHTROPE WALK

Governor Shaktikanta Das’s statement accompanying the RBI’s latest policy announcement highlights the bind that monetary authorities find themselves in. While the central bank’s growth supportive actions — maintaining the benchmark interest rate at a decade low, ensuring ample liquidity and an accommodative policy stance — are yet to help engender a meaningful recovery, inflation continues to disquietingly hover around the 6% upper bound of its mandated target. Governor Das acknowledged the RBI’s predicament when he said: “Before the onset of the pandemic, headline inflation and inflationary expectations were well anchored at 4%, the gains from which need to be consolidated and preserved. Stability in inflation rate fosters credibility of the monetary policy framework and augurs well for anchoring inflation expectations. This, in turn, reduces uncertainty for investors... increases external competitiveness and, thus, is growth-promoting.” *It is this vital inflation targeting remit that the Monetary Policy Committee has temporarily set aside in the wake of COVID-19 and its brutal impact, while the central bank focuses its efforts on using all available policy tools to simultaneously preserve financial stability and support a durable economic revival.* Still, the central bank’s outlook for growth and inflation shows it is cognisant of the ground realities and the limits to its policy options. Asserting that domestic economic activity has started to recover with the ‘ebbing of the second wave’, the MPC is hopeful of a bounce back in rural demand on the back of agricultural output remaining resilient, coupled with urban consumption recovering as the manufacturing and service sectors rebound with a lag, and as increased vaccinations help release pent-up demand. However, given that underlying conditions are still weak and the Current Situation Index of consumer confidence in its own July survey is still stuck near the all-time low polled in May, the RBI has retained its full-year GDP growth forecast at 9.5%. The fact that it has at the same time lowered the Q2, Q3 and Q4 growth projections it made just two months ago, by between 0.5 and 0.9 percentage points, belies the

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



uncertainty in its outlook. *With the monsoon rainfall deficit once again widening to minus 4% as on August 8, latest kharif sowing estimates revealing an almost 23% shortfall and composite PMI data for July showing a persistent contraction in business activity and continuing job losses, it is hard to see either a near-term revival in demand or an easing in inflationary pressures from cereal and edible oil prices.* Admitting the price pressures, the RBI has also raised its fiscal-year inflation projection by 60 basis points to 5.7%. Also, *with one of the six members of the MPC dissenting and voting against the language of the policy stance, it seems clear the central bank may sooner than later have to bite the bullet and start normalising rates if it wants to avoid undermining its own credibility by delaying steps to rein in inflation.*

HOW WILL DIGITAL VOUCHER PAYMENT SYSTEM WORK?

On August 2, Prime Minister Narendra Modi launched a new digital payment system to send the government's monetary benefits directly to beneficiaries' mobile phones. *The e-RUPI platform, developed by the National Payments Corporation of India (NPCI), the Department of Financial Services, the National Health Authority and the Ministry of Health and Family Welfare, is said to be 'leak-proof' and offers non-transferable monetary service to citizens.* The e-RUPI system is accessible to anyone with a mobile phone, even if the recipient does not have a bank account. It comes in the form of *one-time use e-vouchers to access government health services.* It could gradually be implemented to cover welfare services a beneficiary is already receiving from different government agencies.

What is the need for this?

The e-RUPI is a digital voucher that can be redeemed by beneficiaries to avail themselves of a specific service. *The digital platform does not require a card, app or internet access to redeem an e-voucher.* The e-vouchers can be issued by the government or private entities to the beneficiaries through QR codes or long-string SMS. The service is aimed at plugging holes in the existing welfare payment disbursement system. "The idea here is to track and trace how the subsidies and benefits given to citizens are used," Mihir Gandhi, partner at PwC, told The Hindu. Secondly, with e-RUPI, government agencies can keep track of how much of the allocated funds have been disbursed to citizens. Otherwise, carrying out reconciliation for unused subsidies could be an accounting "nightmare for the government", Mr. Gandhi explained.

How does e-RUPI work and where can it be used?

The contactless prepaid payment system can be issued by both government agencies and corporate entities to a specific individual to avail a targeted service. *The Union government plans to use e-RUPI for its COVID-19 vaccination drive for citizens and gradually implement it as part of other government schemes.* To begin with, the NPCI has tied up with more than 1,600 hospitals where e-RUPI can be redeemed. The transaction begins with a QR code or a long-string SMS pushed into a beneficiary's mobile device. The beneficiary will then need to show it to the welfare service provider to authenticate the transaction. *Citizens do not have to carry any printout, and as these vouchers are created for a specific purpose, they cannot be transferred or cashed out. e-RUPI is powered by the NPCI's UPI platform, and the service has authorised 11 banks to issue digital vouchers.* These include both private and public banks. Beneficiaries will be identified by their mobile numbers, and the e-vouchers will be sent to their phone through the bank's voucher



management system. The digital voucher can only be issued by a government agency or a corporate entity. It cannot be issued by one person to another.

Is it a digital currency?

The e-RUPI is built for a specific transaction to avail a service at a particular welfare centre. The digital vouchers have a one-time use case and they can't be transferred. This puts e-RUPI within a voucher-based payment system rather than a virtual currency. But the government's move could be a good starting point to experiment with digital currency.

What are some of the challenges in implementation?

A 2018 research by Harvard University revealed a 33-percentage point gender gap in mobile phone ownership in India. In their study titled 'A tough call: Understanding barriers to and impacts of women's mobile phone adoption in India,' the authors point to the economic and normative barriers as important drivers of the mobile gender gap. They also note that the disparity exists across Indian society, and is not limited to rural, less educated or poorer groups. In the same study, even among men, only 71% owned a cell phone, an essential device to access digital schemes like the e-RUPI vouchers. Closing the mobile gender gap and enabling a large proportion of citizens to own a mobile phone will remain a problem to be solved.

GOVT. ALLOWS GM SOY MEAL IMPORT TO SUPPORT POULTRY INDUSTRY

There was some relief for the beleaguered poultry industry this week with the Union government deciding to allow the import of crushed genetically modified (GM) soybean, which is a major ingredient of poultry feed. However, environmental activists have raised concerns about the permission given for something derived from a genetically modified plant to enter the human food chain, given that *India's regulatory system has yet to approve GM foods.* The poultry industry has been crushed by multiple disasters over the last year and a half. In January 2020, a false rumour that *COVID-19* could be spread by eating chicken meat led to a crash in demand. If the losses in both the broiler and layer sectors are included — that is, both meat and eggs — it amounted to ₹28,000 crore, according to All India Poultry Breeders Association chairman Bahadur Ali. A year later, *avian flu* cases led to another crash, followed by a crippling rise in the prices of poultry feed. "Poultry feed makes up 65% of the cost of production for the farmer. *Soy meal [which is left over after oil is extracted from the bean] is the main protein ingredient in the feed, especially for broilers.* Over the last three to four years, soy meal has been available at an average cost of ₹34 to 36/kg. This month, it shot up to ₹96/kg," said Mr. Ali. *The poultry industry has been lobbying for the import of soy meal to tide over domestic shortages and tame prices, but have been stymied by the grey area of regulation regarding genetically modified ingredients.* On August 10, the Department of Animal Husbandry and Dairying (DAHD) notified the Customs Department that soy meal and oil cake from GM soy would be permitted for import. In a letter to the poultry breeders, the DAHD cited the Environment Ministry, saying it had no objection "since soya de-oiled and crushed cake did not contain any living organism". *The Coalition for a GM-Free India, which includes consumer rights groups and sustainable farming groups, termed the decision "highly objectionable and legally untenable".* It noted that the 1989 rules of the Environment Protection Act applied not just to GM organisms, but also products and substances thereof.



REVISIT THE IDEA OF 'AGING OUT' INDIA'S COAL PLANTS

As part of the Union Budget address for 2020-21, the Finance Minister, *Nirmala Sitharaman, said that the shutting down of old coal power plants, which are major contributors to emissions, will aid the achievement of India's Nationally Determined Contributions*, an idea which has been endorsed by the Power Minister, R.K. Singh (<https://bit.ly/3jQnQxl>).

Some studies cite advantages

Some research studies have also argued in favour of it, citing the economic and the environmental benefits of shutting down coal plants older than, say, 25 years. *It is argued that the availability of under-utilised newer (and presumably more efficient) coal-based capacity means that shutting down older inefficient plants would lead to improved efficiencies, reduced coal usage, and hence, cost savings.* Further, it is argued that it *would be uneconomical for old plants to install pollution control equipment required to meet the emission standards announced by the Environment Ministry*, and hence it would be better to retire them. *The recent order from the Central Electricity Regulatory Commission (CERC) allowing Delhi's BSES distribution company to exit its concluded 25 year old power purchase agreement with the National Thermal Power Corporation Limited's Dadri-I generating station*, also lends some credence to this. Since plants older than 25 years make up around 20% of the total installed thermal capacity in the country and play a significant role in the country's power supply, decisions regarding their retirement merit finer scrutiny to see if the claimed benefits really accrue.

The benefits

How significant are the potential benefits? While there are some old plants tied up in expensive power purchase agreements, as in the case of the CERC order, there are also several old plants, which generate at lower costs. For instance, *plants such as Rihand, Singrauli (both Uttar Pradesh), and Vidhyanchal (Madhya Pradesh), are all over 30 years old and have very low generation costs of around ₹1.7/kWh, which is lower than the national average. This may be due to locational advantage rather than efficiency, as older plants are likely to be located closer to the coal source, reducing coal transport costs.* However, this just highlights the complexity of the issue, since *efficiency does not naturally translate to savings.*

A savings analysis

Indeed, our analysis (<https://bit.ly/3jDat3a>) suggests that the total savings in generation cost from shutting down plants older than 25 years would be less than ₹5,000 crore annually, which is just 2% of the total power generation cost. *These savings may not be sufficient to even pay for the fixed costs (such as debt repayment) that would have to be paid anyway, even if the plants are prematurely retired. Similarly, savings in coal consumption by replacing generation from plants older than 25 years with newer coal plants are also likely to be only in the 1%-2% range.* The argument about older plants finding it uneconomical to install pollution control equipment to meet environmental norms is a stronger one, as all coal plants should indeed reduce emissions. However, even here, the argument is not black-and-white. There are some old plants that may continue to be economically viable even if they install pollution control equipment as their current fixed costs (which would increase with pollution control equipment installation) are very low.



Indeed, *about half the coal capacity older than 25 years has already issued tenders for pollution control equipment installation.*

Risks with retirement

The question then becomes whether these limited savings are worth the risks associated with early retirement of coal plants, especially given the current trends in the country's power sector. *To support the growing intermittent renewable generation in the sector, there is an increasing need for capacity that can provide flexibility, balancing, and ancillary services. Old thermal capacity, with lower fixed costs, is a prime candidate to play this role until other technologies (such as storage) can replace them at scale.* Further, *the capacity value of the old capacity is critical to meet instantaneous peak load, and to meet load when renewable energy is unavailable.* There is also a political economy risk, *as aggressive early retirement of coal-based capacity, without detailed analyses, could result in real or perceived electricity shortage in some States,* leading to calls for investments in coal-based base-load capacity by State-owned entities. About 65 gigawatts (GW) of thermal capacity is already in the pipeline, of which about 35 GW is in various stages of construction. This is likely in excess of what the country needs, and further addition to it, driven by State political economy considerations, will lead to stranded assets and locked-in resources. This is not to say that no old plant should be retired. However, using age as the only lever to drive these decisions is too blunt an instrument, and can prove counter-productive. Instead, *a more disaggregated and nuanced analysis, considering the various technical, economic and operating characteristics of individual plants and units, while also accounting for aspects such as intermittency of renewables, growing demand, and need to meet emission norms, would be appropriate to make retirement-related decisions.* Hence, it may be prudent to let old capacity fade away in due course, while focusing on such detailed analysis and weeding out the needless capacity in the pipeline, to derive long-term economic and environmental benefits.

WHY SCRAP OLD CARS, AND HOW

The launch of India's vehicle scrapping policy, or the *"Voluntary Vehicle-Fleet Modernisation Programme"*, seeks to usher in a new age of what it means to own and use an automobile in India. It was unveiled in Parliament in March by Road Transport & Highways Minister Nitin Gadkari. On Friday, while launching the policy in an investor summit in Gujarat, Prime Minister Narendra Modi said it would help phase out unfit and polluting vehicles in an environment-friendly manner. "Our aim is to create a viable circular economy and bring value for all stakeholders while being environmentally responsible," he said. *The policy dictates that all automobiles over a certain age should be off the roads in the interest of better pollution control and safety, which new vehicles ensure. Commercial vehicles over 15 years old and personal vehicles over 20 years old are marked for scrapping — it doesn't matter if they run on diesel or petrol — if they fail an automated fitness test. These will be deregistered; the owner can choose to scrap them, but cannot use them on the road.*

What is a circular economy?

A circular economy depends on reuse, sharing, repair, refurbishment, remanufacturing and recycling of resources to create a closed-loop system, minimising the use of resources, generation of waste, pollution and carbon emissions. When a car is scrapped, apart from metals including iron and steel,



many other parts may emerge that can be refurbished and ploughed back into use. Recycled steel from scrap, even seats and plastic parts, have value in the scrap economy. It is similar to the economic activity of scrapping of old ships, like in Alang shipbreaking yard in Gujarat. In a circular economy, products, materials, equipment and infrastructure are kept in use for longer, thus improving productivity.

How many vehicles will come under its ambit initially?

India has 51 lakh light motor vehicles that are more than 20 years old and 34 lakh over 15 years old. Around 17 lakh medium and heavy commercial vehicles are older than 15 years without valid fitness certificates, according to data with the Ministry of Road Transport and Highways. This does not mean that vehicle owners need to rush to scrap their old vehicles. *India is still not ready with the infrastructure to either test or scrap vehicles in such large numbers. The investor summit seeks to sensitise India's industry about the scope and profitability of the scrapping industry.* Gadkari had told Parliament in March that *the resultant ecosystem can attract investment worth Rs 10,000 crore and create 35,000 new jobs.*

When is the implementation happening?

The government has come out with rules and specifications on what kind of Automated Fitness Centres should come up and who can set them up. It has also come up with how the scrapping yards should be. It will give India Inc time to come up with an ecosystem wherein testing and subsequent scrapping can happen organically without the consumer facing duress. That is why *mandatory testing of heavy commercial vehicles will start in April 2023, and that of other categories of vehicles — personal vehicles, for instance — will start, in a phased manner, in June 2024.* There are talks within the government to alter the rollout plan by a few months.

Why should I scrap?

To help vehicle owners find a reason to retire old vehicles, the government envisages that the scrapping certificate will entitle the owner with something extra, such as a tax rebate, sops, and a discount on the new car. The certificate is tradable, which means it can be used by anyone and not necessarily by the owner of the scrapped vehicle.

Does it help the economy?

Globally, a scrapping policy has been followed by boost in demand in the auto manufacturing sector, especially in Europe and the US. This has also been a tool to deal with economic slowdown in the manufacturing sector and consumption due to recession. Besides, there are spelt-out benefits vis-à-vis environment since newer cars come with better emission standards and better fuel efficiency.

What if an old personal vehicle passes the fitness test?

In that case, the owner can continue to use it, but the charges for reregistration will be much steeper. In a draft notification issued in March, reregistration charges of all vehicles have been proposed to be hiked from eight to around 20 times, depending on the type of vehicle. These charges will kick in from October this year. Personal vehicles, for instance, are up for reregistration after they have completed 15 years.



What will the fitness centres be like?

Automated Fitness Centres will have tracks and equipment suitable to test for various criteria such as emission norms, braking and other parameters, without human intervention. The Ministry has requested states to consider providing land for free for these centres. Market demand will drive the number and concentration of fitness centres in an urban area. For example, Delhi with its huge vehicle fleet may have more fitness centres than a city with much fewer cars. But the government wants at least 718, or one in each district. The Centre is promoting model Inspection and Certification Centres worth Rs 17 crore in all states. It has sanctioned 26 such model centres. The Centre does not want these facilities too far from city centres, so that vehicle owners do not have to travel great distances. As for scrapping centres, the Ministry has elaborated how these will be operated. These are not exactly new in India. Notably, MMRPL, a joint venture between Mahindra and state-owned MSTC Limited, is one of the first such centres in India, operating out of Greater Noida.

EASY OPTION FOR RETAIL INVESTORS TO BUY AMAZON, APPLE, GOOGLE STOCKS

Indian retail investors will be able to transact in stocks like Google or Apple listed on US exchanges, with the NSE International Exchange (NSE IFSC) and the BSE's India International Exchange (INX) announcing that trading will soon be facilitated through their IFSC platforms in GIFT City, Ahmedabad.

What is the model?

The entire trading, clearing, settlement and holding of US Stocks will be under the regulatory structure of IFSC Authority. Indian retail investors can transact on the NSE IFSC platform within the *Liberalised Remittance Scheme (LRS)* limits prescribed by the RBI: they can take out or *remit \$250,000 every financial year*. Investors will be provided an option to trade in fractional quantity/value compared to the underlying shares traded in US markets. *Sources say the cap for one unit of a stock is likely to be \$8*. The offering, facilitated under the Regulatory Sandbox, will be in the form of unsponsored depositary receipts. "By investing through the NSE IFSC platform, investors will be able to purchase a fraction of a stock. This will increase the affordability of investing in US equities," said Suresh Swamy, Partner, Price Waterhouse & Co LLP. *BSE's INX proposes to offer stocks from the US, Canada, the UK, Europe, Australia and Japan, covering about 80% of the investing universe through its IFSC platform. It will eventually provide access to over 130 exchanges across 31 countries.*

What's the advantage for investors?

The NSE IFSC business model will not only provide an additional opportunity for investment but also make the entire process easy and at a lower cost. NSE IFSC Clearing Corporation Ltd will offer its robust risk management framework, facilitate clearing and settlement of all trades in depositary receipts, and provide settlement guarantee in respect of all trades executed on the IFSC platform. All the trades will also be covered under the investor protection framework at NSE IFSC. *The NSE is yet to announce the US stocks to be available for trading; analysts say Google, Facebook and Apple are likely to be available.*



At present, what are the avenues for investing in the US?

Currently, Indians can open accounts in US brokerages and remit the funds under the LRS limit. This route is cumbersome; besides, investment gains will be taxed in India. Also, many Indian mutual funds are investing in US stocks through fund-of-funds schemes; Indian MF investors cannot hold these directly. Trading through the IFSC platform move is expected to make the process easier and more accessible.

How will these investments be taxed?

Investment in international equity funds attracts debt taxation in India. So if the holding period is less than three years, capital gains are taxed as per the income tax slab; if it is more than three years, it will be taxed at 20% with indexation benefit. By comparison, while there is no long-term capital gains tax (over 1 year) on gains of up to Rs 1 lakh, they attract a 10% LTCG on gains above Rs 1 lakh. As for direct investment through NSE IFSC, Swamy said, "There is will no securities transaction tax for investing in US equities. Resident investors will have to pay long-term capital gains tax (over 36 months) of 20% with indexation benefit, and short-term capital gains tax at marginal tax rate. While the platform is available to resident Indians, even NRIs/ FPIs can invest through this platform. They will have to pay LTCG of (over 36 months) of 10% without indexation benefit and STCG at 30% or marginal tax rate that may be applicable subject to tax treaties."

Why invest in US equities?

While the investment route could be either mutual funds or direct equity, there are several benefits of investing in a developed market where large companies innovate and work on new technology, drug research, defence R&D and other key areas. A large number of market leaders are listed in the US. For Indian investors, who are regular consumers of their products, the new options provide an opportunity to be a part of the growth story of these companies. *They also provide a currency hedge for those who plan to send their children abroad for studies. While all assets in India are valued in rupees, when someone decides to send a child abroad, one has to convert the rupee into dollars and pay. If one parks a part of their overall investment in US equities, it provides a hedge against rupee depreciation against the dollar.*

ISSUES IN ANTITRUST PROBE AGAINST AMAZON AND FLIPKART

The Supreme Court has ruled that India's competition regulator will proceed with antitrust investigations against e-commerce giants Amazon and Walmart-owned Flipkart. A Bench headed by Chief Justice of India N V Ramana and also comprising Justices Vineet Saran and Surya Kant dismissed petitions by the companies asking that the investigation be quashed. Earlier, the High Court had declined to interfere with the preliminary enquiry ordered by the Competition Commission of India (CCI) into the alleged anti-competitive practices of the two companies.

CCI investigation

Last year, CCI had ordered an investigation based on allegations by the trade body Delhi Vyapar Mahasangh that Amazon and Flipkart had entered into exclusive sales agreements with smartphone makers to sell certain phones through a small number of preferred sellers. The Mahasangh also alleged that Amazon and Flipkart had given *preferential treatment to certain sellers by giving them*

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



higher search rankings, and offering to pay for part of the discount that such sellers would offer during key sales periods such as Flipkart's Big Billion Days and Amazon's Prime Day. *The CCI noted that arrangements between smartphone brands and online platforms leading to a few sellers selling certain phones exclusively on a single platform, coupled with alleged links between the platforms and these sellers, merited an investigation.* (Incidentally, Amazon India announced on Monday that it was ending its participation in the joint venture Prione Business Services, which owns one such preferred seller — Cloutail India Pvt Ltd — that has, according to the Mahasangh, benefitted from preferential treatment by Amazon.)

Companies' pushback

Amazon and Flipkart approached the Karnataka High Court with a plea to quash the CCI order on the ground that there were no agreements between the platforms and the sellers that could be shown to have the potential to negatively impact competition. They also argued that CCI had not formed a prima facie opinion on such potential impact while passing the order. And it was the manufacturer's choice to sell a smartphone exclusively on a platform, they said.

Court's view

The High Court concluded that the orders by the CCI initiating an investigation were administrative directions, and that the commission was not bound to enter an adjudicatory process or form an opinion before ordering an investigation.

What next?

The CCI Director General will complete the probe and submit the findings to the commission, which will pass final orders. CCI chairman Ashok Kumar Gupta had told The Indian Express in an interview recently that "opacity in platform rankings" had become a cause for concern, and that sellers' increasing dependence on online platforms meant that certain platforms were becoming essential facilities, and were required to treat sellers in an unbiased manner. "Prima facie we have also seen that the ecosystem of exclusive agreements, deep discounting, and preferred sellers put together by online platforms commanding market power, are also raising competition concerns," Gupta had said.

PANEL POINTS OUT NCLT VACANCIES TO MCA: HOW APPOINTMENT DELAYS ARE AFFECTING RESOLUTIONS

The Parliamentary Standing Committee on Finance has called out the Ministry of Corporate Affairs on persistent vacancies in National Company Law Tribunals (NCLTs) leading to delays in corporate insolvency under the Insolvency and Bankruptcy Code (IBC). The committee has also recommended that the IBC be amended to prevent frivolous litigation and non-adherence to deadlines under the IBC that can lead to value destruction. The committee recommended that the IBC strictly prohibit the submission for resolution plans after the deadline for plans and that recoveries under the IBC be measured against an international benchmark.

Why are vacancies in the NCLT a major issue?



The combined strength of the current NCLT benches around the country is currently only 29 members against the total sanctioned strength of 63 members. The committee noted that delays in the admission of insolvency cases by NCLTs and the approval of resolution plans were the key reasons behind the non-adherence of timelines under the IBC. *As of March 31, 2016, 79 per cent of the total cases under the IBC had been pending for more than 270 days, the initial time limit envisaged for a resolution process under the IBC.* The committee noted that *delays on the part of the NCLT in admitting cases allowed defaulting owners the opportunity to divert funds and transfer assets and,* therefore, the NCLT should be required to admit a defaulting company into insolvency proceedings and hand over control to a resolution professional within 30 days. “The MCA, as the nodal ministry, should take greater responsibility to streamline the operational processes in NCLT/NCLAT while constantly monitoring and analysing the workflow, disposal and outcomes with regard to resolutions, recoveries, time taken, etc.,” the committee noted.

What are the key concerns around frivolous litigation?

A number of high profile cases under the IBC — including those of Essar Steel, Bhushan Power & Steel and Binani Cement — saw multiple decisions being challenged by stakeholders. Experts have called many of these appeals frivolous attempts to slow down insolvency proceedings. The Standing Committee has also said that *cases in which creditors have evaluated resolution plans submitted after the specified deadline would disincentivise bidders from bidding within prescribed timelines and that such plans also contribute to delays and value destruction.* In the insolvency proceedings of Bhushan Power & Steel Ltd, the NCLT had directed the committee of creditors (CoC) to evaluate the resolution plan submitted by Liberty House Pte after the CoC refused to consider the plan as it was submitted after the deadline for resolution plan submission. “These bidders typically wait for the H1 bidder to become public and then seek to exceed this bid through an unsolicited offer that is submitted after the specified deadline ... As a result, genuine bidders are discouraged from bidding at the right time. The overall process is vitiated and there are significant delays leading to further value erosion,” the committee noted.

What are the other key recommendations by the committee?

The committee also recommended that *the IBC be amended to provide micro, small and medium enterprises (MSMEs), which are operational creditors under the IBC, with greater protection in the current economic environment.* The IBC currently prioritises financial creditors over operational creditors.



LIFE & SCIENCE

THE TAKEAWAYS FROM GSLV-F10 FAILURE

The launch of GSLV-F10 was supposed to mark the return of normal spaceflight activity on the Indian space scene. Instead, its failure on Thursday has cast a shadow on the Indian Space Research Organisation's (ISRO) launch calendar, which has already been severely affected by the pandemic. Apart from the loss of a crucial satellite, it is likely to impact the schedule of some big-ticket future missions as well, though the ISRO has not yet disclosed how serious the malfunctioning was that led to the failure.

What went wrong

About five minutes into the launch early on Thursday morning, the flight of GSLV-F10, which was carrying an earth observation satellite EOS-03, deviated from its scheduled trajectory. The first and second stages of the rocket had functioned normally and detached. *But the upper stage, powered by a cryogenic engine fuelled by liquid hydrogen and liquid oxygen at very low temperatures, failed to ignite.* The rocket lost the power to carry on and its remains, along with that of the satellite, most likely fell off somewhere in the Andaman Sea. *EOS-03, a powerful earth observation satellite that was supposed to help in near real-time monitoring of the Indian landmass, was lost in the process.* The deployment of EOS-03, initially planned for March last year, was already delayed by over a year and a half, first by some technical glitches and then by the pandemic. *EOS-03 would have provided relatively low-resolution, but continuous, imagery of the Indian landmass that was meant to be used for monitoring of natural disaster like floods and cyclones, water bodies, crops, vegetation and forest cover.* "(The mission) could not be fully accomplished mainly because of a technical anomaly observed in the cryogenic stage," was all that ISRO chairman K Sivan said after the launch failure.

Where it went wrong

Problems in the cryogenic stage of this rocket are not new. A similar issue had led to the failure of GSLV-D3 as well in April 2010. That was the first flight of GSLV with an indigenous cryogenic engine modelled on the Russian design, very similar to the one flown on Thursday. The cryogenic stage had failed to ignite on that occasion as well. Eight months later, the next GSLV flight, this time being powered by a Russian cryogenic engine, the last one of the seven that Russia had supplied as part of a deal in the 1990s, also failed. A failure analysis had found malfunctioning in the electronics of the cryogenic engine. Between then and now, however, the GSLV Mk-II rocket has carried out six successful launches, all using that same indigenously developed cryogenic engine in the upper stage, the last one in December 2018 which deposited GSAT-7A, a communication satellite, into its orbit. *The struggles with the cryogenic stage seemed to be a thing of the past, but Thursday's failure has brought the ghosts back.* There are no more launches of GSLV Mk-II scheduled for this year, but several in 2022 and 2023. Scientists said it was possible that Thursday's malfunctioning was "accidental", in which case there might not be any major impact on the schedule of the future launches by this rocket. But a serious issue could push back even major missions like the human space flight.



Impact on future missions

Missions like Gaganyaan and Chandrayaan-3 will be launched on GSLV Mk-III, a more advanced version of the GSLV rocket that is designed to carry much heavier payloads into space. GSLV Mk-III too uses an indigenously-developed cryogenic engine in the upper stage, but, unlike the one in Mk-II, this is not a reverse-engineered Russian engine. Instead, the cryogenic engine used in GSLV Mk-III, called CE20, has been the result of over three decades of research and development, starting from scratch, and uses a different process to burn fuel. It is closer to the designs used in the Ariane rockets that were used by ISRO earlier to send its heavier satellites into space. *It is much simpler and, because it is entirely home-grown, ISRO scientists have a much better grip on its technology. GSLV Mk-III has had four successful flights till now, including the one that launched Chandrayaan-2 in 2019. Thursday's failure, therefore, might not directly impact the schedule of Gaganyaan or Chandrayaan-2.* But it is possible that the GSLV Mk-II rocket is used for some preparatory flights or to test out some of the technologies that would be integrated in those two missions, especially Gaganyaan. In that case, any delay in the schedule of GSLV Mk-II would impact the actual mission as well.

NISAR

Thursday's failure, however, is a big cause of worry for the NISAR mission, a first-of-its-kind collaboration between NASA and ISRO for a joint earth-observation satellite. NISAR, which will use two synthetic aperture radars (SAR) to monitor the entire Earth in a 12-day cycle, is the most important mission as yet involving the GSLV Mk-II rocket. The keenly awaited NISAR mission aims to measure the Earth's changing ecosystems and dynamic surfaces to provide information about biomass, natural hazards, sea-level rise and groundwater. It will help researchers and user agencies to systematically map the surface of the earth. ISRO wants to use it for a variety of purposes including agricultural mapping, and monitoring of glaciers in the Himalayas, landslide-prone areas and changes in the coastline. *As part of the collaboration, NASA will provide one of the synthetic aperture radars (L-band) while the other (S-band) will come from ISRO. NASA will also provide communication and control systems while the launch and related services would be the responsibility of ISRO. As of now, NISAR is scheduled for launch in early 2023 from the Sriharikota facility.* It's a launch that ISRO has been putting a very priority on. Thursday's failure is undoubtedly a setback to this mission, and is likely to force a thorough investigation into the cryogenic stage of the GSLV Mk-II rocket.

WHY THE ATLANTIC OCEAN CURRENT SYSTEM IS SLOWING DOWN, AND ITS IMPLICATIONS

If you have watched the 2004 movie, *The Day After Tomorrow*, you might remember that a disruption in the North Atlantic Ocean circulation made the planet enter another ice age. A study published last week in *Nature Climate Change* notes that this circulation, known officially as the *Atlantic Meridional Overturning Circulation (AMOC)*, is losing its stability. According to the *IPCC's Report (AR6)* released on August 9, it is very likely that AMOC will decline over the 21st century. The author of the paper Niklas Boers explains in a release: "The findings support the assessment that the AMOC decline is not just a fluctuation or a linear response to increasing temperatures but likely means the approaching of a critical threshold beyond which the circulation system could collapse."



What is AMOC?

The AMOC is a large system of ocean currents. It is the Atlantic branch of the ocean conveyor belt or Thermohaline circulation (THC), and distributes heat and nutrients throughout the world's ocean basins. AMOC carries warm surface waters from the tropics towards the Northern Hemisphere, where it cools and sinks. It then returns to the tropics and then to the South Atlantic as a bottom current. From there it is distributed to all ocean basins via the Antarctic circumpolar current.

What happens if AMOC collapses?

Gulf Stream, a part of the AMOC, is a warm current responsible for mild climate at the Eastern coast of North America as well as Europe. Without a proper AMOC and Gulf Stream, Europe will be very cold. *Modelling studies have shown that an AMOC shutdown would cool the northern hemisphere and decrease rainfall over Europe. It can also have an effect on the El Nino.* A 2016 paper in Science Advances noted: "AMOC collapse brings about large, markedly different climate responses: a prominent cooling over the northern North Atlantic and neighbouring areas, sea ice increases over the Greenland-Iceland-Norwegian seas and to the south of Greenland, and a significant southward rain-belt migration over the tropical Atlantic."

Has the AMOC weakened before?

"AMOC and THC strength has always been fluctuating, mainly if you look at the late Pleistocene time period (last 1 million years). The extreme glacial stages have seen weaker circulation and slowdown in AMOC, while the glacial terminations have shown a stronger AMOC and circulation," explains Nirmal B, a Ph.D. scholar from Geoscience Research Lab, VIT Chennai, who has been studying Atlantic Paleoclimate. "We know about these past fluctuations by studying paleoclimate proxies such as sea surface temperatures (SST), salinity, and isotope signatures from single-celled organisms called foraminifera. But the changes we experience in the last 100-200 years are anthropogenic, and these abrupt changes are destabilising the AMOC, which could collapse the system," he adds. In February, researchers noted that AMOC is at its weakest in over a millennium. The team studied the evolution of AMOC over the past 1600 years. Stefan Rahmstorf, one of the authors of the study published in Nature Geoscience explained in a release: "The study results suggest that it [AMOC] has been relatively stable until the late 19th century. With the end of the little ice age in about 1850, the ocean currents began to decline, with a second, more drastic decline following since the mid-20th century."

Why is the AMOC slowing down?

Climate models have long predicted that global warming can cause a weakening of the major ocean systems of the world. Last month researchers noted that a part of the Arctic's ice called "Last Ice Area" has also melted. *The freshwater from the melting ice reduces the salinity and density of the water. Now, the water is unable to sink as it used to and weakens the AMOC flow.* A 2019 study suggested that the Indian Ocean may also be helping the slowing down of AMOC. The researchers said: As the Indian Ocean warms faster and faster, it generates additional precipitation. With so much precipitation in the Indian Ocean, there will be less precipitation in the Atlantic Ocean, leading to higher salinity in the waters of the tropical portion of the Atlantic. This saltier water in the Atlantic, as it comes north via AMOC, will get cold much quicker than usual and sink faster.



“This would act as a jump start for AMOC, intensifying the circulation,” author Alexey Fedorov said in a release. “On the other hand, we don’t know how long this enhanced Indian Ocean warming will continue. If other tropical oceans’ warming, especially the Pacific, catches up with the Indian Ocean, the advantage for AMOC will stop.”

CODE RED

The IPCC has issued arguably its strongest warning yet on impending catastrophe from unmitigated global warming caused by human activity, lending scientific credence to the argument that rising wildfires, heatwaves, extreme rainfall and floods witnessed in recent times are all strongly influenced by a changing climate. In a stark report on the physical science basis of climate change contributed for a broader Assessment Report of the UN, the IPCC’s Working Group I has called for deep cuts to carbon dioxide emissions and other greenhouse gases and a move to net zero emissions, as the world would otherwise exceed 1.5°C and 2°C of warming during the 21st century with permanent consequences. Climate change is described by many as a far greater threat to humanity than COVID-19, because of its irreversible impacts. *The latest report is bound to strengthen the criticism that leaders in many countries have stonewalled and avoided moving away from coal and other fossil fuels, while even those who promised to act, failed to influence the multilateral system.* The new report attributes catastrophic events to sustained global warming, particularly *the frequency and intensity of hot extremes, marine heatwaves, heavy precipitation, agricultural and ecological droughts, proportion of intense tropical cyclones, reductions in Arctic Sea ice, snow cover and permafrost.* A phenomenon such as heavy rainfall over land, for instance, could be 10.5% wetter in a world warmer by 1.5°C, and occur 1.5 times more often, compared to the 1850-1900 period. More than five years after the Paris Agreement was concluded, there is no consensus on raising ambition to reduce emissions, making access to low carbon technologies easier, and adequately funding mitigation and adaptation. COVID-19 had the unexpected effect of marginally and temporarily depressing emissions. *The IPCC’s analysis presents scenarios of large-scale collapse of climate systems that future leaders would find virtually impossible to manage.* Heatwaves and heavy rainfall events experienced with increasing frequency and intensity are just two of these, while *disruptions to the global water cycle pose a more unpredictable threat.* Also, if emissions continue to rise, oceans and land, two important sinks and the latter a key part of India’s climate action plan, would be greatly weakened in their ability to absorb atmospheric carbon dioxide. *The new report sets the stage for the CoP26 conference in November. The only one course to adopt there is for developed countries with legacy emissions to effect deep cuts, transfer technology without strings to emerging economies and heavily fund mitigation and adaptation. Developing nations should then have no hesitation in committing themselves to steeper emissions cuts.*

IPCC REPORT FORECASTS A FUTURE OF SEVERE WEATHER

The Indian Ocean is warming at a higher rate than other oceans, said the latest report by the Intergovernmental Panel on Climate Change (IPCC) released on Monday, with scientists warning that India will witness increased heatwaves and flooding, which will be the irreversible effects of climate change. The current overall global warming trends are likely to lead to an increase in annual mean precipitation over India, with more severe rain expected over southern India in the coming decades. The authors of *the IPCC’s Sixth Assessment Report, “Climate Change 2021: The Physical Science Basis”,* said *the warming of the ocean would lead to a rise in sea levels, leading to*

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR

53

Telegram: http://t.me/DreamIAS_Jamshedpur



frequent and severe coastal flooding in low-level areas. With a 7,517-km coastline, India would face significant threats from the rising seas. Across the port cities of Chennai, Kochi, Kolkata, Mumbai, Surat and Visakhapatnam, 28.6 million people would be exposed to coastal flooding if sea levels rise by 50 cm. Monsoon extremes are likely to increase over India and South Asia, while the frequency of short intense rainy days are expected to rise. Models also indicate a lengthening of the monsoon over India by the end of the 21st century, with the South Asian monsoon precipitation projected to increase. Stating that human activities are causing climate change, the report said *the planet was irrevocably headed towards warming by 1.5 degrees Celsius over pre-industrial times in the next two decades. Keeping global warming below 2 degrees Celsius of pre-industrial levels by the turn of century and endeavouring to limit it to 1.5 degrees Celsius was at the heart of the 2015 Paris Agreement. Unless extremely deep emission cuts are undertaken by all countries immediately, these goals are unlikely to be met. The report recommended that countries strive to achieve net zero emissions — no additional greenhouse gases are emitted — by 2050. In the most ambitious emissions pathway, the projection is that the globe would reach the 1.5 degrees Celsius scenario in the 2030s, overshoot to 1.6 degrees Celsius, with temperatures dropping back down to 1.4 degrees Celsius at the end of the century.* India has not yet committed to a net zero timeline. *The Sixth Assessment Report has been finalised and approved by 234 authors and 195 governments and updates the scientific consensus on extreme weather, human attribution, the carbon budget, feedback cycles, and charts the future state of the climate since the Fifth Assessment Report of 2014.* The 3,000-plus-page report said warming is already accelerating sea level rise and worsening extremes such as heatwaves, droughts, floods and storms.

Tropical cyclones

Tropical cyclones are getting stronger and wetter, while Arctic Sea ice is dwindling in the summer and permafrost is thawing. All these trends will get worse, the report said. *India is currently the world's third largest greenhouse gas emitter, but per capita emissions are much lower. The U.S. emitted nearly nine times more greenhouse gases per capita than India in 2018. Based on existing commitments by countries to curb their emission, the world is on track for global temperature warming by at least 2.7°C by 2100, predicts the report, calling it 'Code red for humanity'.* The latest scientific assessment *will influence discussions on the Conference of Parties meeting in Glasgow later this year where countries are expected to announce plans and steps they have taken to curb emissions.* The report release follows a two-week long plenary session held virtually from July 26 to August 6, 2021, in which the report was scrutinized line-by-line for approval by government representatives in dialogue with report authors.

Under the Paris Agreement, every country has submitted an NDC, listing the climate actions they intend to take by 2025 or 2030. These NDCs have to be updated with stronger action, mandatorily, every five years from 2025. But the Paris Agreement also “requested” countries’ NDCs by 2020. Because of the pandemic, the deadline was extended to 2021, and expired at the end of July. About 110 countries have updated their NDCs, but not China or India, or South Africa. On Monday, after the release of the IPCC report, several scientists and officials, including executive secretary of UN Climate Change Patricia Espinosa, lamented the fact that only half the countries had updated their NDCs with stronger action. “All nations that have not yet done so, still have the opportunity to submit ambitious NDCs. Nations that have already submitted new or updated NDCs still have the



opportunity to review and enhance their level of ambition,” the UN Climate Change said in a statement on Monday.

GLACIERS WILL KEEP SHRINKING: IPCC REPORT

Glaciers in the Hindu Kush Himalayan (HKH) region will keep shrinking and the snow cover will retreat to higher altitudes, the latest IPCC report said on Monday. The Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), approved by 195 member-countries, warned that *extreme precipitation is projected to increase in major mountainous regions with potential cascading consequences of floods, landslides and lake outbursts in all scenarios.* One of the authors of the report, Krishna Achuta Rao, said that *in the HKH region, the snow cover had reduced since the early 21st century and glaciers had thinned, retreated and lost mass since the 1970s. However, he said, the Karakoram glaciers had either slightly gained mass or were in an approximately balanced state.* “Snow-covered areas and snow volumes will decrease during the 21st century, snowline elevations will rise and glacier mass is likely to decline with greater mass loss in higher greenhouse gas emission scenarios. Rising temperatures and precipitation can increase the occurrence of glacial lake outburst floods and landslides over moraine-dammed lakes,” Mr. Rao said.

Permafrost thaw

According to the report, mountain glaciers will continue to shrink and permafrost to thaw in all regions where they are present. Another author of the report, Swapna Panickal, who is a scientist at the Indian Institute of Tropical Meteorology, said human influence was responsible for the retreat of glaciers since the 20th century and that was not only the case in the two poles, but also for mountain glaciers.

LADAKH GLACIER RETREAT DUE TO WARMING, LOW WINTER PRECIPITATION

The Pensilungpa Glacier located in Ladakh’s Zaskar Valley is retreating due to increase in temperature and decrease in precipitation during winters, a recent study has found. Since 2015, the Wadia Institute of Himalayan Geology (WIHG) at Dehradun, an autonomous body under the Department of Science and Technology, has been working on various aspects on glaciology – glacier health (mass balance) monitoring, dynamics, discharge, past climatic conditions, speculation for future climate change and its impact on glaciers in this region. A team of scientists from the institute ventured to study the less explored region of the Himalayas at Zaskar in Ladakh.

Stake networking

“Based on field observations for glacier mass balance collected via stake networking... over the glacier surface since 2016-2019, they assessed the impact of climate change through the lens of past and present response of the Pensilungpa Glacier, Zaskar Himalaya, Ladakh,” the study said. In stake networking, stake made of bamboo, is installed on the glacier surface using the steam drill for mass balance measurement.



Rate of decline

The study also said that field observations for four years (2015–2019) showed that the glacier is now retreating at an average rate of 6.7 plus/minus 3 metre per annum. In the study published in the journal *Regional Environmental Change*, *the team attributes the observed recession trends of the Pensilungpa Glacier to an increase in the temperature and decrease in precipitation during winters.*

A HUMAN WARRIOR

Since 1968, when it was first discovered in southern Finland, a 1,000-year-old grave drew a binary response from the scientific community. The occupant was clearly an individual of high status, dressed in clothing appropriate for women of that time. In addition, she (as they thought then) was buried with a sword and other accessories appropriate to warriors — thought to be mostly men — at the time. Till recently, researchers assumed that there were either two bodies — a man and woman — buried together or that the grave was evidence of female warriors in medieval Finland. Both assumptions were wrong. *Recently conducted DNA analysis of the contents of the grave, published in the European Journal of Archaeology, indicates that its occupant suffered from Klinefelter syndrome, a condition where a person has XXY chromosomes (instead of either XX or XY). And the high-status burial suggests that they were not just accepted, but respected. The message from the Finnish grave is a simple one. In terms of ossified gender identities, it is the contemporary world — or at least a large part of it — that is the aberration. Conservatives chagrined about women in the armed forces or which toilet a transgender person will use often cite “human nature” and history as justification for their prejudice.* But across societies — including in the subcontinent — gender and sexuality have existed across a spectrum, and been accepted as part and parcel of the diversity of the human species. A DNA analysis is not needed to show that human societies, even contemporary ones, are the most adept at creating differences and then assigning them an oppressive hierarchy. A thousand years ago, a person of composite biology and identity could be a warrior, perhaps even a noble. Perhaps it's time human nature went back to its roots.

HOW AND WHY GOOGLE WILL OFFER MORE PROTECTION TO CHILDREN ONLINE

The pandemic has pushed millions of children and teenagers online like never before. While they are benefitting from the advantages of online classes and interactive sessions at a time when there is still no clarity on when schools will be back to normal, it has also exposed them to the dark side of the world wide web. Now, *Google has announced a set of measures to keep users under the age of 18 safe online.*

What is Google doing?

Google is working on multiple fronts to keep children and teenagers safe on its platforms. For one, it is giving minors ‘more controls over their digital footprint’. Then it is also ‘tailoring products experiences’ for this segment, and has announced advertising changes as well as digital well-being tools.



How is it giving minors more control?

In a significant move, *Google has announced that users under the age of 18, and their parents or guardians, will, as per its new policy, be able to request removal of their photos from its image results.* While this will just remove the image from the search results and not the website hosting it, it will certainly go a long way in reducing the exposure of the minor online.

How is Google updating its products for underage users?

On YouTube, any video uploaded by a minor will now be in private mode by default. Along with this, YouTube will bring in more digital well-being content for this segment, while also teaching them about commercial content on the platform. When it comes to Google Search, 'safe search', which filters out explicit results, will be turned on by default for all users under the age of 18. At present, this is so only for users under 13. This will also be turned on by default for school accounts on the Google Suite. *With Google Assistant, minor users will have 'default protections' to prevent them from encountering mature content, including on smart displays.* Moreover, the underage will soon find that *their location history is turned off by default with no option to turn it on without supervision.* For apps, Google Play will let parents know which apps follow their family policies, making it easier for them to decide if the same is appropriate for their children. Also, *age-sensitive ads will not longer be shown to teens and advertisers will not be able to target their products to users under the age of 18 using age, gender or location.* Along with new Digital Wellbeing tools that allow users to filter out content from news, podcasts and the web, Google will also be rolling out easy-to-understand material for minors to figure out the best data practices.

Why is Google doing this?

The search giant and other big tech companies have been under pressure to put in place better protection for minor users. In the US, the 1998 Children's Online Privacy Protection Act, which restricts tracking and targeting to children under the age of 13, could soon be updated to cover those under 18. The Google update seems to align with this. *Incidentally, in 2019, Google had to pay a \$170-million fine for violating this very Act, and for collecting data of children without the consent of parents.* Facebook-owned Instagram has recently brought in changes that made a lot of features private by default for teenagers. *Like Google, Instagram too banned ads targeted on interests or activity of children, but allowed the same for age, gender and location.*

APPLE TO CHECK IPHONES FOR CHILD ABUSE PICS; A 'BACKDOOR', CLAIM DIGITAL PRIVACY BODIES

Apple is rolling out a two-pronged mechanism that scans photographs on its devices to check for content that could be classified as Child Sexual Abuse Material (CSAM). While the move is being welcomed by child protection agencies, advocates of digital privacy, and industry peers, are raising red-flags suggesting the technology could have broad-based ramifications on user privacy. As part of the mechanism, *Apple's tool neuralMatch will check for photos before they are uploaded to iCloud — its cloud storage service — and examine the content of messages sent on its end-to-end encrypted iMessage app.* "The Messages app will use on-device machine learning to warn about sensitive content, while keeping private communications unreadable by Apple," the company said. *neuralMatch will compare the pictures with a database of child abuse imagery, and when there is a*



flag, Apple's staff will manually review the images. Once confirmed for child abuse, the National Center for Missing and Exploited Children (NCMEC) in the US will be notified. At a briefing Friday, a day after its initial announcement of the project, the Cupertino-based tech major said it will roll out the system for checking photos for child abuse imagery “on a country-by-country basis, depending on local laws”. However, *this move is being seen as building a backdoor into encrypted messages and services.* In a blog post, California-based non-profit Electronic Frontier Foundation noted: “Child exploitation is a serious problem, and Apple isn’t the first tech company to bend its privacy-protective stance in an attempt to combat it. But that choice will come at a high price for overall user privacy. Apple can explain at length how its technical implementation will preserve privacy and security in its proposed backdoor, but at the end of the day, even a thoroughly documented, carefully thought-out, and narrowly-scoped backdoor is still a backdoor”. The non-profit added that it was “impossible to build a client-side scanning system that can only be used for sexually explicit images sent or received by children”. “That’s not a slippery slope; that’s a fully built system just waiting for external pressure to make the slightest change”. In its statement, Apple has noted that the programme is “ambitious” and “these efforts will evolve and expand over time”. *Apple's move has put the spotlight once again on governments and law enforcement authorities seeking a backdoor into encrypted services, and experts are looking for signs that establish if Apple has changed direction in a fundamental way from its stance as an upholder of user privacy rights.* So much so that *less than a year ago, Reuters had reported that the company was working to make iCloud backups end-to-end encrypted, essentially a move that meant the device maker could not turn over readable versions of them to law enforcement. This was, however, dropped after the FBI objected. The latest project is being seen as almost making a full circle, with the proposed system potentially setting the stage for the monitoring of different types of content on iPhone handsets.*

Globally, Apple has around 1.3 billion iMessage users, of which 25-30 million are estimated to be in India, while WhatsApp has two billion global users, around 400 million of which are from India. This also comes in the wake of the Pegasus scandal, where Israeli private cyber-offensive company NSO Group exploited the loopholes in apps such as iMessage and WhatsApp to provide its government customers access to the devices of their targets through installing a spyware. These targets include human rights activists, journalists, political dissidents, constitutional authorities and even heads of governments. In India, through the IT Intermediary Guidelines, the government has sought traceability of originator of certain messages or posts on significant social media intermediaries. *While companies like WhatsApp have opposed traceability, experts suggest that Apple's decision could set a potential precedent to provide the government entry into encrypted communication systems.*

WHEN A SILVER DISAPPOINTS BUT A BRONZE THRILLS

During a newspaper interview he gave almost 70 years after he clinched a silver medal at the Stockholm Olympics of 1912, mid-distance American runner Abel Kiviat described the race as a “nightmare”. His silver medal had come after a photo-finish — a first in Olympic history — in which he had just got past fellow American Norman Taber in the 1500m race. “That race was the biggest disappointment of my life. I never saw Jackson,” he said while referring to Great Britain’s Arnold Jackson who had secured by the slimmest margin of 0.1 seconds. “I wake up sometimes and say, ‘What the heck happened to me?’” Kiviat said. Kiviat, who died in 1991, showed that the



disappointment of losing out narrowly lingers, but he was no exception in this regard. *Most silver medallists end up tormenting themselves by imagining the alternative possibility if they had pushed a little harder.* Ravi Kumar Dahiya, the Indian wrestler who secured a silver medal for India in 57 kg freestyle on Thursday in the ongoing Tokyo Olympics, voiced a similar disappointment. “What’s the point of this?... I had come here with only one target, a gold medal. This (silver medal) is okay, but it’s not gold,” he had told reporters. *A 1995 research paper published by psychologists Victoria Medvec, Thomas Gilovich (both from Cornell), and Scott F Madey (University of Toledo) has an answer to why silver medallists may be feeling the way they are.* They studied this phenomenon to conclude that on a happiness scale, silver medallists fair poorly owing to the human tendency to indulge in ‘*counterfactual thinking*’ — the propensity to think of alternative circumstances to real-life events, especially those with far-ranging consequences. The study, “When Less Is More: Counterfactual Thinking and Satisfaction Among Olympic Medallists”, deduced that *bronze medallists score much better on the happiness scale when compared to silver medallists who had outperformed them in the game.* Medvec and colleagues analysed visible expressions of the bronze and silver medal-winning athletes at the 1992 Summer Olympics immediately after the finish of the event when the winners stood at the medal stand. The study aimed to determine how counterfactual thinking and the psychology of “coming close” affects the feeling of satisfaction and the degree of well-being. *Medvec et al chose the domain of athletic competition outcomes to study the subject because it throws up results with an unusual precision with competitors finishing first, second, or third with a fractional difference and earning distinctly different rewards of gold, silver, and bronze medals.* “We were interested in whether the effects of different counterfactual comparisons are sufficiently strong to cause people who are objectively worse off to sometimes feel better than those in a superior state. Moreover, we were interested not just in documenting isolated episodes in which this might happen, but in identifying a specific situation in which it occurs with regularity and predictability. The domain we chose to investigate was athletic competition,” said Medvec and his colleagues in the paper published in The Journal of Personality and Social Psychology. As part of the study, the researchers collated the video footage from the Barcelona Olympic Games held three years ago and edited them in three different master tapes. One showed the medallists’ reaction immediately after the results were announced, another showed them receiving the medals at the stand, and a third one comprised of the interviews they gave to media persons about their performance. In the first study, *the university students, who were blind to the results, were asked to judge the immediate reaction of 41 athletes on a 10-point ‘agony to ecstasy’ scale.* After assessing athletes’ reactions, silver medallists received a mean rating of 4.8 while bronze medallists received a mean rating of 7.1 on the happiness scale. When examining the athletes’ reaction on the medal stand, participants assigned the bronze medallists a mean rating of 5.7 and a 4.3 for silver medallists. In the second part of the same study, the participants reviewed television interviews of 22 silver and bronze medallists to see what was the predominant feeling expressed by each athlete: Was he/she happy with what was achieved, or was he/she preoccupied with a feeling of regret. The participants judged the expressed feelings on a 10-point scale which had “At least I...” on one end and “I almost...” on the other. *It was found that the silver medallists focused more on “I almost” than bronze medallists who expressed a feeling of achievement and satisfaction for getting a medal.* Participants assigned silver medallists’ thoughts an average rating of 5.7 and bronze medallists’ an average rating of only 4.4 on the 10-point “At least I...” to “I almost...” scale. Explaining the findings, the researchers wrote, “To the silver medallist, the most vivid counterfactual thoughts are *often focused on nearly winning the gold. Second place is only one step away from the cherished gold medal and all of its attendant social*

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



and financial rewards. Thus, whatever joy the silver medallist may feel is often tempered by tortuous thoughts of what might have been had she only lengthened her stride, adjusted her breathing, pointed her toes, and so on. *For the bronze medallist, in contrast, the most compelling counterfactual alternative is often coming in fourth place and being in the showers instead of on the medal stand.* Social psychologists have long held that *an individual's wellbeing in any given circumstance depends on how these circumstances compare with those with whom he tends to compare them.* Such counterfactual thinking also *has a functional value* as *those who ruin their happiness by thinking about the missed opportunity often strive to improve their future performances.* "Downward comparisons (i.e., thinking about a worse outcome) are thought to provide comfort, whereas upward comparisons (i.e., thinking about a better outcome) are thought to improve future performance. Indeed, it has been shown that people who expect to perform again in the future are more likely to generate upward counterfactuals than those who expect to move on," said the study. *Three other researchers who repeated the experiment in the 2016 Summer Olympic Game, confirmed that counterfactual thoughts were higher among the silver medallists than the bronze winners.* They, however, found that the differences in the expressed emotion were trivial or negligible.

SOME FACTS ON HAIR - WHY IT DROPS AND HOW IT GROWS

The six-yard sheet that covers our body is the skin. There is 1.5 to 2 square metres of it, which offers us protection from a variety of external sources that may be harmful. This protection is done by covering the skin through hair. Scalp is the skin covering the head, excluding the face – thankfully! *Hair is produced by the cells at the outermost layer of the skin, using what are called follicles which are mini-organs which produce a variety of proteins. The entire list of these proteins, or what biologists call as the 'proteome' or 'proteome', is a subject of contemporary interest which is being worked out. These mini-organs play key roles in producing hair, protecting the skin from external insults such as infections, offering temperature control and so on.* The proteome offers pigments that colour the hair – and for us humans, *these pigments come largely in three lots – black, brown or shades of red.* Lack of pigmentation causes hair to turn white (as we age). During evolution, we humans seem to have found these colours best suited for us. Indeed, relating the changes in pigmentation with time as we age offers us a picture of life events of an individual as he or she ages.

Like tree rings

This is somewhat like how tree rings offer information about what all a tree has gone through in time. As we age, our hair turns white. A group of dermatologists have done a quantitative mapping of hair colour and find that *there are over 300 proteins that are more or less abundant in white hair than in dark hair.* Many of these proteins are involved in energy production in the cell. Several of these are involved in increasing energy metabolism and in synthesising lipids and amino acids. Hair colour agents and hair tonics, with all their nice and refreshing smells do the same.

Colour and stress

Hair colour can also be predicted by looking at a small number of DNA variations that occur in eleven genes in a human sample. This test can predict whether the individual being sampled have black, brown, red or blonde hair colour with 90% accuracy. And this test goes beyond scientific curiosity.



It can be very useful in forensics, as hair colour is an externally visible characteristic. Hair goes grey as we age. Is this due to psychosocial stress, also called life stress events? Indeed, *changes in hair colour appear to be associated with changes in stress levels*. Researchers have found *that greying is related to energy metabolism. As the latter decreases, the former increases. It may be possible to halt, or at least temporarily reverse, greying by triggering energy metabolism*. How can this be done? Here is where proteome analysis will be of use. *Drug chemists have suggested the use of compounds called phthalates, which smell good and promote hair health. However, there is a catch in this. Too much usage of these chemicals can lead to lung damage and kidney failure*. But there are far easier ways to do this. Nutritionists point out that healthy appearing hair indicates excellent general health. If you have adequate nutrition, your hair grows well. *Malnutrition, alcoholism, advanced age – all of these cause hair colour to change, get weakened or be lost. Deficiency of vitamins (A, C, E and selenium) does this, too*. So, where do we go for these nutritious materials? Not too far. Our everyday meals, wherein we use onion, garlic and ginger, green vegetables, fruits and protein-rich pulses such as dal, soyabeans, will suffice.

Yoga and hair growth

Traditional yoga exercises are seen to stimulate the growth of hair by increasing blood circulation in the scalp. *No wonder we see all yoga gurus full of hair! Yoga not only relieves stress and anxiety but also helps in massage*. Some of the yoga asanas suggested by them are: aadho mukha savasana (the downward dog pose), sarvangasana (erect shoulder stand) and uttarasana (standing forward bend pose). These are well worth practising. In addition, doing breathing exercises such as pranayama (deep breathing and holding for several seconds) also help. So, let us go for these as well and stay healthy and let our hair look attractive and plentiful! *What about loss of hair as we age? Epidemiological studies suggest that moderate to extensive hair loss is seen in 16% of men in the 18-29 years age group, and 53% in those aged 40-49. Premature loss of hair can lead to strange psychosocial effects*. Here too, proteomic comparison of dermal papilla cells, found in the hair follicle, from balding and non-balding males, indicates 128 up-regulated and 12 down-regulated proteins. Some of these differently expressed proteins may one day be ameliorative targets for baldness.

THE IMPORTANCE OF THE BOOSTER DOSE TO PLAN AHEAD

The COVID-19 vaccination is relatively new to the world, but the history of vaccination goes back a few centuries. The Expanded Programme on Immunisation was launched by the World Health Organization in 1974 and since then all countries of the world have gained considerable experience in rolling out several vaccines for children and pregnant women.

The immune response

Broadly speaking, vaccines may be classified as replicating *live infectious vaccines, and, non-replicating non-infectious vaccines*. Currently used *live virus vaccines inoculated by injection include measles, rubella, mumps and chickenpox vaccines*. The inoculum dose contains a few thousands of *live but attenuated viruses* — they *replicate in body tissues without producing overt disease*. The final effective dose that stimulates the immune system may be billions or trillions of viruses and the stimulus sustained for days to weeks as the injected viruses continue to multiply within the human body. Therefore, immune responses to replicating live virus vaccines — both antibody and



T-cell immunity — are *robust and long-lasting*. The *non-replicating injected vaccines* include nearly all others — the most common being *diphtheria, pertussis (whooping cough), tetanus, hepatitis B, Haemophilus influenzae b, pneumococcal, human papilloma virus, inactivated poliovirus, inactivated hepatitis A vaccines*. For them, the dose confronted by the immune system is what is injected. What is injected is *a tiny amount of antigen, measured in micrograms, plus stabilisers and preservatives in some, and adjuvants in a few, all chemicals and salts in minute quantities*.

Why go in for a booster dose

In order to get robust and long-lasting immunity with non-replicating vaccines, we need to give multiple doses — the initial one, two or three doses given in quick succession, at intervals of one or two months, are “priming doses” — meant to prime the immune system to the antigens in the vaccine. The immune system responds well, but with relatively low levels of antibody and subdued T-cell immunity. Over time, in a few months to one year, the antibody levels wane in almost all vaccinated individuals. To reach and maintain high and protective levels of antibody, we need one or more injected “booster dose(s)”. Every non-replicating vaccine requires priming and boosting. Influenza vaccine boosters are recommended annually; tetanus vaccine once in five to 10 years. For others such as human papilloma and hepatitis A and B vaccines, one booster dose may suffice for decades of protection. *All current COVID-19 vaccines fall in the non-replicating category and for robust and long-lasting immunity, they require, quite predictably, priming doses to induce early immunity, and booster dose(s) to sustain, long-term, high antibody titres, overcoming waning immunity.*

The current schedules

The current COVID-19 vaccination schedules are only priming doses — the immunity induced by one dose (Johnson & Johnson vaccine), Pfizer vaccine (two doses three weeks apart), all others (two doses at four weeks or more inter-dose interval) are expected to wane, as experience with all previous non-replicating vaccines have taught us. *The usual interval between priming and boosting is six months to one year, because protective levels of antibodies will be present for at least that duration, when the priming doses include two or three injections.* Limited experience with antibody titres after natural infection or after vaccination against COVID-19 informs us that the antibody titres decline such that a proportion does not have even detectable virus neutralising antibody levels after six months. There is further evidence that those who are elderly, men particularly, and those with organ transplants, cancer treatment or co-morbidity, have weaker primary antibody responses than their younger/normal counterparts. This implies that they may remain vulnerable to severe disease and death; they are in urgent need for booster dose(s) to ensure and sustain protective immunity. The initial expectation that the COVID-19 pandemic would be a short-lived one is proven wrong. It is now 20 months from the first case and numerous variants have emerged, and chains of transmission continue even in countries which have achieved wide vaccination coverage such as Israel and the United Kingdom. *It seems inevitable the pandemic will evolve into a permanent ‘pan-endemic’ state and vaccination is here to stay for years to come, until we manage to eradicate the virus altogether using vaccines.* It is apparently this realisation, that immunity wanes and the pandemic is evolving into endemic long-term prevalence, that prompted Pfizer Company to seek approval for a booster dose in the United States, and Israel’s Ministry of Health to start booster doses to all above 60 years of age.



The strategy ahead

In India, we have an ethical dilemma — as long as there is inadequate vaccine supply, everyone deserves priming doses before even the highly vulnerable early vaccine recipients are offered booster doses. The solution is to accelerate vaccine procurement without counting the cost. For every country planning vaccine roll-out, the science of vaccinology demands that all those getting priming doses should receive at least one booster dose — at a well-chosen interval. *The science of immunology teaches us that a booster dose delivered at an interval of at least four, preferably six to 12, months after the last priming dose, will stimulate the production of 'long-lived' antibody secreting cells, as well as 'long lived (virtually life-long) memory cells'. Those who get a third dose one month after the second dose should count it as three-dose priming instead of a true booster which requires four months to one year of wait.* India will do well to plan a vaccination strategy for completing two priming doses in all adults and children, third dose to the special category described above, and one booster dose to everyone one year later. Meticulous planning and the execution of such a vaccination campaign is what will get the country out of the stranglehold of this virus and its variants that have emerged and any that might emerge with higher transmission efficiency than even the Delta.



DreamIAS