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International

U.S. Gives 'Terrorist' Label to White Supremacist Group

- The Trump administration designated an ultranationalist group based in Russia as a terrorist organisation, according to officials. It is the first time the government applied the label to a white supremacist group. While the label of specially designated global terrorist has been frequently used for Islamist extremists, there have been growing concerns among U.S. officials about violent white supremacists with transnational links over the past five years. In 2018, the White House added that threat to the government's National Strategy for Counterterrorism. The State Department's designation for the organisation, the Russian Imperial Movement, sets up the Treasury Department's Office of Foreign Assets Control to block any American property or assets belonging to the group. It will also bar Americans from financial dealings with the organisation and make it easier to ban its members from travelling to the U.S. The U.S. is also designating three of the group's leaders — Stanislav Anatolyevich Vorobyev, Denis Valliullovich Gariev and Nikolay Nikolayevich Trushchalov — as individual terrorists who will face similar sanctions, officials said. The authority for either the Treasury Department or the State Department to deem a group or an individual a specially designated global terrorist traces back to an executive order issued by President George W. Bush after the September 11, 2001, terrorist attacks.

Signing of Order

President Donald Trump in September signed an executive order expanding that authority to cover groups that provide training for terrorists even if the groups are not directly linked to any attack. The Russian Imperial Movement is not considered to be sponsored by the Russian government, officials said, although President Vladimir Putin has tolerated its activities and it has helped advance the Russian government's external goals by recruiting Russian fighters to aid pro-Russia separatists in eastern Ukraine. The group has also helped support neo-Nazi groups in Scandinavia. Ambassador Nathan A. Sales, the State Department's counterterrorism coordinator, said the group operated two facilities in St. Petersburg, that offered paramilitary training to neo-Nazis and white supremacists. Although a Russian Imperial Movement member has visited the U.S., the organisation does not appear to have domestic members. It is not clear if the group has provided training to U.S.-based neo-Nazis.

Sudan 'Finalises' Deal to Settle USS Cole Case

- Sudan's Justice Ministry said that it has finalised a settlement with families of the victims of the USS Cole bombing. Khartoum agreed in February to compensate the families of 17 American sailors who were killed in a suicide bombing targeting their Navy destroyer in Yemen's Aden harbour in 2000, an attack that was later claimed by al-Qaeda. A U.S. court held Sudan responsible for the attack and ordered compensation, finding that the bombers were trained in the country. In March 2019, the U.S. Supreme Court overturned the ruling on procedural grounds. Sudan's Justice Ministry said it had submitted a petition alongside families who pursued the case with the relevant U.S. court to end pending lawsuits against Sudan regarding the USS Cole. "The settlement procedures have now been completed in such a way that would permanently scrap lawsuits," said the Ministry. Khartoum has denied the charges but by agreeing to a settlement, Sudan has fulfilled a key condition set by the U.S.

to remove it from state sponsors of terrorism list. Sudan has been on Washington's blacklist since 1993 over its alleged support of Islamist groups.

Sanctions and Pandemic

- America's refusal to ease sanctions on Iran even when the West Asian country is struggling hard to contain the novel coronavirus spread with limited resources shows its total disregard for the humanitarian situation in the Islamic Republic. Iran, the hardest hit by the pandemic in West Asia, has already seen 3,739 deaths and 62,589 infections. To be sure, Iran failed on multiple fronts in the battle. The government was initially reluctant to enforce drastic restrictions on businesses, religious establishments and people. As infections began spreading at an exponential pace, it was more than what Iran's health-care system could handle. And during the crisis, the cash-strapped, isolated regime struggled to meet people's needs. But what accentuated these failures are the American sanctions. Last year, the sanctions, reimposed by President Trump after he unilaterally pulled the U.S. out of the Iran nuclear deal in 2018, shrank the country's economy by 8.7%. The fall in oil prices and the pandemic have multiplied Iran's woes. The sanctions have also debilitated its ability to import even humanitarian goods. The U.S. rejected calls for easing sanctions, saying exports of these goods to Iran are already exempted. But it is not that easy. Most global banks, fearing U.S. retaliation and legal consequences, stay away from doing business with Iran, which makes it difficult for the Islamic Republic to find a functional payment mechanism. With the economy in dire straits, it also lacks the resources to make purchases.
  The U.S., which has the greatest number of COVID-19 infections, should be in a better position to understand Iran's woes than any other country. America has already seen about 11,000 deaths from 368,533 infections. Despite the U.S. being the world's largest economy, and home to a gigantic health-care industry, authorities there appear clueless on quick containment. Learning from its own tragedy, Washington should have suspended or at least eased the sanctions on Iran, allowing the country to import food, medicines and other humanitarian goods without restrictions. Such a decision would also have provided an opportunity to both countries — on the brink of a military conflict early this year — to resume diplomatic engagement. It is still not too late for Mr. Trump to take a humanitarian decision and turn it into a diplomatic opening. The Iranian leadership should realise that this is not the time for America-bashing. This is an hour of crisis, globally. Tehran's focus should be on getting maximum help from abroad and beefing up its fight at home to save lives. Supreme Leader Ayatollah Khamenei's recent comment that Iran "has the capability to overcome any kind of crisis and challenges" is far removed from reality. Iranians need help and the U.S. should reconsider its policy of punishing them, at least in this time of a pandemic.

DreamIAS

Foreign Affairs

Preparing for SAARC 2.0 (Rajiv Bhatia - Distinguished Fellow, Gateway House, and a Former Ambassador)

- A tweet by Prime Minister Narendra Modi resulted in the first-ever virtual summit of SAARC leaders on March 15. Their deliberations reflected a recognition of the serious menace posed by COVID-19 and the need for robust regional cooperation to overcome it. What has happened to this innovative exercise in health diplomacy since then?

Solid Follow-Up

Those who hastened to dismiss the video conference as a mere show may have been disappointed. Considering that SAARC has been dormant for several years due to regional tensions, it is worth

stressing that the fight against COVID-19 has been taken up in right earnest through a series of tangible measures. First, all the eight member-states were represented at the video conference — all at the level of head of state or government, except Pakistan. The Secretary General of SAARC participated. They readily agreed to work together to contain the virus, and shared their experiences and perspectives. Second, India's proposal to launch a COVID-19 Emergency Fund was given positive reception. Within days, all the countries, except Pakistan, contributed to it voluntarily, bringing the total contributions to $18.8 million. Although it is a modest amount, the spirit of readily expressed solidarity behind it matters. Third, the fund has already been operationalised. It is controlled neither by India nor by the Secretariat. It is learnt that each contributing member-state is responsible for approval and disbursement of funds in response to requests received from others. Fourth, in the domain of implementation, India is in the lead, with its initial contribution of $10 million. It has received requests for medical equipment, medicines and other supplies from Bhutan, Nepal, Afghanistan, Maldives, Bangladesh and Sri Lanka. Many requests have already been accepted and action has been taken, whereas others are under implementation. Fifth, a follow-up video-conference of senior health officials was arranged on March 26. The agenda included issues ranging from specific protocols dealing with screening at entry points and contact tracing to online training capsules for emergency response teams. Steps are now under way to nurture technical cooperation through a shared electronic platform as also to arrange exchange of all useful information among health professionals through more informal means. Those who argue that SAARC members have committed rather limited resources for a grave threat have a point. But they need to study the latest figures which reveal an interesting picture. So far, South Asia has not exactly borne the brunt of the pandemic. Of the total confirmed cases in the world that stood at 12,89,380 on April 6 (according to the Johns Hopkins Coronavirus Resources Centre), SAARC countries reported only 8,292 cases, representing 0.64%. Whether the low share is due to limited testing, a peculiarity of the strain of the virus, people's unique immunity, South Asia's climate, decisive measures by governments, or just good fortune is difficult to say. But it is evident that India's imaginative diplomacy has leveraged the crisis to create a new mechanism for workable cooperation. It will become stronger if the crisis deepens and if member-states see advantages in working together. Seven of the eight members already do.

A New SAARC?

To conclude that SAARC is now returning to an active phase on a broad front may, however, be premature. In the backdrop of political capital invested by New Delhi in strengthening BIMSTEC and the urgings it received recently from Nepal and Sri Lanka to resuscitate SAARC, I recently posed a question to External Affairs Minister S. Jaishankar at a public forum. He said that India had no preference for a specific platform, but it was fully committed to the cause of regional cooperation and connectivity. The challenge facing the region is how to relate to a country which claims to favour regional cooperation, while working against it. Clearly, India has little difficulty in cooperating with like-minded neighbours, as it showed by forging unity in the war against COVID-19. This is diplomatic resilience and leadership at its best. Finally, a thought for consideration of 'SAARC purists' who maintain that all proposals for cooperation should be routed through the Secretariat and activities should be piloted by the incumbent chair. Given what Pakistan has done to harm India's interests since the terrorist attack on the Uri Army base in 2016 and its continuing resistance to cooperation against COVID-19, the purists' scenario is unrealistic. Both New Delhi and its friendly neighbours need to start preparing themselves for SAARC 2.0.

Mockery of Justice

- A ruling by the Sindh High Court that overturned the conviction of Omar Saeed Sheikh, and three others, of murdering American journalist Daniel Pearl, for lack of evidence is scandalous in its utter disregard for criminal jurisprudence. The court observed that no evidence had been brought before it by the prosecution to link any of the four — the others being Fahad Saleem, Syed Salman Saqib and

Sheikh Muhammad Adil, whose convictions were similarly overturned — to the killing of Pearl. This is sophistry at its best and speaks eloquently of the systematic way the case has been diluted from the beginning. Pearl, then South Asian Bureau Chief of The Wall Street Journal, was abducted in Karachi in January 2002, in an operation managed by Omar Sheikh, who had demonstrated links to, among others, Pakistani militant groups as well as to al-Qaeda. Pearl had been baited while investigating links between al-Qaeda and the British 'Shoe Bomber' Richard Reid, who tried, in mid-air on a flight, to light explosives in his shoes on December 21, 2001, just two months previously. Many ransoms demand later, a video was handed over on February 21, 2002, wherein Pearl was shown being methodically beheaded with a knife. When the Americans began to squeeze Pakistan to go after the perpetrators, Omar Sheikh 'surrendered' to Ijaz Shah, a former Intelligence Chief, then Home Secretary of Punjab; he is now the country's Interior Minister. Even more curiously, it was after many days that Sheikh's arrest was shown.

The Sindh government has extended Sheikh's detention and the provincial prosecutor has said that the High Court ruling will be appealed in the Supreme Court. But these moves could be aimed at blunting growing international opprobrium, including at the FATF, the global money laundering and terrorist financing watchdog, that has already put Pakistan on its 'grey list', and where India has said it will bring this matter for discussion. It is likely that once the pressure eases, Sheikh and his cohorts will be let off as has happened with others before them. Pakistan's record of leniency on this has been as consistent as it has been alarming. In 2015, Zakiur Rehman Lakhvi, who supervised the 26/11 Mumbai attacks, was released from detention, and remains free. Just last month, Pakistan's Economic Affairs Minister Hammad Azhar revealed that Jaish-e-Mohammed chief Masood Azhar had conveniently gone "missing" along with his family. Masood Azhar, Omar Sheikh, and Mushtaq Ahmed Zargar had been released in exchange for hostages of Flight IC 814 in December 1999 into Taliban/ISI custody in Kandahar. Pakistan needs to be persuaded to move beyond tokenism and demonstrate a much higher order of commitment to deal with such terrorists than it has hitherto shown.

Mujibur Rahman's Killer Faces the Gallows After 45 Years

- A Bangladesh military captain arrested after nearly 25 years on the run over the assassination of the country's founding leader will be executed, officials said. Sheikh Mujibur Rahman, father of current Prime Minister Sheikh Hasina, was killed along with most of his family in a military coup on August 15, 1975, nearly four years after he led Bangladesh to independence from Pakistan. In 1998, Abdul Majed was sentenced to death along with a dozen other Army officers over the murders. Bangladesh's Supreme Court upheld the verdict in 2009 and five of the killers were executed several months later. Majed is believed to have fled to India in 1996. He returned to Bangladesh last month, a prosecutor told reporters. Acting on a tip-off, counter-terrorism police arrested Majed as he rode in a rickshaw in the capital Dhaka, said police inspector Johurul Haque. "The formalities to execute him have already begun," Justice Minister Anisul Huq told AFP, adding that the former officer will not be able to appeal his sentence. Mr. Huq said Majed's only option to avoid the gallows was to appeal to the President for clemency. However, since President Abdul Hamid is a close confidante of Ms. Hasina, any mercy appeal is expected to be turned down, paving the way for his execution within weeks. Ms. Hasina, whose public celebrations this year for the centenary of her father's birth have been hampered by the pandemic, survived the 1975 attack because she was in Europe with her sister.

A Double Whammy for India-Gulf Economic Ties (Mahesh Sachdev, A Former Ambassador, Is President, Eco-Diplomacy & Strategies, New Delhi)

- India's economic ties with the Gulf states have two dominant verticals: the economic symbiosis and India's expatriate community. Bilateral economic ties are strong: the India-Gulf trade stood around $162 billion in 2018-19, being nearly a fifth of India's global trade. It was dominated by import of crude oil and natural gas worth nearly $75 billion, meeting nearly 65% of India's total requirements. Some of these countries have large Indian investments and some have planned large investments in India.

Second, the number of Indian expatriates in the Gulf states is about nine million, and they remitted nearly $40 billion back home. Both these intertwined pillars of India-Gulf ties have been affected by the recent maelstrom roiling the shared region. India being the world's third largest importer of crude, a sharp and prolonged decline in oil prices helps its current account. However, this is not an unmitigated blessing. The Gulf's lower oil revenues also presage decreased bilateral trade and investments as well as expatriates' remittances — all of them adding to India's current financial stress.

Impact on Expatriates

Oil is a cyclic commodity and the Gulf producers have long evolved a pattern to handle its periodic lows. They tend to tighten their belts and dip into their reserves. They also transfer the burden on to the last person in line, viz. the Asian expatriate. The fresh recruitment stops, salaries are either lowered or stalled, taxes raised and localisation drives launched. The net result is that a large number of expatriates return to their homes. This time there is an added complication of the pandemic, to which the Asian expatriates living in densely populated camps are particularly vulnerable. In case the pandemic worsens in the lower Gulf, panic-stricken, wage-deprived Indians may prefer to come back. This would create an exodus of epic proportions, the nearest example being the evacuation of over 1,50,000 Indians from Kuwait in 1990-91, albeit for political reasons, an event that upended India's economy. Apart from creating a logistical nightmare of transporting millions of expatriates back, they would need to be resettled and re-employed. While hoping that the Gulf states are able to contain the pandemic and the oil shock, India needs to make some contingency plans in consultation with the individual countries. It should do whatever it takes to enhance their capacity to handle COVID-19 cases among the Indian expatriates. India's missions there also need to monitor the situation and try to avoid panic among its nationals. In the longer run, it is quite clear that we need to find new drivers for the India-Gulf synergy. This search could begin with cooperation in healthcare and gradually extend outward towards pharmaceutical research and production, petrochemical complexes, building infrastructure in India and in third countries, agriculture, education and skilling as well as the economic activities in bilateral free zones created along our Arabian Sea coast eventually leading to an India-Gulf Cooperation Council Free Trade Area. Only then would we have sufficiently diversified the India-Gulf economic ties to protect them from such shocks.

Why Has India Reacted to Declining Global Crude Prices by Raising Excise Duties?

- Till U.S. President Donald Trump's tweet, on his conversation with Saudi Arabia's Crown Prince Mohammed bin Salman, Brent crude prices had been declining in an unprecedented manner, touching an 18-year low. Mr. Trump's assurance that the West Asian kingdom and Russia, major oil producers, would soon announce a production cut sent prices up again. Earlier this year, Saudi Arabia and Russia had fallen out on agreements to cut production which would have kept oil prices up.

What Has Helped Oil Prices Swing Wildly Both Ways?

Brent crude had tanked about 50% over the month of March and was trading in the region of $26 per barrel. Prices jumped, and crude now trading at about $33 per barrel, after the U.S. President's tweet that a production cut could be 'as high as 15 million barrels' per day. To set that in context, when talks on production fizzled out earlier, Saudi Arabia said it would raise its production from 9.8 million barrels per day (bpd) to 12.3 million bpd.

Why Does It Matter to The U.S.? How Much Oil Its Competitors Produce?

Profits that companies make in selling oil depend directly on the cost of extraction, which is influenced by factors such as the terrain where the oil field is located. There is still a staggering quantity of oil in the world left to be extracted but the cost of extraction is increasing. For example, fracking, which helps extract oil from rocks, and which is a significant source for U.S. extraction firms,

does not come cheap. So, a spike in production by Saudi Arabia and Russia typically drives down oil prices, following the traditional concepts of supply and demand. Beyond a certain point, U.S. producers may not be able to withstand declining oil prices, considering their costs. A January 2020 Haynes and Boone's Oil Patch Bankruptcy Monitor report said that since 2015, when oil prices began to drop save for a few spikes in between, 208 North American producers have filed for bankruptcy involving $121.7 billion in aggregate debt. But now, if Saudi Arabia and Russia too are considering a production cut to help bring prices back up again, it is a signal that oil prices have gone too low for even these producers to profit from. Significantly, neither of these oil producers has publicly committed to production cuts.

How Has COVID-19 Influenced Prices?

With the virus which originated from Wuhan in China in late 2019 bringing global economic activity to a near-complete halt, demand for fuel is bound to have dropped significantly. This would have had a dampening effect on oil prices. After all, if you do not move out for work or entertainment but only occasionally for grocery shopping, how much fuel would you burn over the period of the lockdown? Even before the virus-induced lockdown, India's consumption of petrol by volume grew a marginal 2% in February 2020, over April 2019 and diesel consumption fell by 2.2% in the same period.

What Is Happening to Indian Oil Prices?

The country's oil bill may have fallen in the recent past and could remain low if Saudi Arabia and Russia do not behave as the U.S. President expects them to, but Indian end-customers may not benefit. Indian prices of petrol and diesel have remained steady. Between March 2014 and April 2020, the price per barrel of the Indian crude basket fell from $107 to $21. The average retail selling price of petrol in Delhi has fallen by ₹1.82 from March 2014, to ₹69.59 per litre in February 2020. Of this amount, the portion that goes to the Centre in the form of duties has more than doubled from ₹10.38 to about ₹23. In March, the Central government reacted to declining international oil prices by raising excise duties by about Rs. 3 per litre on fuel sold in India, such that the end user saw little or no change in the retail price. This was only the latest in a series duty increases over the past few years.

Why the Excise Duty Hike?

Even before the virus-induced lockdown paralysed the economy, the government had been battling a fiscal deficit problem. The nearly four-year-old Goods and Services Tax has not immediately yielded robust collections; consumer demand has fallen and there have been calls to put more money in the hands of the consumer, fuelling expectation of a tax cut. The Centre could not afford a blanket cut in income tax rates but it did offer taxpayers the option of moving to a lower tax slab without deductions or rebates. With international oil prices declining, the government has used the opportunity to keep end-user fuel prices stable while increasing its own prospects for collection. With consumer inflation being largely influenced by poorer supply of specific food items, and not necessarily by rising fuel prices, the government has chosen to keep Indian end-user fuel prices stable with higher taxes to augment its otherwise-emaciated kitty. Before the COVID-19 lockdown was announced on March 24, there were reports that the most recent duty hike would give the Centre ₹43,000 crore for the fiscal year 2020-21.

Nation

COVID-19 Tests Must Be Done Free

- Tests relating to COVID-19, whether done in approved government or private laboratories, shall be free of cost, the Supreme Court ordered. Issue the necessary directions immediately, it told the government. A Bench of Justices Ashok Bhushan and S. Ravindra Bhat held that tests relating to

COVID-19 must be carried out only in NABL accredited Labs or any agencies approved by the WHO or the ICMR. The order was passed on a petition filed by advocate Shashank Deo Sudhi to implement free COVID-19 testing by private labs. On April 3, the court issued notice to the government on the plea, which challenged the legality of a March 17 advisory capping the price for Coronavirus testing at ₹4500 in private labs and hospitals. Mr. Sudhi had argued that the advisory was both discriminatory and a violation of the fundamental right to life under Article 21 of the Constitution. "We find prima facie substance in the submission of petitioner that at this time of national calamity permitting private labs to charge ₹4500 for screening and confirmation test of COVID-19 may not be within means of a large part of population of this country and no person be deprived to undergo the COVID-19 test due to non-payment of capped amount of ₹4500," the court observed in its order. It pointed to the government laboratories carrying out COVID-19 tests free of cost.

Power Managers Primed for A Dip and Surge (M. Kalyanaraman - Independent Journalist)

- The lights-off event can lead to disruptions in power supply when everyone switches off their lights from 9 PM and switches on after nine minutes. Electricity authorities have studied power consumption patterns across India and the share of lighting in it to come up with a plan to handle the expected dip and surge in consumption that day. When everyone switches off their lights, the power plants will be impacted. The situation can be compared to a bicycle climbing upward. When the lights go off all at once, it is akin to the cyclist suddenly reaching the peak and continuing to pedal as before during the climb down. The bicycle speed will then ramp up and could lead to the cyclist losing his balance. The voltage in the grid and the frequency will surge. The frequency can be understood as the electrical equivalent of the bicycle's speed. The bicyclist losing his balance is like our power plants stopping operation as a result of these sudden changes. If the bicyclist anticipates the steepness of the terrain and the cliff, then he can pedal as required. Electricity authorities have observed consumption patterns across States and concluded that the dip and surge is likely to be of the order of 12 to 14 gigawatts, which is roughly 10% of electricity consumed (load, actually) at any given point in time in India. And the dip and the surge will each happen in 2-4 minutes. Different types of power plants have different abilities to handle sudden increase or decrease in load. The control we have on these plants varies. In hydro plants, the water can be stored in dams to the brim and then let down. In coal-fired plants, it would be harder to suddenly reduce or increase their power generation. They take a while. In gas-fired plants, load changes can be much quicker. In nuclear plants, this ability is quite limited. It would be difficult to switch off or load these plants suddenly or quickly. In solar and wind, there is little or no control. The sun and the wind do not obey us at all. Based on these, the Power System Operation Corporation Limited has come up with a strategy. In India, power consumption hits a low at around 6:10 PM. This is when everyone's left their offices. Lights are off in offices and not yet on at homes. The sun hasn't set yet. Fans are probably off, too. After the low, power consumption rises and hits a peak at around 7:20 PM. It then starts reducing. During the evening when power consumption starts rising after the 6:10 PM. low, the hydro plants will be powered down by decreasing the water flowing to the turbines and instead storing the water in the reservoirs during the evening (after 6pm) when power demand hits a peak. The load will be taken up by other units. Before lights-out on by 8:55 PM, the thermal generating units such as coal and gas will be powered down to 60% of their capacity. And hydro plants will be powered up to take the shortfall from thermal plants. After 8:57, both types of plants will be powered down as people switch off their lights. Power managers will keep a watch over the frequency. If they reduce the power but the demand is still there and not enough people are switching off their lights, then the frequency will dip too much. The Indian power system has codes specifying how low or high these frequencies can go. The frequency of power supply will in turn have an impact on all motors running — our fans, pumps, fridge and A/C compressors. As the lights-out picks up, hydro units will be brought down to less than 10% of the maximum power they can produce. Gas units will be brought down to minimum power. From 9:05 p.m., the thermal units will start ramping up, and from 9:09 p.m. hydro units will start powering up.

After stabilisation, the operation of all types of power plants will be brought to normal. Operationally, the Power System Operation Corporation has asked all senior personnel to be on duty. And shift timings should be adjusted so more personnel are present. Contingency plans include black start — starting power plants during a black-out.

For Better Use

- The suspension of the Members of Parliament Local Area Development Scheme (MPLADS) for two years to boost the funding available for the COVID-19 fight is a step in the right direction. It may appear at first blush that the decision may undermine the decentralised manner of funding local area development. However, past experience has been that some members do not utilise their full entitlement and that there is a gap between recommendation made by members and implementation by the administration under this scheme. The immediate benefit now is the freeing up of about ₹7,900 crore over a two-year period so that it can be spent on boosting the health infrastructure needed to combat the pandemic. This is the second announcement regarding MPLADS that the Centre has made after the disease outbreak. Last month, it allowed utilisation of MPLADS funds to the extent of at least ₹5 lakh by each MP to purchase medical equipment for government hospitals in their constituencies. Many members made immediate use of the one-time dispensation to recommend the procurement of N95 masks, personal protective equipment, and ventilators. Now that the entire scheme has been suspended, the government should ensure that recommendations already made are acted upon immediately. While the transfer of these sums to the Consolidated Fund of India would help judicious deployment anywhere in the country, based on an assessment of the varying needs in different regions, it would redound to the government's credit if the genuine efforts made by members to help their constituents are not frustrated. It should also see to it that allocations are non-discriminatory.
  Political reactions indicate that there is considerable disenchantment over the suspension — the ₹5-crore corpus available to each member is a source of much goodwill for elected representatives. Better performing MPs identify and fulfil local development needs with empathy and alacrity. However, there has also been persistent criticism about the scheme's very nature. A conceptual flaw pointed out by experts is that it goes against the separation of powers. It allows individual legislators to encroach on the planning and implementation duties of the administration. Jurists have pointed out that the Constitution does not confer the power to spend public money on an individual legislator. Experts have called it out for weak monitoring. The Supreme Court, while declining to strike down the scheme, called for a robust accountability regime. MPLADS gives scope for MPs to utilise the funds as a source of patronage that they can dispense at will. The CAG has flagged instances of financial mismanagement and inflation of amounts spent. The Second Administrative Reforms Commission recommended its abrogation altogether, highlighting the problems of the legislator stepping into the shoes of the executive. The current suspension gives some scope for a reconsideration of the scheme in its totality.
- The Union Cabinet approved a 30% cut in the salaries of all Members of Parliament and a two-year suspension of the MP Local Area Development (MPLAD) scheme so that the amount saved can go to the Consolidated Fund of India to fight COVID-19, Information and Broadcasting Minister Prakash Javadekar said. The MPs, including the Prime Minister and his Council of Ministers, would take the salary cut for financial year 2020-2021. In addition, the Cabinet had decided to suspend the MPLAD funds for 2020-2021 and 2021-2022. Many MPs had already pledged to use their MPLAD funds, ₹5 crore a year, for efforts to combat the coronavirus pandemic. Mr. Javadekar said President Ram Nath Kovind and Vice-President M. Venkaiah Naidu, as well as all Governors, had decided of their own volition to take a 30% salary cut. All the amount saved would go to the Consolidated Fund of India. When asked about how much would be saved from the MPs' salary cut, he said: "It's not about the amount, it's about the message it sends to the country about the will of MPs." Later, government spokesperson K.S. Dhatwalia clarified via a tweet that only the MPs' salaries would be cut, not allowances or the pensions of ex-MPs. According to the Act, as amended in April 2018, MPs are entitled to a monthly salary of ₹1 lakh, apart from various allowances.

Charting A Common Minimum Relief Programme In Times of Pandemic

- Let us examine these categories and what are the areas of concern that the government needs to address in what we may call, a Common Minimum Relief Programme.

Economic Upheaval

First, daily wage earners, labourers and migrant workers are at the greatest risk of economic and social insecurity. They face widespread economic upheaval and geographic displacement. The sheer importance of a social security net in helping them tide over this predicted period of unemployment and privation cannot be overstated. Eight National Trade Unions wrote to the Minister for Labour and Employment urging timely action to prevent the inevitable loss of employment and livelihood. Among several other pertinent concerns, they also asked for protections against evictions. Most importantly, they asked for members of the unorganised sector (be they registered or unregistered) to be covered by a robust cash and food distribution system. This concern is extremely legitimate and urgent given that over 80% of the population is currently employed in the unorganised sector. There should be a uniform mechanism for the dispersal of both income support as well as essential items such as rice, wheat, millets, medicines, water and anything else that these families will require.

Farmers Left in The Lurch

Second, farmers are in dire need of immediate support. Having faced the wrath of unseasonal and inclement weather, the wheat and other Rabi crops are ready for harvesting. But due to the lockdown, the ensuing unavailability of seasonal labour and lack of clarity on procuring arrangements, agencies and prices, the farmer is left in the lurch. Given the vital role agriculture plays both in the economy and in ensuring staples for every single citizen, the resulting crisis is likely to have a widespread negative impact on food security nationwide. Furthermore, and to ensure the problem doesn't become cyclical, the government needs to make immediate arrangements for ensuring the availability of fertilisers, pesticides, other inputs (including access to lines of credit) for the planting of the next kharif crop as well. Third, supply chain disruptions for fast moving consumer goods due to unavailability of labour, difficulty in transporting goods across borders during the lockdown is leading to a shortage of foodstuffs and other essential items. This in turn is leading to massive hoarding, black marketing and runaway inflation. This needs to be addressed head on instead of in an ad-hoc manner if mass panic is to be avoided post the lockdown. Fourth, Medium and Small-Scale Enterprises need a clear buffer strategy for survival. There are currently close to 4.25 crore registered MSMEs which contribute 29% to India's GDP (or nearly 61 lakh crores) and these have been hit hardest by the COVID-19 crisis imperilling, in turn, the livelihood of crores. Unlike their large-scale corporate counterparts, they cannot survive beyond a period of two or three months at the most. There is no alternative to a meaningful strategy. The government must lay out an action plan, including a financial package, to fortify this sector or risk see it perish.

Protect Middle Class

Fifth, the middle class is facing growing vulnerability and needs to be protected. We are staring at an inevitable economic crisis and middle class (as a percentage of the population) is likely to be diminished in size unless immediate action is taken. Companies and employers are cuttings salaries and even declaring layoffs to cope with this time. This is aggravated by unjustifiably high petrol, diesel and gas prices. The twin strategy of increased EMI's (as a result of deferment) and the lowered interest rates on all small savings schemes (as also by the SBI) hitting at the hard-earned savings of the elderly, pensioners, professionals and women, have had the exact opposite of a desired impact. To wit, they have reduced the value of savings while simultaneously increasing debt obligations. A long-term plan for economic revival is needed if the middle class is to emerge stronger on the other side of this crisis. Two suggestions come to mind as obvious solutions: Nyay, the Minimum Income

Guarantee Programme was devised for times exactly like these. It will give much needed security — both financial and mental — to those who have no other sources of income due to the lockdown. The Central government must devise and implement this scheme, at least as a temporary measure. The other measure is to strengthen our manufacture and production policies by an extensive financial package with an impetus to and focus on local manufacturing. Every crisis offers opportunities. We have a chance to redraw our manufacturing strategies to reduce dependence on foreign manufacturing, create new jobs and boost exports. Let us learn from the experiences that we have accrued over the past 20 days and get ahead of the curve on these issues. India has the expertise and the talent to take on and emerge stronger from this challenge. All we need now, is political will.

Stage Fright

- Even after the Health Ministry on March 28 acknowledged on its website that there was "limited community transmission", India's national taskforce for COVID-19 continues to deny it. Now, a paper in the Indian Journal of Medical Research, by ICMR and Health Ministry researchers, provides evidence of community transmission in 36 districts in 15 States. The study is based on sentinel surveillance undertaken by the task force among severe acute respiratory infections (SARI) patients who have been hospitalised in public sector institutions to identify the spread and the extent of transmission of COVID-19 disease in the community. If there were 1.9% (two of 106) SARI cases positive for the SARS-CoV-2 virus by the end of March third week, the number increased to 104 by April 2. Of the 102 coronavirus positive SARI cases tested between March 22 and April 2, 40 (39%) had no travel history or contact with a positive case; data on exposure were not available for 59 (58%) cases. If more than 1% of SARI patients tested positive for the virus in 15 States, at 21 (3.8%), Maharashtra had the greatest number of coronavirus positive SARI cases in eight districts followed by Delhi (14 cases; 5.1%), Gujarat (13 cases; 1.6%), and West Bengal (9 cases; 3.5%). Kerala had just one SARI patient testing positive. The authors point out that antibody-based testing carried out in those testing negative for molecular test could have helped identify more positive cases.
With community transmission, or the third stage, now being confirmed in 36 districts, an expansion and change in testing strategy has become imperative in the high focus areas for the lockdown to be more meaningful. Though the taskforce has not openly declared community transmission, it is reassuring to note that the ICMR has already initiated changes in the testing strategy in response to the change in the pattern of community spread. On April 9, the ICMR revised the testing strategy for hotspots/clusters and large migration gatherings/evacuees' centres. While the criteria for testing across India remain the same, the testing norms for the high focus areas will now include people with influenza-like illness (ILI) with certain symptoms. Antibody testing should be carried out whenever molecular tests on these patients turn out negative. It is important to include antibody testing along with molecular testing when necessary in the high focus areas. Together with containment measures, this approach will help in snapping the transmission chain. Syndromic surveillance of all SARI and ILI patients along with quick and effective tracing, quarantining and testing of their contacts should be the way forward now. How well India responds now will determine whether the spread is contained quickly or leads to more cases and deaths.

Needed, Greater Decentralization of Power (Suhrith Parthasarathy - An Advocate Practicing at The Madras High Court)

- Over the course of the last few weeks, as we have found ourselves in the throes of a pandemic, one of the striking features of governance has been the signal role played by State Chief Ministers across India. Even before the Union government invoked the Disaster Management Act, 2005, many State governments triggered the Epidemic Diseases Act, 1897, and installed a series of measures to combat what was then an oncoming onslaught of COVID-19. These actions have not always been perfect. Some of them have even

disproportionately trenched upon basic civil liberties. But, by and large, they have been tailored to the reality faced on the ground by the respective governments. States such as Maharashtra, Kerala, Tamil Nadu, Rajasthan, and Karnataka have shaped their policies to address their direct, local concerns. They have communicated these decisions to the public with clarity and consideration, helping, in the process, to lay out a broad framework for the nation. In doing so, they have acted not merely as "laboratories of democracy", to paraphrase the former U.S. Supreme Court Justice Louis Brandeis, but also as founts of reasoned authority.

Stifled by Limitations

Equally, though, as much as State governments have taken up positions of leadership, they have repeatedly found themselves throttled by the limitations of the extant federal arrangement. Yamini Aiyar and Mekhala Krishnamurthy of the Centre for Policy Research have pointed out at least three specific limitations. One, the inability of States to access funds and thereby structure their own welfare packages. Two, the curbs imposed by a public finance management system that is mired in officialdom. This has prevented States from easily and swiftly making payments for the purchase of health-care apparatus such as ventilators and personal protective equipment. Three, the colossal disruption of supply chains not only of essential goods and services but also of other systems of production and distribution, which has placed States in a position of grave economic uncertainty. As Ms. Aiyar and Ms. Krishnamurthy argue, these limitations demonstrate an urgent need to decentralise administration, where States — and local bodies acting through such governments — are allowed greater managerial freedom. Under such a model, the Union government will command less but coordinate more.

Two Distinct Levels

There are varying accounts of what Indian federalism truly demands. But what is manifest from a reading of the Constitution is that it creates two distinct levels of government: one at the Centre and the other at each of the States. The Seventh Schedule to the Constitution divides responsibilities between these two layers. The Union government is tasked with matters of national importance, such as foreign affairs, defence, and airways. But the responsibilities vested with the States are no less important. Issues concerning public health and sanitation, agriculture, public order, and police, among other things, have each been assigned to State governments. In these domains, the States' power is plenary. This federal architecture is fortified by a bicameral Parliament. Significantly, this bicameralism is not achieved through a simple demarcation of two separate houses, but through a creation of two distinct chambers that choose their members differently: a House of the People [Lok Sabha] comprising directly elected representatives and a Council of States [Rajya Sabha] comprising members elected by the legislatures of the States. In formulating this scheme of equal partnership, the framers were also conscious of a need to make States financially autonomous. To that end, when they divided the power to tax between the two layers of government, they took care to ensure that the authority of the Union and the States did not overlap. Therefore, while the Centre, for example, was accorded the power to tax all income other than agricultural income and to levy indirect taxes in the form of customs and excise duties, the sole power to tax the sale of goods and the entry of goods into a State was vested in the State governments. The underlying rationale was simple: States had to be guaranteed fiscal dominion to enable them to mould their policies according to the needs of their people. Despite this plainly drawn arrangement, the history of our constitutional practice has been

something of a paradox. It is invariably at the level of the States that real development has fructified, but the Union has repeatedly displayed a desire to treat States, as the Supreme Court said in S.R. Bommai v. Union of India, as mere "appendages of the Centre". Time and again, efforts have been made to centralise financial and administrative power, to take away from the States their ability to act independently and freely. As Christophe Jaffrelot and Sanskruthi Kalyankar have shown, as Chief Minister of Gujarat, Narendra Modi rallied against these attempts. So much so that an undertaking to decentralise power and steer a new era of Centre-State cooperation became a leitmotif of the Bharatiya Janata Party's campaign for the 2014 elections. Among other things, in its manifesto, the party promised to create a "Team India" that will "not be limited to the Prime Minister led team sitting in Delhi," but that "will also include Chief Ministers and other functionaries as equal partners"; to place "centre-state relations on an even keel"; and to "ensure fiscal autonomy of the States".

Matters of Finance

Some efforts have no doubt been made to this end. But they have been ostensible, at best. Consider the widely hailed decision to accept the 14th Finance Commission's recommendation for an increase in the share of the States in total tax revenues from 32% to 42%. While, in theory, this ought to have enabled the States to significantly increase their own spending, in reality, as a paper authored by Amar Nath H.K. and Alka Singh of the National Institute of Public Finance and Policy suggests, this has not happened. Gains made by the States, as the paper underlines, have been entirely offset by a simultaneous decline in share of grants and by a concomitant increase in the States' own contribution towards expenditures on centrally sponsored schemes. Other measures have proved still more destructive. Notably, the creation of a Goods and Services Tax regime, which far from achieving its core purpose of uniformity has rendered nugatory the internal sovereignty vested in the States. By striking at the Constitution's federal edifice, it has made the very survival of the States dependent on the grace of the Union. The tension today is so palpable that a number of States are reported to have written to the Union Finance Ministry highlighting that more than four months' worth of Goods and Services Tax compensation to the States — reportedly totalling about a sum of ₹40,000 crore — remains unreleased. The Union government's centralising instinct, though, has not been restricted to matters of finance. It has also introduced a slew of legislation as money bills, in a bid to bypass the Rajya Sabha's sanction, even though these laws scarcely fit the constitutional definition. Similarly, the role of the Governors has been weaponised to consolidate political power. But perhaps most egregious among the moves made is the gutting of Article 370 and the division of Jammu and Kashmir into two Union Territories without securing consent from the State Legislative Assembly. To be sure, this impulse to appropriate authority is not in any way unique to the Bharatiya Janata Party's command. Congress-led governments of the past have also been susceptible to such motives. But perhaps a crisis of the kind that COVID-19 has wrought will show us that India needs greater decentralisation of power; that administration through a single central executive unit is unsuited to its diverse and heterogeneous polity. We cannot continue to regard the intricate niceties of our federal structure as a nettlesome trifle. In seeing it thus, we are reducing the promise of Article 1 of the Constitution, of an India that is a Union of States, to an illusory dream.

A Key Arsenal in Rural India's Pandemic Fight (Sonubal I.V. Is with The PRADAN – Bhoura Team at Betul, Madhya Pradesh)

- If you build a fortress to strengthen your defences against an enemy, what is of importance is the strength of its walls. The issue of space or comfort within the fortress is the last question one may dare to ask or even think about, apart from the minimum supplies required for sustenance. But what if the enemy is a virus? With the ongoing war against COVID-19, it is the exact opposite which needs equal if not greater attention — the state of preparedness within the fortress. Yes. With the ubiquitous 21-day national lockdown unprecedented in the history of independent India, stronger and harsher than anywhere else in the world, the interiors within the boundaries need attention.

Ground Realities

Interestingly, every village is in itself a fortress during these difficult times and every village needs attention within. With the influx of thousands of migrant labourers into their villages, there is an imminent need to isolate them for at least 14 days. Unfortunately, the houses here, which are often one or two-room dwellings, with an average seven family members to accommodate, are some of the worst places where one can hope to contain the deadly disease. Along with the absence of running water within households, the possibility of common points in village arenas becoming hotspots for this deadly contagion becomes manifold. Notwithstanding the fact that the entire State machinery is now involved in near wartime efforts to contain the spread of this pandemic, only a few States have been able to organically involve their foundational governance structure — i.e. gram panchayats — very effectively and efficiently in this situation. In some southern States with pre-embedded conditions of self-governing and nearly autonomous panchayats, they are becoming the beacons of hope by proactively engaging with citizens at the village level. A case in example is the community kitchens run by local bodies in Kerala, where home delivery of cooked food is spiking as the situation demands. Enough has been discussed already of the instrumental use of panchayats as mere wings of State administration. Issuing orders from the top is the norm and an ecosystem has evolved where even the elected representatives of panchayats wait for directions and a sarpanch does not assert himself before a bureaucrat. It would be surprising, therefore, if such a conditioned institution, originally envisioned to be the pivot of self-sustaining villages, creatively thinks of dealing with this pandemic. But the time has arrived, to reinvigorate these institutions of people and facilitate them to be the proactive agents in this fight. Many scientists and researchers have already predicted the possibility of villages becoming hotspots of the disease after the 21-day lockdown is lifted. Though geographical spread may be limited, the concentration of the spread may get out of hand. It is here that gram panchayats which are very well placed, and close to their own people with limited resources, can help them in enforcing isolation and making the necessary arrangements. Panchayats can work exactly in three areas: awareness generation, setting up isolation conditions, and streamlining social security measures announced by the Central and State governments.

Reaching Out Effectively

First, a model needs to be established, with concrete standard operating procedures and best practices that can be replicated throughout rural India. Organisations such as Professional Assistance for Development Action (PRADAN) have been trying to influence gram panchayats and district administrations in many States ever since the pandemic. With sustained engagement, they have been able to coordinate with the administration to use the resources of panchayats, collaborate with self-help groups and to set isolation conditions within village premises (with beds, sanitisers, drinking water, cooked meals, etc.) in many interior blocks across the districts in central and eastern India. Involving panchayats — and by observing adequate safety measures — to establish isolation facilities across the length and breadth of the country is the need of the hour. Consider the second part, even with the harvesting of wheat almost over in States such as Madhya Pradesh; people are still out in the fields, but once they are done with their work it is the panchayat that can do the work effectively to confine people within their homes with adequate awareness generation. The police

cannot reach out to each and every village round the clock because of their inadequate resources. Community policing with the active engagement of panchayats, by collaborating with women's collectives, is a potential area where a people-led movement can be kick-started in a short time span. Who can make the people aware better than their own elected representatives and who the villagers see on a daily basis? Finally, despite the financial packages being rolled out to avert panic and worry about livelihoods and basic food requirements, it is an inexorable situation that many will be left out as documentation is core to availing these social-service provisioning schemes. The Jandhan–Aadhaar–Mobile trinity is vulnerable in those areas where even mobile connectivity fluctuates, leave alone Internet connectivity. Without the active engagement of panchayats, it would be chaotic to even expect everything remaining under control within villages in case of even a minor disturbance. A seminal understanding developed is that, without the agency of gram panchayats, it is not possible to deploy any system effectively and to adequately take prompt actions to include the excluded. With a package of ₹1.7-lakh crore to meet the needs of the population and streamlining health services, it is clear that the government is trying its best; with more volunteers and social commitment through raising resources, civil society organisations are trying their best; with pledges of financial support and donations, concerned citizens and industry players are also trying their best. There have been enough ideas floated, proposed and implemented — from food to using railway coaches as isolation wards. But reinvigorating panchayats is an unattended area which needs a push in strengthening the arsenal available in this fight against COVID-19. Directions to gram panchayats to use the 14th Finance Commission grants to help villagers is a welcome measure, already done by various State governments. But laying stress on three actions specifically — arranging isolation facilities with cooked meal supply; awareness generation, and finally, ensuring that the most vulnerable have access to the welfare measures announced — is crucial if rural India is to be saved. It is time for panchayats to exercise their agency. For this, thrust is needed from top layer of administration — a direction that will help the nation fight this deadly virus. With enough political will, and a changed perspective of executive machineries, it is totally possible. It is time to unleash the power of panchayats to be with the people and lead this fight.

Armed Forces in Coronavirus Outbreak Battle

- As the Army moves in to take over the COVID-19 quarantine facility at Narela in Delhi, the procedure for calling the armed forces to help the civil administration is in the spotlight.

What Is the Procedure?

The regulations permit civil authorities to requisition the Army for controlling law and order, maintaining essential services, assisting during natural calamities such as earthquakes, and any other type of help that may be needed by the civil authorities. The procedure for requisitioning armed forces is governed under 'Aid to Civil Authorities' under the guidelines laid in Instructions on Aid to the Civil Authorities by the Armed Forces, 1970; Regulations for the Army, Chapter VII, Paragraphs 301 to 327; and Manual of Indian Military Law, Chapter VII. Civil administration requests the Local Military Authority for assistance, for the maintenance of law and order, maintenance of essential services, disaster relief and other types of assistance. Armed forces can be asked to provide troops and equipment for a flag march, rescue and relief, evacuation, and immediate aid. The current case of checking the spread of COVID-19 is different, as the medical aspect is predominant. These resources are being controlled centrally and judiciously, because of the requirement of doctors, equipment and facilities.

What Are the Tasks Expected to Be Performed in The Current Situation?

Besides the specialised medical resources, which are centrally controlled, the local units are prepared for maintenance of law and order, crowd control, curfew in sensitive areas, evacuation of civilians from affected areas, provision of essential supply of electricity and water, restoration of essential services, emergency feeding and shelter, prevention of panic, prevention of theft and loot, guarding

quarantine locations and detention centres, surveillance through drones aerial platforms, and other miscellaneous tasks.

In Such Situations, What Happens to The Armed Forces' Primary Role?

Providing aid to civil authorities, as and when called upon to do so, is a secondary task for the armed forces. It cannot replace the primary role of ensuring external security and operational preparedness. The Army recently killed five militants on the Line of Control (LoC), foiling an infiltration attempt, while losing five Special Forces soldiers in the engagement. There have been 53 ceasefire violations on the LoC which the Army has responded to. The Navy also continues to be operational on its various mission-based deployments, while taking all the precautions to prevent infection from foreign ports.

Is There A Ceiling on Such Deployment?

No, there is no such ceiling either of duration of deployment or on the number of armed forces personnel that can be deployed to aid civil authority. The National Crisis Management Committee (NCMC), headed by the cabinet secretary, is the final authority.

Are There Any Templates or Instances from The Past That Are Applicable Here?

The current situation is different from earlier cases such as tsunami or super-cyclone, which were natural disasters. The major difference is that specialists are the key in the current situation, and their tasks cannot be performed by general duty soldiers.

Who Pays for The Costs Incurred by The Armed Forces in These Roles?

The civil administration. The cost of assistance provided by the Armed Forces is recovered in accordance with the instructions contained in Appendix 'H' to the Pamphlet 'Instructions on Aid to Civil Authorities by the Armed Forces 1970'. These instructions are also contained in the ADGFP letter No 9367/Reports/GS/FP2 dated 11 Jul 1994.

What Is the Role of The National Disaster Management Authority?

NDMA is involved in secondary follow-ups by the Home Ministry, and is not very actively involved in the current case. The roles of the Ministries of Health, Home, Civil Aviation and Defence are predominant in this case. The armed forces are aligned with them at the apex level viz NCMC. The directions are followed by execution-level coordination which is done by respective secretaries in the government.

What Armed Forces Have Done So Far

- 6 quarantine facilities in Mumbai, Jaisalmer, Jodhpur, Hindon, Manesar and Chennai. Over 1,700 persons have been kept at these centres so far, of whom over 400 have been released. Three positive cases were referred to a hospital.
- 15 other facilities on standby, capacity of approximately 7,000. The Army runs 6 (Babina, Jhansi, Barmer, Bhopal, Kolkata, Binnaguri), IAF another 6 (Bhatinda, Hyderabad, Deolali, Kanpur, Gorakhpur, Agra), the Navy 3 (Vizagapatam, Kochi, Chilka).
- 51 armed forces hospitals are preparing dedicated COVID-19 facilities including High Dependency Units (scaled-down version of an Intensive Care Unit), and ICU beds.
- 5 testing labs at armed forces hospitals made part of national grid. These are Army Hospital (Research & Referral), Delhi Cantt; Air Force Command Hospital, Bangalore; AFMC, Pune; Command Hospital (Central Command), Lucknow; and Command Hospital (Northern Command), Udhampur. Six more hospitals to be equipped with the resources to begin COVID-19 testing.
- Special IAF flights have evacuated people and carried medical supplies. A C-17 Globemaster III has carried 15 tonnes of supplies to China and airlifted 125 persons including Indians on its return. From Iran, it brought back 58 stranded Indians. Also, C-130J Super Hercules aircraft

has ferried 6.2 tonnes of medicine to Maldives. An Army Medical Corps team was deployed in Maldives between March 13-21.

- 60 tonnes of stores airlifted by IAF transport fleet has airlifted approximately to various parts of the country. Twenty-eight fixed wing and 21 helicopters are on standby.
- 6 Naval ships kept ready for assistance to neighbouring countries. Five medical teams also on standby for deployment in Maldives, Sri Lanka, Bangladesh, Nepal, Bhutan and Afghanistan.

Direct Farm-To-Kitchen: Relief, With Promise

- The disruption in supply chains as a result of the lockdown has spotlighted the relevance of a nearly two-decade-old initiative to reach fresh produce directly to consumers in Maharashtra, bypassing the mandis. The essential features of this alternative market channel — decentralisation and direct-to-home delivery — will remain valuable even after the lockdown, when efforts to avoid crowding in the wholesale markets are likely to continue.

Alternative Model

The idea is to create smaller, less congested markets in urban areas with the participation of farmers' groups and Farmer Producer Companies (FPCs), so that growers of vegetables and fruit have direct access to consumers. Maharashtra is one of a handful of states where FPCs are robust. The model, implemented by the state Agriculture Department and Maharashtra State Agricultural Marketing Board (MSAMB), requires urban and rural local bodies and other stakeholders to buy into the agricultural marketing chain.

How the Markets Work

The government and MSAMB identify farmer groups and FPCs, and form clusters; local bodies choose the market sites and link the markets for direct delivery to cooperative housing societies. The model was introduced in the early 2000s. The FPCs and farmers' groups are allotted space for weekly markets in municipal wards or localities. Some producers' groups park pick-up trucks loaded with fruits and vegetables at the gates of housing societies. Locally produced vegetables are the bulk of the stock. Before the lockdown began on March 24, at least 118 such markets were set up in Mumbai, Pune and Thane, with more planned in Nashik, Aurangabad and other cities.

In the Time of Coronavirus Pandemic

Traffic of both buyers and sellers in these decentralised markets can be controlled more effectively than in wholesale mandis — a key advantage when social distancing is critical. Most FPCs have minimised contact, and have taken to selling pre-packed, customised packets of vegetables. In several areas of Pune and Mumbai, the decentralised markets have given way to FPCs delivering directly to the gates of housing societies. The administration has set up telephone numbers in each district, to which residents can call in to pre-order vegetables. The farmers' groups have filled much of the gap created by the shuttering of wholesale markets. More than 200 FPCs are now supplying fresh vegetables in urban Maharashtra.

What's in It for Farmers

The start of the pandemic coincided with the peak vegetable harvesting season. As the markets were locked down, there was a threat to the crop in over 100 lakh hectares in the country. A significant part of the produce is several states has made its way to these markets, softening the blow to farmers.
More importantly, larger numbers of vegetable growers in Maharashtra have got into direct selling to consumers. The practices of rudimentary packing, sorting and branding are being inculcated in farmers, as they pack and send pre-ordered packets to housing societies. Direct marketing, although not a new concept in perishables, had thus far failed to get much traction among local farmers. Now,

with mandis shut, rural entrepreneurs have stepped in to supply the demand in the cities. This exposure will likely help create alternative market chains that could continue even after more normal times return.

Reading the Containment Plan

- In the last couple of days, several areas in the National Capital Region have been cordoned off — "sealed" — to try and restrict the novel coronavirus disease (COVID-19) within that area. This is part of India's "containment" plan, essentially an updated version of an earlier Health Ministry blueprint that was drawn up when the only COVID-19 cases were those coming from abroad.

What Are the Components of The Containment Plan?

The plan outlines a strategic approach based on the stage of transmission. Five stages have been identified — travel-related case reported in India; local transmission; large outbreaks amenable to containment; widespread community transmission; India becoming endemic for COVID-19. "At the time of writing this document, many of the crucial epidemiological information particularly source of infection, mode of transmission, period of infectivity, etc are still under investigation," reads a disclaimer. Officials say it means that the plan is subject to revisions if required, as and when there is greater clarity about some of these aspects.

What Is the Approach Recommended for The Various Stages?

Containment of local transmission hinges on extensive contact tracing and search for cases in the containment zone, testing all suspect cases and high-risk contacts, and isolating all suspect or confirmed cases; quarantining contacts; and social distancing. For larger outbreaks, in addition to the usual measures, there is higher focus on a particular geographic zone and hospitals around the area are prepared for a rise in cases. This was done in Agra in early March when the area was cordoned off, contact tracing and isolation undertaken at a large scale in Lohamandi area, and S N Hospital became the base of the surveillance team and also the place where suspected cases could be taken if required. In addition, all asymptomatic healthcare workers are to be given hydroxychloroquine as a preventive. The graded containment plan in effect takes lessons from the H1N1 influenza pandemic where the spread was in clusters. "The current geographic distribution of COVID-19 mimics the distribution of H1N1 Pandemic Influenza. This suggests that while the spread of COVID-19 in our population could be high, it's unlikely that it will be uniformly affecting all parts of the country. This calls for differential approach to different regions of the country, while mounting a strong containment effort in hot spots," reads the plan document.

How Are Confirmed and Suspected Cases to Be Dealt With?

It says: "All suspect/confirmed COVID-19 cases will be hospitalized and kept in isolation in dedicated COVID-19 hospitals/hospital blocks. Persons testing positive for COVID-19 will remain hospitalized till such time as two of their samples are tested negative as per discharge policy. About 15% of the patients are likely to require hospitalization, and an additional 5 % will requires ventilator management." To reduce the burden on hospitals, there is a plan to temporarily convert hotels/ hostels/ guesthouses/ stadiums near a COVID-19 hospital as care centres where mild cases may be kept. "Dedicated COVID-19 hospitals/dedicated blocks in large hospitals will be identified and operationalized. Moderate to severe cases, who require monitoring of their clinical status (patients with radiological evidence of pneumonia) will be admitted to COVID hospital." For more severe cases requiring respiratory or other support, tertiary care centres both private and government will be included as part of the micro plan.

So, The Protocol Varies Based on Severity?

Yes. The Health Ministry has issued directions for categorisation of designated facilities into three groups — COVID care centres, COVID health centres and dedicated COVID hospitals. The care centres will be for cases clinically assigned as mild or very mild, or suspected cases. The health centres are hospitals that will offer care for all cases that have been clinically assigned as moderate. The dedicated hospitals will offer comprehensive care, primarily for those clinically assigned as severe. "The COVID care centres are makeshift facilities. These may be set up in hostels, hotels, schools, stadiums, lodges etc., both public and private. (COVID health centres) should either be a full hospital or a separate block in a hospital with preferably separate entry/ exit/ zoning. (they) will have separate areas for suspect and confirmed cases. Suspect and confirmed cases should not be allowed to mix under any circumstances," said the document on categorisation of care and hospitalisation facilities prepared by the emergency medical response division of the Health Ministry.

What Is the Line of Treatment?

The document collates the various advisories issued by the Indian Council of Medical Research (ICMR), emphasising that till now there is no approved specific drug or vaccine against COVID-19. "However, Hydroxychloroquine has been recommended as chemoprophylaxis drug for use by asymptomatic healthcare workers managing COVID-19 cases and asymptomatic contacts of confirmed COVID-19 cases… In addition, a combination of Hydroxychloroquine and Azithromycin has been advocated for use in severe cases of COVID-19 under medical supervision," it says. The ICMR said it is in the final stages of preparing a clinical trial protocol for convalescent plasma therapy.

Does It Address the Concerns of Healthcare Personnel?

Amid unrest among medical personnel across the country over the availability and quality of personal protective equipment (PPE), the plan reiterates the need for adequate PPE. "At all times doctors, nurses and para-medics working in the clinical areas will wear three-layered surgical mask and gloves. The medical personnel working in isolation and critical care facilities where Aerosolization is anticipated, will wear full complement of PPE (including N95 masks). The support staff engaged in cleaning and disinfection will also wear full complement of PPE. Environmental cleaning should be done twice daily and consist of damp dusting and floor mopping with Lysol or other phenolic disinfectants and cleaning of commonly touched surfaces with sodium hypochlorite solution," says the document. Sodium hypochlorite is already being used extensively, including in the Nizamuddin headquarters of the Tablighi Jamaat.

No Lockdown for Abuse (Akshaya Vijayalakshmi And Pritha Dev - Faculty Members at The IIM-Ahmedabad)

- In the first week of the lockdown, one of the 257 complaint calls that the National Commission for Women (NCW) received was from a father in Rajasthan who said his daughter was being beaten by her husband and had not been provided food since the lockdown began. The call helps to highlights the plight of many silent sufferers of domestic violence across the world in these times. In China, France, the U.K. and other countries, there have been reports of a significant increase in domestic violence cases since the imposition of lockdowns. These reports highlight the need for Indian authorities to take this issue seriously too. The literature on domestic violence suggests that when men and/or women get employed, domestic violence tends to fall as interactions between couples reduce. Under a lockdown, interaction time has increased and families have been left without access to the outside world. The literature also suggests that violence is a way for the man to assert his notion of masculinity. *The current atmosphere of fear, uncertainty, food insecurity, and unemployment may create feelings of inadequacy in men.* All these factors are only likely to aggravate tensions at home and make women victims of those tensions. The lack of access to friends, family and support organisations is expected to aggravate the situation for abused women further.

Violence Against Women in India

The National Family Health Survey (NFHS) data show that 24% of women faced domestic violence in 2015-16 not seeing any reduction since 2005-06. Compared to the survey results, the actual reports of domestic violence to the police are negligible at 58.8/ one lakh women. The disparity between the crimes reported in a survey and registered with the police highlight how women are unlikely to seek help. The more telling statistic from the NFHS data is perhaps that 52% of the surveyed women and 42% of the surveyed men think there is at least one valid reason for wife-beating. This attitude highlights how ingrained and normalised the idea is such that an abused woman should not expect support from others. The NFHS data also highlight how the proportion of women reporting violence is increasing among families with lower wealth. The lockdown due to the pandemic is leading to a substantial negative income shock for everyone. In our interviews with unorganised sector workers, we often heard that women suffered domestic violence coupled with the husband's alcoholism. The NFHS data also show a high correlation between alcohol intake and domestic violence. Keeping in mind that access to alcohol may be limited in these times, frustration could also lead to abuse.

What Can Be Done?

The most important thing that we can do is to acknowledge and accept that domestic violence happens and work to reduce the stigma attached to the victims of such violence. Such support may prompt abused women to seek at least informal means to redress their issues. The NCW has appealed to women to reach out to their nearest police stations or call the State Women's Commission for support. While this is the least that can be done, there are some other formal means by which we can extend help to women right now. The provision of cash transfers and ration support are likely to sustain the family and also reduce stress in the household leading to lower violence against women. Since the lockdown began, the amount of TV viewing, particularly of news, has increased. Coupled with a lack of other activity, this is an opportune time to improve messaging. The NCW could increase its advertising expenditure on TV to relay messages requesting women to contact the police station for help. The 181-helpline number set up for this reason should remain active, and women should be reminded of this number via TV ads. The government could also send mass SMS messages as it did during the onset of the COVID-19 crisis as most women have access to at least a basic phone. The French government has extended monetary support to organisations fighting this crime. British activists have requested their government to release emergency funds to support organisations that are dealing with domestic violence-related issues. The Indian government should also extend monetary support to such organisations in India rather than rely entirely on ASHA workers on whom the burden of community welfare is already very high. The staff of such organisations should be allowed to travel without being stopped by the police. Studies show that women more than men tend to be affected adversely during epidemics. We need to take these advisories seriously to prevent further widening of the rift between men and women in our society.

Taking A Long View of The Pandemic Fight (Dr. Raj B. Singh Is Consultant Respiratory Physician, Apollo Hospital, Chennai)

- The current measures in India may have slowed down the spread of SARS-CoV-2. But it also probably would have prevented thousands, and potentially millions, from being infected by other respiratory infections too. Tuberculosis is still the world's single most lethal infectious disease, killing 1.5 million worldwide in 2018, 220,000 of whom were in India. Further, 27% of tuberculosis cases in India is drug resistant. The present steps being taken in the containment of the novel coronavirus are equally effective in preventing the spread of tuberculosis. However, if we are to take full advantage of the present scenario, we should piggyback a tuberculosis control programme on the existing CoV-2 programme — which would be simple sputum testing for tuberculosis bacilli (which could be one hundredth the cost of testing for the coronavirus), chest X-rays if required, and complete treatment of identified cases. With the current steps, tuberculosis is not the only infection that we can prevent

from spreading. Other common respiratory infections killing thousands in India every year are Influenza, Respiratory Syncytial Virus, Pneumococcal Pneumoniae and Haemophilus influenzae. Some of the beneficial effects of the lockdown and other measures may be long standing. Hopefully the culture of personal hygiene which includes taking showers, practising hand washing, and avoiding spitting in public places will stay even after the threat of SARS-CoV-2 has receded. Moreover, there may be a more widespread awareness of how infections spread and the difference between infectious and non-infectious diseases. Among the temporary benefits are fewer road traffic accidents and reduction of respiratory deaths due to cleaner air. We can take heart in the remarkably decisive way in which our country has reacted. It is obvious that: our government can make quick and well-informed decisions; our administration can put in place effective steps despite the size and diversity of our country, and our scientists and doctors can lead the world in providing useful and timely solutions and information.

A New Concern

Finally, it may seem a bit illogical to be terrified of COVID-19 but not worried about other diseases. Today, a person above 65 years of age in India is still far more likely to die of a heart attack, stroke or even tuberculosis than of COVID-19. *Somehow, we seem to believe that these diseases only affect "others" and continue to smoke, eat and drink in excess.* A dose of terror here may do some good. Moreover, there is an air of familiarity with these diseases. Our minds have adjusted to live with them. But it would be prudent to remember that about 20,000 people die every day in our country, about 5,000 due to heart disease and another 2,000 due to strokes. Even if there is a 10% increase in these numbers caused by delays or denied access to health care in the current scenario, it could translate into thousands of additional deaths every day. But COVID-19 is a new threat. Many things about it are still unknown. And every one of us feels the possibility of becoming its next victim. In this latest crisis, no country can expect to come away unscathed. But we would have surely learnt a lot. And only time will tell if we used the lessons well and it was all worthwhile.

Mind the Gap

- For millennia, people travelled for reasons of religion and trade, and in recent decades increasingly for pleasure too. The germs that these travellers carried globalised many contagions. In the history of humankind, no pestilence has spread as fast and as far as the novel coronavirus, for the singular reason that China, its source, is at the centre of world trade and economy. China is the biggest trading partner for at least 120 countries and regions, much of Europe and the U.S. included. Until recently, it was India's too. At least 430,000 people travelled from China to the U.S. after the outbreak of the disease. The whirlwind of global travel, goaded by an intense human hunger for new economic opportunities and pleasure, has taken the virus to at least 180 countries on last count. In the year ending March 2019, 6.9 crore international passengers arrived in India. Such context has been obfuscated deliberately by sections trying to reinforce social prejudices, justify xenophobia and advance perilous political agendas by blaming particular social groups for the growing tragedy. People of Asian origin have been targeted in the U.S. as a result; within India, people from its north-eastern region have come under attack. After a March congregation of Tablighi Jamaat faithful in Delhi turned out to be the epicentre of the biggest cluster of COVID-19 infections in India, Muslims in general are facing renewed hostility in some parts of the country. A 30-year-old man was brutally thrashed by a group of locals who accused him of spreading the disease in the Outer-North district of Delhi. The man had arrived home after attending a religious gathering.
  The Centre's briefers have been volunteering daily updates on the number of cases linked to the Tablighi event, as if it were relevant to the pandemic response. Indeed, there must be a discussion on what went wrong, and how and why the disease spread in India. There are questions about the arrival of so many religious activists from international hotspots of the disease. Why were they given visas and allowed entry? However, right now, all efforts and attention of the government must be on containment and mitigation. All sections must feel protected and cared for by the state. In some instances, the Tablighi leaders have been defiantly non-cooperative in contact tracing even after their

unconscionable folly triggered such an avalanche of cases. While legal and police action against those who are not cooperating with the official measures is essential, care must be taken against adding fuel to the fire of communalism. The common threat of the virus should have doused the smouldering embers of religious tensions. In any case, the battle against the virus must not deepen existing social fissures.

Cash Less Indians, The New Normal, And Survival (Appu Esthose Suresh - Senior Fellow, Atlantic Fellows for Social and Economic Equity, London School of Economics)

- On April 15, when the 21-day national lockdown imposed by the government ends, it is very likely that the bottom 47 percentile of India's population will run out of cash. Estimates are based on the World Bank's poverty line of $3.2 a day for a lower middle-income country such as India, assuming people are spending just to survive. It is also likely that the population between the 47th percentile and up to 87th percentile will have only half the cash they had before the lockdown began. What this means, in real terms, is that the poorest 500 million Indians would be out of cash reserves completely by April 15 and another 500 million will be left with just half their reserves. These findings are part of my ongoing research on mapping inequality in India using demonetisation data.

How Bad Is It?

My findings reveal that the top 1% in India held 62% of all the currency in circulation, whereas the top 0.1% held 33%, a third of ₹17-lakh crore in circulation at the time of demonetisation. In order to estimate cash inequality, I have created a model combining demonetisation and National Sample Survey Office (NSSO) data to which a generalised Pareto interpolation technique was applied to arrive at the cash held by each population group. Many Indians have managed to deal with political and social inequality with their ability to negotiate their freedom using money. For poor Indians, having cash to pay back money lenders or landlords has meant having the choice between freedom and slavery. Money gives them choice; the freedom not to have their labour exploited. Inequality of cash, a basic economic instrument, gives us a picture of how unequal our society is. The Gini coefficient, a common measure of inequality, of cash holding in India is as high as 0.71, where 0 indicates perfect equality and 1 indicates perfect inequality. Other measurements of inequality such as the Atkinson Index [A (1) =0.624] and the Generalised Entropy Index [GE (1) =3.108] also show a very high inequality of cash holding. This means that in India, cash is heavily concentrated at the top. Even inter-district and intra-district cash inequality is very high. The top 10% districts held 764 times more currency than the bottom 10% districts. It is unsurprising then that the districts at the top are situated in Tier I and II cities. In fact, the bottom 60 districts, mostly comprising hill and tribal districts, held only 0.2% of all the cash. Also, 60% of all districts analysed, i.e. 359 out of 607 districts in India, reported a Gini coefficient greater than or equal to 0.7, which means that even within districts, cash is concentrated very unequally. In absolute numbers, there are 10.9 million cash-rich Indians in the top 1%, that is almost equal to the population of Belgium. Currently, a humanitarian crisis is unfolding in India, where the poorest Indians have been returning to their homes by foot, in packed vehicles, hungry and cashless. However, due to the great inequality of cash, it will not be long before workers are forced to migrate back to cash-rich centres again, despite lockdowns and fears of a deadly virus.

Remonetise India

When India begins to pick its pieces together, it will be looking at a grim situation where roughly a whopping one billion people of a population of 1.3 billion will be starting with zero or near zero cash. Much of this population is engaged in the informal economy; along with cash, they will also lose agency to negotiate for fair wages, decent working conditions, and basic human rights. Even for the struggling corporate sector, there is no good news. When their operations restart, nearly 50% of

consumers will have no money to spend. The Indian economy is very likely to experience multidimensional pressures. Given the dire economic situation, what I would like to propose is this: a social and economic argument to remonetise India. This would mean a direct cash transfer of ₹2.5-lakh crore just to replenish people's exhausted cash coffers. Previous research has established that up to the 77th percentile population, Indians just consume what they earn. This also coincides with the findings in the 2016 Economic Survey (which also introduced the concept of Universal Basic Income) that population up to the 77th percentile does not have access to formal loans. The ₹1.7-lakh crore stimulus package announced in India by the Finance Minister is well intentioned but poorly thought out. The increased entitlements of ration and the supply of free gas cylinders will help to bolster food security. However, if we consider the cash components such as the increase of ₹20 in Mahatma Gandhi National Rural Employment Guarantee Act wages or the transfer of ₹1,500 over three months via Jan Dhan accounts, it will barely compensate for the forced loss of jobs. The stimulus package then in no way addresses the imminent liquidity crisis forced upon one billion people.

Why Remonetise?

Inequality reproduces more inequality. If a majority of Indians lose their cash reserves, they will fall into income traps where real wages will diminish and lost wages can only be recovered by longer working hours. Economist Joseph Stiglitz has argued that that it is not the differences in saving that cause the difference in income but the other way around, where incomes cause the difference in saving. A targeted ₹2.5-lakh crore cash transfer will put money directly in the pockets and purses of the population up to the 87th percentile; ₹1.34 lakh crore will be for the poorest 500 million Indians, whereas ₹1.2-lakh crore will replenish the reduced cash reserves of the rest of the population up till the 87th percentile. Now is the right time for the government to remonetise and make cash available through banks, automated teller machines and treasuries. The government has to overlook its focus on cashless payments because the need of the hour is to allay people's anxieties. It should remember that in India, we still rely heavily on physical transactions and not cashless payments. As political philosopher G.A. Cohen said, "Lack of money induces lack of freedom, even if accept the identification of freedom with the absence of interference…money provides freedom because it extinguishes interference with access to goods and services."

Indian Migrants, Across India

- The exodus of migrant workers from the cities following the announcement of the 21-day lockdown threw the spotlight on the vast number of Indians who live outside their home states. The total number of internal migrants in India, as per the 2011 census, is 45.36 crore or 37% of the country's population. This includes inter-state migrants as well as migrants within each state, while the recent exodus is largely due to the movement of inter-state migrants. The annual net flows amount to about 1 per cent of the working age population. As per Census 2011, the size of the workforce was 48.2 crore people. This figure is estimated to have exceeded 50 crores in 2016 — the Economic Survey pegged the size of the migrant workforce at roughly 20 per cent or over 10 crores in 2016.

State to State, 2020

While there is no official data for the inter-state migrants in the country, estimates for 2020 have been made by Professor Amitabh Kundu of Research and information System for Developing countries. His estimates, which are based on the 2011 Census, NSSO surveys and economic survey, show that there is a total of about 65 million inter-state migrants, and 33 per cent of these migrants are workers. By conservative estimates, 30 per cent of them are casual workers and another 30 per cent work on regular basis but in the informal sector. If you add street vendors, another vulnerable community which is not captured by the worker data, that would mean that there are 12 to 18 million people who are residing in states other than that of their origin and have been placed at a risk of losing their income. A study by the Centre for the Study of Developing Societies (CSDS) and Azim Premji

University in 2019 estimates that 29% of the population in India's big cities is of daily wagers. This is the number of people which would be logically wanting to move back to their states. Professor Kundu's estimates show that Uttar Pradesh and Bihar account for the origin of 25 per cent and 14 per cent of the total inter-state migrants, followed by Rajasthan and Madhya Pradesh, at 6 per cent and 5 per cent. This means that around 4-6 million people would be wanting to return to Uttar Pradesh, and 1.8-2.8 million to Bihar. Another 700,000 to 1 million would be wanting to return to Rajasthan and 600,000-900,000 to Madhya Pradesh.

What They Earn, Experience

As per the 'Politics and Society Between Elections Survey' from 2017-19 conducted by the CSDS, the monthly household income of 22% daily and weekly wagers is up to ₹2,000; of 32%, between ₹2,000 and 5,000; of 25%, between 5,000 and 10,000; of 13%, between ₹10,000 and 20,000; and of 8%, more than ₹20,000. A CSDS survey during the recent Delhi Assembly elections also found that 20% of respondents reported their monthly household income to be less than ₹10,000. Among migrants from Bihar and UP, this was even higher at 33% and 27%, respectively. Professor Tariq Thachil of Vanderbilt University has worked on the circular migrant population in India. His research found that migrant populations neither wholly retain nor completely discard their village-based ethnic ties, which is witnessed by their willingness to walk hundreds of kilometres once their source of livelihood is taken away. His research, based on a large survey of 2,400 seasonal migrants sampled from 51 marketplaces across Lucknow, underscored the pre-eminence of the police in shaping the urban experiences of migrants, relative to their rural lives. Remarkably, 33% of respondents in the survey personally experienced violent police action within their past year in the city, while fewer than 5% had ever done so in their home villages.

Mostly in Cities

That the inter-state migrant crisis after the lockdown was felt more by cities like Delhi, Mumbai and Surat is borne by the 2011 Census data. Professor Chinmay Tumbe of IIM Ahmedabad has highlighted that Delhi has a migration rate of 43%, of whom 88% are from other states and 63% are from rural areas. Mumbai has a migration rate of 55%, with 46% migrants from other states and 52% from rural areas. Surat, which witnessed police action on a group of migrants, has a migration rate of 65%, with 50% migrants from other states and 76% from rural areas. Professor Tumbe has also noted that the information about districts in originating states, from where these workers come and would have returned, is not current and is based on estimates from the 1990s. His paper, 'Urbanisation, Demographic Transition and the Growth of Cities in India, 1870-2020' has the data for source regions of migrants in major cities in 1990s, as the 2011 census data on it has not been released so far. This data is important to identify the districts which should be on high alert for potential virus spread as these workers return to their homes. For example, Ganjam in coastal Odisha has a lot of people working in Gujarat and Professor Tumbe has noted that there have been instances recorded in the past which includes AIDS transmission via Surat. As Professor Siddharth Chandra's work shows, the 1918 influenza virus was carried to rural India in Uttar Pradesh and Bihar by soldiers who fought in Europe in the First World War. They returned by ships to Bombay and Madras and then carried the virus to their villages, causing a disaster which saw 18 million deaths in India.

District to District

District-wise migration data in the Economic Survey for 2016-17 show that the highest influx of migrants within the country is seen in city-districts such as Gurugram, Delhi and Mumbai along with Gautam Buddh Nagar (Uttar Pradesh); Indore, Bhopal (Madhya Pradesh); Bangalore (Karnataka); Thiruvallur, Chennai, Kancheepuram, Erode, Coimbatore (Tamil Nadu). The districts showing the highest outward movement of migrant workers include Muzaffarnagar, Bijnor, Moradabad, Rampur, Kaushambi, Faizabad and 33 other districts in Uttar Pradesh, Uttarkashi, Chamoli, Rudra Prayag, Tehri Garhwal, Pauri Garhwal, Pithoragarh, Bageshwar, Almora, Champawat in Uttarakhand; Churu, Jhunjhunu, Pali in Rajasthan; Darbhanga, Gopalganj, Siwan, Saran, Sheikhpura, Bhojpur, Buxar,

Jehanabad in Bihar; Dhanbad, Lohardaga, Gumla in Jharkhand; and Ratnagiri, Sindhudurg in Maharashtra. As per the Report of the Working Group on Migration, 2017 under the Ministry of Housing and Urban Poverty Alleviation, 17 districts account for the top 25% of India's total male out-migration. Then of these districts are in UP, six in Bihar and one in Odisha. "Relatively less developed states such as Bihar and Uttar Pradesh have high net out-migration. Relatively more developed states take positive CMM values reflecting net immigration: Goa, Delhi, Maharashtra, Gujarat, Tamil Nadu, Kerala and Karnataka. The largest recipient was the Delhi region, which accounted for more than half of migration in 2015-16, while Uttar Pradesh and Bihar taken together account for half of total out-migrants. Maharashtra, Goa and Tamil Nadu had major net in-migration, while Jharkhand and Madhya Pradesh had major net out-migration," the Economic Survey had stated. The Report of the Working Group on Migration shows that the share of migrant workers is the highest in construction sector for females (67 per cent in urban areas, 73 per cent in rural areas), while highest number of male migrant workers are employed in public services (transport, postal, public administration services) and modern services (financial intermediation, real estate, renting, education, health) at 16 per cent each and 40 per cent each in rural and urban areas, respectively.

Why Healthcare Workers Above 60 Should Be 'Benched' (Soumyadeep Bhaumik - Medical Doctor and International Public Health Specialist Working in The Injury Division and On Policy Impact at The George Institute for Global Health, New Delhi, And Giridhara R. Babu - Professor and Head, Lifecourse Epidemiology, Public Health Foundation of India, Bengaluru)

- COVID-19 has posed an unprecedented global health challenge. World over, including in high-income countries, the pandemic has exposed the non-resilience of health systems. Some countries that already have a part of their elderly population in the workforce are considering increasing the retirement age further, while some others are asking retired healthcare workers to rejoin to meet the looming health crisis. But is this a wise decision? A recent study in The Lancet Infectious Diseases shows a steep age gradient in deaths from COVID-19. The case fatality rates are nearly four times higher for those over 60 years of age. They are 12 times higher for those above 70 years. With this evidence in hand, and no exceptions being reported, governments across the world have advised isolation for all those aged 60 and above.

An Unwise Decision

Healthcare workers — be it doctors, nurses, paramedical staff, or community health workers — are clearly at an increased risk of contracting COVID-19. In Italy, 20% of healthcare workers have been infected with COVID-19, and hospitals have been the focus for infection. Health workers go back to their homes too. With these facts in mind, it is unwise to engage any health worker above the age of 60 years unless there is no other option. There is a global crisis of medical-grade personal protective equipment (PPE) and so health workers are at an even higher risk. If the PPE crises is not solved, the proportion of health workers affected might be even higher than what has been experienced previously in other countries (which could import supplies from other countries, but that is impossible today). Elderly healthcare workers are more likely to face serious consequences. Having a colleague succumb very early in the pandemic will hamper the morale of not only the health workforce but also the community. It is evident now that the COVID-19 battle will last for months and not a few weeks as was initially envisaged. All elderly healthcare workers above 60 years should be 'benched' in phase 2 of the transmission and even in early phase 3 and sent home, much like what has been advised to the general public.

Shortage of Resources

However, the shortage of human resources for health is a reality that needs to be pragmatically overcome. The elderly health workforce should not be engaged at all in the initial phase, and the focus

should rather be on upskilling students, trainees, and younger health workers up the professional ladder. As the crises deepens and when there is a need, the upskilled younger health workers can take up high-risk positions in emergencies, intensive care units, and in areas with community COVID-19 transmission. In contrast, elderly health workers, irrespective of their skill set, can take up low-risk positions.

A Time to Be Humane

When this happens, the priority allocation of medical-grade PPE should be for elderly health workers. When ventilators run out it would mean that elderly people will not be provided one. Elderly healthcare workers should mandatorily be given preference over younger non-health workers. Governments across the world need to declare and enforce these policies and guidelines. This is a moral imperative for the society to protect those who have already done their part all their lives. Whatever way COVID-19 pans out, humans will survive. What we do now would determine if humanity will.

Restructuring Our Food System for A Healthy World (Ambika Hiranandani, Strategic Partnerships for The Good Food Institute, India)

- The novel coronavirus (COVID-19) pandemic is an opportunity for us to analyse our food system, ideate and make changes for a healthier and more sustainable future. It is widely believed that the disease is zoonotic, which means that it got transferred to humans from the exotic animals stored in the 'wet markets' in Wuhan, China, the epicentre of the outbreak. Like SARS-CoV-2, SARS too was believed to have spread from civet cats to human beings in 2002. There are similar theories about Ebola and HIV. What lessons do these various outbreaks offer us?

Antibiotic Resistance

The first is for us to rethink the ways in which we farm animals. India has the world's largest livestock population, is the largest producer of buffalo meat and produces about a 100 billion eggs annually. Animal agriculture is moving away from backyard operations to larger industrial facilities which aim to produce more meat with fewer resources. Industrialising animal agriculture comes at a huge cost to the environment, animals and to human beings. One concern is antibiotic resistance. According to the World Health Organization, the large volume of antibiotics given to farm animals contributed to the development of antimicrobial-resistant bacteria particularly in settings of intensive animal production. A majority of Indian households buy meat from local meat shops which, much like the wet markets, follow no regulations in the way the animals are kept or slaughtered. Most of the standalone meat vendors do not follow the standards laid down by the Food Safety and Standards Authority of India (FSSAI). Further, while welfare standards of animals are often neglected, one thing is clear: immunocompromised animals are the most likely to pass on an infection. It is thus imperative that India understand the risk of zoonosis and antibiotic resistance in terms of following FSSAI regulations and adhering to welfare standards in animal husbandry. The second lesson is to undertake greater investment in the alternate protein industry. India has a high rate of malnutrition among children under the age of five and is trying to combat this by encouraging meat production. With a paucity of space, this can only be done by giving a boost to industrial agriculture. Before India does that, it must explore the potential behind plant and cultivated meats. Plant-based meats are made from plants and are cholesterol- and antibiotic-free, but taste and feel like meat. Cultivated meat is produced by taking a small sample of animal cells and replicating them outside of the animal; the resulting product is real meat, but without the antibiotics, E. coli, salmonella, or animal waste. These foods represent an enormous opportunity to solve the problems of rampant malnutrition, low farmer incomes, antibiotic dependency, and inhumane factory farming of animals. In the Western world, these plant-based meats are already popular and two plant-based companies – the Impossible Foods and Beyond Meat – won the Champions of Earth award, the United Nation's highest

environmental honour. India, an agrarian economy, could export raw materials to make these products and feed its people.

Every Act Has an Impact

Finally, we must understand the interconnectedness of the world. Advocates of animal rights have argued that within the welfare of animals lies the welfare of people. Every act we undertake has an impact on us all. Pursuant to global lockdowns, wild animal populations have returned to cities and pollution levels have dropped globally. We need to innovate and encourage technologies that allow us to maintain the standard of living we are used to while ensuring that we are working towards a healthier world.

Farmers Are at Their Wits' End (R. Ramakumar - NABARD Chair Professor at The Tata Institute of Social Sciences, Mumbai)

- The COVID-19 pandemic has led to global concerns on the state of agriculture and food security. On the one hand, the Food and Agriculture Organization (FAO) has warned of a "food crisis" if countries do not protect vulnerable people from hunger and malnourishment. On the other, farmers face a stalemate as they are unable to work on their land, earn remunerative prices and gain access to markets. We can try to understand the impact of COVID-19 on agriculture with three questions. One, does the world have enough food to feed its people? Two, is food available at affordable prices? Three, how are farmers coping with the lockdown?

Food Stocks and Prices

According to the FAO, as on April 2, 2020, the total stock of cereals in the world was about 861 million tonnes. This translates to a stocks-to-use ratio (SUR) — i.e., proportion of consumption available as stocks — of 30.7%. The FAO considers this "comfortable". The SURs for wheat, rice and coarse grains were 35.3%, 35.1% and 26.9%, respectively. But world stocks are different from national stocks. About 52% of the global wheat stocks is held by China, and about 20% of the global rice stocks is held by India. If the major holders of global stocks decide to turn precautionary and stop exporting, and if the lockdown is prolonged, countries dependent on rice imports will suffer. Kazakhstan, a major wheat exporter, has banned exports. Russia, the largest wheat exporter, is expected to restrict its exports. Vietnam, the third largest rice exporter, has stopped its exports, which will reduce the global rice exports by 15%. If India and Thailand too ban exports, world supply of rice will sharply fall. In March 2020, the Philippines and the European Union, major rice importers, had inventories of rice enough to feed their populations for about three months. Others, however, had inventories to hold on for about one month only. If the lockdown continues beyond a month, these countries will face food shortages. India's food grain output is projected to be about 292 MMT in 2019-20. On March 1, 2020, the total stock of wheat and rice with the Food Corporation of India (FCI) was 77.5 MT. The buffer norms for food grain stocks — i.e., operational stock plus strategic reserves — is 21.04 MT. Similarly, for pulses, India had a stock of 2.25 MT in mid-March 2020. In both cases, the rabi harvest is slated to arrive in April 2020, and the situation is expected to ease further. There is always an element of uncertainty on how prices will behave if both demand and supply fall together. Prices in different markets fluctuate considerably given differences in the extent of production, stocks, arrivals and supply disruptions. According to the FAO, the world food price index fell by 4.3% and world cereal price index fell by 1.9% between February and March 2020 due to the weakening demand for food and the sharp fall in maize prices owing to poor demand for biofuels. However, retail prices of rice and wheat have been rising in the Western economies in March 2020. The major reasons identified are panic buying by households, export restrictions by countries and continuing supply chain disruptions. Retail prices of beef and eggs have also been rising. In India, wholesale and consumer price indices (WPI and CPI) for March 2020 have not been published yet. WPI and CPI for food in India were rising from mid-2019 onwards, reflecting a rise in vegetable prices, especially onion prices. January and February 2020 saw

a moderate fall in these indices, but vegetable prices have remained high. If food prices rise due to the lockdown, it will be on top of an already rising price curve. However, unlike in the West, food prices in India have not risen after the lockdown. While supplies have declined, demand has fallen too. In the APMC mandi in Mumbai's Vashi, if about 600 to 700 trucks arrived per day before the lockdown, only about 200 trucks arrive per day after the lockdown. Yet, wholesale prices of food grains and vegetables in the mandi have been stable, with only the prices of pulses showing a tendency to rise. This is because there has been a sharp fall in the consumption of food grains and vegetables. Similarly, the consumption of milk has fallen by 10-12%.

The Crisis in Farming

Harvesting and marketing of crops are in crisis across India, because of (a) disruptions in the procurement of food grains by government agencies; (b) disruptions in the collection of harvests from the farms by traders; (c) shortage of workers to harvest the rabi crops; (d) shortage of truck drivers; (e) blockades in the transport of commodities; (f) limited operations of APMC mandis; and (g) shutdowns in the retail markets. Second, these supply bottlenecks have led to a fall in farmgate prices. According to media reports, tomato growers in Maharashtra were receiving only ₹2 per kg. Wheat prices in Madhya Pradesh fell from ₹2200/Q to about ₹1,600/Q. In Punjab, vegetable prices fell from ₹15/kg to ₹1/kg. In Delhi, the price of broiler chicken fell from ₹55/kg in January to ₹24/kg in March. In Tamil Nadu, egg prices fell from ₹4/egg in January to ₹1.95/egg in March. Third, the large-scale return of migrant workers to their homes has disrupted harvest operations, and farmers are being forced to leave the crop in the fields. While mechanical harvesters can be used, there is a shortage of drivers/operators. Most rice mills work with migrant workers, and their return home has meant that these mills are not buying paddy from farmers. There are also severe labour shortages in milk processing plants, cold storage units and warehouses. Fourth, supply chains remain disrupted across India. Agricultural goods have been notified as essential goods. But about 5,00,000 trucks are reportedly stranded in the highways and State borders. Milk trucks are able to unload at the destination but unable to return empty, which has upset supply schedules. Trucks are in shortage as drivers have gone home. Imports of vegetable oils are not being lifted from ports due to shortage of trucks. Most APMC mandis are functioning only twice or thrice a week. Livestock feeds are in short supply, and this is breaking the back of livestock growers. The world and India have adequate food stocks. But as global trade shrinks and supply disruptions persist, a prolonged lockdown will adversely affect food security in many countries. In the Western world, food prices are rising due to panic buying and stockpiling. Food prices are not yet rising in India. What has kept Indian food prices low is the severe decline in food consumption, especially among the poor, after the lockdown. That is, hunger may keep the food inflation in March 2020 low. Concurrently, farmers face acute labour shortages, falling farmgate prices and lack of access to input/output markets. It is unclear who is benefiting, but farmers, workers and the poor are at their wits' end.

Democracy Should Not Permit A Trade-Off (Neera Chandhoke - Former Professor of Political Science at Delhi University)

- Independent India inherited a legal system which was designed to control the colonised. Caught in the relentless grip of COVID-19, several State governments have invoked the Epidemic Diseases Act, first drafted to deal with bubonic plague that swept Maharashtra in 1897. The Act prohibited public gatherings, and regulated travel, routine screening, segregation, and quarantine. The government was given enormous powers to control public opinion. Bal Gangadhar Tilak, described as the 'father of Indian unrest' by Valentine Chirol of The Times (London) was imprisoned for 18 months. His newspaper, Kesari, had criticised measures adopted by the government to tackle the epidemic. The law was stark. It did not establish the right of affected populations to medical treatment, or to care and consideration in times of great stress, anxiety and panic. Silence on these crucial issues bore expected results. In June 1897, the brothers, Damodar Hari Chapekar and Balkrishna Hari Chapekar, assassinated W.C. Rand, the plague commissioner of Poona, and Lieutenant Charles Egerton Ayerst,

an officer of the administration. Both were considered guilty of invading private spaces, and disregarding taboos on entry into the inner domain of households. The two brothers were hanged in the summer of 1899. The assassination heralded a storm of revolutionary violence that shook the country at the turn of the twentieth century. Today our world should have been different. The government could have paid attention to migrant labour when it declared a lockdown on economic activities, roads, public spaces, transport, neighbourhoods and zones in which the unorganised working class ekes out bare subsistence. The result of this slip-up was tragic. Thousands of workers and their families were forced to exit the city, and begin an onerous trek to their villages. The unnerving spectacle of a mass of people trudging across State borders carrying pitiful bundles on their heads and little babies in their arms, without food or money, shocked the conscience of humankind. The neglect of workers upon whose shoulders the Indian economy rests, exposed the class bias of regulations. Confronted with the unexpected sight of people defying the lockdown, State governments and the Central government rushed to announce remedial measures. The afterthought came too late and gave too little.

Dispensing with Rights

On March 31, at a hearing of the Supreme Court of India on two petitions relating to the welfare of migrants, the Central government demanded that the Court should allow the imposition of censorship over media reports on measures adopted by the state. The government claimed that panic over the migration of thousands of bare-footed people was based on fake news, and that the scale of migration was over-estimated. Therefore, the Court should support rules that no news will be published or telecast without checking with the Central government. The plea was rejected, and the Court suggested that responsible journalism should rely on daily official bulletins. Witness the irony. The government is concerned about reports of involuntary migrations. It is not concerned with the reason why people were forced to walk out of the city in the first place. The issue at hand is not the lockdown or other measures taken by the government. We recognise with great unease that governments easily dispense with basic human rights in the name of managing pandemics. We bear witness to the fact that a group of helpless workers were hosed down with chemical solutions in Bareilly, Uttar Pradesh. The decision to close down an entire country without simultaneously recognising the specificities of Indian society has resulted in brutality and violence. Consider scenes of the police swinging their lathis indiscriminately to punish individuals who are forced to defy the lockdown.

'Overreach' Of Power

There is another cause for unease. Admittedly in emergencies governments have to adopt extraordinary measures. Yet, reports of authoritarian leaders across the world, giving to themselves unprecedented power at the expense of legislatures, judiciaries, the media, civil society, and civil liberties have set off ripples of doubt. When the disease has run its course, will these leaders abdicate the power they have amassed in the time of the coronavirus? Will they restore institutions that inspire public confidence, because they act as brakes on the exercise of unbridled power? The prospect seems remote. If democratic India continues to invoke draconian colonial laws that were drafted in another time and for another purpose, why should we expect anything different in the future? On March 16, United Nations human rights experts issued a statement expressing deep concern with the way leaders were amassing power ostensibly for dealing with the pandemic. The statement urged governments to avoid an 'overreach' of security measures when they respond to the coronavirus outbreak. Emergency powers, the experts insisted, should not be used to quash dissent. More significantly, these measures have to be proportionate, necessary and non-discriminatory. Some states and security institutions, continued the statement, will find the use of emergency powers attractive because it offers shortcuts. There is need to ensure that excessive powers are not hardwired into legal and political systems. Care should be taken to see that restrictions are narrowly tailored. Governments should deploy the least intrusive method to protects public health. "We encourage States," concluded the statement, "to remain steadfast in maintaining a human rights-based approach to regulating this pandemic, in order to facilitate the emergence of healthy societies

with rule of law and human rights protections." The rights experts have good reasons to issue this warning. Around the world, we witness the sorry spectacle of leaders — not precisely known for their commitment to democracy or human rights — steadily unravelling every check on the use of unmitigated power by the executive. In Israel, Prime Minister Benjamin Netanyahu, who is facing court cases for corruption and breach of trust, has closed the judiciary and postponed his own trial. The government has been given immense powers of surveillance. And a newly constituted Parliament, or Knesset, is not allowed to meet. In Hungary, Prime Minister Viktor Orbán, notorious for his anti-migrant tirades, has personalised immense power. He now rules by decree. Existing laws and parliamentary oversight have been suspended. In the Philippines, President Rodrigo Duterte has appropriated broad emergency powers in order to take effective decisions to tackle the virus. Again, he is not known for his commitment to civil liberties or to the Constitution. In Chile, the declaration of a 'state of catastrophe' has repressed anti-government dissent that has been raging on the streets since last year.

No Counter-Balancing Steps

States are the product of history, composed of layers of meaning some of which have been fashioned for another time. The nature of the state is historically specific. Yet modern states share a common determination; a ruthless ambition to control the minds and bodies of citizens. Epidemics provide an opportunity to accomplish precisely this, to do away with inconvenient checks and balances institutionalised in the media, the judiciary, and civil society. The dismantling of constitutions and institutions will have a major impact on societies. Do decisions to control the pandemic have to be at the expense of human rights and democracy? On March 6, Michelle Bachelet, the UN High Commissioner for Human Rights, advised governments to ensure that the measures they adopt to control the virus do not adversely impact people's lives. "The most vulnerable and neglected people in society," she recommended, "must be protected both medically and economically." She gave sage advice; democracy does not permit trade-offs.

Shooting the Messenger

- While the economic cost of the pandemic has been discussed widely, not as much attention has been paid to the lurking danger of the shrinking of democratic spaces. The most explicit manifestation of this global malaise can be seen in Hungary now, where Prime Minister Viktor Orbán recently secured parliamentary approval for a set of draconian measures including jail terms for spreading misinformation and no clear time limit to a state of emergency that allows him to rule by decree. The Opposition parties' demand for a sunset clause on the legislation was brushed aside by the ruling party, which has a brute majority in parliament. The editorial in this newspaper, "Uncritical endorsement" (April 2), pointed out how the Indian Supreme Court has uncritically accepted the official narrative that "fake news" about the duration of the lockdown being "three months" caused a panic reaction from migrant workers across States. As the editorial said, neither the Court nor the government acknowledged the real factors such as "the short notice of just four hours for the lockdown to take effect, the lack of planning and coordination with the States, the fears of the people about being left without cash and running out of food, and worries about their families back home." In the same case, the Union government sought a direction to restrain the media from reporting or publishing "anything" without ascertaining the factual position from the government. It was an Indian Orbán moment where only the official version, however limited the information may be and with its inherent elements of propaganda, would have legal sanction.

Role of The Media

The plea of the Union government indicates a democratic deficit in the executive in realising the role of the media during a pandemic and the necessity for a credible information ecosystem. While the apex court upheld the right to free discussion about COVID-19, it also directed the media to refer to and publish the official version of the developments in order to avoid inaccuracies and large-scale

panic. Herein lies the catch. It is a fact that fake news and deliberate misleading of the public happens from the top, and often through people who wield power. This fact was established in studies on fake news conducted by the Reuters Institute for the Study of Journalism, University of Oxford.

Claims by the AYUSH Ministry

Let's look at how the Ministry of AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy) has performed during this crisis. The Minister of State for AYUSH, Shripad Naik, said that Ayurveda and Homeopathy medicines cured the U.K.'s Prince Charles of SARS-CoV-2 and asserted that his recovery only "validates our age-old practice since thousands of years". But the Prince's spokesperson rejected the claim. In an e-mail to The Indian Express, The Clarence House spokesperson said, "This information is incorrect. The Prince of Wales followed the medical advice of the NHS (National Health Service) in the U.K. and nothing more." The Press Council of India issued a statement soon after this, which read: "The Press Council of India advises the print media to stop publicity and advertisement of AYUSH-related claims for COVID-19 treatment in order to prevent dissemination of misleading information about AYUSH drugs and services in view of the emerging threat in the country due to the pandemic." In this context we should remind the government and the apex court some considered views about a free press. Nearly three decades ago, Nobel Laureate Amartya Sen emphatically said that "in the terrible history of famines in the world, no substantial famine has ever occurred in any independent and democratic country with a relatively free press." A study by UNESCO says, "Press freedom and good governance are not mutually exclusive. They support each other while promoting a country's economic and human development." The Ground Zero report in this newspaper, "The long march to uncertainty" (April 4), reveals the hollowness of the Government of India's submission to the Supreme Court and documents the plight of migrant labourers, who are the backbone of the Indian economy. The hope is that the courts recognise that during a crisis such as a pandemic, a government cannot be permitted to undermine hard-won democratic rights and that a free and independent media is a basic need in a democracy.

Do No Harm

- 'Primum non nocere' is the primary, guiding principle of bioethics. Every health-care worker is oriented on the principle of 'First, do no harm' during their training. All medical training is based on this idea, but very little in what they learn prepares them for the reverse: When harm is inflicted upon them. Over the past week, chilling stories of assaults on health-care workers, on COVID-19 duty, have been reported. Visuals beamed in of angry locals who threw stones at doctors, health-care workers and civic officials who went to screen people in Indore, Madhya Pradesh. Two women doctors were injured. Earlier, there were reports of locals in Ranipura allegedly spitting at officials as they took up screening. Last week, doctors at Hyderabad's Gandhi Hospital were attacked after a patient with multiple co-morbidities died of COVID-19. Doctors there even sought police protection. ASHA workers were reportedly attacked in Bengaluru, Karnataka, when they went to collect data on COVID-19 symptoms. Locals grabbed their bags and cell phones, and the police finally had to rescue them. In Mumbai's Dharavi, police personnel who went to ensure that lockdown conditions were being followed — after a person tested positive in the locality — were assaulted by local youth. A case has been registered at Kayathar police station in Thoothukudi, Tamil Nadu, after 12 people allegedly assaulted a health inspector and his team when they went there to isolate the family of a patient who had attended the Nizamuddin conclave.

  These attacks are a result of paranoia and are completely unmindful of the many risks health-care workers take on, merely doing their work in a pandemic situation such as this. In Wockhardt, doctors and workers have tested positive while treating patients. If these helpers are looked upon as the enemy, it only allows the true foe — the virus — to gather strength. WHO too has developed guidelines for addressing workplace violence in the health sector to support the development of violence prevention policies in non-emergency settings. Their applicability in this situation must be examined. Baskut Tuncak, UN Special Rapporteur on the implications for human rights of the environmentally

sound management and disposal of hazardous substances and wastes, hailed health-care workers as heroes who must be protected. Stating that the tireless work and self-sacrifice of these workers show the best of humanity, he also went on to emphasise that unacceptable shortages in critical protective equipment that can stop them from being infected, continue to plague nearly all nations battling COVID-19. The responsibility of restoring order and ensuring the safety of all health workers, whether with personal protective equipment, or against attacks from the public ultimately rests with the government, and in equal measure, the people.

The Criticality of Community Engagement (Dr. Soham D. Bhaduri - Mumbai-Based Doctor, Health-Care Commentator, And Editor of The Journal, 'The Indian Practitioner')

- A highly significant observation arising out of a pioneering health-care initiative led by a doctor couple in Ahmednagar, Maharashtra in the 1970s greatly inspired primary health-care delivery, both within and outside the country. This observation was that a significant cultural gap existed between health-care personnel such as auxiliary nurse midwives and rural and tribal beneficiaries, significantly impeding delivery of preventive and promotive health care. It was realised that a cadre of health workers recruited by and from within the community, and also accountable to the community, would have greater affinity with people, thus ensuring greater community participation in care delivery. Soon, a series of community health worker schemes followed, the latest being the accredited social health activist (ASHA) programme.

Ground Reality

The recent attack on an ASHA worker conducting a COVID-19 survey, due to an alleged suspicion that she was a government National Register of Citizens agent betrays the faltering of our community health worker programmes in a way. Over time, they have become de-facto public health employees rather than being community representatives enjoying the unswerving confidence of people as originally envisaged. Two things remain common to the sporadic incidents of non-cooperation with our anti-coronavirus campaign, from the Tablighi Jamaat fiasco to migrants escaping quarantine and allegedly unleashing violence against the police. First, that a strong felt need for coronavirus control remains absent due to deficient threat perception. Second, that deficient threat perception has resulted in strict control measures such as quarantine to be perceived as high-handed government instruments. What this signifies is that government messaging of the coronavirus threat will alone not suffice, and that a willingness to cooperate can only be engendered from deep within the community.

Key Strategy

Community engagement is a pre-requisite for risk communication, which entails effectively communicating the threat due to the virus, instilling the right practices and etiquette, and combating rumours and stigma. Till date, the government's machinery to communicate risk has served a thin upper- and middle-class segment quite well. However, with COVID-19 moving briskly towards slums and rural hinterlands, one should not be surprised if such incidents of non-cooperation start surfacing at a brisk pace too. Rural awareness generation and community engagement has unto now comprised mainly of engaging with local panchayats, disseminating publicity material in local vernacular, and calling on the participation of civil society organisations. For our anti-coronavirus campaign to be a success, community engagement has to ensue on a war-footing, much akin to the production of ventilators and masks. Like the Antyodaya approach, it has to embrace the remotest community stalwart who enjoys the community's confidence and is perceived as an impartial non-state agent. One may say that we are too far into the pandemic to focus on risk communication. But community engagement is more than just risk communication. It is the bedrock of community

participation, the need for which will only be felt even more acutely as the epidemic worsens. Contact tracing activities will have to pick up as COVID-19 increasingly percolates to rural areas. Enhancing testing for SARS-CoV-2 and concomitant expansion of quarantine, isolation, and treatment activities along vast expanses will tremendously strain our thin public health machinery. This will not be possible without community participation at every step. Further, mitigation activities in case of considerable rural penetration of COVID-19 will require efforts of dreadful, phenomenal proportions. Imagine a primary health centre equipped with one doctor and a nurse catering to 20- odd villages spread across miles of difficult terrain. Even attending to the mildest cases and referring severe ones will not just be infeasible but highly risk-laden too. Strongly involving the nearly 2.5 million informal health-care providers would become crucial for a range of activities. Makeshift arrangements for transportation and care, such as motorcycle ambulances and mobile medical units, will need to be made. Further, initiatives such as community kitchens of Kerala will assume tremendous importance in cases of a stringent and prolonged lockdown. These, along with simply a strict adherence to social distancing throughout the pandemic, cannot be conceived without full community participation.

Crucial Factors

The criticality of community engagement on a war-footing is underscored by a set of factors. First, a concoction of local culture, values and beliefs can lead to blithe disregard of the coronavirus threat and gravely endanger containment and mitigation efforts. Second, threatened livelihoods due to lockdowns and a resultant downplaying of the coronavirus risk can instil indignation and non-cooperation, as witnessed in the case of many migrants. With our weak social support system, we cannot afford quarantine allowances like in Sweden and Singapore; even the entitled modest relief could get delayed. Third, there is increased likelihood of repeat lockdowns due to the virus likely to bounce back, which will greatly test public patience and co-operation. Lastly, we also need to remember the trust deficit between health workers and the public that has lingered on since decades, given our unsatisfactory public and profiteering private health care. One may say that these challenges are not completely mitigable through community engagement, but that is undoubtedly the best shot we have. Urgent reinforcing and galvanising of community engagement activities will largely decide the trajectory COVID-19 undertakes in India. Recruiting a medical workforce, augmenting infrastructure, and manufacturing personal protective equipment on a war footing – unless these go hand-in-hand with the former, will result in undermining of both.

Testing, Treatment Free Under Ayushman Bharat

- The Central government has decided to provide free testing and treatment of Coronavirus under the Ayushman Bharat Scheme. This, it notes, will help more than 50 crore Ayushman beneficiaries to avail free testing and treatment in designated private hospitals across India. Confirming this Dr. Indu (CEO) of Ayushman Bharat said this would allow beneficiaries to get timely and standard treatment. "The empanelled hospitals can use their own authorised testing facilities or tie up with an authorised testing facility for the scheme. These tests would be carried out as per the protocol set by Indian Council for Medical Research (ICMR) and by private labs approved/registered by the ICMR. Similarly, treatment of COVID-19 by private hospitals will be covered under AB-PMJAY." The objective of the decision was to increase the supply of testing and treatment facilities and increase access by roping in the private sector through AB-PM JAY scheme as per the ICMR guidelines, he said.
  States were in the process of enlisting private sector hospitals that could be converted into COVID-19 only hospitals. Information on symptoms, testing and treatment for the disease can be accessed from the website of the MoHFW and by calling the national COVID-19 helpline 1075.

Karnataka-Kerala Border Blockade

- Kerala's grievance over Karnataka sealing its border to prevent the spread of COVID-19 has brought under focus the extent and the possible limits, of restrictions that may be imposed by the government

to deal with a public health emergency. After the Kerala High Court directed the Centre to ensure free vehicular movement for those requiring urgent medical treatment on the national highway that connects Kasaragod in Kerala to Mangaluru in Karnataka, the Supreme Court has directed the Centre to confer with the States and formulate the norms for creating a passage at Talapadi, the border. An amicable solution is possibly round the corner, as there are reports of Kasaragod district suffering due to the highway closure. Many here depend on medical facilities in Mangaluru for emergencies, while others rely on inter-State movement for essential medicines to reach them. These include those battling endosulfan poisoning for many years. Karnataka's objection is based on the fact that Kasaragod has Kerala's largest number of positive cases. It has a reasonable apprehension that allowing vehicles might result in the disease spreading to its territory. However, it is clear that those who may travel across the border for urgent medical needs are patients other than those who are pandemic victims. A key question that has arisen is whether legal measures taken by the State to prevent the further spread of an epidemic can extend to a point where there is no exception even for medical needs.

The Kerala High Court took the view that denying emergency medical aid amounts to a violation of the right to life and liberty, and addressed jurisdictional objections from Karnataka by observing that its direction was to the Centre, as what was under closure was a national highway. There is significant irony in the Kerala point of view. The Kerala Governor promulgated the 'Kerala Epidemic Diseases Ordinance, 2020' to arm itself with extraordinary powers to deal with the pandemic. One of its clauses says the State can seal its borders for such period as necessary, while another empowers it to restrict the duration of essential or emergency services, including health, food supply and fuel. Karnataka may have reason to believe that it is equally entitled to seal its borders and restrict essential services. It is a moot question whether Kerala's new law would weaken its case that its neighbour cannot shut down its border and deny medical access to its residents. Interestingly, inter-State migration and quarantine are under the Union List, while the prevention of infectious diseases moving from one State to another is under the Concurrent List. This can only mean that while States have the power to impose border restrictions, the responsibility to prevent a breakdown of inter-State relations over such disputes is on the Centre.

- The Supreme Court disposed of a bunch of petitions concerning the Kerala-Karnataka border sealing case after the Union government informed that a consensus had been worked out to allow patients requiring urgent medical treatment to cross the Talapadi border and access the hospitals in Mangaluru. Appearing before a Bench led by Chief Justice of India Sharad A. Bobde, Solicitor General Tushar Mehta said a meeting was held among the Union Home Secretary and the Chief Secretaries of the two States to amicably resolve the crisis. An agreement had been reached on the parameters and protocol for allowing medical patients into Karnataka.

Why Must COVID-19 Clusters be Identified?

- On March 30, the Delhi Police cordoned off the area around a masjid located around 100 metres from the Nizamuddin dargah. Around 9,000 people from across the country, Indonesia, Malaysia, Thailand and Saudi Arabia had attended a gathering at the Alami Markaz Banglewali Masjid, the headquarters of the Tablighi Jamaat, in the Nizamuddin area of Delhi in March. Many returned home, and the government was alerted about a disease cluster when cases of COVID-19 surfaced in several States in people who had attended or were linked to the Nizamuddin gathering. Tamil Nadu, for instance, has identified all 1,103 people (from the State) who attended the conference in Delhi, helped by cooperation of the participants themselves. Several State governments have struggled to identify the participants as some of them switched off their phones or have simply gone off the radar.

What Is A Disease Cluster?

A disease cluster is defined as "an aggregation of cases in an identifiable subpopulation." Dr. Daniel Wartenberg, who spent more than a quarter century investigating such clusters in the United States, coined this definition in a research paper he wrote for the Journal of the Royal Statistical Society. The

word 'cases' in the definition stands for people with similar symptoms or a medical condition and 'subpopulation' points to those who share or belong to the same space, time, family, workplaces, etc. Reports show that the novel coronavirus can travel about six feet from a diseased person and cause infection between two and four individuals. Thus, when people congregate in a place — typically for worship/shopping/commute — the chance of a disease spread multiplies, resulting in a cluster of cases. The size of a disease cluster could vary widely from just four cases to as many as 5,000 depending on the place visited by the infected individuals. All patients who belong to a disease cluster need not have shared space and time. For instance, a person who picks up the infection from a co-passenger during a flight may infect a taxi driver who picks him up from the airport. Such secondary transmissions also belong to the same cluster with the primary source being the passenger. The cluster keeps growing as the driver could infect a family member, the passenger could infect a nurse in a clinic after developing symptoms and so on.

How Are Clusters Identified?

Health workers often stumble upon clusters accidentally. In a paper published in The Lancet journal by the Singapore 2019 Novel Coronavirus Outbreak Research Team, the process of discovering clusters is described in detail.

Plotting the Cluster

Part A - the first set of patients who were infected at a conference in Singapore between January 20 and 22.
Part A: Patients infected at a Singapore conference

Part B - the activity trails of their primary contacts during the conference and the secondary contacts outside the conference
Part B: Activity trails of primary and secondary contacts
One such cluster of cases which originated in a company conference in Singapore. The conference that happened between January 20 and 22 was attended by 111 participants from 19 countries and at least one of them was from Wuhan, China, the epicentre of the novel coronavirus outbreak. On February 4, Malaysia declared a person who had been to the conference as a COVID-19 case. Singapore authorities were alerted. The health workers contacted the other participants and quarantined them. Then they mapped their secondary and tertiary level of contacts (all those not infected by the primary case). Then they were tested and isolated if necessary. Once they found a set of cases among those who attended the conference, it was identified as a cluster. In parallel, the activity trails of the primary infected during the conference and also of others outside the conference were pieced together like a puzzle. Those who had come in contact with the infected during such activities, for example the hotel workers, were called in for testing. This is called contact tracing.
Part B shows detailed activity trails of all the primary, secondary and tertiary contacts. Such mapping also helps in calculating the time taken by each individual to show symptoms, or to be declared as suffering from COVID-19, from the time he or she was infected. This information impacts how future cases are handled.

What Are the Challenges After Identifying A Cluster?

Discovering a cluster is akin to a fire alarm going off. Every moment wasted will spread the fire further. The faster the infected individuals are identified and quarantined, the lesser the number of future contacts. But this is easier said than done. At least 1,023 positive cases in 17 States/Union Territories have been linked to the recently discovered Nizamuddin cluster in India. The cluster which was discovered in late March originated in a religious congregation in the Nizamuddin area of New Delhi. As of April 2, 9,000 people linked to the event which happened in mid-March have been traced, according to the Joint Secretary, Health Ministry, Lav Agarwal. Close to 1,300 of them were foreigners, he said. In such large clusters, identifying the participants will be challenging. Reports from Tamil Nadu show that the attendees came forward in numbers after the State's Chief Minister issued an

appeal. Maharashtra Health Minister Rajesh Tope said that around 1,400 people from the State, who had attended the Delhi event, had been traced. Mr. Tope said these people are being isolated or quarantined by the district administrations. Sources said Andhra Pradesh is tracing the digital footprints of those who tested positive for COVID-19. As those who were infected respond differently in each State, a common protocol cannot be followed and this has pushed the States to adopt various uncharted methods making the process challenging.

Why Must the Activity Trail Be Followed?

A group of attendees took an early morning flight from Delhi on March 24 and landed in Port Blair, Andaman & Nicobar Islands. Another group boarded a train to Erode, Tamil Nadu. One of the attendees, Navi Mumbai's index patient, had visited Noor Masjid in Vashi, Maharashtra. This led to a secondary transmission to six people, including the secretary of the mosque, his friend, son, grandson and maid and another person who was present at the mosque. This shows that the attendees fanned out to various locations after the conference and engaged in a variety of activities. This leads to the possibility of a wide range of secondary and tertiary transmissions across many States of India.

How Have Clusters Functioned in Other Countries?

Almost all countries have discovered a large cluster and in most of them, the number of COVID-19 cases shot up after identification of the infected and contact tracing began. As of April 4, South Korea has mapped 83% of its cases to some clusters. More than 51% of the country's cases originated from the Shincheonji Church of Jesus. And most of the infections were allegedly brought to the church by a 61-year-old woman who ignored her symptoms and attended the church. In Austria, the Ischgl Ski Resort is said to have been linked to 600 cases. A funeral in George Town, Albany, U.S. may have resulted in more than 600 infections. The Osaka Live Music Venue in Japan is directly linked to 80 cases. A dinner party in Singapore is linked to 43 cases.

Update on India's War Against COVID-19

- Since early March, our war against COVID-19 has been making steady progress in India. This has involved detection, protection, prevention, prescription and participation. Purposefully, private groups, industries, medical fraternity, scientists and technologists have joined hands together with the government in this war, both through financial contributions and participation by involving their R&D expertise. Government agencies such as DST, DBT (and its BIRAC), SERB, CSIR, ICMR, DMR, MHFW, DRDO, and others have announced several grants focusing on specific aspects related to this war, while the Tata Trust, WIPRO, Mahindra, the Wellcome Trust India Alliance and several multinational pharma companies have come forward in this joint effort.

Detection, Prevention, Protection

The first thing is to detect whether a person has been infected by the virus. Since COVID-19 spreads within the moist part of the inner nose and throat, one measures the temperature of the individual around his nose and face, using a thermo-screening device (as used with arriving passengers in airports, or entering buildings and factories). Better devices of greater speed, detail and accuracy, such as whole-body scanners which depict body temperatures with colour codes on a computer monitor have come about from abroad. The National Disaster Management Authority (NDMA) has been offered 1,000 digital thermometers for screening, and 100 full-body scanners. Clearly India needs these by the thousands. This need has triggered some computer industry people in India to make such body scanners here at home, a positive step. We hope these can come about at the soonest. Once an individual is tested positive this way, it needs to be confirmed by doing a biological test to make sure that it is coronaviral infection. Until a month ago, we needed to import kits to do this. Today, more than a dozen Indian companies (most notably by the MyLab-Serum Inst. duo which can make several lakhs of these kits a week) have made them, each certified by the national body. This has rapidly expanded the scale of reliable testing rapidly across the country. Once tested

positive, the patient has to be isolated and quarantined in appropriate centres. This has been done with remarkable speed and reliability, as mentioned below. An important way to protect oneself against the invasion by the virus is to wear a mask. We constantly hear about how these are not available or sold at exorbitant cost. The notion that it is not always necessary is wrong. As the well-known infection expert Dr. Jacob John of Vellore clarifies, it is vital that we mask ourselves as we move about in streets, since the virus is also airborne. Towards this, even as many entrepreneurs and firms across India have started making these at affordable costs, social media such as WhatsApp show the typical jugaad ways of using a baby diaper (unused!), male banian (unused!), the pallu of a saari, or dupatta and such. Happily, enough, after the government clarifications and advice on this matter, more and more people are now seen to mask themselves. TV channels are also doing a useful service by inviting experts and asking them to offer relevant advice to people who have specific questions and doubts about protection in specific individual instances. In this connection, a very recent piece of advice on protection has been given to people wearing glasses, (and also to eye doctors whom they consult) by my colleague Dr. Muralidhar Ramappa of the L V Prasad Eye Institute, Hyderabad. He says: (1) If you wear contact lenses, switch to glasses for a while. (2) Wearing glasses may provide a layer of protection. (3) Do not skip your eye exam, but take precautions. (4) Your eye doctor may recommend some more precautions. (5) Stock up your prescribed eye medicines, if you can and (6) avoid rubbing your eyes. In addition to what the Central and State governments and notable private hospitals (for example, Apollo, Medanta and others) have set up as isolation and quarantine centres, several private agencies have helped set up these in Hyderabad, Bengaluru, Haryana, West Bengal, and helped equip them (for example, Infosys Foundation, Cyient, Skoda, Mercedez Benz, and Mahindra). These are some examples of how governments and private agencies have joined hands — as they say: We are all in this together. Another exciting advance towards protection (and prevention of spread) has been the large-scale production of incubators, ventilators and devices to monitor the individuals who have been placed in such quarantine centres. Mahindra has successfully made ventilators in large scale at affordable prices, and DRDO has come up with a special kind of tape in order to make patient protection gowns for clinicians, nurses and paramedics.

Can India Offer Drugs?

While the possibility of a preventive vaccine for large scale use in India is at least a year away, we need to turn to molecular and drug-based approaches, in which India has great internal expertise and teams of excellent organic and biological scientists. Rightly, the government and some drug companies have turned to them to locally prepare and use several drugs (favilavir, remdesavir, avigen and such), and also modify them using well-known methods. Indeed, the CSIR has already roped in organic chemists and bioinformatics experts who can predict the 3D structures of proteins, so as to look for potential areas on their surface to which molecules can fit (lock and key approach). I have every hope that with such team efforts, India will come out with 'made in India' drug molecules to overcome this killing virus. Yes, we can. Despite their full knowledge that millions of people have settled in cities and large towns, as daily wage labourers, far away from their families in villages, State and Central governments did not plan ahead for them, nor did they plan to reimburse their wages during the lockdown which blocked their getting back home. This led to a toss of social distancing and possible community spread. Social distancing is, alas, not in Indian culture, while herd mentality is. This could have been thought of by the social scientist advisors to the governments, and could have been avoided.

Business & Economics

A Niggardliness That Is Economically Unwarranted (Prabhat Patnaik - Professor Emeritus, Centre For Economic Studies and Planning, Jawaharlal Nehru University, New Delhi)

- The three-week long lockdown imposed on the country, it can be argued, was an over-reaction. More widespread testing of possible cases, "social distancing", self-quarantining by the elderly, and selective lockdown of sensitive areas (as the Chinese government did in Wuhan) might have been quite adequate. But while this can be debated, what cannot be is the utter thoughtlessness that has accompanied the actual lockdown. Ameliorative steps made necessary by it should have been announced simultaneously, to prevent the mass exodus of migrant workers which occurred not because of any "Fake-News"-induced panic, as the government claimed before the Supreme Court, but out of sheer desperation. Instead, some steps were announced by the Finance Minister a full 36 hours into the lockdown; and they were minuscule.

A Comparison

Indeed, India stands out among all the countries of the world as much for the scale of the draconian measure it has imposed as for the extent of unconcern it has displayed for the working poor affected by it. In the United States, for instance, where the lockdown has raised the number of persons filing unemployment claims from 2.8 lakh to 6.6 million in a matter of days, those affected can fall back on unemployment benefit; and the government has approved a package of ameliorative steps costing roughly 10% of that country's GDP to cope with the crisis. In India by contrast, the Finance Minister's package comes to less than 1% of its GDP; and much of it is just a repackaging of already existing schemes. New expenditure comes to just a little over half of the ₹1.7-lakh crore earmarked for the package. Besides, none of the steps will help the migrant workers; not even the larger food grain ration which in principle could, because most of them would have ration cards back home rather than in the places where they stay. But much has already been written on all this, and I need not repeat it here.

What Can Be Done

What I wish to argue here is that this niggardliness is totally unwarranted on economic grounds. Many economists and civil society activists had suggested a cash transfer of ₹7,000 per month for a two-month period to the bottom 80% of households to tide over the crisis, in addition to enhanced rations of food grains and the inclusion of certain other essential commodities within the ration basket. The cost of their proposed cash transfers alone would come to ₹3.66-lakh crore, which is more than 10 times the cash transfers provided in the Finance Minister's package. Providing assistance on the scale proposed by civil society organisations is necessary; it will no doubt pose logistical problems, but not financial problems. Even if all of it is financed through a fiscal deficit for the time being, the economic implications of such an enlarged deficit would not be forbidding. These implications can manifest themselves in two ways: one is through inflation, and the other by precipitating a balance of payments problem. Let us consider each of these. As long as supplies of essential commodities are plentiful and these are made available through the Public Distribution System to the vast majority of the people, so that they are insulated against the effects of inflation, any inflation per se should not be a matter of great concern. This is the case in India at present.

Food grains Aplenty

The supply of the most essential of goods, food grains, is plentiful. Currently there are 58 million tonnes of food grain stocks with the government, of which no more than about 21 million tonnes are required as buffer-cum-operational stocks. This leaves a surplus of 37 million tonnes which can be used for distribution as enhanced ration, or for providing a cushion against inflation. The rabi crop is

supposed to be good; as long as it is safely harvested, this would further boost the government's food stocks. There are some reports of labour shortage holding up harvesting. This may be a temporary problem that would disappear once the lockdown eases; but if necessary, Mahatma Gandhi National Rural Employment Guarantee Act work can be extended to cover harvesting operations in areas experiencing labour shortage. Likewise, the supplies of other essential commodities which consist of manufactured goods and where output has been demand-constrained all along, will get boosted in response to higher demand; and in special cases, imports may have to be resorted to. There is in short no reason to think that inflation of a worrisome magnitude will follow if the fiscal deficit is increased. There is an additional factor here. The increase in total demand caused by an initial increase in demand, which is financed by a fiscal deficit, is a multiple of the latter. Now in a situation like the present, when even if the lockdown is lifted social distancing and restrictions on social activities will continue, the value of the multiplier will be lower than usual. People in short would hold on to purchasing power to a much greater extent than usual because of the continuing restrictions on demand, which would act as an automatic anti-inflationary factor. Of course, there will be shortages of some fewer essential commodities and also hoarding on account of such shortages. But since these shortages will be expected to be temporary, a result of the pandemic unlikely to last long, there will be a damper on hoarding.

Issue of Deficit

True, if inflationary expectations are strong and persistent, then the prices of non-rationed commodities may rise sharply for speculative reasons; but the government can prevent such expectations, by adopting measures such as bringing down Petro-product prices, taking advantage of the collapse of world oil prices. A larger fiscal deficit, therefore, need not cause disquiet on account of inflation. On the balance of payments front, the worry associated with a larger fiscal deficit is financial flight caused by frightened investors. Some financial flight is already happening, with the rupee taking a fall. This flight is not because of our fiscal deficit but because, whenever there is panic in financial markets, the tendency is to rush to dollars, even though the cause of the panic may lie in the United States itself. But India has close to half a trillion dollars of foreign exchange reserves. These can be used, up to a point, to check the flight from the rupee to the dollar. If the flight nonetheless persists, then India will have a legitimate reason for putting restrictions on capital outflows in the context of the pandemic. We are currently in a bizarre situation where cross-border movement of people is virtually barred, while cross-border movement of finance is freely allowed. If the hardships of the people caused by the pandemic, and the lockdown it has created, are not ameliorated through larger government expenditure, because of the fear that the larger fiscal deficit required for it would frighten finance into fleeing, then the privileging of finance over people would have reached its acme. This must not be allowed. The Centre must not worry about its fiscal deficit; and since the State governments will bear a substantial expenditure burden on account of the pandemic, the Centre must make more resources available to them. It should raise their borrowing limits, perhaps double their current limits as a general rule, apart from negotiating the magnitude of fiscal transfers it should make towards them.

Centre Tweaks Rules to Make Inactive Accounts Functional

- The Finance Ministry has tweaked prevention of money laundering (PML) norms with the aim to make all inoperative accounts functional so that cash transfers by the government under the COVID-19 relief package can reach beneficiaries. In a communique to banks, the Department of Financial Services has conveyed that in respect of the Pradhan Mantri Jan Dhan Yojana accounts, basic savings account and small accounts, those accounts which have become inoperative due to various reasons — including non-completion of know your customer (KYC) requirements or updating — rules have been amended with an aim 'to avoid any difficulty caused to poor people and beneficiaries of PM-GKY [Pradhan Mantri Garib Kalyan Yojana]'. As a part of the PMGKY scheme, the government has decided to transfer ₹500 per month for three months to the poor and vulnerable sections of the society whose livelihood has been impacted due to the nationwide lockdown. Accounts that may have

become dysfunctional due to non-operation in the account for the last two years have also been made functional. “Branch officials and business correspondents may be suitably instructed, along with necessary changes in the system (if required) for adherence to these guidelines,” it added. The Finance Ministry had also requested the Home Ministry for adequate security personnel at bank branches and with the business correspondents to maintain law and order, and social distancing, in view of the higher customer footfall expected for cash withdrawals after the transfers are made. The Home Ministry, in turn, has requested the State chief secretaries to take all necessary measures to ensure smooth disbursal of funds to the beneficiaries of the PM GKY.

Merged Banks Get Time on Bancassurance Agreements

- Insurance regulator IRDAI has allowed the four banks, emerging from the recent mega bank merger exercise, to continue for a year with existing bancassurance agreements of the lenders that amalgamated with them. “This exemption allows only for transfer of existing insurance arrangements of acquired banks to the acquiring banks and should not be construed as permission by the Authority to enter into new arrangements with other insurers, said a communication to heads of the banks concerned from IRDAI Member (Life) K. Ganesh. The communication applies to Punjab National Bank, Canara Bank, Union Bank of India and Indian Bank that, on April 1, had a few banks merging with them as part of a government plan to create larger banks. As per bancassurance regulations, a bank can only market three life, general and health insurance companies’ products. The banks that have been merged with them also had bancassurance business. The IRDAI eventually wants the acquiring bank to retain the existing certificate of registration to act as a corporate agent and surrender COR(s) held by acquired banks by submitting written request to the Authority.

Life & Science

Google Must Pay News Firms for Content

- France’s competition regulator said that Google must start paying media groups for displaying their content, ordering it to begin negotiations after refusing for months to comply with Europe’s new digital copyright law. The agency said it “requires Google, within three months, to conduct negotiations in good faith with publishers and news agencies on the remuneration for the re-use of their protected contents”. “This injunction requires that the negotiations effectively result in a proposal for remuneration from Google” that must be applied retroactively to October 2019, when France became the first country to ratify the EU law. The new rule on so-called “neighbouring rights” is designed to ensure news publishers are compensated when their work is shown on websites, search engines and social media platforms. But Google, which effectively has a lock on Internet searches in Europe, refused to comply, saying that snippets of articles, pictures and videos would be shown in search results only if media groups consent to let the tech giant use them at no cost. If they refuse, only a headline and a bare link to the content will appear, Google said, almost certainly resulting in a loss of visibility and potential ad revenue for the publisher. Media groups and news agency Agence FrancePresse lodged a complaint with the competition regulator last November. The regulator said that “Google’s practices... were likely to constitute an abuse of a dominant position, and caused serious and immediate harm to the press sector”. Google said that since the new European copyright law came into force in France last year it had been “engaging with publishers to increase our support and investment in news”. Google’s vice-president for News, Richard Gingras, said in a statement: “We will comply with the (French competition regulator's) order while we review it and continue those negotiations”.

Grounding of Planes Partially Hits IMD's Weather Data Supply

- The grounding of the country's civilian aircraft has strangled a key source of weather data that the India Meteorological Department (IMD) uses for its forecasts. Officials, however, clarified that India's annual monsoon forecast system was on track, with the first forecast scheduled to be issued in mid-April. Aircraft relay data about temperature and wind speed in the upper atmosphere to meteorological agencies the world over and this is used in the dynamical models, the ones which are run on super computers and relied on to give weather forecasts three days, or even two weeks ahead. "However, for the monsoon forecast, which is a long-term forecast, this isn't significantly affected." Beginning mid-March, India began restricting incoming international flights into the country and by March 24 had imposed a total shutdown on domestic air travel as well. This year, the IMD will likely rely on its traditional statistical forecast system — the workhorse, developed on the basis of historical data. India had begun to move away from this system and started to rely on its dynamical models as it better captures developing changes in the atmosphere. However, India's dynamical models are still not as adept as meteorologists want them to be, for warning of a drought or extreme changes in monsoon rainfall. That, and limited data from aircraft as well as a general decline in land-based observations because of a shortage of manpower to send observations are forcing the agency's hand. "We need multiple observations from weather stations from all parts of the country," said Madhavan Rajeevan, Secretary, Ministry of Earth Sciences (MoES).

COVID-19 Drives Oncologists to Tweak Cancer Treatments

- The COVID-19 outbreak has posed a unique challenge for oncology experts across the country — to balance the higher risk of exposure to the virus on account of the treatments and the risk of progression of cancer in their patients. To tackle this, oncologists are switching patients to less aggressive therapies, postponing surgeries where possible and are opting to individualise the treatment approach for each cancer patient. Since February, when the SARS-CoV-2 virus had already found its way to India, Tata Memorial Hospital (TMH) in Mumbai began decreasing the intensity of chemotherapies in cases where it was possible. "Intensive cancer therapies result in decreased blood count, more immunosuppression and often requires blood platelet transfusions," said medical oncologist Shripad Banavali of TMH. "These patients are thus at high risk of catching the infection," he noted. Dr. Banavali, who is also the director of academics at the centre, said that they had relied on data from China, which showed a high mortality rate due to COVID-19 in cancer patients on active treatment. "We don't know if it will affect the cancer outcome in the long run. But we have to look at what is more harmful in the present scenario," he said.

Zoo Tiger Positive: Are Cats at Particular Risk?

- From a virus whose behaviour still involves more questions than answers, there has been another first: A Malayan tiger at New York's Bronx Zoo has tested positive for SARS-CoV2. Four-year-old Nadia is believed to have caught the virus from a zoo employee, who had not shown symptoms.

So, Humans Can Infect Animals?

The virus came from an animal source and mutated; humans have since been infecting humans. It is theoretically possible for the virus to mutate again to survive in certain species after being transmitted by humans. The Bronx Zoo case suggests an employee spread the virus to the tiger, the US Department of Agriculture said in a statement. Several lions and tigers at the zoo, in fact, have shown symptoms of respiratory illness. The others were not tested to limit the potential risks of general anaesthesia.

What About Domestic Animals?

There have been a handful of cases of pets being infected; the indications are they caught it from humans. There have been reports about two dogs in Hong Kong — a Pomeranian and a German shepherd — testing positive. While their respective humans had COVID-19, the dogs themselves were not showing symptoms. In what has more context in the Bronx Zoo tiger testing positive, there has been a domestic cat, too, catching the virus, in Belgium. Unlike the dogs, the cat showed symptoms. After testing positive, it later recovered.

So, Are Cats at Higher Risk Than Dogs, And Can They, In Turn, Infect Humans?

Chinese researchers recently published a pre-print paper (not yet peer-reviewed) on this subject. They inoculated cats with the novel coronavirus, placed them alongside uninfected cats, and found that cats can transmit the virus to one other. The good news: the virus replicates poorly in dogs. There has been no evidence about cats infecting humans either. There may be a possible explanation why felines are more susceptible. SARS-CoV2 infects respiratory cells after entering through a protein, which lies on the surface of the cells. Called ACE2, the protein in felines resembles ACE2 in humans, Steven Van Gucht, the Belgian government's spokesperson for coronavirus, told Live Science after the cat caught the virus. As it is, cats are susceptible to feline coronavirus, which is common but generally asymptomatic, although it can cause mild diarrhoea, according to Cornell University.

Should You Worry About Your Pets?

After the tiger tested positive, the US Department of Agriculture advised that people with COVID-19 restrict contact with animals, just as they would with other people. It did not recommend routine tests for pets. The Bronx Zoo case led to India's Central Zoo Authority alerting all zoos to monitor animals 24×7 for signs of abnormal behaviour. It mentioned cats, ferrets and primates. Primates are of particular concern. In a recent commentary published in Nature, a group of 25 scientists called for urgent discussions on the need to severely limit human interaction with great apes in the wild, and in zoos, until the risk of COVID-19 subsides.

Pench Tiger Death Raises COVID-19 Fears

- The spectre of COVID-19 has made its appearance in one of India's most storied tiger reserves. The death of a 10-year-old ailing male tiger, in the Pench Tiger Reserve (PTR) — the country's most munificent reserve —that succumbed to a 'respiratory illness' would have been a routine affair. But a report of a confirmed COVID-19 infection in a tiger at the Bronx Zoo, in New York, United States and advisories by divisions of the Environment Ministry that deal with the protection of the cats in zoos, as well as in Tiger Reserves has officials in the National Tiger Conservation Authority (NTCA)— the organisation that manages the protection of India's 3,000-odd tigers — puzzling on whether the tiger should be tested for the novel coronavirus disease. The people who handled the dead tiger and were involved in its post-mortem would be tested for the infection, PTR Field Director, Vikram Singh Parihar told The Hindu. The viscera samples collected as part of the standard protocol have been preserved and will be sent to the veterinary research college in Jabalpur as well as the Indian Veterinary Research Institute, Bareilly, Uttar Pradesh. "The animal came to the pond frequently for water possibly because it was running a high fever. We gave him antibiotics but that didn't show much improvement. Finally, it died. We still don't have a confirmed cause of death," he said. Swabs from the throat and nose to test for rhinotracheitis, a viral infection that afflicts cats and causes respiratory illness were collected, an official at the NTCA, Delhi said. However, it was unlikely to be enough to test for COVID and given the remoteness of the forests and lockdown in effect, would likely degrade and be unsuitable for testing. "We've also been approached by molecular biologists who've offered to conduct a DNA analysis and possibly unearth evidence of the virus," Anup Kumar Nayak, Director General, NTCA said. Officials said they had implemented measures to keep a watch out for COVID among tigers. On Monday, both the Central Zoo Authority (CZA) and the NTCA issued guidelines that require zoos to be on the "highest alert" and monitor animals on closed-circuit cameras 24/7 for

"abnormal behaviour and symptoms." Nadia, the COVID-positive tiger in the Bronx Zoo is believed to have been infected by an asymptomatic zookeeper. The CZA has also directed zookeepers to approach sick animals wearing personal protective equipment and isolate and quarantine them. "Mammals such as carnivores especially cat, ferret and primates to be carefully monitored and fortnightly samples of suspect cases to be sent to designated animal health institutes to initiate COVID-19 testing," the circular noted. The designated testing centres are the National Institute of High Security Animal Disease, Bhopal; National Research Centres on Equines, Haryana; Centre for Animal Disease Research and Diagnostics, Indian Veterinary Research Institute, Uttar Pradesh. The directive to Wildlife Wardens in States and reserves adds that tigers ought to be observed for symptoms consistent with COVID-19 such as respiratory signs of nasal discharge, coughing and laboured breathing and that personnel handling tigers have to be ascertained negative.

Poaching, Not Virus, Is the Bigger Threat

- Wildlife scientist Ullas Karanth, an expert on tiger conservation, has cautioned that a spurt in poaching during the lockdown period poses a greater threat to wildlife than the coronavirus. The warning came after the advisory issued by the National Tiger Conservation Authority (NTCA) and the Wildlife Division of the Ministry of Environment, Forests and Climate Change for immediate preventive measures to stop the spread of the virus from humans to animals and vice versa in national parks, sanctuaries and tiger reserves. The advisory came after a tiger at the Bronx zoo in the U.S. tested positive for the novel coronavirus. Dr. Karanth worked for three decades with the organisation that runs the zoo, the Wildlife Conservation Society. Writing on the Centre for Wildlife Studies portal, he said that the issue was being blown out of proportion because of the media focus, although this could be attributed to genuine concern. This specific virus was known to affect domestic cats and it came as no surprise that tigers could get it too. Dr. Karanth pointed out that wild tiger populations had high birth rates and high annual mortality rates and the coronavirus-related threats were highly unlikely to cause population declines. On the contrary, he said, the real threat to tigers was posed by a surge in local poaching of prey species during the lockdown. He cited incidents in Kodagu and Shivamogga, reported in recent days [involving sale of deer meat.] The police were busy otherwise, and forest officials faced movement constraints, emboldening a new wave of poachers, he said. Responding to the issue, Karnataka Forest Department officials said they had taken precautionary measures while handling captive animals, without relaxing anti-poaching activities. N.S. Murali, Inspector-General of Forests, NTCA (South Zone) said the advisory referred to wild animals straying into human habitation and needed tranquilisation and translocation. Personnel handling tiger operations should ensure that they were coronavirus negative. The same held good for post-mortem. On the reported spurt in poaching due to lockdown, Conservator of Forests T. Balachandra who is also the Director of Bandipur Tiger Reserve said there was no known case of poaching in protected areas where fire guards supplemented the field staff. The one reported from Bandipur took place in an adjoining reserve forest. This being fire season, there were 400 fire watchers in Bandipur besides field staff and another 400 watchers in Nagarahole, two famous tiger reserves, and the added staff would deter poachers. But a senior official said Kodagu, Shivamogga, Chikkamagalur and villages near MM Hills and Cauvery Wildlife Sanctuaries had a history of poaching. The ban on domestic meat sale early in the lockdown may have added to poaching. But the meat sale ban had been lifted and protection stepped up.

How Do You Eat Healthy, And Find Things to Do?

- For those working from home, or not at all, the lockdown has changed the way they live. In some cases, this can lead to boredom and stress, and in turn upset their eating habits — either way. How should one cope? Some may eat too little, some too much, and it is quite likely that people stuck home would snack more and eat less at meals, if not skip them. Stress has been known to make people inclined towards foods rich in carbohydrates and fats. As most experts would advise, this is what they need to watch in the long run. It helps if you notice when this is happening. If you realise

that you are snacking more than you should, you can drop the snack and eat something healthy instead. If you are not hungry but still feel the urge to snack, you could distract yourself by doing something else. There are others who are affected by stress in the other way — they cannot eat as much as they should. In these cases, the thing to do is to identify what foods they can still tolerate, and pick those that are nutritional enough, say a cup of hot chocolate or beverage. It also remains important as ever to drink water regularly. What else can one do when one is not eating? There cannot be one answer for everybody. Most people will spend some amount of time cleaning the house, but no one does that all the time. In articles in various publications, mental health experts have advised that people spend time in conversations with everyone at home, including about the outbreak. Otherwise, they can just take a break from the grim news and engage in something relaxing, such as reading a book or watching a film. Locking oneself in to block out the virus, too, comes with a rider — everyone still needs fresh air. It is a good idea to open the windows and ventilators every now and then.

WhatsApp Introduces Stricter Limit on Forwards

- To slow the spread of misinformation via its platform, WhatsApp announced a new stricter limit on forwarding messages. Now, frequently forwarded messages — those which have been previously forwarded five times or more, can only be forwarded to one chat at a time. "With billions of people unable to see their friends and family in person due to COVID-19, people are relying on WhatsApp more than ever to communicate. People are talking to doctors, teachers, and isolated loved ones via WhatsApp during this crisis," the Facebook-owned firm said in a blog. It, however, added that, "...we've seen a significant increase in the amount of forwarding which users have told us can feel overwhelming and can contribute to the spread of misinformation. We believe it's important to slow the spread of these messages down to keep WhatsApp a place for personal conversation." WhatsApp said that its previous move to reduced limit on forwarded messages to constrain virality led to a 25% decrease in message forwards globally at the time. The company had in 2018 started testing the forwarding limit of five chats at once in India, where people forward more messages, photos, and videos than any other country in the world. The forward limit was later introduced around the world in 2019. The company had also started labelling messages that have been forwarded many times with double arrows to indicate they did not originate from a close contact. In addition, the company said it is working directly with NGOs and governments, including the World Health Organization and over 20 national health ministries, to help connect people with accurate information.

TCS Uses AI for Drug Discovery

- Scientists from TCS Innovation Labs in Hyderabad are harnessing the power of artificial intelligence (AI) to identify new molecules which might have the potential to target specific parts of the novel coronavirus (SARS-CoV-2). Using new methods, they have identified 31 candidate small molecules, which may serve as inhibitors of the chymotrypsin-like protease, one of the key drug targets in the fight against COVID-19. The results have been posted in a preprint repository ChemRxiv. Preprints are yet to be peer-reviewed and published in scientific journals.

Target Proteins

The genome of the novel coronavirus codes for several proteins that have crucial roles in entry of the virus into the host cell, its replication, assembly and host-pathogen interactions. Some of these proteins that help the virus perform its functions are common targets for drug developers. Among these drug targets are the spike protein, which helps the virus attach itself to the host cell and enter it, and viral proteases which help it replicate.

Role of Viral Protease

"The viral RNA synthesises two long polyproteins when it infects human cells via a human cell surface protein. The role of the protease protein is to cut the polyproteins to individual proteins, so that new viruses can be assembled. This is important for its replication and survival,". The chymotrypsin-like protease or the main protease primarily does the function of cleaving the polyprotein into proteins and the papain-like protease also aids in this process. The former was chosen as the drug target by the group for their research. First, using a database of approximately 1.6 million drug-like small molecules from the ChEMBL database, the researchers trained the generative deep neural network model. As a second step, the network was re-trained with protease inhibitor molecules. This was done with a view to narrow the focus of the neural network on to a smaller subset of the chemical space. "We trained the system with all available protease inhibitors and asked the pre-trained model to produce more new molecules that possess the characteristics of protease inhibitors," says Dr. Roy, who is an author of the preprint. "Finally, we checked how well these newly produced molecules can bind to the target protein — chymotrypsin like protease of the virus." Starting from a space of nearly 50,000 molecules, the team has made a short list of 31 candidates. Two of the designed molecules had a high degree of similarity to Aurantiamide, a naturally occurring antiviral-compound. "Our aim was to create new molecules which possess the characteristics of protease inhibitors. We checked, whether these molecules retain all the drug-like properties. We also checked how easily they can be synthesised. All these were part of the AI-based model," says Dr. Roy. Drug discovery is a complex process, needing several layers of validation before the drug may come in use. In this work, the researchers have brought down the time taken for the initial step of designing suitable candidate molecules for testing from years to just a week, reinforcing the power of AI in handling huge datasets.

Clinical Trials

"TCS has signed an MoU for collaboration with CSIR. The clinical trials will take time. The first step is the chemical synthesis and biological testing in vitro, followed by preclinical testing on laboratory animals," he says.

The Drug Everyone Is Looking At

- After imposing a blanket ban on the export of anti-malaria drug hydroxychloroquine on April 4, without exemptions on humanitarian or other grounds, India reversed the policy two days later. The decision to reverse the ban was made public hours after U.S. President Donald Trump warned of "retaliation" if India withheld supplies of the drug for which orders had already been placed. Given the circumstances, it would be difficult to believe that the decision to lift the restriction was taken independent of U.S. pressure. But the pandemic has seen several countries displaying solidarity and cooperation providing essential supplies to others even while tackling the novel coronavirus in their own backyards. Prime Minister Narendra Modi's message to Mr. Trump that "India shall do everything possible to help humanity's fight against COVID-19" should, therefore, be seen in that light. Lauded as the pharmacy of the global south, India's decision to export the drug on humanitarian grounds to neighbouring countries and others that have been badly hit by the pandemic is welcome. Till recently India relied solely on other countries for test supplies and may look to others for essential materials if the situation worsens. Also, India may have much to gain from the U.S. in the future by this diplomatic act of supplying the drug at a crucial time. The sudden demand for hydroxychloroquine across the world arose after Mr. Trump championed it as treatment for COVID-19 patients. The drug became much sought-after in India after the Indian Council of Medical Research approved its use as prophylaxis for novel coronavirus by certain categories of people on March 23. Two days later, the drug was placed in the restricted category for export and included in schedule H1 on March 26 to prevent its sale over the counter, thereby preventing self-medication and hoarding. This was also to ensure its availability to people with rheumatoid arthritis and other conditions.

  India has a production capacity of 200 million hydroxychloroquine tablets of 200 mg strength each month and three well-established pharmaceutical companies make the drug. While the capacity is

sufficient to meet the current demand, the companies are confident of ramping up production if the need arises. In all likelihood, in the short term, India might not run out of hydroxychloroquine as the national taskforce for COVID-19 had relied on weak, anecdotal evidence to make the recommendation. Though the U.S. Food and Drug Administration issued an emergency use authorisation for the drug to treat COVID-19 patients, on April 7, the Atlanta-based Centres for Disease Control and Prevention revised its position saying there is no drug available to prevent or treat COVID-19. Clearly, more research work is needed to establish the efficacy of the drug.

What Is Hydroxychloroquine and What Is It Used For?

It is an antimalarial drug option, considered less toxic than chloroquine, and prescribed in certain cases. Doctors also prescribe hydroxychloroquine for patients of rheumatoid arthritis and lupus.

Why Has The COVID-19 Outbreak Spotlighted Hydroxychloroquine?

In a study in the International Journal of Antimicrobial Agents (IJAA), French scientists reported: "Twenty cases were treated… and showed a significant reduction of the viral carriage… compared to controls, and much lower average carrying duration than reported of untreated patients in the literature. Azithromycin (an antibiotic) added to hydroxychloroquine was significantly more efficient for virus elimination." The study was flagged as being too small to draw a definitive conclusion. On April 3, the International Society of Antimicrobial Chemotherapy, which owns the IJAA, said the study did "not meet the society's expected standard, especially relating to the lack of better explanations of the inclusion criteria and the triage of patients to ensure patient safety". However, by March 21, Trump had begun to call the drug a "game changer", and has since been pushing it. At the end of last month, the Indian Council of Medical Research (ICMR) issued an advisory recommending the use of hydroxychloroquine in asymptomatic healthcare workers treating COVID-19 patients, and also allowed doctors to prescribe it for household contacts of confirmed COVID-19 patients. However, the government has stressed that the drug can only be used in COVID-19 treatment on prescription, and that it should not instil a sense of "false security".

Since When Has India Stopped Exporting the Drug?

The US has been looking to procure the drug for emergency use. On March 21, Ipca told stock exchanges here that the US Food and Drug Administration had "made exception" to its import alert against the company so that it could get stocks. India decided to ban exports of the drug on April 4. The government decided to ease the ban.

Is Hydroxychloroquine Actually Effective?

Two large trials are under way on the effectiveness of hydroxychloroquine, and even chloroquine, in COVID-19 treatment. In the World Health Organization (WHO) solidarity trial, of which India is a part, clinicians worldwide are to follow a common protocol to treat patients with hydroxychloroquine. The second is the chloroquine accelerator trial, largely funded by the Wellcome Trust and the Bill and Melinda Gates Foundation. As of now, the jury is still out on how effective these drugs can be against the virus, according to virologist and CEO of the Wellcome Trust/DBT India Alliance Dr Shahid Jameel. "Both of these are testing very large numbers of patients according to the random testing protocol used to test medicines. The results of those trials are not available yet," he said. "If people in high exposure situations such as health workers are taking hydroxychloroquine/chloroquine as a preventive measure in limited ways, it may be fine. But it is not all right for the general public to go around popping these drugs hoping that they will be protected. They may not be protected, but they will definitely cause themselves some harm," said Dr Jameel.

How Has the Outbreak Impacted Patients Who Take the Drug for Other Reasons?

In March, Trump's statement promoting the drug not only led to panic buying in the US, but also impacted stocks in India. Fortis Memorial Research Institute rheumatology consultant Dr Naval

Mendiratta said he had already begun receiving calls from his patients about lack of stocks due to panic buying. While it "should be fine" for some arthritis and lupus patients to skip "a few days to a week" since the drug is long-acting, breaks longer than that would be "difficult to manage", he said. Following the ICMR's advisory on the drug, various patients and healthcare professionals alike are learnt to have stocked up on hydroxychloroquine. According to Prashant Tandon, founder of 1mg, some patients who had never used the drug had also attempted to source it from his e-pharmacy but were unsuccessful as they did not have valid prescriptions. The drug has since been moved to a Schedule H1 status, which means patients who need the drug would have to get a fresh prescription every time they needed to purchase it. Stocks are still not available easily in pharmacies, affecting several patients who actually use the drug for auto-immune diseases. Some patients The Indian Express spoke to have been struggling to get their required dosage even after showing prescriptions. "The stock is still limited, and whatever little stock is available is being prioritised and bought by the central and state governments. We have been told that we will receive stocks soon, hopefully within a week, but we don't know," 1mg's Tandon said.

What Are Pharmaceutical Companies Doing to Resolve the Issue?

According to Ipca joint managing director Ajit Kumar Jain, the company has the ability to ramp up production to meet much of the government's requirements, as only 10 per cent of its manufacturing capacity of hydroxychloroquine had been used for the domestic market so far. However, to make sure the drug is not misused or stocked out due to panic buying, the company has decided to make hydroxychloroquine available at "select" pharmacies across the country, in communication with rheumatoid arthritis specialists. "Now, the patient can just reach out to their doctor and they should be able to connect them with the pharmacy that has the available stock," he said.

Severe Side Effects

The American Medical Association's president, Dr. Patrice Harris, said she personally would not prescribe the drug for a coronavirus patient, saying the risks of severe side effects were "great and too significant to downplay" without large studies showing the drug is safe and effective for such use. "People have their health to lose," she said. "Your heart could stop."

Off-Label Prescribing

Doctors are already prescribing the malaria drug to patients with COVID-19, a practice known as off-label prescribing. Research studies are now beginning to test if the drugs truly help COVID-19 patients, and the Food and Drug Administration has allowed the medication into the national stockpile as an option for doctors to consider for patients who cannot get into one of the studies.

➔ A day after U.S. President Donald Trump said he spoke to Prime Minister Narendra Modi on the issue, Brazilian President Jair Bolsonaro announced that he had also requested India to allow the supply of the drug hydroxychloroquine (HCQ), now being used as a possible treatment for the Coronavirus or COVID-19. As requests to supply the drug pile up from other countries as well, officials said the government may reconsider its notification that banned all exports of the drug. The External Affairs Ministry declined comment, but an official who asked not to be named, said the Ministry was "hopeful" that the Health Ministry and the Directorate General of Foreign Trade (DGFT) that put out the notification (01/2015-20), would revoke the ban on a "case-by-case basis" for more than two dozen countries that have requested supplies at the "highest level" in the past few days. Industry groups have also appealed to the government to reconsider the ban. "We have given an assurance that the domestic consumption will be looked after first, but after that we should consider the needs of other countries too. After all, India's reputation as the pharmacy of the world is built on our ability to manufacture these medicines that are much needed. We must think of that as well as the commitments we have given other countries," Ashok Madan, the Executive Director of the Indian Drug Manufacturers Association (IDMA), told. He added that the industry has enough stocks for both domestic needs and international requirements as of now. However, advocacy groups are warning

that the government must not overlook the possibility of an "escalation" in domestic demand, and point out that the Indian Council of Medical Research (ICMR) has added HCQ to its protocol for all health workers. "If they remove restrictions on export now, we could face a shortage internally…Even if it isn't a certified cure, it is being used as a prophylaxis by our doctors; we must think of them," said Malini Aisola of the All India Drug Action Network. Industry sources said that, the U.S., Brazil, neighbouring SAARC and European Union countries had placed advance orders for the drug, which is made by only a few Indian companies, most notably IPCA and Zydus Cadila. In addition to its possible use for in the current COVID-19 pandemic, HCQ is anti-malarial drug, which is also used by patients of lupus and rheumatoid arthritis in India. Another worry is that the essential ingredients for HCQ come from China, and any disruption in supply or increase in cost of those will also reduce India's manufacturing capacity of the drug.

Plasma Therapy: How It Works, What India Plans

- Even as trials are undertaken across the world, some independently and at least one under the aegis of the World Health Organization (WHO Solidarity Trial) to look for therapeutics to fight the novel coronavirus disease (COVID-19), India is all set to try out a therapy that involves attempting to jump-start the immunity of a serious patient by infusing some of the blood plasma of a person who has already recovered from the disease. This is called convalescent plasma therapy and has in the past been used in many other diseases.

What Is Convalescent Plasma Therapy?

Convalescent plasma therapy, which was recently allowed by the US Food and Drug Administration (FDA) for investigation purposes – clinical trials etc in a regulated way – involves transfusion of the blood plasma of a recovered patient into another patient. Plasma is the matrix on which the blood cells float. It also houses crucial components of immunity known as antibodies. Antibodies are the immediate warriors who fight an invading pathogen – an antigen – to defeat it. Once that is done, some blood cells function as memory cells so that they can identify and defeat the same enemy if and when it invades again by quickly producing the same antibodies. Convalescent plasma therapy banks on the age-old concept of passive immunity when antibodies for some diseases, such as diphtheria, were developed in horses and injected into humans. Active immunity is what is achieved by introducing an attenuated pathogen (such as the BCG vaccine) into the body to generate an immune response. The other kind of immunity is passive immunity. According to the Textbook of Medical Physiology by Guyton and Hall, "Temporary immunity can be achieved in a person without injecting any antigen. This is done by infusing antibodies, activated T cells or both obtained from the blood of someone else or from some other animal that has been actively immunised against these antigens. These antibodies last for two-three weeks and during that time, the person is protected against the invading disease. Activated T cells last for a few weeks if transfused from another person and for a few hours to a few days if transfused from an animal. Such transfusion of antibodies or lymphocytes to confer immunity is called passive immunity." T-cells are blood cells that have a crucial role in immunity.

What Is India Planning to Do?

The country's apex medical research organisation, Indian Council of Medical Research (ICMR), is framing a protocol for infusing blood plasma from people who have recovered from COVID-19 into serious patients. This will only be done by way of a clinical trial, in patients who are in a severe condition, or on ventilator. In Kerala, Dr Anoop Kumar, member of the state-constituted expert committee for advising the government on COVID-19, said he had spoken to some who had recovered from COVID-19 and they are ready to be part of the plasma therapy trial. The state too would need clearance from the national drug controller before going ahead with such a trial. Though Kerala has expressed anxiety about the availability of kits for checking the antibody level in the plasma of a recovered person, the transfusion process itself is not very complicated. It requires separation of the

plasma from whole blood, through a machine and then transfusion. The kit to check antibody level, though, is not available in India and has to be brought from Germany.

What Is the Position of Other Countries on Such Therapy?

The United States FDA said on April 8: "FDA has issued guidance to provide recommendations to health care providers and investigators on the administration and study of investigational convalescent plasma collected from individuals who have recovered from COVID-19 (COVID-19 convalescent plasma) during the public health emergency… Because COVID-19 convalescent plasma has not yet been approved for use by FDA, it is regulated as an investigational product." In a study in the Proceedings of the National Academy of Sciences of the United States of America, Chinese researchers reported about a pilot convalescent plasma therapy in 10 patients. They reported: "all symptoms in the 10 patients, especially fever, cough, shortness of breath, and chest pain, disappeared or largely improved within 1 d to 3 d upon CP transfusion. Prior to CP treatment, three patients received mechanical ventilation, three received high-flow nasal cannula oxygenation, and two received conventional low-flow nasal cannula oxygenation. After treatment with CP, two patients were weaned from mechanical ventilation to high-flow nasal cannula, and one patient discontinued high-flow nasal cannula. Besides, in one patient treated with conventional nasal cannula oxygenation, continuous oxygenation was shifted to intermittent oxygenation." Most importantly, they reported, no adverse effects were observed.

When Has Convalescent Plasma Therapy Been Tried Before?

It has been tried for several diseases, most recently for Ebola. The WHO had issued a detailed guidance document for its use in the wake of the Ebola outbreak, to be used as an "empirical treatment modality". "While there is no proven treatment available for Ebola virus disease (EVD), whole blood collected from patients in the convalescent phase of infection has been used as an empirical treatment with promising results in a small group of EVD cases. During the current ongoing EVD outbreak, whole blood and plasma collected from EVD recovered patients has been prioritized for investigation, as one of the treatment modalities. The concept that this treatment could be efficacious is biologically plausible, as convalescent plasma has been used successfully for the treatment of a variety of infectious agents," reads the WHO document.

What Is the Best Material for A Home-Made Face Cover?

- After weeks of advising that masks were not needed for healthy individuals, the Health Ministry recently recommended "homemade face cover is a good method for maintaining personal hygiene", and "it is suggested that such people who are not suffering from medical conditions or having breathing difficulties may use the handmade reusable face cover, particularly when they step out…". India's new position is similar to that of the US Centres for Disease Control and Prevention (CDC). A "manual on homemade protective cover for face and mouth", issued by the Office of the Principal Scientific Advisor to the Government of India, said the "homemade face cover" should be of cotton cloth. "Any used cotton cloth can be used to make this face cover. The colour of the fabric does NOT matter but you must ensure that you wash the fabric well in boiling water for 5 minutes and dry it well before making the face cover. Adding salt to this water is recommended," it said. Alternatively, the manual advisory said, "a men's cotton handkerchief" could be used to cover the face. The CDC, meanwhile, advises fabricating a "cloth face covering" from a T-shirt. Alternatively, it says, a bandanna (or square cotton cloth approximately 20"x20") can be used with a coffee filter placed between its folds. The basic things to remember are that the material is cotton, is clean, and of a reasonable thickness. An explainer in The NYT quoted anaesthesiologist Dr Scott Segal: "Hold it (the cloth) up to a bright light. If light passes really easily through the fibres and you can almost see the fibres, it's not a good fabric. If it's a denser weave of thicker material and light doesn't pass through it as much, that's the material you want to use."

Why Everyone Should Wear Masks (T. Jacob John - Retired Professor of Virology in The Christian Medical College, Vellore)

- Flattening the epidemic curve (case distribution curve) is the need of the day. On the curve, Y axis and X axis represent case numbers and time, respectively. A normal epidemic curve is bell-shaped, with an early ascending slope (first phase), a peak (second phase) and a declining slope (third phase). The area under the curve represents the total number of cases. India is now in the first phase of the COVID-19 pandemic. A rapid increase in cases will demand far more healthcare facilities than now available. Healthcare facilities were not created in anticipation of a pandemic and are grossly inadequate for India to tackle the first phase. A flattening of the curve will reduce the demand on beds in intensive care units, respirators, and specialists to manage acute respiratory distress syndrome. The peak will be dwarfed and come after some breathing time; the pressure will be eased. However, the area under the curve, the total number of cases, whether the curve is bell-shaped or flattened, will be the same. This crucial information in the epidemiology of the epidemic must be taken into account for planning a response.

Flattening the Curve

There are two ways of flattening the curve: imposing a strict lockdown for a number of weeks or use of face masks all the time when outside our homes. A lockdown physically distances families from each other. The disadvantage is that family members may not be able to keep a physical distance of two metres from one another all the time. As a result, intra-familial spread occurs and more people are infected at the end of the lockdown than at the beginning. But during a lockdown community transmission is prevented. There are four reasons for the universal use of masks. First, any infected person will not infect others because the droplets of fluids that we let out during conversations, coughing or sneezing will be blocked by the mask. Remember, most infectious people don't have symptoms, or have mild symptoms, and are unaware that they are infected. Second, uninfected people will have some protection from droplet infection during interactions with others. For those who wear eyeglasses, there is additional protection from droplets falling on the conjunctiva. When both parties wear masks, the probability of transmission is virtually zero. Third, the mask-wearers will avoid inserting their fingertips into their nostrils or mouths. Viruses deposited on surfaces may be carried by hand if we touch such surfaces; if we do not touch our eyes, nostrils or mouth, this mode of transmission is prevented. Fourth, everyone will be reminded all the time that these are abnormal days. In overcrowded areas such as slums, a lockdown will not be efficient in slowing down transmission. In such places, universal mask use is a simple way to slow down transmission. In India the wise choice would have been to ensure universal mask use in slums, bazaars, shops selling essential commodities, etc. before the lockdown. But then, wisdom, proverbially, is slower than adventure.

Making Your Own Mask

Taiwan and the Czech Republic depended primarily on universal mask use and slowed down the epidemic. In the Czech Republic, people made their own masks. Cotton pieces, preferably coarse, three layers, stitched with two straps, make masks of sufficient quality. These masks should cover the nose from just below the eye level and reach and cover the chin. All adults, and children who are old enough to wear masks, should wear them. At the end of the day, cotton masks can be washed in soapy water and hung to dry for re-use. COVID-19 mortality is due to three reasons. Virus virulence is the given and cannot be altered. Co-morbidity (diabetes, chronic diseases) is already prevalent. Then there is low-quality healthcare. Slowing down the epidemic by imposing a lockdown and ensuring universal mask use gives us the chance to protect people from infection and improve healthcare quality; wherever that was done, the mortality was less than 1%.

How Should I Clean and Reuse My Home-Made Face Cover?

➔ In the new conversation around masks, governments in various countries, including India and the US, have now recommended that even uninfected people cover their faces when they go out. Can you wear the same face cover again and again? You can, the Health Ministry says in an advisory, while insisting on cleaning it after each use. The advisory includes a disclaimer over the home-made face cover's limitations: "This face cover is not recommended for either health workers or those working with or in contact with COVID-19 patients or are patients themselves as these categories of people are required to wear specified protective gear."

How Does One Clean the Face Cover? The Advisory Recommends Three Possible Ways:

- Wash in soap and warm water and dry in sun for at least 5 hours; or
- Place in water (preferably with salt added) in a pressure cooker and pressure boil for at least 10 minutes, and leave to dry. Otherwise, you may boil it in water for 15 minutes; or
- Wash and clean with soap and apply heat on the face cover for up to 5 minutes (you may use an iron).

For Wearing the Cover, The Advisory Recommends:

- Wash your hands thoroughly before wearing the face cover;
- As soon as the face cover becomes damp or humid, switch to another one and clean the used one;
- Never reuse a face cover after single use without cleaning it;
- Never share it with anyone.

For Removing it:

- Do not touch any surface of the face cover; remove it using the strings;
- After removal, immediately clean your hands with 65% alcohol-based hand sanitiser or with soap and water for 40 seconds;
- Drop cover into a soap solution or boiling water to which salt has been added.

The advisory recommends that the face cover, after removal, be sealed in a cleaned plastic bag.

Gamosa Evolves from Memento to Mask

➔ The COVID-19 pandemic has made the ubiquitous gamosa, a decorative cotton towel, evolve from memento to mask. For Pratibha Das, Mamani Malakar, Rebati Baishya and other members of the non-profit Hargila Army in Pacharia, a village 25 km northwest of Guwahati, sewing the gamosa masks is more than just keeping themselves engaged to beat the lockdown inactivity. They have been designing the masks with motifs of the endangered hargila (greater adjutant stork), rhino and elephant to add a dash of wildlife conservation to the protection of human faces.

Bihu Festival

"We had ordered thousands of gamosas to be made and sold by the women during the Rongali Bihu festival. Since lockdown has put paid to the Bihu celebrations, the women turned the towels into masks for use during the COVID-19 crisis," Purnima Devi Barman, stork conservationist and founder of the Hargila Army, told The Hindu on Thursday. The Hargila Army women, however, were not the first to improvise. A Fine Arts student named Phanindra Pradhan had transformed the gamosa after pharmacies in his town Gohpur ran out of masks. In Biswanath district, Gohpur is 290 km northeast of Guwahati. "We wash the gamosas in disinfectant before ironing and stitching them into masks that are sold at ₹50 apiece," he said, adding that he has been receiving regular orders.

Cultural Identity

Assam has traditionally had two types of gamosas — the uka or plain kind used to wipe sweat or dry the body after a bath, and the phulam, which is decorated with floral motifs to be gifted as a memento or during festivals such as Bihu. Cultural historians say the gamosa came to symbolise Assamese nationalism in 1916 when the Asom Chatra Sanmilan, a students' organisation was formed, followed by the Assam Sahitya Sabha, a literary body. Wearing the phulam gamosa around the neck became a standard for cultural identity. "The Assamese way of life is woven in the gamosa, whether plain or decorative. From a cultural symbol, it became a political symbol before designers explored its potential as dress material such as distinctive shirts," said B.K. Goswami, a retired banker and writer.

Symbol of Protest

The gamosa's graph as a symbol of protest rose during the anti-foreigners Assam Agitation from 1979 to 1985. The extremist United Liberation Front of Asom too used the towel with "revolutionary" motifs. The gamosa staged a comeback as a political statement with the protests against the Citizenship (Amendment) Act from mid-December 2019. The protests continued intermittently under the COVID-19 pandemic struck.

Novel Coronavirus Can Be Transmitted Even Before Symptoms Show Up

- A study of seven clusters in Singapore by Vernon J. Lee and others from the Ministry of Health, Singapore, provides some evidence that virus transmission to others (resulting in infection) can happen from one to three days before a person shows symptoms. But the World Health Organization maintains that the risk of getting infected with the novel coronavirus (SARS-CoV-2) from someone with no symptoms at all of Covid19 is "very low". And it says that it is assessing ongoing research on the period of transmission of the virus. The transmission one to three days prior to onset of symptoms was seen in four clusters, while in three clusters the precise timing of transmission could not be established as the index case and the contacts lived together. The results were published in the Morbidity and Mortality Weekly Report. Early detection and isolation of patients and contact tracing are important to contain the spread the virus. However, the existence of pre-symptomatic or asymptomatic transmission adds a new layer of complexity and challenge in tracing contacts. The first cases in Singapore was confirmed on January 23, and during the period from January 23 to March 16, 243 cases were reported of which 157 were locally transmitted. Of the 157 cases of local transmission, 10 (6.4%) cases have been during the period before the person who spread the virus to others showed any symptoms and hence were pre-symptomatic.

Evidence from China

This is not the first case where pre-symptomatic transmission has been seen. Looking at the serial intervals (the number of days between symptoms onsets in a primary case and a secondary case) in China, researchers had in a study suggested that 12.6% of transmission was pre-symptomatic. According to Los Angeles Times, a choir practice for 150 minutes in Washington on March 10 where 60 people participated left 45 people infected with the virus; two died from COVID-19. The county health officials concluded that the "virus was transmitted through the air from one or more people without symptoms". Similarly, pre-symptomatic transmission of the virus has been documented in a nursing facility in Kind County, Washington. The results were published in the Morbidity and Mortality Weekly Report. In this case, a healthcare provider, who showed symptoms since February 26, tested positive on March 1 and seven others, too, tested positive for the virus by March 6. An investigation by the Atlanta-based Centres for Disease Control and Prevention (CDC) found that 23 of the 76 residents tested positive for the virus on March 13. Of the 23, 13 did not have any symptoms on the date of testing. Ten of the 13 asymptomatic residents developed symptoms seven days later and hence were pre-symptomatic at the time of testing. Some cases in Singapore and other countries suggest that viral shedding can occur in the absence of symptoms and before symptom onset.

Avoidance of Grouping

"These findings suggest that to control the pandemic it might not be enough for only persons with symptoms to limit their contact with others because persons without symptoms might transmit infection. Finally, these findings underscore the importance of physical distancing in the public health response to the COVID-19 pandemic, including the avoidance of congregate settings," the authors write.

How Coronavirus Enters Lungs, Affects Breathing

- In the picture still emerging on COVID-19, some trends have been noticeable as of now — many of those infected have recovered, while less than 80,000 have died out of the nearly 1.4 million cases so far. But when it has killed — usually the elderly and those with underlying conditions — the novel coronavirus (SARS-CoV2) has often done so by leading to pneumonia, the eventual cause of death. How does the virus affect the lungs?

Outside Lungs & Inside

Once the virus enters the body, it can cause discomfort when it reaches the air passages on the outside of the lungs. These passages conduct air into and from the lungs. The virus injures the lining of the passageways, and the body responds with an inflammation, which in turn irritates the nerves in the lining. That is when an infected person cough. Infection can be more severe if the virus goes past the lining of the airways, and reaches the air sacs at the end of the air passages. Called alveoli, these sacs are responsible for the exchange of gas in the lungs. If they get infected, the sacs respond with inflammatory fluids, which fill the air sacs. That is what leads to pneumonia — when the lungs' ability to transfer oxygen is impaired, and the infected person has difficulty breathing. When a person cannot inhale enough oxygen and exhale enough carbon dioxide, pneumonia can lead to death.

Who Should Worry?

The description above is of those who are the most severely affected. In most cases, the individual will recover after showing symptoms of varying severity, or none at all. The least serious patients will show no symptoms after catching the virus. Some others will get an infection in the upper respiratory tract — at the lining of the lungs as described — and will develop a cough, may also have a fever, and will be potential carriers of the virus. The asymptomatic and mildly symptomatic groups are relatively small compared to those with somewhat more severe symptoms, resembling those we associate with a flu. In expert comments to The Guardian, Prof John Wilson, president-elect of the Royal Australasian College of Physicians and a respiratory physician, said those with flu-like symptoms are the largest group of patients. Then there are the extremely severe cases. These are the ones who will develop severe illness including pneumonia. So far, such extreme cases have been significantly fewer than those with flu-like symptoms. Pneumonia as a result of COVID-19 is viral pneumonia, which means it cannot be treated with antibiotics. In severe cases, ventilator support may be needed to ensure sufficient oxygen circulation in the body.

Will Summer Heat Kill Coronavirus?

- The temperature in several parts of India has crossed 30°C and is expected to touch 40°C in the northern regions in the next two weeks. What will it mean to the survival of the novel coronavirus? The effect of temperature and humidity on the virus is still being researched worldwide.
  What the experts say:

WHO: The World Health Organization has said that from the "evidence so far, the COVID19 virus can be transmitted in ALL AREAS, including hot and humid weathers".

ICMR: Indian Council of Medical Research director general Balram Bhargava has stressed that at present, there is no relationship between temperature and the spread.

AIIMS: AIIMS Director Randeep Guleria, a member of the high-level technical committee to guide strategies against COVID-19, told The Indian Express in a recent interview: "The virus probably will not survive for a long duration in an outdoor environment, if the temperature is above 40°. But having said that one must remember two things: we are still having outbreaks in (tropical) areas; second, a lot of us spend time indoors, where the temperature is air-conditioned… Therefore, summer may help in preventing the transmission outside but possibly not indoors."

What Research Has Projected

Researchers at the University of Maryland School of Medicine used weather modelling data to predict that COVID-19 is likely to follow a seasonal pattern. In an online paper in Social Science Research Network, the team led by Dr Mohd Sajadi observed a significant community spread along an east-west distribution approximately between latitudes 30°N and 50°N at similar weather patterns (temperature between 5-11°C and humidity between 47-79%). These include Wuhan, South Korea, Japan, Iran, Northern Italy, Seattle, and Northern California. Using 2019 temperature data for March and April, community spread is likely to reach north of the current areas at risk, the paper predicts. These include Manchuria, Central Asia, the Caucuses, Eastern and Central Europe, the British Isles, North-eastern and Midwestern US, and British Columbia. "Although it would be even more difficult to make a long-term prediction at this stage, it is tempting to expect COVID-19 to diminish considerably in affected areas (above the 30 degrees N") in the coming months. It could perhaps prevail at low levels in tropical regions and begin to rise again in late fall and winter in temperate regions… . One other possibility is that it will not be able to sustain itself in the summer in the tropics and Southern Hemisphere and disappear," it states.

Limitations to Projections

The researchers acknowledge: "The above factors, climate variables not considered or analysed (cloud cover, maximum temperature, etc.), human factors not considered or analysed (impact of epidemiologic interventions, concentrated outbreaks like cruise ships, travel, etc.), viral factors not considered or analysed (mutation rate, pathogenesis, etc.), mean that although the current correlations with latitude and temperature seem strong, direct causation has not been proven and predictions in the near term are speculative and have to be considered with extreme caution." In another study, Massachusetts Institute of Technology researchers Qasim Bukhari and Yusuf Jameel, too, discuss the limitations of correlating the virus spread with temperature and humidity. Their analysis showed that for each 10-day period during January 22-March 21, the maximum number of new cases happened in regions with mean temperature between 4-17°C and absolute humidity between 3-9 g/cubic metre. However, they underline that the spread depends on multiple factors including testing, social dynamics and government policies. "Our results in no way suggest that 2019-nCoV would not spread in warm humid regions," the paper notes. The MIT paper too observes that countries and states experiencing high COVID-19 growth such as Italy, Iran, South Korea, New York and Washington exhibit weather patterns similar to original hotspots of Hubei and Hunan. Countries with warmer humid climates such as Singapore and Malaysia had a lower growth rate.

Looking for Reasons

The MIT paper discusses probable reasons for the fewer cases in the tropics. "First, it could solely be due to less testing as many of the countries lack good healthcare facilities and may have not done enough testing to detect the actual spread… Indeed, so far, the number of testing in several densely populated tropical countries (Brazil, India, Indonesia etc.) have been very low," it states. "Second, it could be argued that human mobility between China and Europe and between China and the US is high, therefore the number of cases in these regions are high. However… human mobility between

China and South-East Asia is also high and therefore the lower growth rate in these countries is perplexing… Sophisticated infrastructure does not exist in Malaysia, Thailand, Philippines, Cambodia and the lower growth rate in South-East Asia cannot be explained by lower human mobility with China or robust health infrastructure," the paper states. "Third, it could also be argued that the government in these countries is taking exceptional measures to stop the spread… which we also know is not true," it states. The paper concludes that the lower counts in densely populated countries between 0-30°N (combined population almost 3 billion) "may be due to natural factors that warrant investigation".

Is Burial or Cremation Safe?

- The Brihanmumbai Municipal Corporation of Mumbai issued a circular that bodies of all COVID-19 patients would be cremated at the nearest crematorium, without any rituals. The circular was later amended, allowing burials only if grounds were large enough.

Why Was the Order Introduced?

The Municipal Commissioner in Mumbai is an empowered officer under the Epidemic Act, 1897, to issue orders to contain the COVID-19 epidemic. The commissioner said the circular was issued after a "community leader brought to my notice that existing burial grounds are in highly dense locality with high chances of contamination in dense community/ residential areas nearby". This was before the amendment allowing burials in larger grounds. A general surgeon, aged 85, died in Hinduja Hospital after testing positive for COVID-19. After his body was discharged by the hospital on March 27, the family buried it without civic staff. This reportedly raised concerns in the BMC over whether precautions had been taken.

What Has Been Recommended Now?

The BMC has recommended the use of an electric or piped natural gas crematorium. The circular said packing the body in a plastic and burying still holds risk of contamination as decomposition is delayed in plastic. It said not more than five people will be allowed to attend the funeral.

But What About Those Who Traditionally Bury Their Dead?

The circular makes an exception. Those who insist on burial, it says, will be allowed only if the burial grounds are large enough and pose no risk of contamination in nearby areas. The circular does not, however, specify the size of the cemetery where burial will be allowed. The day the circular was issued, Maharashtra Health Minister Rajesh Tope told The Indian Express that the central government's guidelines for handling dead bodies must be followed in the state.

And What Do the Central Guidelines Say?

The Health Ministry's detailed guidelines are for handling of bodies of COVID-19 patients. These allow both cremation and burial, and make no mention of any risk of contamination from bodies if buried. The body must be sealed in a leak-proof plastic bag. The guidelines allow only the face to be viewed by unzipping the bag, and do not permit bathing, kissing or hugging of the body. Family members are allowed to read religious lines and sprinkle holy water, as long as no one touches the body. Embalming and autopsy must be avoided as the lungs of an COVID-19 patient can be infectious during an autopsy. If tubes or a catheter is removed, the wounds must be disinfected with one per cent hypochlorite solution and dressed in impermeable (leak-proof) material to ensure body fluids don't ooze out. The nose and mouth must be plugged to prevent body fluids from oozing out. After the body is put in it, the bag must again be disinfected with hypochlorite. The bag can be covered in a cloth provided by the family. The disinfected bag does not pose a risk during transportation or handling. But those handling it should wear personal protective equipment.

Does Burial Pose A Risk of Infection?

Bodies of people infected with microbes such as HIV and SARS-CoV-2 come under Biosafety Levels II and III. Burial is considered safe as the body is sealed. "The body takes 7-10 days to decompose, and the body fluids can take 3-4 days to dry up. Theoretically speaking, the virus lives until there are body fluids. But this infection spreads by droplets. There has been no case recorded where body fluids leaked from a body contaminated groundwater and spread infection," said Dr Satish Pawar, joint director, Directorate of Health Services, Maharashtra. If the body is cremated, the ash does not pose any risk either. Infection is a risk only for mortuary workers, doctors who do the autopsy and those who handle the body. If all precautions are followed, then both burial and cremation are considered safe. Large gatherings are to be avoided because family members are possible contacts.

How Soon Must Burial or Cremation Take Place?

Dr Harish Pathak, head of the forensics department in Mumbai's KEM Hospital, said a body must be disposed quickly. If it has to be kept in a mortuary, it should be preserved between 4-6°C For disposing of infectious animal carcasses, the World Health Organization mandates a proper incinerator, its primary chamber at 800°C and secondary chamber at 1000°C; for biomedical waste, an auto-clave machine is used.

Can A Mother Transmit The COVID-19 Virus to Foetus Or New-Born?

- A three-day-old baby and his mother tested positive for COVID-19 in a private lab in Mumbai, but subsequently tested negative in Kasturba Hospital. It is still unclear whether a pregnant woman runs the risk of transmitting the virus to her baby during pregnancy. While there is no concrete evidence for vertical transmission of SARS-CoV2 from mother to foetus, it is known that pregnancy involves a risk, after birth, of adverse outcomes from many respiratory viral infections. A virus may be transmitted after delivery either from mother during breastfeeding or from the hospital environment, various experts have said. The World Health Organization notes that there is no evidence yet to show that pregnant women are more vulnerable or are at a higher risk of severe illness from COVID-19 than the general population. It has, however, advised pregnant women to wash their hands frequently, to avoid crowded spaces and to practice respiratory hygiene. Experts at the College of American Pathologists flagged this concern in the Archives of Pathology and Laboratory Medicine. They cite the recent history of vertical maternal-foetal transmission of such emerging viral infections as the Zika virus, Ebola virus, Marburg virus and other agents. A March 24 article in The Lancet Infectious Diseases Journal too flagged such concerns while noting that the potential risk of vertical transmission is unclear. In India, efforts have been made to create a pregnancy registry at the Indian Council of Medical Research.

Shutdown Alone Is Not Enough to Break the Chain

- In an unprecedented measure, India on March 25 began a country-wide shut down for 21 days to cut the transmission chain of the novel coronavirus (SARS-CoV-2). India had adopted the containment measures of screening, testing, isolating and tracing contacts. On March 25, The WHO Director-General Tedros Adhanom Ghebreyesus said: "Shutting down population movement is buying time and reducing the pressure on health systems. But on their own, these measures will not extinguish the epidemic. The point of these actions is to enable the more precise and targeted measures that are needed to stop transmission and save lives." Among other measures every country should take, the WHO chief said the production, capacity and availability of testing has to be ramped up, and a system to "find every suspected case at community level" has to be implemented. Giridhara Babu, Head of the Lifecourse Epidemiology at the Public Health Foundation of India, Bengaluru, in an email to The Hindu explains how the shutdown along with testing can help flatten the curve.

Prime Minister Narendra Modi Said 21 Days of Lockdown Will Help Cut the Transmission Chain. Is That True?

Yes, it is the bare minimum period we require to be sure. Prime Minister Narendra Modi's call for a 21-day nationwide shutdown is an effort to break the chain of transmission. India's COVID-19 fight could make or break the global war. The "incubation period" means the time between catching the virus and beginning to have symptoms of the disease. Most estimates of the incubation period for COVID-19 range from 1-14 days. A lockdown for 21 days would be a great social experiment which allows physical distancing. If followed strictly, it will contribute to delayed peak and to an extent, in flattening of the curve. Lockdowns may have to get extended in the areas with high transmission. It is important to identify such areas. India has imposed the lockdown much earlier than many countries, including China, which failed to contain the initial spread of the virus. Although it started late, the Wuhan shutdown slowed the dispersal of infection to other cities by an estimated 2.91 days, delaying epidemic growth elsewhere in China. Other cities that implemented control measures pre-emptively reported 33.3% fewer cases in the first week of their outbreaks compared with cities that started control later.

Why Were Wuhan And Other Cities Under Lockdown for Two Months?

In Wuhan, the measures started much later as compared to what India is doing. It takes that much longer when you start late. The initial outbreak of COVID-19 started in China and it was spread across before diagnoses and preventive measures could be established. Not just China, by then the virus had spread to other countries as well. As a result, longer lockdowns of nearly two months were required in some regions. Before the interventions, scientists estimated that each infected person passed on the coronavirus to more than two others, giving it the potential to spread rapidly. But between January 16 and 30, a period that included the first seven days of the lockdown, the virus reproduction decreased from 2.35 to 1.05. The number of new daily infections in China seems to have peaked on January 25 just two days after Wuhan was locked down. Epidemiologists say that measures implemented during this time did work. But China's mammoth response had one glaring flaw: it started too late. This delayed the measures to contain it. In China, implementing the measures three weeks earlier, from the beginning of January, would have cut the number of infections to 5% of the total.

Will Complete Shutdown For 21 Days Alone Be Enough to Break the Chain? Is It Right to Say That Shutdown Only Buys Time?

It is right to say that shutdown not only buys time but also decreases the overall burden and delays the outbreaks in most places. Stronger containment measures done together with these mitigation measures will ensure flattening the epidemic. Mitigation measures or shutdown alone are not enough to break the chain of emerging COVID-19 pandemic. The containment strategies include identifying all cases which are positive and identifying their contacts, too. Once identified, cases will have to be isolated, and contacts will have to be placed under quarantine. Mitigation is a precursory measure and if containment is also not done, it is not going to help. Both need to go hand-in-hand. Also, reviewing of States where any single case is confirmed is need of the hour. Contact tracing of all those people who might have got the infection is highly needed. Only then will India succeed in current strategies to combat COVID-19.

What Then Should Be Done During the Lockdown?

Aggressive testing alone without mitigation doesn't help in breaking the chain of transmission. Without mitigation, the spread of the infection from one person to another will happen at a faster rate. We may find a certain number of cases doubling every week, also the number of deaths. The lockdown is an opportunity for us to rapidly scale up the capacity to have enough resources to manage, isolate and provide intensive care for those who needed it. Both measures going hand-in-hand could have a reasonable effect on flattening the epidemic curve. The revisions in testing strategy involving accredited private laboratories too could not solve the issue since only a particular

number of suspected can be tested in a day. With its high population, testing everybody in India is out of the question. Therefore, we need to follow mitigation measures. I recommend the syndromic approach now, wherein we need to manage every case of fever, cough and respiratory distress as COVID-19 unless otherwise proved. Once testing is scaled up, this can get better.

Should India Find All Suspected Cases in The Community and Test Them, As Per WHO's Recommendation?

This virus effectively hides and quickly doubles. By testing only suspect cases, we might miss many of those who are asymptomatic during screening. The best strategy is to test among the SARI (severely affected respiratory infections) admitted in the hospitals and the OPDs of these areas. Many States have not even begun testing such cases. This is part of March 23 national recommendations. Therefore, strong national and local surveillance review is needed. There is a potential to cause illness suddenly in large numbers of people. Without having an idea of the total number of cases, it would become guesswork to plan for the future management of COVID-19.

Can Contact Tracing, Quarantining and Testing of Contacts of People Who Participated in The Religious Congregation in Nizammudin Alone Be Sufficient?

Tracing such contacts, quarantining them and testing such cases are definitely most necessary but not sufficient by themselves. Wherever hot spots are present, stricter enforcement of lockdown, even beyond what is already announced is needed. There should be enforcement of active surveillance in these areas for any flu-like illness, and people should be encouraged to self-report. Other measures such as providing accurate information and building awareness in the hot spots, especially on personal hygiene, hand hygiene and cough etiquettes are necessary.

Coronavirus Has Opened Our Eyes to The Importance of Basic Hygiene (Dr K Leelamoni - Former Head of Department of Community Medicine at The Government Medical College in Kozhikode. She Has Worked in The Field of Community Medicine For 48 Years.)

- It has been more than two months since India reported its first case of COVID-19 and, during this short period, the number of cases has crossed 4,000 even after a national lockdown. We have withstood the H1N1 and swine flu pandemics over the past decade but those did not require such a drastic measure. For decades in the field of community medicine, a stream of medical studies not many are aware of, the stress has always been on the role of strengthening the health of the community with simple steps like personal hygiene and basic sanitation. Nevertheless, it needed a pandemic to open our eyes to accept basic hand and body hygiene, and cough etiquette, in our daily lives. The basic principle of prevention and control of a disease is based on the levels of prevention: Primary, Secondary and Tertiary. Primary prevention stresses on health education or awareness and specific protection, which includes use of protective measures and immunisation. Early detection of disease and prompt treatment constitute the secondary level whereas disability limitation and rehabilitation form the third level. The decision about which level is needed is usually decided by community medicine experts based on the epidemiological features of different diseases. In acute respiratory diseases, the first and second levels are important whereas in polio and leprosy, tertiary prevention also has a major role. Unfortunately, priority is almost always given to tertiary care alone by starting big hospitals and healthcare centres, which do not reach the common man's life. Clinicians, of course, play a major role in treatment and patient care, but the benefit is only to the patient and family. But for public health experts, by applying the primary level of prevention alone, they are protecting an entire community. Unfortunately, unlike clinicians, the results of public health efforts are not visible immediately. Even in the medical curriculum, community medicine is a major discipline to be taught right from the first to the final year with three months training in the subject

required for basic training of doctors. However, this important stream is ignored by many for the glamour and lure of clinical medicine -consultations, surgeries, etc. Once a medical student complained to me about his poor marks in the subject – a minimum is required to clear MBBS. Then, he made a startling admission: He had joined the medical college to become a flourishing physician and make money, not to waste time on sanitation and hygiene. But what students like him don't know is that when they are posted to primary health centres, they will realise the importance of the subject. Once, during an inspection at a Primary Health Centre, I met the same student, now a doctor, with a textbook of community medicine on his table. He sheepishly admitted that he had now understood the relevance of community health. Today, almost everyone across the country knows about the significance of quarantine, isolation, social distancing and safe sanitary practices. But what many don't remember is that these principles were stressed at the time of the H1N1 pandemic, too. What I clearly remember from that time is a discussion with policymakers on creating awareness about cough hygiene; providing a separate ward for suspected cases; keeping a minimum distance of one metre between hospital beds; and providing protective materials for hospital attendants. Forget the policymakers, even doctors did not take the recommendations seriously. Now, a word of caution. There is no doubt that we will be able to contain the COVID-19 pandemic by strictly applying the prescribed safety measures and practising safe distancing along with effective quarantine and surveillance. But there needs to be an equally aggressive awareness campaign about the social stigma and discrimination that will follow, as more and more people return home from hospital and quarantine. This is due to fear and anxiety about a disease, especially one which is new, and can be alleviated by sharing accurate information about the virus and how it spreads. Getting the recovered patients to share their experiences in person through media channels is a very important tool, in this respect. What is equally important is to continue the safe practices that we are banking on now to keep the pandemic at bay: taking a shower every day, washing our hands with soap every time we return home, and covering the mouth while coughing. These simple measures should become an intrinsic part of our lives, as much as brushing our teeth. Every crisis has a silver lining. In India's battle against COVID-19, we can be proud of our health system and its dedicated professionals who are working round the clock. At a time when other countries are focusing only on tertiary care, we are truly ahead of the curve.

Ten Questions Posed by The Virus

- The COVID-19 pandemic is reopening several questions that were considered resolved by the end of the last century. It is upending our familiar world that was built over the last century, challenging certitudes that held our sanity. Our life after the pandemic will be defined by at least 10 questions on the prevailing organising principles of humankind.

Utilitarian Question

First, the virus has resurrected the classic utilitarian question in an immediate life and death situation: whether or not, how many, and whose deaths will be acceptable for a greater common good. "I'm sorry, some people will die… that's life," declared Brazilian President Jair Bolsonaro. "You can't stop a car factory because of traffic deaths," he said. That an ageing population is an economic burden on society has long become our common sense. There is indeed an incentive in their dying — social Darwinism, the survival of the fittest principle has never been tested this close to the bone. Data will be harvested to debate the relative net utility of different responses to the virus. Was Kerala rational in saving the lives of a nonagenarian couple? What is the balance between economic and social goals? Second, what is national power? "We need to have more 'germ games' like we have war games," Bill Gates said some years ago. The U.S. is the pre-eminent military and economic superpower. The diminishing potency of military hardware has been constantly demonstrated since 26/11, but that has not reduced the global appetite for weaponry. Strategies for expanding national power involve extracting and transferring public wealth to global corporations while the accompanying politics deludes the masses into a faux sense of power. The paradox of power is global. India is in a particularly pitiful situation. Hindutva nationalism's celebration of militarism has

correspondingly reduced the attention on social infrastructure. Its middle class speaks about India's dubious military prowess but an unwanted encounter with the country's healthcare infrastructure may have disrupted their fantasy. Will there be a new understanding of power and security? Third, whither globalisation? All countries have tried to enforce border controls to stop the virus, which ironically also demonstrated their futility. Global cooperation and multinational governance can be jettisoned only at the world's peril as we know now. A more serious threat to humanity, climate change, has always appeared distant, but this one is urgent. Hence, the question is not whether we have more or less globalisation but about its character. It is now a profiteering expedition of soulless greed. Can there be a new globalisation where humanity and environment take precedence? Fourth, how much more power will the state accumulate? The 9/11 security horror, followed by the 2008 economic crisis, had ushered in the steady comeback of the state. This pandemic could ascribe divine powers to the state. Their dread now hysterical, the citizenry seeks benevolence and control from the state. We see ingenious uses of technology for surveillance. Fifth, will this expanding state be increasingly democratic or progressively authoritarian? China and Singapore showed that authoritarian measures work; Germany showed that democratic and inclusive methods work too. But Italy and the U.S. showed that individualism and markets can impede collective goals. India, which has deployed a hybrid of democratic and authoritarian measures, remains an open test case. Sixth, what will happen to the neoliberal wisdom that unbridled competition of all against all improves efficiency and brings progress? It is not that competition is universal — the poorer undercut one another while the richer cartelize in a neoliberal world. Cuba, considered inefficient, has sent healthcare professionals to many countries. The virus tells us that competition is risky; cooperation could be redeeming. What is the alternative? Chinese President Xi Jinping, in his speech at the 19th Communist Party Congress in 2017, and Prime Minister Narendra Modi, in his speech to capitalist moguls in Davos in 2018, outlined alternatives to liberal orthodoxies. Collectivisation has a new life. Italy has nationalised Alitalia; Spain has nationalised all hospitals. History may not have ended. Seventh, what will happen to populism? Populists have shown remarkable resilience in the face of crises, not necessarily by resolving them, but usually by blaming other countries, communities and political opponents. All populists around the world will have a virus-mutated version; they will use the new context to advance their pre-existing agendas. Which of them will tighten their grip over their countries? Will anyone face public wrath triggered by the pandemic and wilt? Eighth, the inhuman exploitation of labour under globalisation, labelled 'efficiency' and 'competitiveness', has been concealed by the glitz of globalisation and consumerist seduction. Reports on sweatshops in the developing world have occasionally explored the exploitation of labour, but the virus has brought the lives of labourers out into the spotlight, in a parade of shame — working 16-hour days but unable to get paid leave or healthcare in the U.S; migrant labourers in India walking several days to go home; and the wretched labour camps in West Asia. The ninth question is whether we need to travel as much as we do. At the end of 2019, when the virus was just about launching its global tour, some were travelling for no better reason than keeping their frequent flier status. In October, a report commissioned by the U.K.'s Committee on Climate Change had called for "a ban on air miles and frequent flier loyalty schemes that incentivize excessive flying." An emergent no-fly movement still struggles to get attention but now it might. "Maybe we can save a few business trips now that we know that these digital tools work well," Ola Källenius, CEO of Daimler/Mercedes-Benz, told BBC. The travel of the privileged has a parallel parody too: the large-scale forced relocation of people.

Idea of Community

The tenth is how our idea of community and boundaries has changed. The COVID-19 crisis has let loose contradictory forces. On the one hand everyone is confined within the tiniest spaces, but on the other, the crisis has also urged us to community action. Neoliberalism had made all human interactions transactional, and each transaction standalone. Such short-termism delinked the current quarter from the next; the current generation from the future — the prevailing approach to climate change being instructive. A sustainable organising principle of humanity will require a conception of self-interest that is not immediate in terms of time or geography. The risks and rewards need to be

spread over a longer period of time and larger expanse of space. And that is the most consequential challenge thrown up by the pandemic.

DreamIAS