



Current Affairs, 22nd March to 28th March, 2020

International

Terror Unlimited

- The attack on a gurdwara in Kabul on March 25 that killed at least 25 people, mostly members of Afghanistan's persecuted Sikh minority, is a **barefaced attempt by the Islamic State (IS)** to revive its fortunes in the country at a time when it is politically divided and the peace process is hamstrung by the Taliban's continuing violence. The IS, which is concentrated in the eastern parts of Afghanistan, carried out several attacks in the past targeting the country's minorities. But, in recent months, the jihadist group suffered setbacks in the wake of sustained military operations by both Afghan and U.S. troops. In some parts, the Taliban had also attacked the IS, as the insurgents, who are tribal Islamist nationalists, see the latter as a threat. But the war-torn country's security situation is as fluid as ever. **It now has two governments, one led by Ashraf Ghani, who was declared winner of the September presidential election, and the other by Abdullah Abdullah, who has disputed the results and formed a rival administration.** The peace agreement reached between the Taliban and the U.S. failed to bring any halt to violence, with the insurgents and the government not being able to reach an understanding even on a prisoner swap. Besides, the country has also seen a jump in the number of SARS-CoV-2 infections, with the Herat Province, which shares a border with Iran, emerging as the epicentre. The attack couldn't have come at a worse time. **Afghanistan is notorious for violence against its minority communities. The Hazara Shias were brutalised during the Taliban regime in 1996-2001. Most Hindus and Sikhs, once spread across the country in hundreds of thousands, have fled the country.** With the resurgence of the Taliban and the fear of the insurgents taking over Kabul and undermining the Constitution, which at least in theory guarantees rights to all communities, the remaining minority groups are already in an abandoned state. By attacking the gurdwara and an adjacent housing complex, the IS has not just terrified the country's minorities further, but sent a message to the Afghan authorities that it remains a potent security threat. Afghanistan has too many problems, ranging from terrorism to the breakdown of the administration, which demands absolute resolve from the government. But, unfortunately, the country's political leadership appears to be concerned less about resolving any of them than about keeping power. The leadership should realise the magnitude of this crisis, and take a united approach to tackle it. It should kick-start the peace process with the Taliban, fight the IS cells more aggressively and work towards at least ensuring the minimum rights of its citizens guaranteed by the Constitution.

TNA Condemns Pardon of Murder Convict

- The Tamil National Alliance (TNA), Sri Lanka's main party representing Tamils of the north and east, condemned **President Gotabaya Rajapaksa's decision to pardon and release an Army officer** who was on death row for killing eight Tamil civilians — including a 5-year-old and two teenagers— in 2000 during the civil war. Sri Lanka has been on a near-total lockdown and enforced curfew for a week now, with a total of 104 COVID-19 patients reported so far. **In 2015, Staff Sergeant Sunil Ratnayake was tried before a three-member bench at the Shatabdi Tower, Sakchi, Jamshedpur**



Colombo High Court. He was convicted for the murder in Mirusuvil, Jaffna Peninsula, and sentenced to death. In 2019, the Supreme Court affirmed the conviction and the sentence.

Rare Instance

The case is widely cited as a rare instance of accountability, amid lingering concerns over impunity for war crimes committed during Sri Lanka's three-decade civil war. **Issuing a statement, rights watchdog Amnesty International said using the pandemic as an opportunity to release those convicted for heinous crimes is reprehensible.** "Victims have a right to justice, and Sri Lanka has an obligation to ensure that justice is done.

Semblance of Justice

Asked to comment on the Presidential pardon, Nimal Siripala de Silva, Minister of Justice, Human Rights and Legal Reforms, said a report had been called from his Ministry. "The final decision is with the President. He can overrule anything. He has the absolute power to grant pardon, no one can question him," he told The Hindu, adding that the constitutionally mandated procedure for the pardon was followed. M.A. Sumanthiran, former Jaffna MP and a senior lawyer, said the executive pardon in the "rarest of rare cases" that ended in a conviction confirms that the Sri Lankan state "will never" exercise accountability for wartime atrocities. "All the institutions of the state will eventually conspire together and let the offenders go free," he told.

It's Also A Fight Against Punitive Measures (T.P. Sreenivasan, A Former Diplomat, Is Chairman, Academic Council And Director, NSS Academy Of Civil Services, And Also Director General, Kerala International Centre, Thiruvananthapuram)

- A global pandemic demands game-changing actions by all nations in order to halt its global spread, provide relief in terms of medical supplies and to rebuild shattered lives. The global community has the responsibility to rise to the occasion. Any global cataclysm affects poor countries more than the rich ones as the former do not have the resources to meet the unexpected economic challenge. While the developed countries and their groups provide economic packages to themselves and their partners, developing countries stare into the distance with hope of handouts from the international financial institutions or some generous rich allies. One way of dealing with the emergency in an emergency mode is to consider lifting of economic sanctions imposed by the United Nations and individual countries on developing countries. Many international sanctions imposed on the basis of political and economic decisions and taken as a part of diplomatic efforts by countries, multilateral or regional organisations against states or organisations exist around the world. These were meant either to 'protect national security interests, or to protect international law, and defend against threats to international peace and security. These measures include the temporary imposition on a target of economic, trade, diplomatic, cultural or other restrictions' and can be lifted only through a long process of ascertaining whether their objectives were met. The UN Security Council has a 'mandate by the international community to apply sanctions that are binding on all UN member states. They serve as the international community's most powerful peaceful means to prevent threats to international peace and security or to settle them'. Peace enforcement is possible if the sanctions fail, but that is only in the rarest of rare cases. The sanctions often lie dormant for technical reasons even if their



original intent and purpose have lost their relevance. The victims of these sanctions suffer in silence or engage in negotiations to get relief.

When America Struck

Apart from UN sanctions, there are 'unilateral sanctions that are imposed by individual countries in furtherance of their strategic objectives. Typically intended as strong economic coercion, measures applied under unilateral sanctions can range between coercive diplomatic efforts, economic warfare, or a threat of war'. These take the form of economic, diplomatic, military and sport sanctions. The unilateral sanctions are naturally not mandatory to any other state, but the United States has often stipulated, like in the case of Iran, that those countries which do not apply sanctions to Iran would be debarred from doing business with the U.S., a Hobson's choice in many cases. After the initial invasion of Kuwait by Iraq, the UN 'placed an embargo on the nation in an attempt to prevent an armed conflict. A naval and air blockade was added. The purpose of the initial sanctions was to coerce Iraq into following international law, which included the recognised sovereignty of Kuwait'. But even after the liberation of Kuwait, a series of sanctions were created to weaken the country. A UN plan to purchase food and medicines by selling Iraqi oil to the world became one of the most serious scandals to hit the UN and its Secretary General. U.S. sanctions against Iran over the years broke the back of the country and forced it to reach an agreement to limit its nuclear activities. The U.S.'s withdrawal from the Iran deal has now resulted in Iran facing crippling sanctions. Perhaps, the impact of COVID-19 was severe in Iran on account of the sanctions and the resultant economic crisis in the country. There are many more cases of sanctions against many countries still in existence. Temporary sanctions in protest against the policies of countries often result in expulsion or withdrawal of diplomatic personnel. The politics of sanctions entered a new era when U.S. **President Donald Trump signed into law the "Countering America's Adversaries Through Sanctions Act" (CAATSA) that grouped together sanctions against Russia, Iran and North Korea.** Currently, the U.S. alone, or together with other countries has sanctions against Belarus, Myanmar, Côte d'Ivoire, Cuba, the Democratic Republic of Congo, Iran, Iraq, Liberia, North Korea, Sudan, Syria, and Zimbabwe and several other countries. The wide network of sanctions is comprehensively monitored by the Office of Foreign Assets Control of the US Department of the Treasury which enforces economic and trade sanctions based on U.S. foreign policy and national security goals against targeted foreign countries and regimes and related entities and individuals.

No Calculation

There is no estimate of the losses sustained by these countries on account of these sanctions. But these countries will be much relieved if these restrictions are removed. The present global pandemic and the requirement of massive resources may be an occasion to lift these sanctions. The countries which have imposed these sanctions will not have to make any financial outlay to assist these countries at this time of a humanitarian emergency. The G20 Chairman, the King of Saudi Arabia, on a suggestion by Prime Minister Narendra Modi, had convened a video conference of G20 leaders. As a follow up of that meeting, the G20 could consider proposing the lifting of multilateral and bilateral sanctions. As Winston Churchill said, "Never let a good crisis go to waste."



Foreign Affairs

G20 Commits \$5 Trillion Amid COVID-19 Scare

→ The world needs to “redefine” its conversations on globalisation to include social and humanitarian issues like terrorism, climate change and pandemics along with financial and economic discussions, said Prime Minister Narendra Modi, speaking at a video-conference of leaders of the world’s top twenty economies, **the G-20, hosted by the Saudi King Salman bin Abdulaziz Al Saud to discuss the coronavirus pandemic**. According to a release, the **G20 countries committed on Thursday to inject more than \$5 trillion into the global economy**, and contribute to the **World Health Organisation (WHO) led COVID-19 solidarity response fund**. “The unprecedented COVID-19 pandemic is a powerful reminder of our interconnectedness and vulnerabilities. The virus respects no borders. Combating this pandemic calls for a transparent, robust, coordinated, large-scale and science-based global response in the spirit of solidarity,” said a joint statement issued at the end of the extraordinary summit. “We will share timely and transparent information; exchange epidemiological and clinical data; share materials necessary for research and development; and strengthen health systems globally, including through supporting the full implementation of the WHO International Health Regulations.”

More Interactions

The leaders agreed to have more interactions of G-20 Foreign Ministers, health officials and the respective Sherpas before the Riyadh Summit of the G-20 nations in November 2020.

WHO’s “Failure”

Many countries have been critical of WHO’s failure to alert the world quickly enough of the potential threat from the pandemic, even after it had been informed of its spread in Wuhan by China on December 31 last year. Others, most notably the United States, have been particularly critical of China for not having been transparent and shared information about the pandemic, and have even called for the virus to be named the “Chinese virus” or the “Wuhan virus,” a move China has opposed strongly. Finally, there have been differences in the approach by G-20 countries towards lockdowns in order to control the pandemic spread through social distancing. Last week, Mr. Trump had hinted that he wanted to lift the shutdown in the US as it was impacting the economy, saying that the “cure cannot be worse than the problem itself.” Brazilian president Jair Bolsonaro has called state-imposed lockdowns a “crime,” while countries like India have imposed a stringent 21-day lockdown across the country.

The G-20 comprises 19 countries — Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom and the United States.

Elaborating on the video conference, a Saudi release said **Vietnam would represent the Association of the Southeast Asian Nations; South Africa, the African Union; the United Arab Emirates, the Gulf Cooperation Council; and Rwanda the New Partnership for Africa’s Development.**



India, France Conduct Joint Patrols from Reunion Island

- India and France, for the first time, have conducted joint patrols from the Reunion Island, signalling New Delhi's intent to engage with friendly foreign partners in expanding its footprint in the Indian Ocean, focusing on the stretch between the East African coastline and the Malacca straits. India has so far carried out Coordinated Patrols (CORPAT) only with maritime neighbours and had rejected a similar offer by the US. The surveillance was done in Southern Indian Ocean off Mauritius. "The P-8I was there for a week," he stated. There was greater understanding between India and France on each other's concerns, especially in the maritime domain, the source said. "They also have capacity constraints there and we can share responsibilities. The patrols will be periodical. There is no set pattern," the source added. France is also the first country to deploy a Liaison Officer at the Indian Navy's Information Fusion Centre (IFC-IOR) as part of efforts to improve Maritime Domain Awareness (MDA).

Major Strategic Partner

France has steadily emerged as a major strategic partner for India with big ticket defence deals and increased military to military engagement. The Indian navy is currently inducting French Scorpene conventional submarines, being built in India under technology transfer, and the Indian Air Force will soon get the first batch of its 36 Rafale fighter jets. Currently, under the 'Neighbourhood First' policy and broader maritime cooperation, the Indian Navy undertakes joint EEZ surveillance with Maldives, Seychelles and Mauritius and CORPATs with Bangladesh, Myanmar, Thailand and Indonesia. In early 2016, then U.S. Pacific Commander (now Indo-Pacific Command) Adm Harry Harris proposed the prospect of Indian and US navies conducting joint patrols, which was also advocated by other visiting senior U.S. military officers. However, this was rejected by India, and in 2018, then Navy Chief Adm Sunil Lanba stated that while India was looking at cooperative frameworks in the region to deal with common threats, efforts such as coordinated patrols and joint patrols would be done only with maritime neighbours. The joint patrols, along with other activities, are part of the Navy's increasing engagement in the Indian Ocean Region through capacity-building and joint activities for improving MDA and interoperability.

Seizure of Afghan Meth on High Seas Triggers Concern

- Tipped off by national drug-enforcement counterparts, the Sri Lankan Navy set out for the high seas in the last week of February and intercepted two trawlers in international waters, more than 1,000 km off the country's coast. While the operation resulted in the country's biggest ever drug bust at sea, with the seizure of 400 kg of heroin, what was far more worrying for the region's drug fighters was that the seized contraband included 100 kg of crystal methamphetamine. The drug haul was valued at \$33.50 million and 16 crewmen, including eight Pakistani nationals, were detained. Initial investigations suggested that the boats came from Pakistan's Makran coast, with the drugs presumed to have originated in Afghanistan.

Several Seizures

Several seizures of Afghan-origin heroin in the high seas of the region have been made in the recent past. Since April 2015, more than 3,700 kg of heroin have been intercepted in India, Sri Lanka and Maldives. Also, 430 kg was intercepted in Mozambique on December 29, 2019,



with the detention of 13 Pakistani nationals. "Heroin seizures are common," said a senior Indian Customs official, speaking on condition of anonymity. "However, it is the seizure of 100 kg of the methamphetamine that has alarmed the drug enforcement agencies in India and other countries. It is the indication of an emerging trend of meth produced in Afghanistan being smuggled out through an already well-established route for heroin trafficking to different parts of the world," the official added.

Party Drug

Also known as meth, crystal, glass, ice, speed and shards, methamphetamine is a psychostimulant "party" drug. It is much cheaper and highly addictive compared to cocaine. Its effect may last for over 12 hours. In contrast, heroin is a depressant. In Afghanistan, meth is known to locals as "shisha (glass)." About a decade ago, there were barely any indicators of it being in widespread use in the war-torn country. In May 2009, the United Nations Office on Drugs and Crime (UNODC)-Kabul and the Counter Narcotics Police of Afghanistan had confirmed a minuscule four-gram seizure in the Helmand province on January 31 that year. "Nevertheless, with this first seizure, Afghanistan has crossed a worrying threshold," the UNODC observed in a report. "The manifold challenges of the opium economy have placed a heavy burden on Afghanistan and the rise of methamphetamine consumption/production would be an unwelcome addition," it added.

Late Reaction

Noting that the history of the Golden Triangle (the opium-producing area where the borders of Myanmar, Thailand and Laos meet) demonstrated that meth production could have significant impacts on an opium economy, rapidly transforming a plant-based narcotics challenge into a challenge of tracking large synthetic laboratories, the UNODC said many countries had reacted too late to the development of meth markets. About eight years later, the UNODC's first Afghanistan Synthetic Drugs Assessment Report (2017) said meth was available in the country in "small quantities and at relatively high prices." The usual wholesale price for 1 kg of meth was said to be between \$10,000 and \$15,000, against the \$5,000-\$7,000 range for heroin. Prices of "shisha" in Herat, Kabul, Mazar, Nangarhar and other areas were also recorded. The local user base of meth was on the rise, but there was no data-driven indication of the substance being smuggled overseas. For long it was suspected that synthetic meth was coming from neighbouring Iran, where the drug was introduced from southeast Asia and later produced domestically. Things changed dramatically after air raids by the United States Forces Afghanistan (USFOR-A) and the Afghan National Defence and Security Forces on May 6, 2019, when they claimed to have targeted 68 drug laboratories in south-western Afghanistan. Subsequent ground studies unearthed meth labs.

Bulk Production

A startling revelation was that the meth in the country was being produced in bulk using ephedrine extracted from a shrub locally known as Oman (Ephedra) growing in the wild in the Afghan mountains, including in Helmand, Ghazni and Wardak. The shift from use of chemical to plant-based ephedrine for making meth was very recent, in 2018. Proof of the shrub being harvested and transported in huge quantities started emerging. In the third quarter of 2019, more than 900 kg of meth was seized in Afghanistan. However, still there was no clarity on where all the meth being produced in the country was going. "The huge seizure in Sri Lanka has perhaps cleared the air," the Customs official observed. "This shift is

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suspected to have been triggered by the 2018 drought in Afghanistan, in which large tracts of opium [used in heroin production] crops were destroyed. The UNODC report (29 January, 2019) stated that opium poppy cultivation in Afghanistan peaked in 2017, after which it declined," the official added, explaining the move to meth.

Nation

For A New Generation of Heroes in Court (Gopal Sankaranayanan - Senior Advocate, Supreme Court of India)

→ Shortly after Justice S. Muralidhar rose on his last day as a judge of the Delhi High Court, there was a snaking queue of lawyers waiting to not just bid farewell to him but to also say thank you. **Justice Muralidhar is one of the rare few who is erudite, incisive, disciplined and yet self-effacing.** His tenure on the bench was marked by a no-nonsense approach to finish cases, thereby making severe dents in the pendency figures at the court. His penultimate day in Delhi saw him doing what he does best — speak truth to power and soundly rebuff every attempt by the government to avoid affixing responsibility for the recent riots, all the while knowing that he would pay a price for his expedition. Sure enough, his transfer orders were issued overnight, depriving him of any further role. Any person in those circumstances would have felt vexed and despondent. However, we found him welcoming us all with affection, unfazed by the drama. "I have my task cut out for me," he said, alluding to the large pendency of cases at Chandigarh. The moment was deeply emotional. As we were leaving, one of our companions (who had given consent to be appointed as a judge) said with a wry smile, "At least I found my role model, what about you?"

Need for A Beau Idéal

We are now at a time where we need heroes so that our institutions survive. **It is not that the present epoch is exceptionally challenging for the higher judiciary. The last 50 years have seen the political playbook take a clear form — appoint a sympathiser, allow them to feel obliged, and then try to redeem the debt at an opportune time. It is merely that the manual has a new master, but the tricks remain the same.** It is precisely to guide one through this morass that a beau idéal is necessary. If one were to merely glance at the great judges over the ages — Vivian Bose, Hidayatullah, H.R. Khanna, M.N. Venkatachaliah, Ruma Pal, R.M. Lodha, and many more — it was not merely their learning and innate brilliance that set them apart. Nor was it the fact that they were flawless — they would be the first to admit to their failings. What made them unique was their ability to inspire their peers by simple, righteous conduct. They were wedded to the judicial institution and through it, aligned with the constitutional fabric. In every decision they made, they were solemnly aware of the hopes of millions, and that any weakness of purpose would weaken the edifice. As of this month, 395 out of 1,079 High Court posts are lying unoccupied. The venerable Lord Hailsham had referred to judicial office as "a privilege, a pleasure and a duty", but it appears that this aphorism is lost on the many able young women and men who have declined offers.



A Primer

The travails of judicial life have been well catalogued, particularly withdrawal from society and the financial handicaps that accrue, but there are several who have sacrificed thriving litigation practices in order to offer their services to the public.

It is true that from the early years of Independence, judges have been nominated or elected to Parliament, appointed to gubernatorial office, and accepted diplomatic postings, none of which reflects the values that the court was to uphold. But then, it would be unfair to overlook the hundreds of others who have slogged for the judiciary with no other motive than to do justice, and who have overcome personal and professional challenges in doing so.

All judges should exercise independence. Even a puisne judge is a high constitutional officer in his own right. There ought to be no hesitation in disagreeing with a colleague's unjust opinion no matter the gap in experience or reputation. Where the position becomes untenable, there is always the softer option of recusing oneself from the Bench. Recusals are indeed utilised for less palatable purposes by less agreeable individuals, but those are aberrations not to be emulated. It is important to be innovative. Digital screens and online databases have become integral tools to dispensing justice. Timetables are being set, costs imposed for tardiness, and adjournments are no longer de rigueur. Even set patterns of conduct are being questioned, reviewed and rebooted if they are broken or inefficient. For example, many younger presiding judges in the Supreme Court have broken with the tradition of finishing work on admission days before lunch, and have decided to stay on and dispose of cases finally. They must show character. The Uncle Judge syndrome continues unabated. Even if many colleagues have relatives practising profitably in the same court without demur or receiving empanelment from corporations and governments, it does not create a new normal. Justice A.K. Patnaik and his son did precisely that, by ensuring that the latter did not commence practice at his home High Court and then shifted abruptly from the Supreme Court upon his father's arrival, thereby happily paying a price that must have been substantial.

Power and Responsibility

Judges need fear nothing. With security of tenure and constitutional protections, a judge can remain undaunted by external influence, least of all by the executive. They can soar to unimaginable heights with the wide power that is theirs. And this power, as the New Testament tells us, must be used wisely, "to admonish the idle, encourage the fainthearted, help the weak, be patient with them all." The true stars of India's justice system are the thousands of judges who toil over dusty briefs. It is they who will never make headlines and never seek it, but take a clear conscience and a straight spine to their well-earned rests. For their sake, and for the sake of this nation, the time has come to induct a new generation of heroes.

Rajya Sabha Elections Deferred

- Elections to 18 Rajya Sabha seats that were scheduled to take place on March 26 have been deferred due to the Coronavirus pandemic, the Election Commission of India (ECI) said. On February 25, the ECI announced elections to 55 Rajya Sabha seats spread over 17 States that were to be vacated in April due to the retirement of MPs. Candidates for 37 seats in 10 States had been elected uncontested. Polling for the remaining 18 seats in Andhra Pradesh, Gujarat, Jharkhand, Madhya Pradesh, Manipur, Meghalaya and Rajasthan were to take place, as per the ECI's schedule A senior ECI official said polling for the seats, which will be vacated in April,

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had been postponed and the situation would be reviewed after March 31. The ECI said the list of contesting candidates already published would remain the same for the elections to be held at a later date.

New Parliament Design Will Take Time

→ The design for the new Parliament building that the Centre is hoping to complete by August 2022 could be delayed by a few weeks as the country remains in lock-down, according to sources. The Union Housing and Urban Affairs Ministry's construction agency, the Central Public Works Department, was expecting to prepare the detailed project report for the building in March and present the same to the Lok Sabha Speaker and the Vice-President soon after, according to CPWD officials. The tender inviting bids for the construction of the building would have been issued shortly after, in keeping with the May deadline set by the Ministry earlier, officials said. The timeline could be pushed back due to the lockdown. The MPs raised concern about the fact that the new building would not have a separate Central Hall. "The Central Hall serves as an important lounge and meeting space for all MPs when the joint session is not in progress. They want to see how the activities in this space are going to continue in the new facility. In the proposal, a lounge in the periphery of the courtyard is being developed to address these concerns," he said. Another concern of the MPs was the design itself. "The present Parliament building, despite its discomforts, is cherished by all its users. The MPs have an emotional connect with this "temple of democracy", which resonated with all the citizens. The design of the new proposed facility is being developed so that its interiors and aesthetics are evocative of the present facility," he added. **Announced in October 2019, the government's redevelopment plan includes revamping the 3-km-long Central Vista, constructing a new Parliament building and demolishing post-Independence era government offices to make way for a common Central Secretariat by 2024.** For the new Parliament building, the government had on March 20 approved the change of land-use from recreational to "Parliament House" for the 9.5-acre plot.

The Reign of Shivraj

→ The Bharatiya Janata Party (BJP) leader, Shivraj Singh Chouhan, who was sworn in as the Chief Minister of Madhya Pradesh, proved his majority in the Assembly on Tuesday. This is his fourth term as Chief Minister. After three consecutive terms, he had lost the election in 2018. He mustered the support of 112 MLAs for the trust vote which was hurriedly organised overnight and was missed by 92 Congress MLAs and two independents. Two BSP MLAs, one of the SP, and two independents who were earlier supporting the Congress government that collapsed last week, voted in favour of the trust vote. Mr. Chouhan has said his government's immediate focus would be in tackling the coronavirus crisis that is testing the capacity and will of the State. He has also asked all MLAs to leave for their constituencies and take the lead in managing the crisis. **The downfall of the Congress government was engineered by the resignation of 22 of its MLAs. These and two more seats in the 230-strong State Assembly remain vacant.** The actual strength of the government will be tested in and after the by-elections to these seats. It is a different question whether the Congress can regroup itself and challenge the government. With the return of the BJP government in M.P., the political turn in the State in 2018 has been proven short-lived. The party had faced a setback in M.P., Rajasthan and Chhattisgarh where it lost power to the Congress before bouncing back in the 2019 Lok Sabha election. The Congress could not sustain its gains, and has now ended up



losing a government. But it goes beyond that and shows the party as a weak challenger to the BJP. To begin with, the Congress victory was nebulous and narrow in M.P., and its fortunes were compromised by debilitating factionalism within. It cannot be a viable political alternative to the BJP unless it gets imaginative in building sustainable and strong social and class coalitions. In places where it has done so, the party has been effective in elections and governance, including in neighbouring Chhattisgarh. The exit of Jyotiraditya Scindia, who has since joined the BJP, could actually be used as an opportunity by the Congress to promote better rooted leaders from diverse social backgrounds, stepping beyond dilapidating feudal fortresses. The BJP in the State will also need to achieve a new equilibrium, now disrupted with the entry of Mr. Scindia. Mr. Chouhan has emerged as a strong leader, but there are others waiting in the wings too. The change of guard in M.P. will unsettle existing equations in both the parties, beyond State boundaries.

- With the resignation of 22 of its MLAs from the Assembly, the Congress was reduced to a minority, with 92 members. The resignations brought down the **halfway mark to 104 and now**. Mr. Nath tried to salvage his government by buying time to woo back the defectors but the Supreme Court ordered that a floor test be held. His decision to submit the resignation before forcing a vote in the Assembly was appropriate. Luring back the defectors by dubious means would have been no less dishonourable than the defections. **The total strength of the MP Assembly is 230 in which 24 seats are now vacant.**
- The party engineered the resignations of Congress and JD(S) MLAs and returned to power in Karnataka last year. The BJP took power on the claim of majority in a truncated legislature, and had the advantage of being the ruling party when the by-elections were held. It had used the same strategy earlier and there are indications that it might be tried in some other States too in the coming weeks. This route by-passes the Anti-Defection law but the financial and moral corruption involved in this is only far too evident. While the top court did the right thing by asking for an early floor test in M.P., the larger question the power tussle in the State has thrown up, which is the claim of majority in a legislature that has a considerably large number of seats vacant, remains unresolved. The recurrence of this model across States makes this an unhealthy pattern and a fresh challenge to clean politics. The legal and moral implications of mass resignations of MLAs to upend an electoral verdict need to be examined at the political and judicial levels.

Jharkhand Govt. Passes Resolution Against NPR, NRC

- The Hemant Soren government in Jharkhand has urged the Centre to conduct the National Population Register (NPR) survey as per the 2010 format and not to implement the National Register of Citizens (NRC). A three-line resolution in this regard was passed by the State Assembly amidst opposition from the Bharatiya Janata Party members. "In the present format having 15 points, people will be asked about date and place of birth of parents. Most of people in Jharkhand will not be able to answer these questions. In Jharkhand, most people even don't know their own date of birth," Alamgir Alam, Jharkhand Rural Development Minister and Parliamentary Affairs Minister, told The Hindu. He said **the government was of the view that the NPR was the first step, it would be followed by the NRC and finally the Citizen (Amendment) Act. (CAA)**. "When the Nitish Kumar government in Bihar, in which the BJP is an alliance partner, passed the resolution rejecting the present NPR format, the saffron party remained silent. But, they are making a hue and cry in Jharkhand," alleged Mr. Alam. Recently, Jharkhand Janadhikar Mahasabha (JJM), a forum of different civil society organisations, had demanded that the Jharkhand government should stop all NPR-related



activities and pass a resolution in the Assembly against the CAA and the NRC. Stating that the main purpose of the NPR was to lay the ground for the NRC, the JJM had said the NRC was a “wasteful exercise” that was bound to lead to the exclusion and harassment of large number of people, especially the poor as had already happened in Assam. The Budget session of the Jharkhand Assembly was adjourned indefinitely in wake of COVID-19 outbreak.

Census-NPR Postponed till Further Orders

→ Amid the COVID-19 outbreak, the first phase of Census 2021 and updating of the National Population Register (NPR) that was to begin on April 1 has been “postponed until further orders”, the Ministry of Home Affairs (MHA) said in a statement. On April 1, the Census and the NPR exercise was to be rolled out in Meghalaya, the Andaman and Nicobar Islands, Lakshadweep and the New Delhi Municipal Council (NDMC) area. President Ram Nath Kovind was to be the first one to be enumerated for the Census, followed by Vice-President M. Venkaiah Naidu and Prime Minister Narendra Modi as all of them reside in the NDMC area that comprises Lutyens Delhi. Other States and UTs had notified different dates for the exercise that entailed door-to-door visit by enumerators and field representatives and was not possible under the ongoing 21-day lockdown, said a senior government official. The Census was scheduled to be conducted in two phases — House listing & Housing Census during April-September 2020 and Population Enumeration from February 9-28, 2021. The updating of the NPR was also proposed to be done along with the Phase I of the Census in all the States and UTs, except Assam. As many as 13 States and UTs have opposed the updating of the NPR. According to Citizenship Rules 2003, the NPR is the first step towards compilation of a National Register of Citizens (NRC). The modified NPR form is yet to be made public but is likely to include contentious questions on “date and place of birth of father and mother, last place of residence and mother tongue.” NPR was first collected in 2010 and then updated in 2015 without the additional questions.

The Maoist Trap

→ The attack by Maoist extremists in Chhattisgarh’s Sukma district on Saturday, that killed 17 security personnel and injured 15, including two critically, presents a grim picture on how poorly India continues to fare on this front. There was intelligence that Maoists were going to assemble at Elmagunda village, which is dominated by the Peoples’ Liberation Guerrilla Army Battalion 1. Accordingly, security forces, comprising District Reserve Guards, Special Task Force, numbering 500, were dispatched into the forests to deal with the emergent situation. In retrospect, despite the intelligence, they did not encounter even one Maoist and began their journey back, in two groups, to their camps at Chintagufa and Burkapal, not more than six kilometres apart as the crow flies. The smaller contingent, numbering 100, headed to Burkapal, encountered fire six kilometres from the base camp and they duly returned it. The Maoists retreated and fired again and the security forces fired and followed till they had been lured into an open area in hilly terrain where the Maoists, some 350 of them, had the advantage of numbers, line of fire as well as height, a classic ambush. The Maoists then picked off their targets. The other much larger group, not more than three kilometres away, also came under diversionary fire that kept them pinned down. The real story is still to emerge, but it is odd that in the battle that began about noon and lasted five-and-a-half daylight hours, reinforcements could not be sent to hapless personnel. It can be surmised that at the very least those who got ambushed did not know the terrain or the tactics enough,



although that should not be the case considering the composition of the DRG. It is yet to be convincingly explained how as many as 400 personnel so near did not rush to aid their uniformed brethren. Was it a leadership or assessment issue? Was there a communication breakdown? Was the initial intelligence properly vetted or was it bait? Was this entire operation properly supervised? It is remarkable, too, that helicopters were able to evacuate the wounded afterwards. So complete was the rout that even though the security forces said they took down some Maoists, there is not much physical evidence to support this claim. It is also significant that as many as 13 of the dead security forces were locals from Sukma district, many of them surrendered Maoists. And unfortunate that many of them bled to death waiting for assistance. There is a lot to answer for but it seems that despite dedicated training the security forces get for just these eventualities, the Maoists are able to improvise and come out on top, smarter, nimbler, and many steps ahead.

Over 900 Yakshagana Scripts Go Digital

- More than 900 **Yakshagana scripts**, including the ones printed in 1905 and 1907, have now been digitised and made available online for free, thanks to the voluntary community effort by some Yakshagana lovers who did it under Yakshavahini, a registered trust. The teamwork by about 100 professionals, including software engineers, has resulted in conservation of 934 scripts in the digital form in less than a year of launching the project. The number of digitised scripts is expected to touch 1,000 by March-end. The 'Prahlada Charitre' printed in 1905 and 'Ramashwamedha' printed of 1907, 'Putrakamesti' published of 1913, 'Kanakangi Kalyana' of 1929, Kumudhwati Kalyana of 1931 and Sampoorana Ramayana printed in 1938 are among the ones digitised.

Honey Collectors of Sunderbans Switch to Apiculture to Fend Off Tiger Attacks

- From time immemorial, people from the villages of Sunderbans have been venturing into the dense mangrove forest inhabited by the Royal Bengal Tiger to collect the sweetest produce of the forest, honey. Maulis (honey collectors), as they are called in Bengali, often risk their lives in the peak season to collect honey, armed with nothing but a prayer to Bon Bibi (the Forest Goddess). Going by the official estimates, at least five to six of these honey collectors (official figures) are killed by tigers every year. In an attempt to ensure that the honey collected from the Sunderbans does not involve such life risk, Directorate of Forest 24 Parganas (South), along with WWF India, has come up with a novel mechanism of community apiculture for collecting the forest produce. The villagers of the fringe areas of Sunderbans have set up three cooperatives societies, the members of which have been provided with training and equipment, such as honey collection boxes. These boxes are placed inside forest camps and adjoining nylon netted forest areas of the Sunderbans. Though located deep inside the mangrove forest, the camps and the adjoining areas have little risk of tiger attacks and the maulis can go about their activity without any fear

Ecological Balance

The cooperative societies located at Jharkhali, Kultali and Nalgora have been provided financial support in the form of loans. The State's Panchayat and Rural Development, Department has facilitated the process of securing these loans by these cooperative. The initiative is not only aimed at protecting the lives of honey collectors but also aimed at ensuring the ecological balance of the Sunderbans.



Bonphool Brand

The peak season for collection of Sunderban honey obtained from the nectar of the mangrove plants begins in March and ends in the first week of June. Unlike the traditional practice of collecting honey, where those who risk their lives by venturing into the forest do not get much in return, the members of the cooperative are hopeful that they will be able to earn ₹ 20,000 a month. The Forest Department has created a separate brand for selling this honey named Bonphool (Flower of the Forest). The honey extracted from mangrove forest will be called Bonphool Wild Honey — harvested from traditional honey collectors from mangrove forest of Sunderbans. After June the boxes will travel to south Bengal forest, where the cooperatives will collect honey from Eucalyptus plantations. There are plans to sell the Bonphool through the Biswa Bangla, the State government's outlets.

14 % Of Tiger Attacks

Human tiger conflict is a major issue in the Sunderbans. In the State of Art Report on the Biodiversity of Sunderbans, released by WWF India in 2017, Chandan Surabhi Das points out that between 1985 to 2009, tigers attacked 789 persons, of which 666 succumbed to their injuries. Nearly 14% of the victims were honey collectors, the document added. While the number of human-tiger conflict have come down over the last few years because of better forest management and nylon fencing, instances of such tiger attacks are still reported.

Undisturbed Mass Nesting of Olive Ridleys

- Restrictions in place for the COVID-19 threat is saving lakhs of Olive Ridley turtles from possible intrusion by humans, especially tourists, while they are continuing mass nesting at Odisha's Rushikulya rookery. According to the Forest Department's enumeration, over 2,78,502 mother turtles have nested at this coast till morning. Since evening, over 72,142 Olive Ridleys have arrived at the beach to dig nests and lay eggs.

Day-Time Nesting

Olive Ridleys began mass nesting at the Rushikulya rookery from around 2 a.m. on March 21. Later in the day, the unusual phenomenon of day-time mass nesting took place at the coast. As a large number of mother Olive Ridleys are still in the sea near this coast, mass nesting is expected to continue for some more nights. This event normally attracts hundreds of people to the spot, with Forest Department personnel spending considerable time and effort in controlling the crowds of tourists as well as locals. But this year, the COVID-19 lockdown has ensured no such disturbance occurs for the turtles.

Services at Our Doorstep (Aditi Surie - Sociologist at The Indian Institute for Human Settlements)

- The 'ferryman' of Wuhan, who have been providing groceries, food and medicines to citizens isolated in their homes, have been the backbone of cities that have been most hit by the novel coronavirus. In China, ride-hailing company Didi and others have a dedicated workforce and resources to provide free transport to health workers. Delivery infrastructure or digitally enabled micro-logistics are key to how citizens navigate their 'social distanced' lives during the pandemic. Delivery technologies are providing a key form of infrastructure



that can be mobilised at short notice, dynamically and at scale. The mix of multi-side market economics, an on-demand workforce, and algorithmically managed tasks make this mobilisation possible. This is what enabled Didi to launch food delivery in 21 cities in response to the pandemic. Delivery workers, similar to health workers, are the new front-line force keeping citizens' lives running.

New Protocols

In India, how are companies navigating the threat their delivery personnel are under? Major delivery players in India have responded by publicising consumer awareness, restricting dynamic pricing (Amazon and Flipkart) and contact-less delivery protocols. Ola offers ₹1,000 a day for lost income for up to 21 days for drivers or their family members who contract the virus. Flipkart is reportedly mapping impacted areas to ensure that delivery agents are aware and least affected as they continue to offer relief to elite and middle-class households who have been the first-wave of likely infected citizens. However, company follow-through is in question. Reports show that delivery platforms have not yet implemented some of these protocols. Indian mobility platforms have not yet offered to extend or waive loans and rental fees for lease drivers like Didi did for China in the month of February. Digital delivery infrastructure is novel in form because of its socio-technological nature. Companies like Uber, Didi and Swiggy have pushed out a notion that their responsibility is to maintain the 'technological' half — hygiene on their apps, keep their algorithms working and offer 'decent' pay-outs to their flexible, contracted workforce. Like with other kinds of infrastructure it appears mute, working efficiently in the background. However, the bodies of delivery personnel remain unnoticed, invisible. Companies use this rhetoric to make consumers like us believe that they can't do more than these tasks, obfuscating the fact that they can and we can hold them accountable for more than they claim.

Facing Risks

It is only when such infrastructure breaks or is in decay that public concern around it grows. The COVID-19 pandemic exacerbates the risk faced by delivery agents. They are unable to take a break from work, work from home, or access the superfluous resources that white-collar and professionals in other fields are deriving from their employers. Delivery personnel face severe exposure to the virus without paid sick leave, without work, and daily payouts. Gig Workers Rising says delivery personnel don't choose to work during the pandemic but rather, they are being forced to, potentially putting the public at risk. Daily-wage workers in construction will possibly receive compensation from the U.P. government for their lost wages. Yet, platform delivery personnel, who are vital to allowing urban life to continue, have no proposed protections or rewards for their work. Acknowledging the mix of delivery personnel and app-based delivery companies as infrastructure rather than the sole mandate of private companies can deliver better outcomes for personnel. It nullifies corporate marketing and propels the services into public governance. Indeed, government orders noting the lock-down of many districts note delivery as an essential service in most metros. Recognising the key infrastructural role that delivery personnel are playing in the pandemic opens up a set of responsibilities for the government to take on.



A New Reality?

If governments around the world are ready to nationalise key infrastructure (like Spain's private hospitals), can we use the food delivery workforce to deliver tests or essential medicines to those affected? With the Delhi government banning all dining-in and allowing only delivery, is the pandemic a time to think about a new form of regulation that brings private, socio-technological infrastructure into the public fold in times of crises, eventually to be released back into the forces of the market? Can the app service and app worker's status as public infrastructure bolster a better interpretation of social protection that lasts beyond this crisis?

The Perils of An All-Out Lockdown (Jean Drèze - Visiting Professor at The Department of Economics, Ranchi University)

- As the novel coronavirus spreads, a double crisis looms over India: a health crisis and an economic crisis. In terms of casualties, the health crisis is still very confined (seven deaths in a country where eight million people die every year), but the numbers are growing fast. Meanwhile, the economic crisis is hitting with full force, throwing millions out of work by the day. Unlike the health crisis, it is not class-neutral, but hurts poor people the most.

India Slows Down

Migrant workers, street vendors, contract workers, almost everyone in the informal sector — the bulk of the workforce — is being hit by this economic tsunami. In Maharashtra, mass layoffs have forced migrant workers to rush home, some without being paid. Many of them are now stranded between Maharashtra and their homes as trains have been cancelled. The economic standstill in Maharashtra is spreading fast to other States as factories, shops, offices and worksites close with little hope of an early return to normalcy. With transport routes dislocated, even the coming wheat harvest, a critical source of survival for millions of labouring families in north India, may not bring much relief. And all this is just a trailer. This economic crisis calls for urgent, massive relief measures. Lockdowns may be needed to slow down the epidemic, but poor people cannot afford to stay idle at home. If they are asked to stay home, they will need help. **There is a critical difference, in this respect, between India and affluent countries with a good social security system. The average household in, say, Canada or Italy can take a lockdown in its stride (for some time at least), but the staying power of the Indian poor is virtually nil.**

Tap Social Schemes

Since time is of the essence, the first step is to make good use of existing social-security schemes to support poor people — pensions, the Public Distribution System (PDS), midday meals, and the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), among others. Initial measures could include advance payment of pensions, enhanced PDS rations, immediate payment of MGNREGA wage arrears, and expanded distribution of take-home rations at schools and anganwadis. Some States have already taken useful steps of this sort, but the scale of relief measures needs radical expansion. That, in turn, requires big money from the Central government. It also requires the government to avoid squandering its resources on corporate bailouts: most crisis-affected sectors of the economy will soon be lobbying for rescue packages. Meanwhile, there is a danger of people's hardships being aggravated by a tendency to shut down essential services. Public transport, administrative



offices, court hearings, MGNREGA projects and even immunisation drives have already been suspended to varying degrees in many States. Some of these interruptions are certainly justified, but others are likely to be counter-productive. Remember, we are dealing not only with a health crisis but also with an economic crisis. Even if discontinuing public services helps to contain the health crisis, the economic consequences need to be considered. To assess the case for various precautionary measures, we must bear in mind the dual motive for taking precautions. When you decide to stay at home, there are two possible motives for it: a self-protection motive and a public-purpose motive. In the first case, you act out of fear of being infected. In the second, you participate in collective efforts to stop the spread of the virus. Some people think about precautions as a matter of self-protection. What they may not realise is that the individual risk of getting infected is still tiny — so small that it is hardly worth any self-protection efforts (except for special groups such as health workers and the elderly). Four hundred thousand people die of tuberculosis in India every year, yet we take no special precautions against it. So why do we take precautions when seven people have died of COVID-19? The enlightened reason is not to protect ourselves, but to contribute to collective efforts to halt the epidemic.

Display Creativity

A similar reasoning applies to the case for shutting down public services as a precautionary measure. Self-protection of public employees is not a major issue (for the time being), the main consideration is public purpose. Further, public purpose must include the possible economic consequences of a shutdown. If a service creates a major health hazard, public purpose may certainly call for it to be discontinued (this is the reason for closing schools and colleges). On the other hand, services that help poor people in their hour of need without creating a major health hazard should continue to function as far as possible. That would apply not only to health services or the Public Distribution System, but also to many other public services including administrative offices at the district and local levels. Poor people depend on these services in multiple ways, closing them across the board at this time would worsen the economic crisis without doing much to stem the health crisis. Keeping public services going in this situation is likely to require some initiative and creativity. An explicit list of essential services (already available in some States) and official guidelines on coronavirus readiness at the workplace would be a good start. Many public premises are crying for better distancing arrangements. Some services can even be reinvented for now. For instance, anganwadis could play a vital role of public-health outreach at this time, even if children have to be kept away. Many public spaces could also be used, with due safeguards, to disseminate information or to impart good habits such as distancing and washing hands. The urgent need for effective social security measures makes it all the more important to avoid a loss of nerve. The way things are going today, it will soon be very difficult for some State governments to run the Public Distribution System or take good care of drinking water. That would push even more people to the wall, worsening not only the economic crisis but possibly the health crisis as well. This is not the time to let India's frail safety net unravel.

[Shift to Upscaling Food Rationing Now \(Madhura Swaminathan - Professor at The Economic Analysis Unit, Indian Statistical Institute\)](#)

- Two days ago, the Finance Minister Nirmala Sitharaman announced a ₹1.7-lakh crore package of social security measures to deal with the COVID-19 pandemic in the period of the

[Shatabdi Tower, Sakchi, Jamshedpur](#)



21-day lockdown. In respect of food security, the package falls far short of what is needed. I argue that we need to immediately ensure universal rationing with an expanded food basket, and special measures for cooked food in urban areas for the vulnerable population. The burden of the current lockdown is borne disproportionately by the large unorganised workforce, comprising hundreds of millions of casual daily wage-workers and self-employed workers. India already holds the record for the largest number of malnourished persons in the world. As their ability to purchase food diminishes, a growing population of working people and their families will soon enter a phase of hunger and undernourishment. The answer to this looming and very real scenario of food insecurity lies in a massive programme of food rationing, far greater than what the Finance Minister has promised.

Lessons from History

To ensure that all people have access to adequate food in the midst of this unprecedented health and economic crisis with potentially high levels of mortality, we must immediately expand our food security system. Before I come to the components of such an expanded programme, let us briefly look at the lessons provided by the experience of other countries in using rationing in times of scarcity. In the United Kingdom in the 1940s, rationing or a policy of “fair shares” was introduced in a period of war and scarcity. Starting in 1939, each and every person was issued a ration book, with a weekly entitlement that could be collected at a local grocery store. Rationing encompassed many commodities, starting with butter, bacon and sugar, and later augmented by eggs, biscuits, tinned food, meat, cereals, etc. A remarkable outcome of the war years was, as Amartya Sen has demonstrated, a significant improvement in vital statistics including a rise in life expectancy and a decline in the mortality rate. Despite heavy war casualties and a decline in consumer expenditure per capita, life expectancy actually improved. In the first six decades of the 20th century, the decade from 1941 to 1950 saw the largest increase in life expectancy in England and Wales.

India's Timeline

In India, the British introduced rationing in six cities in 1942, mainly to supply industrial workers with adequate food. Following demands from a strong political movement, Malabar became the first rural area to implement rationing in 1943. In the mid-1960s, the system of rationing or the Public Distribution System (PDS) was made a national universal programme, which steadily expanded till 1991. In the 1990s, the policies of liberalisation led to the withdrawal of universal rationing and its replacement by a policy of narrow targeting. Differential entitlements were provided for BPL (Below Poverty Line) and APL (Above Poverty Line) households. In 2013, the landmark National Food Security Act (NFSA), ensured legal entitlement to rations and other food-based schemes (such as mid-day meals in schools). Around 75% of rural households, and 50% of urban households, that is, a total of two-thirds of all households, were eligible for inclusion (now termed priority households) in the NFSA. The implementation of the NFSA — notably the PDS, the Mid-day Meal Scheme, and the Integrated Child Development Services scheme — varies significantly across States; nevertheless, the infrastructure for distribution of food is in place in all parts of the country.

China's Strategy

In China, the National Development and Reform Commission (NDRC), a planning body, was the key coordinator along with the Ministry of Commerce (MOFCOM) in ensuring supplies of



basic foods and price stability to the poor, especially in Wuhan province, the epicentre of the current pandemic, which was under lockdown since January 23, 2020. The Chinese strategy had multiple components, which included public corporations and ministries, 300 large private companies, 200,000 private stores, and local government institutions. To illustrate, State-owned companies such as COFCO or the China National Cereals, Oils and Foodstuffs Corporation, and Sinograin (China Grain Reserves Corporation) supplied key commodities to Wuhan. This included 200 tonnes of rice, 50 tonnes of flour and noodles, and 300 tonnes of edible oils each day during the peak of the pandemic in February 2020. The National Grain Trade Centre has to date supplied 155,000 tonnes of corn and 154,000 tonnes of soyabean to Wuhan. Special delivery trucks for transport of vegetables were arranged, and the local government organised open-air markets. Kerala was the first State in India to announce a package with income support measures and in-kind measures including free rations of 15 kg (grain) and provision of cheap meals. The government of Tamil Nadu announced free rations of rice, sugar, cooking oil and dal to all ration card holders. The supply of rations for unorganised workers is to be through Amma canteens. The Delhi government will give 1.5 times existing entitlements at no cost to all ration card holders.

Key Points of a Plan

In India a system of expanded rations must have the following components. First, for all rural households, free rations of rice and wheat at double the normal entitlement must be distributed. The current entitlement is about half the quantity of daily cereal intake recommended by the Indian Council of Medical Research: the new quantities should be the actual minimum requirement per person per day. The government of India has now doubled rations (rice or wheat) to all priority households, from 5 kg to 10 kg per person per month. However, this falls short, as the rations are not to all households but only priority households; the rations are not free (only the additional 5 kg is free). The provision of rations must be universal: this is not the time to demarcate households by type of ration card or whether they have a ration card or by any form of biometrics. The system of identification of priority households is not error-proof, and no household wrongly excluded should be outside the ambit of rationing today. **This upscaling is feasible as the country has stocks of 58 million tonnes of rice and wheat; and the wheat harvest is currently underway in north India.** Second, for all rural households, additional rations of cooking oil, sugar, salt and lentils should be provided on a regular basis. Soap must also be included in this list. As supplies have to be arranged, the distribution could be weekly or fortnightly in order to ensure smooth availability. It is good to see that the government of India has announced one kg of dal per household, but it needs to provide more commodities quickly. Third, if milk, eggs and vegetables (or one or more of them) can be supplied, we can not only ensure basic food security at the time of a major health crisis, but actually address our burden of malnutrition. For urban areas, we need a combination of provision of dry goods and of cooked food. All households with ration cards can be given the same entitlements as proposed for rural households. For the vast numbers of workers and migrants in towns and cities, however, we must set up arrangements for preparation and delivery of cooked food. The large numbers of closed community kitchens (schools and colleges, company and office canteens, for example) and restaurant workers now sitting idle or laid off can be brought together to undertake a massive programme of provision of cooked meals at subsidised rates. Kerala has taken the lead here. This will require careful planning and technology to distribute food while ensuring physical distancing. The answer is not to simply close the Indira Canteens



(serving low-cost meals) as Karnataka has done. All the measures proposed must continue for at least three months, and be reviewed afterwards. An imaginative massive exercise of expanded rations could not only provide succour in this pandemic but also bring in a policy shift that will help sustain a nourished and healthy population.

Arunachal's Tribes Revive Indigenous Lockdown Rituals

→ A tribal lockdown ritual has staged a comeback in Arunachal Pradesh, the State geographically closest to China's Hubei province where the COVID-19 outbreak began. The border State's West Siang district ceremonially entered the Arr-Rinam phase at the stroke of 5 p.m. on Thursday. **Arr-Rinam is the Galo equivalent of lockdown imposed by consensus for 48 hours whenever an epidemic strike. The Galos, one of the 26 major tribes of Arunachal Pradesh, dominate West Siang district.** Arr-Rinam, which follows the Ali-Ternam ritual to ward off an epidemic, has been a part of their culture. Ali-Ternam — Ali means epidemic and Ternam forestall — and **Arr-Rinam were last performed almost four decades ago when a water-borne disease had affected many members of the community.** "We have been performing these rituals periodically for livestock, primarily the semi-wild mithun, that are prone to contagious diseases," The ritual ended with the community leaders sealing five major entry points of the district. "As in the past, all of us locked ourselves in and banned the entry of anyone from outside. We did make a departure from tradition by adhering to the government's social distancing guidelines, ensuring only a few people participated," Mr. Sora said. **The Adi community inhabiting East Siang and Lower Dibang Valley districts too performed a similar ritual called Motor that they believe lets shamans with legendary powers to locate wild herbs to combat an epidemic.** In districts such as Papum Pare and East Kameng, the dominant Nyishi community observed Arrue involving self-quarantine. "We have rituals such as Khyasang-Ratar and Merii for preventing the entry of an epidemic to a village," said Dahey Sangno, a project director of the District Rural Development Agency in East Kameng.

COVID-19: Many Tasks at Hand (Padmashree Gehl Sampath, PhD)

→ Although access to healthcare has improved to a large extent in India, the polarisation of healthcare facilities between the private and public sector does not provide the right framework to channel timely medical services during a pandemic. In the short-run, public healthcare services will be hard-pressed to provide the requisite support to low-income groups. In the absence of clear and targeted actions to replenish their capacity, they will not be able to cope with the pressures in the longer run. This needs to be urgently addressed, in the absence of which the poor — whom privatisation and the market economy have systematically excluded — will now be the weakest link in any effort to contain the virus. The inexorable rise of fake news is a big threat to engaged community participation and public morale. COVID-19 is already deeply affecting economic activity, and fake videos linking its spread to the meat and poultry sector have led to a low demand for these products and, consequently, large-scale losses. Advocating particular cures or linking the virus to factors such as stress without underlying scientific evidence can cause a lot of damage as such misinformation creates confusion and prevents communities from following instructions from authorities and being united against the threat. Fake news also diverts attention from grim realities. The truth is that the economy will suffer drastically, and we need a clear plan of how we will tackle this over month. The poor will be the worst affected, including informal workers, workers in the gig economy, or those running small businesses, and social safety



nets are not adequately in place. Sharing information on how we can address these issues and promoting democratic deliberations should become a policy and social priority. A crucial role of the government at this time is to offset panic, and to promote a sense of solidarity, stability and confidence. There can be no room for empty political statements and no space for errors.

Civil Liberties

There is also the risk that in the guise of disease tracking and control, we will fall into the trap of eroding more civil liberties. Lockdowns, curfews and travel bans are already a suppression of civil rights. We need to be clear of what measures we are embarking on, and how that affects all of us. For example, is it logical to suspend rights of our own people to return in case of absolute necessity, and does the epidemiological reason justify separating people from their families for any amount of time? As we move ahead, we need to employ mechanisms that tackle the pandemic no doubt, but do so while protecting civil and personal rights of citizens. The Chinese have massively re-purposed their surveillance system for epidemiological control to reduce infection rates, and the U.S. government has announced that it is in talks with tech companies to access phone location data to map the spread of the virus. The U.S., a democracy, has many checks and balances in place to ensure that this kind of data is not misused, but India does not. Indians therefore need guarantees that the use of surveillance in the name of disease control does not end up serving other purposes, now or in the future.

Ironing Out Wrinkles in India's Pandemic Response (Krishna D. Rao - Associate Professor, Department Of International Health, Johns Hopkins University. Dr. Tarun K. George - Associate Professor, Christian Medical College, Vellore, Tamil Nadu)

- ➔ Much concern about the novel coronavirus in India is understandably about the number of cases and related deaths. It is important to remember that the vast majority (80%) of COVID-19 cases will be mild. The estimated mortality rate varies considerably between 3% to 0.25% of cases, and is much higher among the elderly. Mathematical models and the experience of China, Italy, and now the United States, suggest that COVID-19 is likely to infect a significant number of Indians, though this can change due to current physical distancing and lockdown measures. Notably, wealthier countries with stronger and better financed health systems such as Italy and China have struggled with containing COVID-19. As such, it is prudent to understand how well India's health system can respond to COVID-19, especially since it is unclear how long this disease will persist. We believe that there are some critical weaknesses in India's health system that can prevent a credible response to COVID-19.

State-To-State Coordination

In truth, we do not really know how widespread the epidemic is in India because such a small number of people have been tested and many mild cases go undetected. To what extent India's ongoing efforts to control COVID-19 using physical distancing and isolation will be successful is yet unknown. It is likely that, as in other countries, there will be regional or sub-regional disease hotspots, rather than a nationwide outbreak. The higher number of confirmed COVID-19 cases in States such as Kerala and Maharashtra suggest this (though this could also be due to more testing). This highlights the importance of approaching India's



COVID-19 response from the perspective of State health system capacity. Second, it is unlikely that States which experience a COVID-19 hotspot will have the resources to manage the outbreak independently. As such, it is critically important to put in place well-functioning between-State and within-State coordination mechanisms that enable efficiently leveraging resources such as doctors, nurses, equipment, supplies from elsewhere and direct them to regional/sub-regional hotspots.

Ramping Up Hospital Capacity

Addressing the scarcity of hospital and intensive care unit (ICU) beds in India is critical for providing clinical support to severe COVID-19 cases. Without flattening India's COVID-19 epidemic curve, our current hospital capacity is so low that it will be quickly overwhelmed if infections surge. India has around 70 hospital beds and 2.3 ICU beds per 100,000 people. To put this into perspective, China (Italy) has 420 (340) hospital beds and 3.6 (12.5) ICU beds per 100,000 people, and both these countries struggled to care for the severely sick. According to our rough calculations, based on estimates from recent studies, in a hypothetical State with a population of 50 million (about the size of Andhra Pradesh), with the national-level endowment in hospital and ICU beds and bed occupancy of 50%, assuming there are currently 10 COVID-19 cases with a doubling rate of five days (5% of the cases hospitalised and 16% of hospitalisations need ICU care, median length of stay 12 days), without any mitigating measures, the ICUs will fill up in six weeks and hospital beds in about eight weeks from now. This will happen sooner in States with lower hospital capacity. It is critically important that India puts in place a strategy to ramp up hospital and ICU capacity, as well as provision for essential equipment such as ventilators and personal protective equipment for health workers. In both China and Italy, hospitals were rapidly constructed to accommodate infected patients. It is doubtful that we can construct new hospitals as quickly as China or even staff them adequately. Therefore, it is important to consider alternatives, such as, extending current hospital capacity, hospital trains that can easily move from one location to another, or converting university dormitories into treatment centres. Tapping the resources in the private sector is particularly important. India's health system is highly privatised and most of the country's health-care capacity in terms of human resources, hospital beds, laboratories, and diagnostic centres is in the private sector. Recognising this, several State governments have initiated action, such as enlisting private laboratories for testing and using the private hospital bed capacity to treat positive patients. More of this is needed, as well as, engaging private hospitals in planning and coordinating the COVID-19 response.

Health Workers Are Crucial

Health-care workers are a critical resource for the COVID-19 response. They go into communities to carry out preventive care, trace potentially exposed people, and treat the infected. The success of countries such as South Korea and Singapore in controlling the spread and mortality due to COVID-19 has been credited to the ability of health workers to locate, test and treat cases. This requires a substantial number of health workers, and India faces an acute shortage of them. India has around 3.4 qualified doctors and 3.2 nurses and midwives per 10,000 population; in contrast, China (Italy) has 18 (41) doctors and 23(59) nurses per 10,000 population. Moreover, health workers in India are mostly concentrated in the urban areas and there are huge disparities between States (Bihar has 0.3 and Kerala has 3.2 doctors per 10,000 population). Importantly, nurses have been in the forefront of caring for infected people elsewhere; India, has far fewer nurses than both Italy and China. These



characteristics of India's health workforce will affect its COVID-19 response, particularly in rural India and in States with fewer health workers. While increasing the health workforce in the short term is difficult, it is important to consider task shifting and multi-skilling strategies where a variety of health-care workers (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy doctors, nurses, as well as general and specialist doctors) are engaged. Because it is highly likely that certain regions in India will become COVID-19 hotspots, to contain these outbreaks it is important that human and other resources can be flexibly shifted to these areas from other parts of the country. Primary-care providers, whether they are formally trained (e.g. medical officers, nurses, auxiliary nurse and midwives, pharmacists), or lay workers (accredited social health activists) or informal workers (rural (not registered) medical practitioners, or RMPs, drug shops) will likely be the first contact health workers for COVID-19 patients. For example, more than 70% of the outpatient visits in India are to private providers, the majority of whom are RMPs. Engaging these primary-care providers in the COVID-19 response is important. For one, they are critical for contact tracing, a strategy that has been successfully used in South Korea and Singapore to contain the virus. Because primary-care providers will encounter patients in early stages or with mild forms of the disease, they play a crucial role in treating and referring patients. While this may not be easy to accomplish, COVID-19 response strategies should involve engaging these primary-care providers and providing them information on preventing the spread of COVID-19, danger signs or where to refer in case of serious illness.

Health Worker Safety

Health workers also take on a disproportionate share of infections. Health worker safety is particularly important for India because it already faces a shortage of doctors and nurses. In China and Italy, the fight against COVID-19 has taken a huge toll on health workers. One of the enduring images from Italy is of an exhausted nurse lying face down on her desk. As a recent article in The Lancet notes, estimates from China's National Health Commission show that more than 3,300 health-care workers have been infected as of early March and, by the end of February at least 22 had died; in Italy, 20% of responding health-care workers were infected, and some have died. Health workers also face physical and mental exhaustion, which affects their morale, in addition to the infection risk. Protecting health workers in the forefront of the COVID-19 response will be critical. Procuring and ensuring the widespread use of personal protective equipment (e.g. masks, gloves, gowns, and eye wear) in the care of all patients with respiratory symptoms needs to be prioritised. Such actions will be particularly important if there is a prolonged response to COVID-19. India like other countries faces important health system challenges in mounting a credible response to COVID-19. Many of these issues are not new. Addressing these health system issues will require much effort, financing, and, in some cases, not even entirely possible to remedy in the near future. How India deals with these health system issues in the days to come will make all the difference.

Indelible Ink to Be Used to Mark the Quarantined

- The Election Commission of India said it had allowed the government to use indelible ink, which is used to mark voters, to mark people ordered quarantine themselves at home in view of the "extraordinary circumstances" due to the coronavirus pandemic. In a letter to the Health and Family Welfare Ministry, the EC wrote that it had taken the suo motu decision to



allow the use of indelible ink with certain conditions. The EC wrote that according to Rule 49 K of the Conduct of Elections Rules, 1961, an elector is supposed to be marked on the forefinger of his left hand before casting the vote. In case the elector does not have a forefinger on the left hand, any other finger of the left hand can be marked and in case the elector does not have any finger on the left hand, the forefinger of the right hand can be marked. The EC said the authorities should be directed not to use the ink on any finger of the left hand.

Medical Staff Treating COVID-19 Patients Told to Vacate Homes

- ➔ Medical staff from across India working with COVID-19 patients appealed to the Union Health Ministry for help stating that they are being harassed, with several of them told to immediately vacate their rented accommodation by landlords because of the fear that they could spread the virus. Many doctors are now stranded on the road with their luggage with nowhere to go. This is happening across the country and we condemn such attitude and seek urgent intervention. Also, with the lockdown in place, not enough public transport is available for hospital staff to travel from their residence to various hospitals," said the letter.

Ministers React Quickly

Union Health Minister Harsh Vardhan tweeted expressing deep anguish, saying he noticed such reports pouring in from Delhi, Noida, Warangal, Chennai, etc., and asked people not to panic. He said all precautions are being taken by doctors and staff on COVID-19 duty to ensure they are not carriers of infection in any way. "Any harsh steps will demoralise them, derail the system. On Sunday, the nation applauded their selfless service. It's our duty to keep their morale high," Mr. Vardhan said. AIIMS RDA general secretary Srinivas Rajkumar said Home Minister Amit Shah has assured that any such issue of ostracization will be taken seriously and action taken immediately.

Major News Publishers, Platforms Get Together to Tackle Misinformation

- ➔ The BBC's global Trusted News Initiative, in which The Hindu is a partner, will be extending its efforts to identifying false and potentially harmful information on the coronavirus pandemic. The initiative will have in place a system in which partners will be able to alert each other to disinformation about coronavirus. This will enable partner platforms such as Facebook and Google to review promptly and the publishers in the network can ensure that the information is not republished. The Trusted News Initiative in which the BBC partners with other leading global news and technology organisations, was announced in June 2019. Partners in the initiative will also flag content that undermines trust in partner news providers by identifying imposter content claiming to come from trusted brands. The partners within the TNI are: BBC, Facebook, Google/YouTube, Twitter, Microsoft, AFP, Reuters, European Broadcasting Union (EBU), Financial Times, The Wall Street Journal, The Hindu, CBC/Radio-Canada, First Draft, Reuters Institute for the Study of Journalism.

Physical Distance, Not Social Isolation (Especially Important for Psychology Students)

- ➔ Around a fifth of humanity is confined indoors in what is possibly the widest lockdown in history, including an estimated 1.3 billion Indians who have just entered three weeks of

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isolation. The enormous stress and uncertainty could take an unprecedented toll on mental health around the world, and experts expect a spike in cases of anxiety and depression, as a consequence. Shekhar Saxena, Professor of the Practice of Global Mental Health at the Harvard T H Chan School of Public Health, spoke to The Indian Express from Geneva, which, like India, is under lockdown.

Why Is It Important to Talk About Mental Health at This Time?

Hundreds of thousands of people have tested positive for COVID-19, and thousands have died. People in India are under lockdown, constrained and restricted in their movements, and in their capacity to go to work. Many are stranded hundreds of kilometres away from home without transport, food, or money. We are experiencing a threat that can harm or kill us, and while all of us are concerned and anxious, some people will obviously feel it more than others. Mental health is a dimension. **We are all somewhere on that dimension from very good mental health to very bad mental health.** Imagine a spectrum with the left side being very good mental health and the right side being very bad mental health. We as a society are now moving towards the right, and that affects us all. From a public health viewpoint, a big problem for a small number of people is obviously a problem. But even a small problem to a very large number of people cumulates into a much bigger public health problem. Yes, the virus is a problem. It can affect people, kill people. But **even a small deterioration in the mental health and wellbeing of a billion people in India is going to be a serious problem in terms of disability and distress.** You have written that “the mental and emotional toll of the virus is as much a threat to public health as the virus itself”. In a cumulative way, the threat which means anxiety and depression plus the practical difficulties — financial and employment — as well as the effects of segregation from your loved ones, is going to take a toll on people in terms of their mental and emotional wellbeing. And cumulatively, for a very large number of people, that is going to be a problem.

Does Social Distancing Impact Mental Health?

We are all talking about social distancing. Actually, what we need is physical distancing, not social distancing — because that conveys the wrong message. In fact, in this time of stress, we need more social togetherness; we need more social support than social isolation. And if that is possible without compromising on the steps we are taking (to fight the virus), it should be encouraged. We should always be giving the message of physical distancing, which is a safety measure, but social togetherness, which can still be maintained from a physical distance. You talk to people on the phone, on any other media, you support people in each other’s difficulties and that is what the community needs to fight it together. Saying ‘social distancing’, which means you are alone, is increasing stress. International organisations and national authorities are all exercising ‘social distancing’ when actually, what they should be saying is physical distancing but social togetherness.

What Can Governments Do to Prevent A Full-Blown Mental Health Crisis in The Wake of The Pandemic?

Public education and messaging have to be very, very smart. The first fundamental principle is that government authorities should convey accurate and timely information to people. A vacuum lead to more anxiety. India is doing reasonably well on that front with the Prime Minister himself speaking. Second, there is a large amount of misinformation on social



media, WhatsApp groups, even in newspapers, which is completely non-evidence-based and is actually wrong. **The WHO has called this an 'infodemic', an epidemic of wrong information.** India is notorious for that, because most people are connected, especially in urban areas, and now they have time so they are disseminating this information without a thought to how it will affect people. It increases anxiety and concern, and needs to be curtailed. But the government alone cannot do that; we all have to do it — by not forwarding a message if it is not evidence-based. Third, we all need to take a pause. We should not be consuming news round the clock because that increases anxiety. Even if we are at home, we should ensure we get enough sleep, nutrition, and do things that we find fulfilling.

What Can Be the Effects of Prolonged Isolation?

Any change in our lives can cause anxiety. This is a massive, negative change. Instead of taking transport every morning to go to work, we are sitting at home. We are disconnected from our colleagues, friends, and even family in some cases. That can be very anxiety-provoking. We can still maintain clear communication with people that we have been in touch with. It is very important to check how they are feeling, whether you can support them, maybe not by being there practically, but by listening to them, being part of their difficulties. That is something we should do very actively. We don't know if it is going to be weeks or months, but we need to be ready for the long haul.

Will Isolation Impact the Elderly, Children, And the Disabled More?

Absolutely. We already know that the elderly has been feeling more and more isolated. Loneliness has been seen as a major determinant of people's health, mental health, and life spans. The elderly may also not be able to use modern means of communication. They have no physical proximity to people. This can mean added anxiety or stress for them. Similarly, children are accustomed to playing with friends and being surrounded by a number of adults, especially in joint families. Schools are closed. It is a massive change but young children may not understand why this is happening. That increases their anxiety. People who are disabled — physically and mentally — may have more problems in communicating with others to get the right news, to be in touch with people, to get the social support they need. People who are mentally disabled in some way will feel a heightened sense of anxiety and abandonment. That will definitely increase their symptoms. Also, people who are living with a physical or a mental disorder will have great difficulty accessing the healthcare that they are used to.

You Have Said That Parks Should Be Kept Open to Allow People Some Physical Activity. Is That Viable in A Densely Populated Country Like India?

Obviously, there is a danger in allowing people to aggregate in large groups. That, of course, should not be allowed. But closing open spaces, parks, is denying people the possibility of physical exercise, to walk, to jog which is very important at such a time. So, in a regulated manner, that should be allowed. There are millions of people living in shanties where there are eight people to a room. It is criminal to confine them there. I think a compromise has to be found rather imposing than a blanket ban.

What Kind of Mental Disorders Are We Likely to See on The Other Side of This Pandemic?

The typical three disorders we will see are anxiety, depression, and stress-related disorders like sleeplessness. Studies have already proven that quarantine has increased anxiety and



depression among people. We might also see more instances of smoking, alcohol, and drug use. When people do not have access to their usual entertainment, they might take solace in using substances.

Business & Economics

Union Cabinet Approves Recapitalisation Of RRBs

- The Centre has approved a ₹1,340-crore recapitalisation plan for regional rural banks (RRBs) to improve their capital-to-risk weighted assets ratio (CRAR), strengthening these institutions that are critical to the provision of credit in rural areas. The Cabinet Committee on Economic Affairs gave its nod for an outlay of ₹670 crore as the central share for the scheme on the condition that the release of the funds will be contingent upon the release of the proportionate share by the sponsor banks, an official statement said. This would provide minimum regulatory capital for one more year viz. up to 2020-21 for those RRBs that are unable to maintain the minimum CRAR of 9%. This has been an ongoing scheme since 2011. **The RRBs are required to provide 75% of their total credit as priority sector lending with primary focus on agricultural credit, including small and marginal farmers, as well as micro entrepreneurs and rural artisans.** At a time of lockdown due to the COVID-19 crisis, financially stronger rural banks could also be crucial to ensuring liquidity in rural areas.

RBI Advances Variable Rate Term Repo Auction

- The Reserve Bank of India (RBI) has decided to advance the first of the two variable rate term repo auctions to March 26 from March 30. The central bank had announced two such auctions of ₹25,000 crore each on March 30 and March 31 to address the additional demand for liquidity. "On a review of the rapidly evolving financial conditions and taking into account the impact of disruptions caused by COVID-19, it has been decided to advance the first auction scheduled for March 30, 2020 to March 26, 2020" the RBI said in a statement. There is no change in the auction scheduled for March 31, 2020. "As a special case, standalone primary dealers (SPDs) were also allowed to participate in these auctions along with other eligible participants," the central bank said in the statement. It has been decided to temporarily enhance liquidity available to SPDs under the Reserve Bank's Standing Liquidity Facility (SLF) from ₹2,800 crore to ₹10,000 crore with immediate effect, in order to facilitate year-end liquidity management by SPDs. This enhanced facility will be available till April 17, 2020, the RBI said.

Centre Amends Law to Enable Excise Duty Increase on Fuel

- The government amended the law to get enabling powers to raise excise duty on petrol and diesel by ₹8 per litre each in future. Finance Minister Nirmala Sitharaman moved **an amendment to the Finance Bill, 2020, to raise the limit up to which the government can raise special excise duty on petrol and diesel to ₹18 per litre and ₹12, respectively.** The amendment, along with the Finance Bill, was passed without a debate in the Lok Sabha. **The government had on March 14 raised excise duty on petrol and diesel by ₹3 per litre each to raise an additional ₹39,000 crore in revenue annually. This duty hike included ₹2 a litre increase in special additional excise duty and ₹1 in road and infrastructure cess. This hike took the**



special additional excise duty to maximum permissible in law — ₹10 in case of petrol and ₹4 in case of diesel. Now, through an amendment of the Eighth Schedule of the Finance Act, this limit has been increased to ₹18 per litre in case of petrol and ₹12 in case of diesel.

No Hike Planned for Now

This is an enabling provision and no change in excise duty is being done as of now, an official said. The amendment gives powers to the government to raise the duty by up to ₹8 per litre in petrol and diesel at any time it wishes. Earlier in the day, the Lok Sabha passed the Finance Bill, 2020, without any discussion as the House curtailed its sittings in the wake of the COVID-19 outbreak. More than 40 amendments were introduced by the government to the Finance Bill, which was moved for consideration and passing, by the Finance Minister. The decision to pass the Bill without any discussion was taken at an all-party meeting convened by Speaker Om Birla. Some amendments moved by the Opposition were negated. The Bill gives effect to the financial proposals of the Central Government for fiscal 2020-21.

Unpacking the Garib Kalyan Package

- For economic agents – particularly poor households and small businesses – the crisis today is a crisis of liquidity. The nationwide lockdown, imposed to stop the novel coronavirus in its tracks, has led to scores of daily wage workers and informal sector entrepreneurs losing earning opportunities from their existing activities. Finance Minister Nirmala Sitharaman announced a ₹1.70 lakh crore 'Pradhan Mantri Garib Kalyan Yojana' relief package to alleviate the distress of those least equipped to bear the cost of staying at home for the larger public interest of battling the COVID-19 pandemic. The Indian Express examines the effectiveness of the package in meeting its stated goal.

In the Current Situation, Which Is the Most Significant Component of The Rs 1.70 Lakh Crore Pradhan Mantri Garib Kalyan Yojana Relief Package Announced by Finance Minister Nirmala Sitharaman?

The increased entitlement of food grains supplied through the public distribution system (PDS) is a major intervention. A typical poor household having five adult members consumes 50-55 kg of cereals and 4-5 kg of pulses every month. Currently, the PDS provides 5 kg of cereals per person per month at ₹2/kg and ₹3/kg for wheat and rice, respectively. That is 25 kg for a family of five. Under the package, an additional 5 kg of wheat or rice would be given per person per month, free of cost. The doubling of entitlement, effective for the next three months with the extra grain coming free, will practically meet the family's entire cereal requirement. Roughly 80 crore persons or two-thirds of India's population covered under the National Food Security Act will benefit.

These poor or lower middle-class sections, impacted most by the lockdown, will no longer need to buy any wheat or rice from the market. Further, they will receive 1 kg of pulses per family per month, again free of cost for the next three months. That would meet 20-25% of their total requirement.

How Much Will All This Cost? And How Effective Will It Be on The Ground?

The effectiveness will be more in states with well-functioning PDS. That is, Kerala, Tamil Nadu, Chhattisgarh and Odisha — but not Uttar Pradesh or Bihar. The Food Corporation of India (FCI) in 2019-20 has incurred an expenditure of ₹26.80 for procuring and distributing every



kg of wheat, and ₹37.48 per kg of rice. At an average economic cost of ₹30/kg, 80 crore persons being provided 15 kg each of free grain (over three months) would translate into an additional outgo of ₹36,000 crore. But there are savings as well. The economic cost does not include the FCI's expenses in holding and maintaining excess stocks in its godowns. This "carrying cost" — basically interest and storage charges — is estimated at ₹5.61 per kg in 2019-20. On 12 million tonnes (Mt) of grain — which is what 15 kg for 80 crore people would be — that works out to over ₹6,700 crore. The net outgo for the exchequer will then be well under ₹30,000 crore. Even after adding ₹4,000 crore towards giving 3 kg of pulses free to 20 crore families — the estimated economic and carrying cost here is ₹60-70 per kg — the total outgo will not exceed ₹35,000 crore. And given that FCI and the National Agricultural Cooperative Marketing Federation of India are now holding some 77.6 Mt of cereals (3.5 times more than required) and 2.2 Mt of pulses respectively, this is also an effective way to dispose of excess stocks.

What Is the Other Substantial Relief Measure Announced?

Sitharaman has said that LPG gas cylinders would be distributed free to 8 crore poor families for the next three months. Taking an average non-subsidised cylinder price of ₹800 and three cylinders each over three months for these families, the financial cost will be ₹19,200 crore. But it is also worth bearing. The least that the government can do for those worst hits by the lockdown is to secure their basic dal, roti and cooking fuel requirement.

Will Enhancing Daily Wages Under MNREGA by ₹20, From an Average Of ₹182 To ₹202, Help?

Not really, in a lockdown, where there's little scope to undertake MNREGA works. In today's context, all MNREGA households — a total of 13.65 crore job cards have been issued, of which 8.22 crore are active — should ideally be given an unemployment allowance. The Finance Minister has claimed that the ₹20 wage rate hike will result in an additional income of ₹2,000 per household. This is a theoretical calculation, assuming all job card holders are provided 100 days of guaranteed wage employment under the scheme. When daily wage earners are supposed to remain at their homes, the only way to compensate them under MNREGA is through unemployment allowance. The onus for paying that under the Act is, however, on the state governments. It is unlikely they would make the necessary budgetary provision. Yes, but not very substantial. A total of 20.4 crore of bank accounts belonging to women under the Pradhan Mantri Jan Dhan Yojana are to be credited ₹500 each per month for the next three months through direct benefit transfer (DBT). That is hardly any recompense for those forced out of work. Nor is payment of ₹2,000 to 8.7 crore farmers under the Pradhan Mantri Kisan Samman Nidhi anything to write home about. Farmers are already receiving an annual income support of ₹6,000 under this scheme, with the first instalment payment of ₹2,000 for 2020-21 anyway due in April. There's no additional financial implication here — at a time when farmers are facing both lower crop prices due to a coronavirus-induced market collapse, and higher harvesting costs on account of labour shortages from the lockdown.

What Does the Package Really Amount To?

The main problem for poor and vulnerable households today is liquidity stress. Unlike big businessmen or the salaried middle class, these are people with no balance sheets, reserves, or bank balances. Every day's loss of work for them means cutting down even basic



consumption and going deeper into debt. Free grain can help, but does not address the real crisis, which is of liquidity. They need cash to buy essential things other than just food — and most of them had it till the other day.

- The offer to pay both employer and employee contributions to the Provident Fund for very small business enterprises is welcome and will offer relief to those businesses that have been forced to shut down operations, and also to employees earning small salaries for whom the PF deduction may hurt at this point in time. The salary limit could have been set higher at ₹25,000 per month — there's no cash outgo for the government anyway because this is just a book entry transaction.

The Poorest of The Country Are the Ones Hit Most Hard by The Restrictions (Anjali Bhardwaj - Social Activist Associated with Satark Nagrik Sangathan, A Citizens' Group Working to Promote Transparency and Accountability in Government)

- Estimates suggest that more than 70% of the population of Delhi works in the unorganised sector. Often, the poorest from villages migrate to the city in search of livelihoods and work as daily wagers, with minimal or no savings to dip into in times of crisis. It is not surprising, therefore, that the 21-day curbs announced by the Prime Minister, albeit necessary, is pushing these residents of Delhi into abject destitution. Reassurances by the Prime Minister and the Chief Minister that essential commodities will continue being available in neighbourhood shops, mean little to those who have no money to buy them. Heart-wrenching pictures of families carrying their young on their backs, walking towards villages hundreds of miles away during the nation-wide curfew, are a grim reminder of their economic fragility. Lack of social infrastructure and recurring expenses — the average rental for a jhuggi in Delhi is around ₹3,000 — make it unviable for them to continue living in the city without any source of income for extended periods of time. A large number of Delhi's children are no strangers to hunger. The post-mortem of three sisters aged two, four and eight, who died in east Delhi two years ago revealed that they succumbed to starvation — there was zero gram of fat on their little bodies. Since schools and anganwadis have been shut down due to the pandemic, children in the Capital are being denied their mid-day meals on which many subsist — putting them at grave risk. The Finance Minister announced a financial package to mitigate the disastrous consequences for the poor. While the measures are welcome and much needed, they are mainly focused on providing relief to those who are already covered in the food and social security net of the government. The supply of additional foodgrains to existing ration card holders and enhancing pensions of existing beneficiaries, while necessary, is in no way sufficient. These measures ignore the poorest, especially migrant workers, who have been excluded from the ambit of social security programmes of the government because they do not possess the necessary documents and proof of address.

No Identity Cards

Only 40% of Delhi's population has a valid ration card, leaving lakhs of deprived residents out of the ambit of the Public Distribution System. Similarly, the pension scheme excludes a very large number of the old and the handicapped, who desperately need social security benefits. Now, more than ever, is the time for Delhi to learn from the experience of Kerala and other States which have universalised their social security programmes to ensure no deserving family is excluded. In the meantime, it is incumbent upon the Delhi government to

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immediately deploy its resources to assist those who are left out. In addition to making sure that food grains and pensions are efficiently delivered to all, the government must set up proper shelters for the poor who are rendered homeless during this crisis and provide cooked food to those who need it. While doing so, care needs to be taken to ensure that social distancing norms necessary to prevent the COVID-19 from spreading are adhered to, else the entire purpose of the curbs stands to be defeated. Currently, the Delhi government is distributing free cooked meals at all night shelters in the city. Experience of the first two days of the curbs is clearly showing at the 234 shelters are not adequate to feed the needy.

COVID-19 Hotspot

Thousands have been congregating at meal times making these places hotspots for the spread of the dreaded COVID-19. Also, not everyone who needs food is able to reach these centres during curfew conditions. There is an urgent need to decentralise the distribution of cooked food. The network of anganwadis and government schools must be used to enable easy access and prevent overcrowding. It is critical that the mid-day meal scheme, and support to pregnant and lactating mothers, be immediately resumed. There is no excuse for putting the already vulnerable at greater risk. This would also be in line with the recent Supreme Court judgment directing States to promulgate policies to immediately ensure provision of these meals. Implementation of curbs in a city like Delhi, with its teeming, poor and vulnerable population was never going to be anything short of a herculean task. Lack of proper planning and prompt implementation of requisite emergency measures could hurl the national capital into an economic and health abyss.

Liquidity Floodgates Opened

→ In a move to infuse sufficient liquidity into the banking system, the Reserve Bank of India has reduced the cash reserve ratio (CRR) requirement by 100 bps, increased the cap for liquidity available under the marginal standing facility, and will auction long-term repo of ₹1 lakh crore. These three measures will infuse ₹3.74 lakh crore into the banking system. The cash reserve ratio — the proportion of liabilities which a bank has to set aside as cash — has been reduced from 4% to 3%. The 100-bps reduction in CRR will free up ₹1.37 lakh crore liquidity for the banks. The minimum daily requirement of maintaining CRR balance has also been reduced to 80% from 90%, effective from the first day of the reporting fortnight beginning March 28, 2020. Banks do not earn any interest for maintaining CRR balance. With this reduction, they can deploy the liquidity in interest-earning assets. RBI also increased liquidity available to banks under the marginal standing facility from 2% of the statutory liquidity ratio (SLR) to 3% with immediate effect. This measure will be applicable up to June 30, 2020. "This measure should provide comfort to the banking system by allowing it to avail (itself of) an additional ₹1,37,000 crore of liquidity under the LAF window in times of stress at the reduced MSF rate announced in the MPC's resolution," the RBI said. The monetary policy committee reduced the repo rate by 75 bps to 4.4% and consequently the MSF rate was reduced to 4.65%. Observing that large sell-offs in the domestic equity, bond and forex markets had intensified redemption pressures, the central bank decided to infuse ₹1 lakh crore through targeted long-term repo operations (TLTRO). The RBI will conduct auctions of targeted term repos of up to three years' tenor for a total of up to ₹1 lakh crore at a floating rate, linked to the policy repo rate. "Liquidity availed under the scheme by banks has to be deployed in investment grade corporate bonds, commercial paper and non-convertible debentures over and above the outstanding level of their



investments in these bonds as on March 25, 2020," the RBI said. RBI also said investments by banks under this facility would be classified as held-to-maturity (HTM) even in excess of 25% of the total investment permitted to be included in the HTM portfolio.

- The sum total of new long-term repo operations of ₹1-lakh crore, and ₹1.37-lakh crore each from the cut in cash reserve ratio and increase in marginal standing facility (overnight borrowings by banks from the RBI) adds up to a very significant ₹3.74-lakh crore. Together with the Rs. 2.8-lakh crore pumped in through various market interventions since February, the RBI's liquidity injection amounts to a whopping 3.4% of GDP. To be sure, there will be consequences of heightened liquidity but that is a problem for another day. The priority is to keep the system lubricated. The moratorium on term loans and deferment of interest on working capital loans will reduce anxiety among businesses and individuals who will see a fall in income/cash flows. The central bank has also done the right thing by widening the policy rate corridor — the reverse repo rate cut is 15 basis points more than that in the repo rate. This will hopefully push banks away from their 'lazy banking' practices and force them to lend more. In sum, it is a good start by the RBI but it needs to keep thinking on its feet and react quickly as the situation evolves.

RBI Opens Window to Defer EMIs

- Amid the lockdown caused by the COVID-19 outbreak, the Reserve Bank of India has permitted banks to allow a moratorium of three months on the payment of instalments for all term loans outstanding as on March 1, 2020. Accordingly, the repayment schedule and all subsequent due dates, as also the tenure for such loans, may be moved forward across the board by three months. However, the decision on the rescheduling of home, auto, and other loans will finally be taken and conveyed to customers by individual banks. Banks will continue to charge interest on the outstanding portion of the terms loans during the moratorium period. The RBI has left it to the boards of banks to put in place an objective criteria to offer moratorium to its customers. A moratorium is not a loan waiver and does not offer any discount on interest pay-out. But it provides stressed customers extra time to repay without their accounts being labelled non-performing assets (NPA) or their credit score being affected.

Who Can Avail of These Benefits?

Individuals and companies who have availed term loans — such as home loans, car loans, corporate loans — can benefit from this move. Therefore, any temporary disruption in their income or cash flows caused by the lockdown will not affect their repayment schedule for the next three months, at least. Moratorium facility is now available on terms loans extended by all commercial banks — including regional rural banks, small finance banks and local area banks, co-operative banks, all-India Financial Institutions. Even term loans extended by Non-Banking Finance Companies, including housing finance companies and micro finance institutions, will benefit from the move. A head of a leading housing finance company said, "The RBI announcement covers all retail, non-corporate loans, across all the categories."

How Do Companies Benefit?

For corporate India too, this is a big relief, especially for those companies that have low reserves. As cash flows get impacted across the board for companies, many of them may not



have the ability to repay, as the businesses have shut down completely. This will provide them with some breathing space.

What About Banks?

For banks and lending institutions, this will affect their cash flows as they may not be getting repayments for three months. But the RBI has reduced their cash reserve ratio (CRR) requirements, providing them additional liquidity.

Are the Measures Expected to Lift the Economy?

While the decisions by RBI have been taken to protect individuals and businesses from the negative impact of the virus and the lockdown on the economy, for banks and lending institutions, this will affect their cash flows as they may not be getting repayments for three months. But the RBI has reduced their cash reserve ratio (CRR) requirements, providing them additional liquidity.

Government Extends Tax Deadlines to June 30

- Deadlines for filing income tax and GST returns have been extended to June 30, as part of a slew of relaxations of financial year-end compliance announced by Finance Minister Nirmala Sitharaman. The changes had been prompted by the shutdown of large parts of the country in a bid to control the spread of the COVID-19 viral infection, so that taxpayers were not forced to endanger their health in a bid to meet compliance requirements, she said. Bank account holders would not be charged extra for using a debit card to withdraw money from the ATMs of other banks for the next three months, and charges for not meeting minimum balance requirements would also be waived. Bank charges for digital transactions were also being reduced. Income tax returns for the financial year 2018-19 can now be filed until June 30, with the interest rate on delayed payments reduced to 9% from 12%. The last date for linking Aadhaar with PAN has also been extended from March 31 to June 30. Other taxpayer compliance deadlines, including for investment in savings instruments or for roll-over benefit of capital gains, under the Income Tax Act and other laws have also been extended. The deadline for filing GST returns for March, April and May, as well as for opting for the composition scheme, has been extended to June 30 for smaller companies — with less than ₹5 crore aggregate annual turnover — without any interest, late fee or penalty being charged.

Ahead: Bumper Crop, Multiple Challenges

- This is perhaps the first time ever that India is facing a national disaster or a war-like situation — Prime Minister Narendra Modi evoked memories of “blackout drills” in his first address on combating the novel coronavirus — amidst plentiful supplies of food even as a bumper rabi crop beckons. Farmers are currently about to harvest — if they haven’t already — wheat, mustard, chana (chickpea), matar (field pea), potato, onion, garlic, zeera (cumin seed), coriander, fennel, red chilli, grapes, mango, summer tomato and other seasonal fruits and vegetables. Given the surplus and extended monsoon rains, which helped recharge ground water and fill up reservoirs, a superabundant produce is around the corner. This comes even as there is demand destruction from the shutting down of HORECA (hotels, restaurants and catering) and other institutional segment businesses following the nationwide lockdown. It raises the possibility of a crisis similar to the one three years ago that followed



demonetisation. But the scale, it is feared, could be bigger. The post-demonetisation rabi crop, also a bumper one, was at least harvested and marketed even if it didn't fetch a good price.

How to Transport Produce

This time, there are doubts being raised even on that. The simple reason for it is: Will farmers, labourers and machines (combines, threshers and tractor trolleys) be able to move freely to harvest the produce and take it to the mandis? The Uttar Pradesh government on Thursday issued a direction to all district administrations and law-enforcement authorities to exempt all services, including labour, that are involved in agricultural production, processing and marketing from the current lockdown provisions. Other states, too, may follow. But the question remains: How will these directives be implemented on the ground? Would farmers or labourers be asked to produce proof and does that, in turn, open a new avenue for police harassment?

Will There Be Workers?

At the second stage comes the mandis, where marketing of the crop would happen. Here again, there is a possibility of shortage of labour (the people who do unloading, cleaning, bagging and reloading of the grain that is auctioned or sold) and even gunny bags. Further, it would be necessary to prevent crowding, and maintain social distancing. **One way out could be to allow entry only to a limited number of farmers, who may be issued SMS alerts informing them about the date and time to bring their crop. Each farmer can also be given a maximum quantity — say, one tractor-trolley load of 30-40 quintals — that may be brought in a single day.** The permission for the next trolley load will be only after other farmers have got their turn to sell. All this will obviously delay the process of marketing, raising the prospect of panic sales. This could be avoided if the government were to give a clear-cut assurance — at least in respect of crop where there is minimum support price-based procurement — that it will continue buying till the last grain is offered. **Besides, the marketing of produce needn't be limited to the APMC (agricultural produce market committee) mandi yard. Any flour or dal mill, and even primary school premises can be designated as an APMC marketing area.** The objective should be to ensure that the farmer's produce gets marketed without resulting in overcrowding.

Beyond the Mandi

Once marketing is done, the crop has to move beyond the mandi. This is probably the right time to dismantle all inter-state and intra-state movement restrictions in farm produce. Free movement is necessary in the context of both a bumper crop and the ongoing lockdown. The risk of shortages today is really not in the metros or state capitals. The food and civil supplies departments in states will ultimately ensure that the terminal markets in these centres — whether Azadpur in Delhi, Vashi in Mumbai, or Koyambedu in Chennai — receive their required daily flow of produce. The problem will be in the remote towns and the rural hinterlands that are serviced through upcountry APMCs. The grocers there are at the greatest risk of running out of stocks if the lockdown continues without inter-state movement restrictions in agricultural commodities being removed. As Bihar's Deputy Chief Minister Sushil Kumar Modi has pointed out, "We get rice from West Bengal, pulses from Katni and Satna in Madhya Pradesh, and mustard oil from Rajasthan". The difficulty for trucks to run long hauls during the lockdown arises not just from being stopped at every check post,



or being held up at state borders. It arises also from the fact that **roadside restaurants or dhabas that cater to the drivers are no longer operating**. But this again can be partly managed by using the spare wagon capacity that exists with the Railways today. **With passenger trains not running, and no demand for moving goods either, more rakes can be deployed for long haul transport of agri produce. These goods trains can be sent faster now to reach remote areas, so that the wholesale traders there can seamlessly supply to local grocers.** All these steps will have to be taken fast in a situation where agriculture and making food available to homebound citizens would be the only worthwhile economic activity till the battle against COVID-19 is won.

Big Tech Could Emerge Stronger from Virus Crisis

→ While the rest of the economy is tanking from the crippling effects of the coronavirus, business at the biggest technology companies is holding steady — even thriving. Amazon said it was hiring 100,000 warehouse workers to meet surging demand. Mark Zuckerberg, Facebook's chief executive, said traffic for video calling and messaging had exploded. Microsoft said the numbers using its software for online collaboration had climbed nearly 40% in a week. With people told to work from home and stay away from others, the pandemic has deepened reliance on services from the technology industry's biggest companies while accelerating trends that were already benefiting them. Amazon has muscled in on brick-and-mortar retailers for years, but shoppers now reluctant to go to the store are turning to the e-commerce giant for a wider variety of goods, like groceries and over-the-counter drugs. Streaming services like Netflix have dampened box office sales for movies in recent years. Now, as movie theatres close under government orders, Netflix and YouTube are gaining a new audience. Companies were already dumping their own data centres to rent computing from Amazon, Microsoft and Google. That shift is likely to speed up as millions of employees are forced to work from home, putting a strain on corporate technology infrastructures. Even Apple, which once appeared to be among the U.S. companies most at risk from the coronavirus because of its dependence on Chinese factories and consumers, appears to be on good footing. Many of Apple's factories are nearly back to normal, people are spending more time and money on its digital services, and Wednesday it even released new gadgets. "The largest tech companies could emerge on the other side of this much stronger," said Daniel Ives, managing director of equity research at Wedbush Securities. That's not to say to say major technology companies shouldn't be worried. Advertising, the lifeblood of Google and Facebook, tends to suffer during economic downturns. The stocks of Apple, Microsoft, Amazon, Facebook and Google's parent company, Alphabet, have collectively lost more than \$1 trillion in market value from a month ago, when U.S. stocks traded at record highs. And Microsoft and Apple have cut their short-term financial forecasts because of slowing consumer spending. Beyond the biggest companies, it is more of a struggle. Communication tools like videoconferencing service Zoom are now essential, but ride-hailing firms like Uber and Lyft and property-rental sites like Airbnb are seeing customers vanish. The \$3.9 trillion global technology industry will suffer this year, though just how much remains unclear. In December, research firm IDC forecast 5% worldwide growth for sales of hardware, software and services in 2020. After it became apparent a month ago that the coronavirus would disrupt supplies and cut sales in China, IDC said annual revenue might inch ahead at only 1%. That 1% growth now looks decidedly optimistic, said Frank Gens, chief analyst at IDC. But **when the economy does eventually improve, Big Tech could benefit from changes in consumer habits.** And despite more than 18 months of criticism from lawmakers, regulators



and competitors before the pandemic hit the United States, the biggest companies are likely to finish the year stronger than ever. While Amazon has changed shopping habits for items like books, getting customers to trust it with groceries has been challenging. Now, as more people are forced to stay home, one of the last strongholds of physical retailing may be coming under pressure. Stay-at-home orders are unsurprisingly increasing traffic to video streaming sites, apps and social media platforms. Downloads of Netflix's app — a proxy for traffic from the streaming site — jumped 66% in Italy, according to data from Sensor Tower, an app data company. In Spain, they rose 35%. In the United States, where Netflix was already popular, there was a 9% bump.

Test, Test, Test for The Virus (Poongothai Aladi Aruna - Tamil Nadu MLA)

→ The novel coronavirus differs from other pandemics because of its exponential speed of transmission. The coronavirus is a novel virus because the genetic RNA has undergone mutation recently to infect humans from an animal source, thus converting a zoonotic disease to an anthroponotic one. Coronavirus RNA is new to the human immunological system. Therefore, there are a lot of unanswered questions with regard to immunity, recurrence, carrier state, treatment and vaccines. The incubation period is 2-14 days. However, research has revealed that the virus can remain in circulation for much longer in affected individuals. The economic status of a country influences implementation of its policies. As India is a lower-middle-income country with a healthcare expenditure that is consistently below 1.5% of the GDP, it needs to be prudent and pragmatic in its approach to withstand it in the event of community spread. Therefore, the government must focus on continued surveillance, prompt diagnosis and adopt robust treatment modalities to reduce morbidity and mortality.

Increase in Testing

An increase in testing will identify the actual number of cases that would require quarantine and prompt treatment. The Indian Council of Medical Research has to increase random sampling and screening of the high-risk population. **Nationwide, the government has identified 75 government hospitals for testing and has allowed private labs with NABL accreditation to conduct real-time PCR assay of the RNA virus. The National Task Force has recommended that the maximum cost for testing sample should not exceed ₹4,500. The country's per capita annual income for 2019-20 is ₹1,35,048 and the average middle-class annual income is ₹10-15 lakh. Out-of-pocket expenses in healthcare is what pushes a lot of low-income Indians below the poverty line.** COVID-19 is a national emergency. Therefore, the government should include the test under the ambit of all private and government health insurance schemes. The primary goal of the government is to ensure availability and accessibility to diagnostic tests free of cost. Setting up diagnostic centres in every district general hospital should be the top-most priority. Travel bans and quarantines are imperative measures, but testing alone can reveal the extent of the disease in the community.

Fighting Misinformation

Misinformation, especially on the use of facial masks, alternative medicine, and availability of a cure, should be avoided. With limited resources, India requires protection gear such as three-layered facial masks for its healthcare workers and for those in-service industries. There is no vaccine to fight the virus yet. Randomised controlled trials for antiviral treatment



are difficult to execute during pandemics. Researchers need to make tough choices during clinical trials, while ensuring the safety of the patients. Medication was elusive in the past for H1N1, HIV and many other viral illnesses but the human mind proved invincible. Anti-COVID-19 drugs may be available sooner than later.

Tracking Food Supply Chain

- Prime Minister Narendra Modi reiterated that the Centre and state governments will take all steps to ensure the supply of “essential items” during the lockdown to combat the novel coronavirus, which has now been made nationwide and extended for a further 21-day period. The Indian Express takes stock of how prepared India is to meet the supply requirements of the most essential of items: Food.

What Is the Domestic Availability Situation in Foodstuffs? To What Extent Would the Restrictions on Account Of COVID-19 Impact It?

There's no real issue as far as production or supply goes for most agri-commodities, starting with food grains. As on March 1, stocks of wheat and rice with the Food Corporation of India (FCI) stood at around 77.6 million tonnes (Mt). This was over three-and-a-half times the minimum operational buffer-cum-strategic stock of 21.04 Mt required to be maintained for April 1. Moreover, the new wheat crop, which is a bumper one, will arrive in the mandis from the coming month. The same applies to pulses, where the National Agricultural Cooperative Marketing Federation of India or NAFED was holding 2.25 Mt of stocks as on March 19. This, even as fresh market arrivals of rabi (winter-spring) pulses such as chana (chickpea), masur (red lentils) and matar (field pea) have started. **COVID-19's impact will not be on production, given that most rabi crops are close to ripening, if not already harvested. The impact will be only on marketing the produce at the mandis and reaching it to the final consumer.** Simply put, it isn't a “supply”, but a “supply chain” problem arising from the various movement restrictions imposed under the ongoing lockdown. But for the rice, wheat and pulses with FCI or NAFED, even that shouldn't be a problem, as the grain has to merely be moved from godowns and supplied to ration shops. This can, in fact, be an opportunity for the Centre to significantly offload its surplus food grain stocks – including to regular grocery shops at open market rates.

What About Stuff Like Milk, Sugar and Edible Oils?

These, again, are produce not brought to be sold in mandis. Dairies procure milk directly from farmers or through bulk vendors. The sugar that mills produce similarly comes from cane sourced straight from growers. Two-thirds of the edible oil consumed by India is imported. There, too, the problem of the crop having to first come to an APMC (agricultural produce market committee) mandi does not arise. In the current lockdown situation, there are actually mitigating factors on the supply requirement front, particularly for the three food items. The most important of them is the **demand destruction due to shutting down of HORECA (hotels, restaurants and catering) businesses. With hardly any business-to-business (B2B) sales happening, the demand for milk products, sugar and edible oil is now only in the business-to-consumer segment.**



This Has Had Two Effects.

On the one hand, direct consumer sales of milk, curd, sugar and branded oils have gone up in the past few days, with households buying more in anticipation of shortages. R.S. Sodhi, managing director of the Gujarat Cooperative Milk Marketing Federation, claims that the daily sales of 'Amul' milk are currently about 37 lakh litres in Delhi-NCR and 22 lakh litres in Maharashtra, as against their normal respective levels of 31-32 lakh litres and 18-19 lakh litres. But on the other hand, sales of skimmed milk power (SMP) to ice-cream companies and cheese to pizza makers have crashed, as consumers aren't eating out and focusing on basic foods. This has led to SMP prices crashing to ₹250 per kg, from ₹320-330 per kg till roughly 15 days ago, with some Maharashtra-based dairies mainly into B2B sales slashing their procurement price for cow milk from ₹32-plus to ₹20 per litre. In sugar also, mills are seeing less buying from the sweetmeat, soft drinks and HORECA segments. Nor are oil marketing companies lifting ethanol, a by-product of sugar manufacture used for 10% blending with petrol. The reason: People sitting at home and not taking out their vehicles. The above demand destruction on account of B2B is, nevertheless, ensuring that existing supplies are enough to meet the requirements of household consumers or B2C.

So, Which Are the Food Products Whose Supplies Are Being Affected?

Basically, fruits and vegetables (F&V), which are produce sold through APMC mandis. Fruit traders and commission agents at the Vashi market of Navi Mumbai have announced suspension of their operations from Wednesday, fearing the spread of coronavirus. Such closures are, however, more likely in terminal markets close to cities than the primary APMCs, where the bulk of farmers bring their produce. Right now, the fear of the pandemic is less in rural areas, though Jitender Singh Hooda, a sugarcane farmer from Kheri Bairagi village of Uttar Pradesh's Shamli district, anticipates a 25-30% harvesting labour shortage in the coming days. According to him, many migrant labourers have fled to their villages in Bihar, which will hit cane harvesting when crushing operations in UP are at a peak.

What Are the Steps the Government Must Take in The Coming Days?

In his first address to the nation on dealing with COVID-19, the Prime Minister mentioned that all necessary steps would be taken to ensure "no shortage of essential items like milk". That specific reference has, perhaps, helped in the largely unhindered supplies of milk from the rural hinterland to urban centres across India. Unfortunately, the same approach has not been visible in other food items. Indiscriminately imposed inter-state movement restrictions have resulted in tomato-laden trucks from Madanapalle in Andhra Pradesh not crossing over to Bengaluru or brinjal and beans from Chikkaballapur in Karnataka not reaching Hyderabad's consumers. Alphonso mangoes and grapes not being allowed to move freely will hurt growers in Ratnagiri and Sangli just when their crop is being harvesting. There are similar reports about F&V collection and distribution centres of online grocers being forcibly shut down; sugar mills in UP running out of lime, sulphur and HDPE bags procured from Rajasthan and Gujarat; and labourers engaged in grading and packing of produce not being permitted to go their workplaces. All these impediments need to go at the earliest – like in milk from day one of the lockdown.



Life & Science

Fish Fossil Show How Fins Evolved into Human Hands

- Researchers have revealed new insights into how the human hand evolved from fish fins based on their analysis of an ancient fossil found in Miguasha, Canada. Palaeontologists, including those from Flinders University in Australia, said the fish specimen has yielded the missing evolutionary link in the transition from fish to four legged animals. They said this happened during the Late Devonian period, millions of years ago, as fish began to foray in habitats such as shallow water and land. The study, published in the journal Nature, noted that the 1.57 m long fossil shows the complete arm — pectoral fin — skeleton for the first time in any elpistostegalian fish. Using high energy X-Ray CT-scans, the scientists assessed the skeleton of the pectoral fin, revealing the presence of a humerus (arm), radius and ulna (forearm), rows of carpus (wrist) and phalanges organized in digits (fingers). “This is the first time that we have unequivocally discovered fingers locked in a fin with fin-rays in any known fish,” said John Long, study co-author from Flinders University professor. “The articulating digits in the fin are like the finger bones found in the hands of most animals,” Mr. Long said. The finding, according to the researchers, pushes back the origin of fingers in vertebrates to the fish level. They said it also reveals that the patterning for the vertebrate hand was first developed deep in evolution, just before fishes left the water. **The evolution of fishes into four-legged vertebrates was one of the most significant events in the history of life, the study noted.** With this adaptation, the scientists said, vertebrates, or back-boned animals, were then able to leave the water and conquer land. To complete this transition, they said, one of the most significant changes was the evolution of hands and feet. “The origin of digits relates to developing the capability for the fish to support its weight in shallow water or for short trips out on land. The increased number of small bones in the fin allows more planes of flexibility to spread out its weight through the fin,” said study co-author Richard Cloutier from the Universite du Quebec in Canada.

Wild Berry Gets A New Cousin in Assam, But The ‘Great Hedge of India’ Faces Threat

- A multi-utility wild berry, whose thorny plant the British had used to build a barrier through India in the 1870s, has a hitherto unknown wilder cousin in Assam, a new study has revealed. But unlike the abundant *Carissa carandas*, better known as karonda in Hindi, kalakkai in Tamil, koromcha in Bengali and karja tenga in Assamese, the *Carissa kopilii* is threatened by the very river it is named after — Kopili in central Assam. Reasons: **a hydroelectric project on the river and water turned acidic because of coal mining in Meghalaya upstream.** It took Jatindra Sarma, Northern Assam Circle’s Conservator of Forests, four years to study the thorny plant whose berries are greenish and sour when raw and blackish and sweet when ripe. The “sun-loving” plant was distributed sparsely, rooted in rocky crevices along the Kopili riverbed at altitudes ranging from 85-600 metres above sea level. “The fruits were difficult to find amid a profusion of thorns. The pricks were worth it, as we established it as a new species, a wilder variety of the more familiar karja tenga,” Mr. Sarma, one of the authors of the study, told The Hindu. Karja tenga has been used as a traditional herbal medicine for a number of ailments such as diarrhoea, anaemia, constipation, indigestion, skin infections and urinary disorders. The leaves have been used as fodder for silkworms while a paste of



its pounded roots serves as a fly repellent. The *Carissa carandas* was also among several thorny plants the British had grown 140 years ago for a 1,100-mile barrier apparently to enforce taxes and stop the smuggling of salt.

What Is Hantavirus?

- China's English daily Global Times has reported the death of a person from Yunnan Province who tested positive for the hantavirus. **The hantavirus is not novel and its first case dates back to 1993**, according to the US Centre for Disease Control (CDC). **It is contracted by humans from infected rodents.** Cases of the hantavirus in humans occur mostly in rural areas where forests, fields and farms offer suitable habitat for infected rodents, CDC explains.

What Is Hantavirus?

The hantaviruses are a family of viruses spread mainly by rodents. A person can get infected if he/she comes in contact with a rodent that carries the virus. In the US and Canada, for instance, the Sin Nombre hantavirus carried by the deer mouse is responsible for the majority cases of the hantavirus infection. Like this, there are various other kinds of hantaviruses that find hosts in rodents, like the white-footed mouse and the cotton rat among others, that may lead to infections in humans if transmitted. In the Americas, the family of viruses is known as 'New World hantaviruses. It is the cause of hantavirus pulmonary disease (HPS), a severe respiratory disease. **The CDC maintains that HPS can be fatal and has a mortality rate of 38 per cent. It remains unclear whether human-to-human transmission of the virus is possible. There have been no reports of human-to-human transmission of hantavirus in the US. Chile and Argentina, however, have had rare cases, where close contacts of the patient, who was ill with a type of hantavirus called the Andes virus, were also infected.**

What Are the Symptoms?

A person infected with the virus may show symptoms within the first to eighth week after they have been exposed to fresh urine, faeces or the saliva of infected rodents. Symptoms may include fever, fatigue, muscle aches, headaches, chills and abdominal problems. Four to ten days after being infected, late symptoms of HPS may start to appear, which include coughing and shortness of breath.

COVID-19 And the Great Chinese Puzzle (T. Jacob John - Retired Professor of Virology and Prathap Tharyan - Adjunct Professor, Christian Medical College, Vellore)

- The pandemic is spreading like wildfire. What started surreptitiously in late 2019 in Wuhan, China, has engulfed 172 countries and regions by March 25, 2020. Globally over 4,35,000 have been reported as infected, over 19,500 have died, and around 1,11,000 have recovered. To be clear, the virus is SARS-CoV-2; the clinical illness is COVID-19. When not specified, reported numbers may pertain to either infection or disease or a mix, misleading decision-makers to conflate the two. The numbers of test results put out from China have helped the world get a sense of the seriousness of COVID-19 and SARS-CoV-2 infection. In China, about 81,600 had confirmed disease; there were about 3,100 deaths. The crude estimate of case fatality was 3.7%. All diseased are infected, the reverse is not true. Not all infected are sick or tested.



Hence, information from China is unhelpful to confidently project the probabilities/proportions that will get infected; get COVID-19 symptoms; develop pneumonia; die. Virus spread in China has reportedly stopped. China is now gearing up to prevent virus transmission from citizens returning from other countries. If only 90,000 were infected among a 1.4 billion population, the proportion was only 0.0065%. Here is the puzzle: for any epidemic, its downturn consequent to high herd immunity requires about 70% infected and immune. Every second person in the community will then be a dead-end for virus spread. What proportion of the Chinese was actually infected? The proportion of 0.0065% is unrealistically low for the visible shift in epidemiology. If 70% were infected, there were 980 million infections. This extraordinary range is the puzzle.

The Beginning

The story began unfolding in December 2019 with cases of pneumonia without an identifiable cause. One physician saw this and alerted his colleagues. He was reprimanded by the authorities for spreading fear. Soon they realised that the alarm was true. Among the first 41 cases, most were workers in, or had direct contact with, the Hunan Seafood Wholesale Market. On December 31, health officials informed the World Health Organization (WHO) of the outbreak of a suspected zoonosis (vertebrate-to-human transmitted infectious disease). That market and all other similar markets nationally were closed the next day. On January 7, WHO was notified that the pathogen was a novel coronavirus. Soon Chinese scientists mapped its full genome sequence and gene sequence for primers needed for diagnostic tests and made these data publicly available. **The International Committee on Taxonomy of Viruses re-named it SARS-CoV-2 because of its close genetic similarity to the SARS coronavirus.** By mid-January, several countries reported COVID-19. It was no longer zoonosis but had become anthroponosis (person-to-person transmitted infectious disease). But when did this epidemic actually start in Wuhan? How long did it remain unrecognised? The number of cases at a given time could reflect the duration of the outbreak. The numbers are not available, which is a problem. Only on January 11 did China record the first death from COVID-19. Considering that the test had just become available, any earlier death would not have been attributed to SARS-CoV-2 infection. More than a week later China counted 26 deaths among 830 diagnosed with COVID-19. By end-January, it alerted the world that COVID-19 was widely prevalent in all 31 provinces. By February 2, the infection had already spread to 24 countries outside China-Hong Kong-Macau. Given time this contagious anthroponosis was already a pandemic by definition. But WHO declared a pandemic only on March 11. Did WHO get misled by the 0.0065% risk? Countries like India that depend heavily on WHO guidance for public health action had apparently mistaken the non-declaration as a signal that it was short-lived/ non-serious. On March 12, fear gripped India as it had not done homework to face the pandemic and invoked the Epidemic Diseases Act giving the state extraordinary powers.

Growth Pattern

Epidemiologists have estimated the transmissibility of SARS-CoV-2. The term basic reproduction number (R_0) denotes the number of new infections that an infected person could seed, during the infective period, if all contacts exposed were non-immune and susceptible. **For this infection, R_0 has been estimated to be between 1.5 and 3.5. If we accept conservatively $R_0=2$, one infected person will, on an average, infect two other people; next generation will be 4, then 8, 16, 32 and so on. When a large proportion is infected, hence**



immune, the scene changes. An infected person will encounter a majority of immune and a minority of non-immune among contacts, and virus transmission will slow down. Experts outside China are projecting infection to reach 30-70% of the world's population. Data from China indicate that 80% of the infected are likely to be not very ill. Around 14% would develop severe disease, and around 6% would require critical care. Consider these figures against a total of 90,000 reported infected in all of China and extrapolate to a probable 980 million infected. If countries use these estimates to plan resource demand, no country can claim to be prepared to meet these requirements. This is why the Chinese puzzle needs exploration. If only <1 % will be infected when the numbers begin to fall, countries like India have reason for optimism. Or does this puzzle indicate that although 70% of Chinese were actually infected with SARS-COV-2 by the third week of March, only about 90,000 of the 980 million infected (0.0092%) developed COVID-19? This could also provide reason for optimism, but is highly speculative without necessary information. Why are the data missing? For infection rate to decline, the proportion of immune, hence non-susceptible people among the whole population should be fairly high. To determine how large the COVID-19 epidemic was in China is information that we need urgently. The only way to get it is by careful antibody prevalence surveys. China claimed success in interrupting transmission because Hubei province was under lockdown fairly early in the course of the epidemic, and China also imposed travel restrictions on other provinces. Is its claim credible? What if the epidemic had actually started, say, in August? Since the lockdown occurred later than it should have, travellers attending the Chinese Lunar New Year celebrations transmitted the infection wherever they went. Most countries have focussed on identifying infections brought by travellers from such high-risk countries but the majority with COVID-19 infections now are showing increasing rates of local transmission. The signal from the Chinese puzzle could be that widespread infection is not inevitable and with stringent public health measures infection rate could be brought down to zero. That scenario does not make epidemiological sense. We have to conclude that China does not know, or is not revealing, the magnitude of infection in all of China. All countries that expected very small numbers to be at risk of infection based on the China puzzle must anticipate about 70% to be infected in the first wave of the epidemic. If summer heat dampens transmission, we may not reach 70% until autumn or winter. After that, the infection may stay on as endemic and seasonal. We have to catch up for lost time because of our optimistic reading of data that were not verified or even checked for plausibility.

Tokyo Olympics Moved To 2021 Over Virus Scare

- The 2020 Tokyo Olympics, originally scheduled to be held from July 24 to August 9, have been postponed to 2021, the first such delay in the Games' 124-year modern history, as the COVID-19 crisis wrecked the last international sporting showpiece meant for this year. Though a huge blow to Japan, which invested \$12 billion in the run-up, the decision was a relief to thousands of athletes fretting over how to train as the world headed into lockdown over the disease. Pressure had been building on the International Olympic Committee (IOC) and its president Thomas Bach, with some athletes and sporting bodies critical of the time taken to make a seemingly inevitable decision. After a call with Mr. Bach, Japan's Prime Minister Shinzo Abe said the Olympics would be rescheduled for the summer of 2021 at the latest.



Are Smokers at Higher Risk From COVID-19?

- Are smokers at higher risk from novel coronavirus? The answer is yes, according to health experts. The World Health Organization (WHO) says in its FAQs that smoking is one thing people should not do during the coronavirus outbreak.

Smokers More Vulnerable

Since the lungs and respiratory tract in smokers are already compromised to various extents, they are more prone to be severely infected by SARS CoV-2, which primarily attacks the respiratory system in human beings, and in severe cases leads to symptoms such as difficulty in breathing. "They (occasional smokers) cannot get away saying that I smoke just one or two cigarettes a day or after a gap of certain days. The fact remains that you are exposing your respiratory system to something that is damaging it. Chain smokers are anyway psychologically dependent on smoking and consume one cigarette after the other. But the COVID-19 risk stands equally for both chain and occasional smokers." Cigarette smokers are at higher risk than tobacco smokers. "Tobacco causes more damage to oral health whereas cigarettes damage your lungs,".

Quitting Helps

It's well-established that stopping smoking improves lung function within a few months. The best thing you can do for your health is to stop smoking. The WHO acknowledges that it is normal to feel sad, stressed, confused, scared or angry during a crisis, but advises not to use smoking, alcohol or other drugs to deal with one's emotions. If you feel overwhelmed, talk to a health worker or counsellor, it says. Until the time the pandemic is under control, experts advise that even one cigarette a day shouldn't be an option. "Smokers should stop smoking immediately, at least till the pandemic is over and the threat of catching the infection is looming large.

Loss of Smell in Some Cases

- From a mother unable to smell her baby's nappy to a lawmaker who suddenly could not taste food, some COVID-19 patients have described a loss of olfactory senses — and experts say this might be a new way to detect the virus. Ear, nose and throat (ENT) specialists in Britain, the U.S. and France have noted a growing number of patients in recent weeks with anosmia — the abrupt loss of smell — and have said this could be a sign of COVID-19 in people who otherwise appear well. The World Health Organisation lists the most common signs of COVID-19 as fever, tiredness and dry cough. In Britain, ENT doctors have urged health authorities to advise people with a sudden loss of smell or taste to self-isolate even if they have no other symptoms. Around 40% of cases of sudden loss of smell in adults are caused by post-viral anosmia, she said.

Can A Person Have Coronavirus Even If Their Respiratory Samples Test Negative?

- A death review committee set up by Brihanmumbai Municipal Corporation (BMC) will assess the cause of death of the 68-year-old Philippines national who passed away in a private hospital in Mumbai. The man was initially admitted to the BMC-run Kasturba Hospital. Days before his death, he had tested negative for SARS-CoV-2, the virus from the coronavirus



family that causes COVID-19. The BMC committee will assess whether he died of COVID-19, or renal failure with acute respiratory distress syndrome (ARDS).

What Is the History of This Case?

The man was part of a group of nine Philippines nationals who arrived in Mumbai on March 3. He then took a train to New Delhi, and returned to Mumbai on March 10. On March 12 afternoon, he developed symptoms of flu, and was taken to a local doctor. On March 13, he tested positive for COVID-19, and was admitted to Kasturba Hospital. With co-morbidities like diabetes and asthma, his condition remained critical, and he was put on ventilator support. In between, he developed kidney complications, and was taken to the BMC's B Y L Nair Hospital for dialysis. He was tested in accordance with protocol and, a few days ago, his nasopharyngeal swab (swab taken from the back of the nose and throat) tested negative for the novel coronavirus. The man was then discharged, and was shifted to a private super-specialty hospital for treatment of his kidneys. This is where he died. Dr Daksha Shah, BMC's deputy executive health officer, said that since the man had tested negative, his death is so far not being considered a COVID-19 death.

Why Must the Case Be Studied Further?

The key question is: Is a nasal or throat swab sufficient to rule out the virus? That is, can a person have the virus in their body even if their respiratory samples test negative? A new study in The Lancet Gastroenterology and Hepatology shows that the novel coronavirus can remain in the faeces of patients for five weeks after their respiratory samples test negative. The implication is this: Even if a confirmed case returns negative for the novel coronavirus in a nasal swab test, the virus may still be in body.

What Does This Finding Mean in The Context of the 68-Year-Old Filipino?

That there is a possibility that he may have still had the virus in his body fluids, even though his respiratory samples tested negative. Given his age, asthma, diabetes, and later renal complications, the virus added to the problem and worsened his condition. The Lancet study found that the virus was "actively replicating in the patients' gastrointestinal tract" even after clearance from their respiratory tract. It also said that **there is a possibility of viral shedding for nearly five weeks in the faeces of infected person. The virus could remain in the environment for days, and could be transmitted by the faecal-oral transmission mode, although this is yet to be detected in a COVID-19 case.** Similar transmission patterns were observed during the Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) outbreaks, both of which were caused by pathogens of the coronavirus family. Dr Om Srivastava, an infectious diseases expert who is a member of the death review committee, said: "Further tests are needed to check viral load in saliva, tears, semen as well. Zika virus remained in semen for nine months." Blood, urine, and stool samples of confirmed COVID-19 patients at Kasturba Hospital are being sent every day to the National Institute of Virology in Pune for analysis of viral shedding.

What Will the BMC's Panel Do Now?

A member of the committee said that stool, urine, and blood samples of the Philippines national will be analysed to test for the presence of the virus, and whether viral shedding continued after he was discharged from Kasturba Hospital. The committee comprises infectious disease experts, intensive medicine doctors, and civic health officials. BMC has



earlier taken a similar approach in deaths caused by dengue and H1N1 infection as well. In deaths of patients with several co-morbidities, a review of the medical condition is done to understand whether the infection was the direct or indirect cause of death. The first COVID-19 death in Maharashtra, a 64-year-old who had travelled to Dubai, too had tested negative for coronavirus a day before his death. He was still considered a COVID-19 death because he passed away before a second confirmatory test for the virus could be carried out. As per government guidelines, two tests must be conducted within 24 hours to rule out the presence of the virus in an infected person. In the case of the 68-year-old Filipino, both these tests were carried out before the presence of the virus was ruled out.

Hydroxychloroquine Is Recommended for Very Specific Cases — Here's Why It's No Silver Bullet

- ➔ To infect a lung cell, the virus must insert its genes, co-opting the cell's own genetic machinery. The cell begins to produce viral proteins, which are used to produce millions of new viruses. Each of those viral proteins must be able to latch onto the necessary human proteins for the process to work. In the new study, **the scientists investigated 26 of the virus's 29 genes**, which direct production of the viral proteins. Researchers found 332 human proteins targeted by the virus. Some viral proteins seemed to target just one human protein; other viral proteins are capable of targeting a dozen human cellular proteins.
- ➔ **Hydroxychloroquine, a drug that has existed for several decades, could see a resurgence of demand, after the Indian Council of Medical Research (ICMR) on Monday recommended its use as a post-exposure prophylactic (preventive medicine) against the novel coronavirus disease. Last week, US President Donald Trump had said a hydroxychloroquine-azithromycin combination could be a "game changer" in the fight against COVID-19.**

What Is Known About Hydroxychloroquine's Efficacy In COVID-19 Patients?

Hydroxychloroquine (not to be confused with anti-malaria drug chloroquine) is an oral drug used in the treatment of autoimmune diseases such as rheumatoid arthritis. On March 19, an article in The Lancet Global Health explored its therapeutic and prophylactic properties. "Pharmacological modelling based on observed drug concentrations and in vitro drug testing suggest that prophylaxis with hydroxychloroquine at approved doses could prevent SARS-CoV-2 infection and ameliorate viral shedding." It also mentioned clinical trials currently under way in China on whether the drug can be used for treatment. chloroquine, kills the single celled parasite that causes malaria. Scientists have long known that it can also attach to a human cellular protein called the sigma-1 receptor. And that receptor is also the target of the virus. The CDC says both hydroxychloroquine and chloroquine have in vitro activity against SARS-CoV, SARS-CoV-2, and other coronaviruses, with hydroxychloroquine having higher potency against SARS-CoV-2.

What Has India Recommended?

The National Taskforce for COVID-19 has recommended hydroxychloroquine for prophylaxis in case of asymptomatic healthcare workers involved in the care of suspected or confirmed cases of COVID-19 and asymptomatic household contacts of laboratory confirmed cases. Doctors in the private sector are, however, cautious. "ICMR guidelines are very specific for specific people. We have to limit it to them. It cannot become something that everybody uses," said Dr S Chatterjee, consultant at Indraprastha Apollo Hospitals. "As infection spreads



there would be many more cases maybe for the next couple of months. You cannot give chloroquine and hydroxychloroquine to anybody and everybody... We don't know whether it is effective, we are only extrapolating available data. Also, if it becomes something everybody takes, there would be stock issues too... Let more evidence emerge on its efficacy before we take a call," Dr Chatterjee said.

So, Should You Stock the Drug?

The short answer is, no. If you suspect you have contracted the infection, you should visit a doctor. You must not attempt to self-medicate. Even the government's guidelines on hydroxychloroquine say the drug has to be given only on the prescription of a registered medical practitioner.

What Combination Did Trump Speak Of?

The combination is hydroxychloroquine with azithromycin, a commonly used antibiotic. On Saturday, following a press conference in which he endorsed the combination, Trump tweeted: "HYDROXYCHLOROQUINE & AZITHROMYCIN, taken together, have a real chance to be one of the biggest game changers in the history of medicine. The FDA has moved mountains - Thank You!" While the roles of chloroquine and hydroxychloroquine in management of COVID-19 are still open questions for the scientific community, **the azithromycin-hydroxychloroquine combination is part of an upcoming multicounty trial anchored by the WHO in the fight against COVID-19.** The azithromycin-hydroxychloroquine combination has sometimes been administered to COVID-19 patients in the US, the CDC says. Simply put, the combination did reduce the viral load but the size of the study is too small to draw a definitive conclusion.

Air Quality Is Picking Up in Quarantined Countries

→ Air quality is improving in countries under COVID-19 quarantines, experts say, but it is far too early to speak of long-term change. Images by the U.S. space agency NASA are clear, in February the concentration of nitrogen dioxide (NO₂) fell dramatically in Wuhan, China, the epicentre of the COVID-19 pandemic, passing from an indicator that was red/orange to blue. NO₂ is mainly produced by vehicles, industrial sites and thermal power stations. As China moves past the peak of its crisis, however, recent images by the European Space Agency (ESA) show a resurgence in NO₂ emissions. A striking reduction has also been observed by the ESA in northern Italy, which has been locked down to fight a spread of the novel coronavirus. The European Environment Agency (EEA) reports a similar change in Barcelona and Madrid, where Spanish authorities issued confinement orders in mid-March.

'Dramatic Drop-Off'

"NO₂ is a short-lived pollutant, with a lifetime in the atmosphere of about one day," said Vincent-Henri Peuch, from the EU earth surveillance programme Copernicus. "As a result, this pollutant stays near the emissions sources and can be used as a proxy of the intensity of activity in different sectors," he told AFP. Fei Liu, an air quality researcher at NASA's Goddard Space Flight Center, noted the change in China, saying: "This is the first time I have seen such a dramatic drop-off over such a wide area for a specific event." **Even during the economic crisis more than a decade ago, the decrease in NO₂ levels "was more continuous in time,"** according to EEA air quality specialist Alberto Gonzalez Ortiz.



IIT-Delhi Team Develops Cheap COVID-19 Test

→ Researchers at the Indian Institute of Technology here have developed a method to detect COVID-19 which can significantly reduce the test cost, making it affordable for large sections. The National Institute of Virology, Pune, is in the process of validating this test on clinical samples. The “probe-free detection assay” has been optimised and tested for sensitivity at the research laboratories of IIT. According to the team, considering the scale of the ongoing pandemic, development of indigenous kits is the need of the hour. **The central government recommended that the maximum charge for a COVID-19 test by private laboratories should not exceed ₹4,500. All private laboratories which have NABL (National Accreditation Board for Testing and Calibration Laboratories) accreditation for real-time PCR (polymerase chain reaction) assay for RNA virus will be allowed to conduct COVID-19 tests, according to the guidelines issued by the Indian Council of Medical Research (ICMR) for COVID-19 testing in private laboratories, which were notified by the Health Ministry.** However, the team at IIT claimed that their test can be performed at a much cheaper cost. “Using comparative sequence analysis, we have identified unique regions in COVID-19. These unique regions are not present in other human coronaviruses providing an opportunity to specifically detect COVID-19,” said Professor Vivekanandan Perumal, lead member of the team. “Once the NIV validates the assay, it can be quickly scaled up to meet the increasing need in our country,” he added. According to Professor Manoj Menon, the current testing methods available are “probe-based”, while the one developed by his team is “probe-free”, which reduces the testing cost without compromising on accuracy. “Primer sets targeting unique regions in the spike protein of COVID-19 were designed and tested using real time polymerase chain reaction. The primers designed by the group specifically bind to regions conserved in over 200 fully sequenced COVID-19 genomes. The sensitivity of this in-house assay is comparable to that of commercially available kits,” said Parul Gupta and Prashant Pradhan, members of the team. “This assay can be used as a qualitative (yes or no) assay without the need for extensive instrumentation. In addition, it can also quantitatively assess virus loads. We propose the use of this assay for specific and affordable high throughput screening of COVID 19,” they added.

Can Vitamin C Prevent or Cure Novel Coronavirus Infection?

→ Can vitamin C help you ward off the novel coronavirus infection? This has been one of many theories on social media since the outbreak spread globally, but the answer is no. There is no evidence that vitamin C can prevent an infection. Vitamin C is, however, still good for you, and can help the body’s immune system fight the virus if it does infect someone. But again, there is no evidence that it can cure a patient either. **When the body is fighting an infection, it experiences “oxidative stress”, a process that eventually leads to inflammation in cell tissue. Vitamin C not only helps cells fight oxidative stress but also helps clean up this cellular mess by producing specialised cells to mount an immune response. “So, the role of vitamin C here is a bit like cleaning up the football ground after the game,”** University of Newcastle nutritionist and dietician Prof Clare Collins wrote in The Conversation. Given that vitamin C has never been conclusively established as a cure against the common cold, which is also caused by a coronavirus, experts believe it is unlikely that vitamin C can cure or prevent a novel coronavirus infection. Again, while vitamin C is good for the body’s immune system, too much of it can be harmful. Excessive vitamin C can be damaging to the stomach and



kidneys. There is no evidence that supplements like zinc, green tea and echinacea are beneficial to prevent coronavirus. The flu shot is also being propped up in social media — falsely — as a novel coronavirus cure. A flu shot helps against the flu by boosting the recipient's health, but it is not known to have any impact on the coronavirus.

How Long Can Coronavirus 'Live' In Air, And on Steel?

→ The scientists, affiliated to different laboratories in universities in the United States, found in their experiments that the SARS-CoV-2 virus could survive in air for about three hours, although its ability to infect was severely weakened during this time. *Until now, the virus was believed not to be able to survive in the air.* As such, there was little risk of people getting infected through the air. The fact that it does survive in the air, even for a short time, could force scientists and health officials to reassess the risk to people, especially to health workers who spend a lot of time near an infected person. "Our results indicate that aerosol (air) transmission of SARS-CoV2 is plausible, since the virus can remain viable and infectious in aerosols for hours..." the study says.

Strongest on Plastic and Steel

The new study also finds that plastic and stainless-steel surfaces are the most conducive for the virus to survive. The virus was found to be "viable" for as long as three days on these surfaces. On cardboard surfaces, the virus could survive for up to 24 hours, while on copper, it could barely last for four hours. The longevity on each of these surfaces has implications for the kinds of things that people can be advised to come in contact with, or avoid. For example, during times of extended isolation, or forced homestays, people are likely to interact more with cardboard boxes while getting food and other products shipped to their residence. The fact that the virus does not survive beyond 24 hours on these surfaces might reduce worries on this front.

But There Is A Lot More to Learn

The scientists said the survivability of the SARS-CoV-2 virus on these surfaces was not drastically different from that of the SARS-CoV-1 virus, which had a similar but less deadly outbreak in mainly Asian countries in 2003. Therefore, they conclude that the reason for the much greater spread of SARS-CoV-2, as compared to the 2003 virus, "could arise from other factors (not any difference in their life spans), including high viral loads in the upper respiratory tract and the potential for persons infected with the SARS-CoV2 to shed and transmit the virus while (remaining) asymptomatic (without showing any symptoms of the disease)".

How Often (And How) Should You Clean Your Home?

However, the latest findings may not be conclusive yet. Several similar studies have been done in the last few weeks, and more are ongoing. A study published in The Journal of Hospital Infection in February, for example, had surveyed the results of 22 earlier studies on different kinds of coronaviruses. It had found that coronaviruses had the ability to survive between two and nine days on different dry surfaces such as metal, paper, glass, plastic, and wood. That study was not specific to SARS-CoV-2, the coronavirus behind the current pandemic. That study concluded that since no specific therapy was available for SARS-CoV-2,



“early containment and prevention of further spread” was the most crucial step in controlling its spread.

Stage by Stage in A Pandemic

- Over the past few weeks, the country has been dreading the possibility that the novel coronavirus outbreak will move to the stage of community transmission. What is community transmission, and how does a pandemic progress to this stage?

What Are the Stages of a Pandemic?

In the first stage of a disease epidemic that eventually takes the form of a pandemic sweeping the globe, cases are imported into a country in which the infection did not originate. An infection whose spread is contained within the boundaries of one or a few countries is obviously not a pandemic. **The first case of COVID-19 outside China was reported in Thailand.**

If and when community transmission happens, there might arise the need for a full lockdown because in that situation it is theoretically possible for every person, regardless of where they are from and who they have been in contact with, to spread the disease. Community transmission is usually localised; one state can record it. For example, the UK reported community transmission in Northern Ireland. **There is also a fourth stage in every pandemic. It is when the disease, COVID-19 in this case, becomes endemic in some countries.** The Indian government’s containment plan takes this possibility into account. Among diseases that are currently endemic in India — meaning they occur round the year across the country — are malaria and dengue.

How Does Categorizing an Outbreak in This Manner Help?

The stages of a pandemic are uniform the world over. This is so because in today’s interconnected world, it is important to have a standardised phraseology that conveys the same thing to every person around the world, and helps countries prepare better. The categorisation helps countries take specific actions that are necessary to target just that particular scenario. For example, India imposed travel restrictions to China from very early on as the cases then were all imported from China. Later, as cases started being imported from other European countries, flight and visa restrictions were put in place for those countries. India has now shut itself to individuals coming from all countries — this is because the virus is now confirmed as circulating in at least 177 countries and territories. However, there are also cases of local transmission — that is why large numbers of people are in government quarantine facilities, in home quarantine, or under community surveillance. The official position in India is that no community transmission has been detected, inferred from the testing of over 1,000 random samples taken since February from people who had symptoms like COVID-19, but no travel or contact history. None of them, according to the Indian Council of Medical Research (ICMR), has tested positive for novel coronavirus.

Are These Stage Categories Watertight?

Scientific definitions are usually very precise, but classifications can also draw on informed judgment. For example, **the transition from one pandemic stage to the next is something that can happen in a day, but a lone case would probably not be the basis of such a declaration. That is also why, even though the Health Ministry had released a statement**



some days ago on the evidence of “community transmission” in Agra, scientists say it was not classic community transmission, but local transmission at the community level. There have to be more of these cases of infection from untraced sources for the outbreak to move on to the next stage. However, as the number of cases increases, so also do the chances of transition to the community transmission stage. States would have different approaches to fighting the disease, and that would impact neighbouring states as well.

Worldwide. In Which Stage Is The COVID-19 Pandemic Now?

The pandemic has spread to nearly every country on the planet. In most, though, it is in the stage of either imported cases or local transmission. Among the countries where community transmission seems to be operating are China, Italy, Iran, South Korea and Japan. China adopted a graded approach in dealing with the infection but the epicentre, Hubei, was in a state of complete lockdown at the peak of the infection — something that Italy has now affected in a bid to stop the virus from wreaking more havoc, given the country’s ageing population. South Korea has brought down infections with mass free testing and treatment. For imported cases, vigilance at the borders and airports suffices. The escalation pattern in countries has differed as much as their response. Assuming that reports of the first case having occurred in November are true, China took almost a month to escalate to a stage where the outbreak became a global concern. Community transmission would likely to have started already. Italy, on the other hand, took just a few days to reach that stage. The European Centre for Disease Prevention and Control says: “The speed with which COVID-19 can cause nationally incapacitating epidemics once transmission within the community is established, indicates that in a few weeks or even days, it is likely that similar situations to those seen in China and Italy may be seen in other EU/EEA countries or the UK.”

How Long Before India Enters Community Transmission?

Nobody knows. “In India so far, we have found an explanation for every case, so there is no background community transmission yet. But we do not really know how this will pan out. There are some reports of one strain having less mortality. If indeed a milder strain has come to India, it could change the course of the epidemic. There is another theory that all the various viruses circulating in South Asia and the generally lower levels of hygiene may give us some immunity. This is an evolving phase; we have not done badly so far. But there is more to come.”

The Race to Find A Cure For COVID-19

- According to a World Health Organization (WHO) report, more than 20 vaccine candidates are in advanced stages of development and will be ready for Phase-I safety trials. While these developments are encouraging, several questions will need to be answered for these candidates to move further. Although it is quite evident that humans mount a strong immune response and clear the viral load, the nature of the immune response and how to trigger it safely through vaccination will be key questions to address. Some early, but limited, studies from China have suggested that monkeys can be infected with this virus but can be protected from reinfection. How long the acquired immunity in humans will last is another important question to be asked before experimental vaccines move forward. We will need to know this because if the immunity is transient, then humans will be susceptible to reinfections. Before moving to Phase-II trials in a large number of healthy volunteers, we also have to ensure that the immune response induced by vaccination does not lead to any disease enhancement, as



has been observed in cases of some experimental vaccines against the dengue virus, and in animal studies with an experimental vaccine against the SARS virus. It is absolutely imperative that anti-COVID vaccines are developed as fast as possible and by pushing all reasonable vaccine candidates through animal and human clinical trials. However, it is also clear that it will not be possible to roll-out any efficacious vaccine for at least another year. An all-out effort to develop a vaccine against COVID-19 must continue if we have to stop its spread. With COVID-19 playing havoc across the world, therapeutic interventions, not only for curing severe cases of the disease but also for protecting all front-line healthcare workers, are urgently needed. Since developing new drugs is a complex and lengthy process, scientists and pharmaceutical companies have rushed to investigate and use drugs that have already been approved by regulatory authorities. Using available molecular and structural biology information on the virus, a group of scientists have analysed all interactions of the viral proteins with human proteins that are crucial for the virus to enter human cells and use the host cell machinery to rapidly reproduce itself. Of the nearly 70 short-listed molecules that may interrupt these key interactions, 24 happen to be already approved drugs which can now be tested in laboratory animal models as well as humans. However, the re-purposing of several drugs, alone or in combinations to treat COVID-19 patients, have already been reported. There are many success stories of curing patients of COVID-19 doing the rounds in different parts of the world, but these have managed to create more confusion than hope. Without any appropriate controls, careful dosing and safety concerns, such small experiments can only do more harm than good.

Controlled Randomized Trials

Given the urgency of finding a cure, it is absolutely necessary to find out unequivocally what works well and what does not. For that conducting carefully controlled randomised trials is the only way to go. In a welcome move, the WHO has announced clinical trials called the 'Solidarity Project'. Under this four drugs or drug combinations will be tested in many countries around the world. These candidates include the anti-Ebola drug, Remdesivir, Chloroquine, anti-HIV drugs, and the Ritonavir/Lopinavir combination, with or without Interferon-beta. Many countries have already signed up for these trials and all drug companies, including CIPLA from India, have agreed to supply sufficient quantity of drugs needed. The European counterpart of the trial, Discovery, will conduct these trials in countries including France, Spain, Germany and the U.K. The pharma company Roche has also decided to initiate large, randomised Phase-III trials of its arthritis drug Actemra for its safety and efficacy in adult patients with severe COVID-19 pneumonia.

Vaccine Was Rapidly Synthesized as Novel Coronavirus Sequence Was Available

- Just over three months after the genome sequence of the novel coronavirus (SARS-CoV-2) was shared by Chinese researchers, an messenger-RNA (mRNA) vaccine is being tested at Seattle in a Phase-1 clinical trial on 45 healthy volunteers between the ages of 18 to 55 years over a period of approximately six weeks. The trial began on March 16 at the Kaiser Permanente Washington Health Research Institute (KPWHRI) in Seattle. The study is evaluating different doses of the experimental vaccine for safety and its ability to induce an immune response in participants. The vaccine (mRNA-1273) was developed by National Institute of Allergy and Infectious Diseases (NIAID), U.S., scientists and their collaborators at the biotechnology company Moderna, Inc., based in Cambridge, Massachusetts. The



Coalition for Epidemic Preparedness Innovations (CEPI) supported the manufacturing of the vaccine candidate for the Phase 1 clinical trial.

What Makes the Use of Messenger-RNA (mRNA) for the Vaccine Different from The Conventional Vaccines and How Does It Work?

Most of the vaccines we know are based on a whole organism (bacteria or virus, living or dead) or a part of an organism. Usually these organisms cause disease, but to make vaccines, the organism are manipulated by heat, chemical or other biological approaches to ensure that their pathogenicity has been removed. These vaccines, when given to a person, act like an infection, but without producing disease. The parts of the organism which are recognised by the immune response are called antigens, and when they are recognised, an immune response is made, as either antibodies or activated immune cells that protect from disease when the same infection is seen again. **Unlike a usual vaccine, RNA vaccines work by the introduction of an mRNA sequence into the host's cells. This mRNA codes for a disease-specific antigen. Once inside a cell, the mRNA instructs the cell to produce the antigen, which is recognised by the immune system which makes an antibody or cellular response. Currently, two forms of mRNA vaccines are been widely developed against multiple pathogens: conventional mRNA vaccines and self-amplifying mRNA vaccines, which are derived from positive strand RNA viruses.**

How Has It Become Possible to Develop An mRNA Vaccine in Just About Three Months? Is It Necessary to Have the Virus to Develop the Vaccine?

In part, researchers were able to quickly develop mRNA-1273 because of prior studies of related coronaviruses that cause SARS and MERS. We have incredible genome sequencing capacity now, and got the SARS-CoV-2 sequence in early January 2020. Since all you need for the mRNA vaccine is the sequence of the pathogen, a vaccine could be rapidly synthesised in the laboratory. The mRNA can be made synthetically by in vitro transcription or reading of a plasmid DNA template, with a recombinant RNA polymerase. A cap and tail are attached to from a mature mRNA sequence. No, the virus is not required, but the genome sequence (of the virus) is needed. The messenger RNAs are produced synthetically and this is what makes the technology rapid and reproducible.

Since A Particular Protein (Spike Protein) Found on The Virus Is What Binds to Receptors Found on Human Cells and Then Infect Them. Will the Vaccine Use mRNAs Produced for This Protein?

The first vaccine to enter human trials is Moderna's mRNA-1273. This is a novel lipid nanoparticle-encapsulated mRNA vaccine that codes for the full-length prefusion stabilised spike (S) protein.

How Do Vaccine Developers Know Which mRNAs Of the Spike Protein Are Produced? How Do They Select the Correct Ones to Be Included in The Vaccine?

The gene sequences of the proteins of coronaviruses are known. Even with a novel virus, it is possible to figure out which sequence codes for which protein. Only one mRNA is included and it is selected based on sequence matching.



Are the mRNAs Used in The Vaccine Packed in Some Protective Material or Used Bare?

In the case of Moderna, the mRNA is stabilised so that is protected from enzymes that might break it down.

Has This Vaccine Already Been Tested in Animals for Safety or Is It Tested on Human Volunteers Bypassing Animal Trials? How Ethical Is This?

The US FDA has approved studies to proceed in parallel so human studies are also being done with the same product. **The mRNA platform technology by which the vaccine was made has already been used safely in 1,700 volunteers for other mRNA vaccines. So, the FDA will have considered that in its decision. There are always worries about ethics when testing in emergencies, because safety should be paramount for vaccines, but there is, so far, no safety signal [adverse effects] from the Moderna mRNA platform. With regard to the parallel studies in animals also, one unusual aspect of the mRNA-1273 vaccine is that although other formulations of similar vaccines have been tested on animals, this particular vaccine construct has not been evaluated in the appropriate animal model which is a transgenic mouse expressing the ACE2 receptor.** Tal Zaks, Chief Medical Officer of Moderna was quoted in STAT, a news outlet, as saying: "I don't think proving this in an animal model is on the critical path to getting this to a clinical trial," He also pointed out that National Institute of Health scientists are "working on nonclinical research in parallel."

Has There Been Any Instance Before When An mRNA Vaccine Has Been Tested on Humans?

Many candidate vaccines have been produced using this technology and are in various phases of testing. Currently, there are over 20 candidates for infectious diseases and cancers from multiple groups. This is a new technology and, as yet, there are no licensed products.

How Long Will It Take Before We Have A Vaccine for Commercial Use?

It will take at least a year, if not longer.

A Step Closer to Developing A Potent Drug Against Novel Coronavirus

- Designing better antivirals that would prevent the novel coronavirus (SARS-CoV-2) from infecting human cells may now become possible thanks to a team of researchers producing the crystal structure of the main protease of the virus. **Main virus protease is an enzyme that processes proteins critical to virus development. An antiviral that blocks this enzyme, as in the case of drugs used against HIV virus, effectively prevents the virus from replicating.** Hence, such an inhibitor will be effective against the novel coronavirus. The results of the study were published in the journal Science.

Deciphering Key Enzyme

A team led by Rolf Hilgenfeld from the University of Lubeck; Germany developed the crystal structure of main protease of the virus at 1.75 angstrom resolution. And by redesigning an existing inhibitor developed for other coronaviruses, the researchers have been able to develop a potent inhibitor that can effectively block the enzyme and neutralise the novel coronavirus. **Main virus protease is one of the best characterised drug targets among coronaviruses. The inhibitor against the main protease targets a specific region of the**



enzyme. And any antiviral that targets this region of the enzyme will be specific to the virus and will not be toxic to human cells. The researchers had earlier designed broad-spectrum inhibitors of the main proteases of other coronaviruses. One of the inhibitors showed good antiviral activity against other coronaviruses. Now, the team chose that inhibitor and modified it to increase the amount of time the drug is present in the body and to improve its solubility in plasma.



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