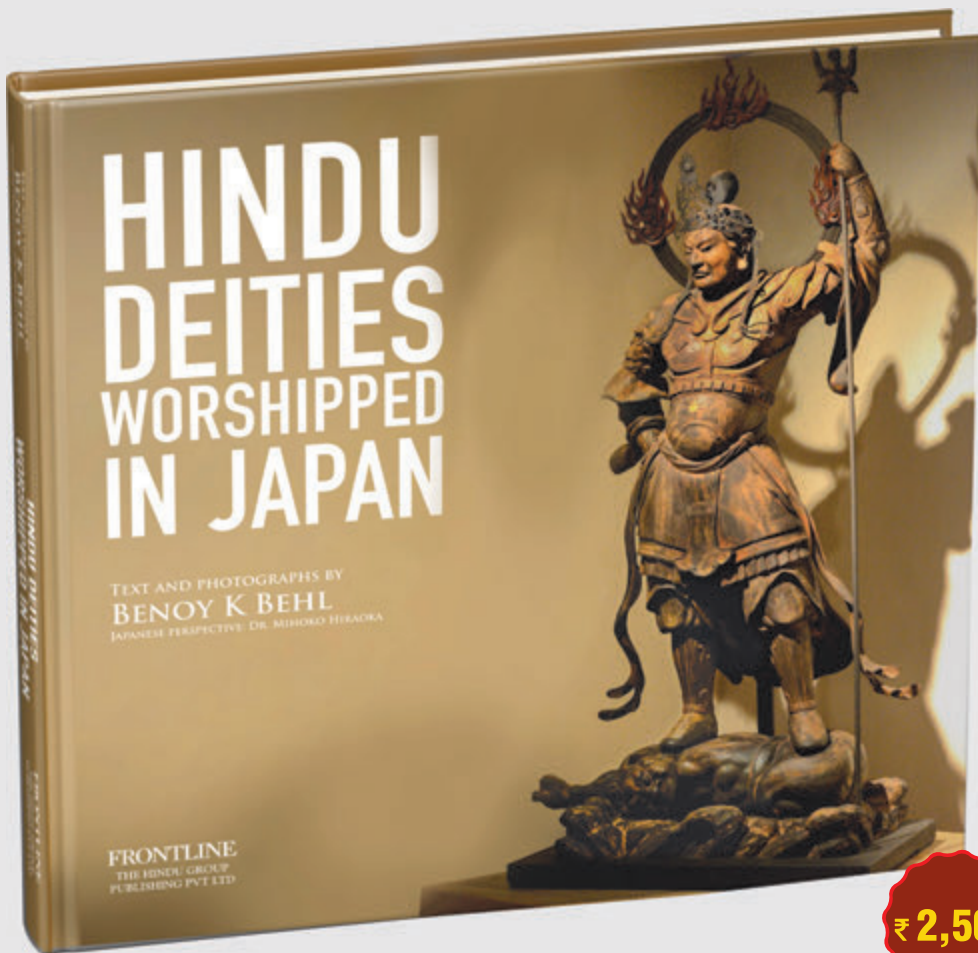# FRONTLINE

SHIFTING THE BLAME

Having failed to undertake measures such as broad-based testing, contact tracing and isolation of patients in a major way, the Centre blames the States and the people for the rising COVID-19 infection graph. At the heart of the problem is the Centre's grossly inadequate health budget over the years and failure to equip States financially to improve their health infrastructure and human resource

COVER STORY

Blame game

Faced with the failure of its lockdown-centric strategy, the Centre blames the States and the people for the rising graph of COVID-19 infection in the country. Grossly inadequate Union health budgets and the long-term failure to build a robust public health infrastructure have compounded the crisis. **4**

On the Cover
At Sabarmati railway station near Ahmedabad, stranded migrants arrive to board a train to their native place, on May 6.

COVER DESIGN: T.S. VIJAYANANDAN; PHOTOGRAPH: SAM PANTHAKY/AFP

Air Surcharge:
Colombo - Rs.20.00 and
Port Blair - Rs.15.00

BLAME GAME

Faced with the failure of its lockdown-centric strategy, the Centre blames the States and the people for the rising graph of COVID-19 infection in the country. Grossly inadequate Union health budgets and the long-term failure to build a robust public health infrastructure have compounded the crisis. BY **R. RAMACHANDRAN**

UNION HEALTH Minister Dr Harsh Vardhan and Minister of State (Health) Ashwini Choubey during a videoconference with Health Ministers and officials of Gujarat and Maharashtra, in New Delhi on May 6.

THE GROWTH OF COVID-19 INFECTIONS IN India (number of confirmed cases as per government data, to be precise) is yet to "fall off" the exponential growth phase. This can be seen graphically if the timeline of number of cases is plotted with the number of cases on a logarithmic scale graph (where, unlike on a linear scale graph, unit intervals typically differ by a factor of 10). The graph (Figure 1) will be a straight line if the infection spread is continuing to increase exponentially. While the curve may seem to depart from the straight line, recent data suggest that its trend is closer to a straight line than curving downwards. A proper statistical regression analysis to the data will show that the best curve that fits the data in this graph is a straight line.

Another way of looking at this trend, as discussed in an earlier article ("Lockdown and after", *Frontline*, May 8), is the "growth factor", the ratio of the changes in the number of confirmed cases between two consecutive days. If one looks at the data for the past one week (Figure 2) from May 1, this growth factor, though close to 1, has

been mostly above 1. This implies that although the growth rate is close to dropping below the exponential phase, it is still very much in that phase even as the country is into its third consecutive lockdown.

While at the individual level some States have done well and succeeded in veering off the exponential phase, there are, as can be seen from Figure 3 (where both the increase in the number of cases and the total count are plotted on a log scale), still a significant number of States that are in the exponential phase (closer to the reference straight line), and the growth rates there are a source of concern. These States are Maharashtra, Gujarat, Delhi, Tamil Nadu, Punjab and West Bengal, with the last three experiencing a sudden spurt in cases. The trend at the all-India level basically reflects these worrying State-
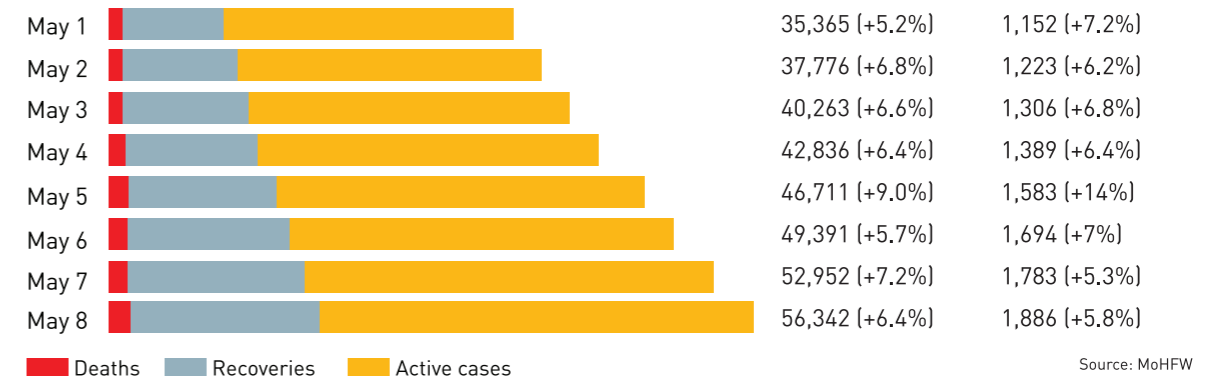
COVID -19 cases in India

	Number of cases	Number of deaths
May 1	35,365 (+5.2%)	1,152 (+7.2%)
May 2	37,776 (+6.8%)	1,223 (+6.2%)
May 3	40,263 (+6.6%)	1,306 (+6.8%)
May 4	42,836 (+6.4%)	1,389 (+6.4%)
May 5	46,711 (+9.0%)	1,583 (+14%)
May 6	49,391 (+5.7%)	1,694 (+7%)
May 7	52,952 (+7.2%)	1,783 (+5.3%)
May 8	56,342 (+6.4%)	1,886 (+5.8%)

■ Deaths ■ Recoveries ■ Active cases

Source: MoHFW

GRAPHICS COURTESY: ISI, BENGALURU

FIG.2: CASES during May 1-8. The growth factor in the period shows that the growth curve is yet to cross the inflection point.

FIG. 1: A TIMELINE of confirmed COVID-19 cases up to May 7 with the y-axis as a log scale.

level trends. Comparison of these States with States such as Kerala and Telangana is particularly telling. Of course, one must add here that one is taking the data at face value, which may not be the true picture because of State-level disparities in testing rates.

The case timelines of some of these problem States are shown in Figure 4a. As can be seen, compared with Kerala and Telangana, where the number of cases has levelled off, Maharashtra, Gujarat, Delhi, Punjab, Tamil Nadu and West Bengal have seen a recent large increase in the number of cases. In Figure 4b the increase every day (measured in a certain way to smoothen out fluctuations) is plotted against the total count on that day and tells one how close to or distant from "dropping off" the exponential phase a State is. Whereas Kerala and Telangana have deviated substantially from the reference straight line that indicates exponential growth, the problem States are still close to the straight line, which indicates that they are still very much in the exponential phase and are quite far from dropping off any time soon. While Maharashtra, Gujarat and Delhi have experienced a steady large growth in the number of cases, in the case of Punjab, Tamil Nadu and West Bengal a sudden massive spurt in numbers has resulted in their case timelines now curving back towards the exponential reference line after earlier showing signs of dropping off from it.

One of the metrics the government uses to depict the effectiveness of the non-pharmaceutical interventions it has enforced, such as lockdowns, restrictions on movement and physical distancing, is the so-called doubling time (DT). This is the time taken for the number of infections on a given day to become double that figure. Equivalently, given the number of total cases on any given day, the DT is the number of days prior to that when the number of cases was half that value. It is easy to understand that a higher DT means that the infection spread is slower and, conversely, a lower DT means it is spreading faster. If measures taken to contain the spread have been effective, then the DT will increase.
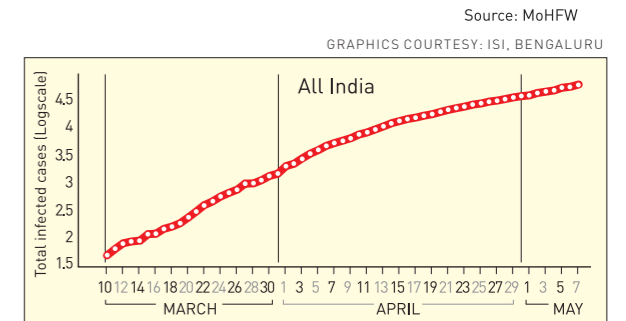
Since May 1, the national-level DT has been slightly above 11 days. Of course, because of highly inadequate testing, this data may also not reflect the true picture.

Compared with the national figure of 11, Kerala's DT has been showing a steady increase since the last week of March, and from a value of 5 days then, its current DT is about 37! Telangana's DT is around 24 days, which is also praiseworthy. The DTs of the problem States are as follows: The DT in both Maharashtra and Gujarat, with their steady increase in the number of cases, has been around 9.5 for some days now. From 13 days, Delhi's DT dropped to about 10.5 between May 1 and May 7. Punjab's DT, which was around 16.5 at the end of April, suddenly dropped to under 1 with the huge increase of 105 (out of a total of 480) cases in just one day after positive cases were found in a large number of pilgrims returning from Nanded, Maharashtra. As of May 7, it has inched back to about 5. From a DT of about 11, West Bengal has now dropped to less than 9 days, which reflects a spike in the number of cases. According to the State government, this is due to greatly ramped-up testing. Tamil Nadu's DT was around 17 at end of April but now has dropped to about 5, reportedly because of the government's failure to test truck drivers and other workers coming into Tamil Nadu from other States. The government, on the other hand, has maintained that the increase in number is due to increased testing.

According to the Union Ministry of Health and Family Welfare (MoHFW), 20 districts accounted for 68 per cent of the active cases in the country. In particular, the DTs in eight districts were faster than 10 days:
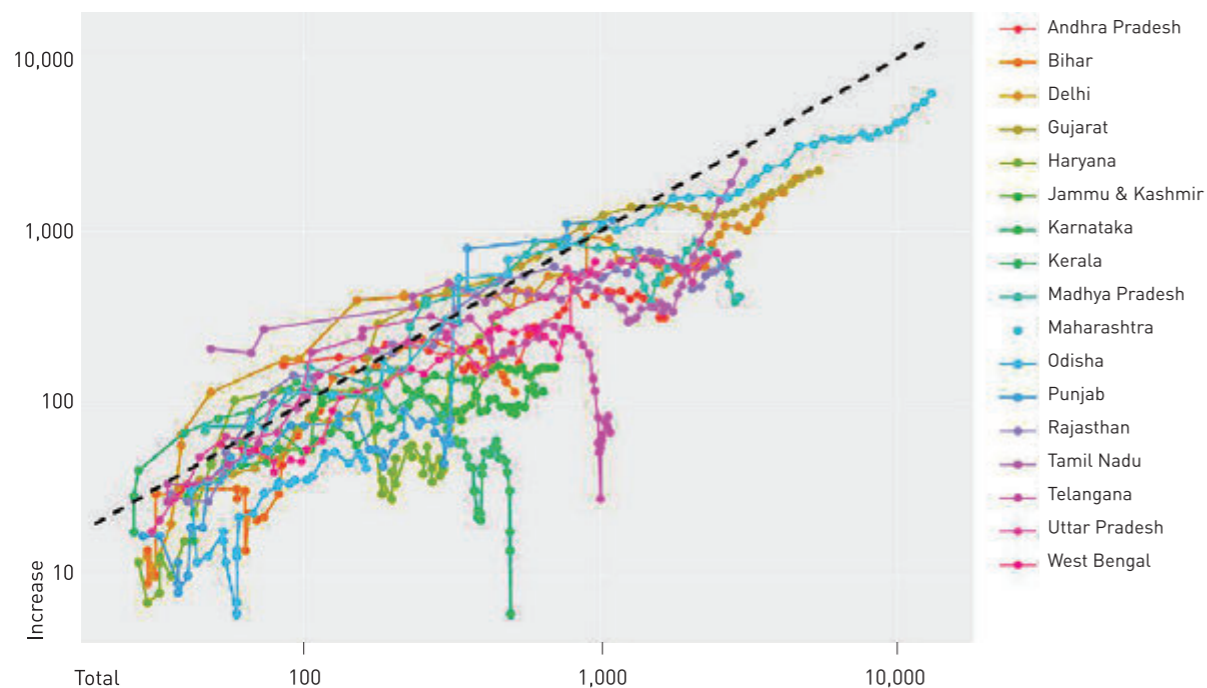
FIG. 3: A COMPARISON of the growth rate of cases in States against the reference line for exponential growth on a log-log plot with a log scale on both axes.

Mumbai, Ahmedabad, Chennai, Central Delhi, North Delhi, Kolkata, Kanpur Nagar (the urban Kanpur district) and Krishna (Andhra Pradesh). The top 20 districts accounted for 72 per cent of deaths, and in seven districts—Mumbai, Ahmedabad, Indore (Madhya Pradesh), Pune, Surat, Central Delhi and Krishna—the case fatality rate (CFR), or number of deaths divided by the number of confirmed cases, was higher than the all-India average of 3.2 per cent. Nine districts had confirmation rates higher than twice the all-India average of 4.4 per cent of numbers tested. The overall testing rate in the country, however, continues to be low, about 1,100 per million. More importantly, nine of the top 20 districts are short on infrastructure, according to the MoHFW.

Having initially failed in a major way to undertake broad-based testing across the country and the associated measures of contact tracing and isolation and concerned about the worrisome trend in disease prevalence and its growth in many parts of the country, the Centre now seems to be trying to find scapegoats for the continuing rise in the number of cases. It has begun to blame the States and people for the situation. In a videoconference with State governments, the MoHFW stated that the higher doubling rate (or lower DT) was because States were not strictly enforcing lockdown measures or carrying out active contact tracing or active case searches and because people were neither following physical distancing and other voluntary measures nor strictly observing home quarantine and isolation guidelines.

On the high CFR in some districts, the Ministry said

that people had poor knowledge of symptoms, and it blamed States for not doing enough to spread community awareness through their Information, Education and Communication programmes. It has now, belatedly, asked the States to increase the sampling rate for testing purposes.

The MoHFW also seems to believe that the health-seeking behaviour of people left a lot to be desired as there was hesitancy and delayed reporting of symptoms at health care centres. Union Health Minister Harsh Vardhan reiterated this point on May 6, 7 and 8 when he had videoconferences with different State Health Ministers.

The Centre also seemed to find fault with health care factors by stating that the higher CFR could be because health care facilities were not following standard treatment protocols. It acknowledged that there was not enough health care staff or adequate infrastructure and supplies at many State health care facilities. To address the lack of staff in the critical high CFR districts, the MoHFW has advised States to mobilise staff from different sources, including from adjacent districts, engage private doctors on contractual basis and explore the possibility of engaging retired professionals, final year students, members of non-governmental organisations, and so on. As regards infrastructure and supplies, it has asked health care facilities to mobilise material resources from adjacent districts and raise demand requests to both the State and Central Health Ministries. These, clearly, are more easily said than done.

Some of the above issues are a direct fallout of the Ministry failing to take adequate steps to ensure State-
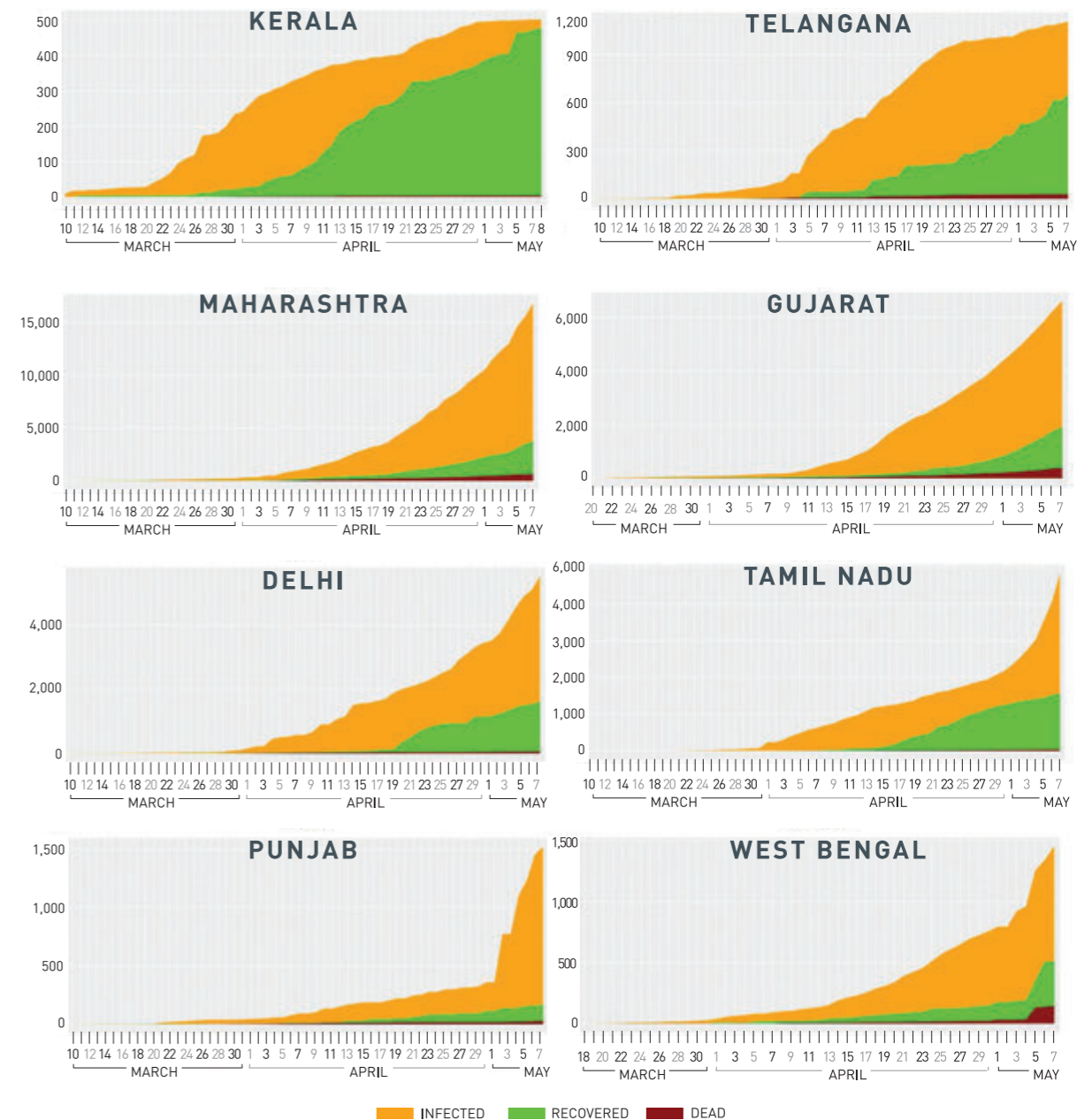
FIG. 4A: CASE TIMELINE comparison of Maharashtra, Gujarat, Delhi, Punjab, Tamil Nadu and West Bengal. Cases in Kerala and Telangana have levelled off compared with sharp increases in these six problem States.

level preparedness in December-January itself when it was clear that the rapid spread of COVID-19 in the country was imminent and inevitable. Even though health is a State subject, the Centre should have given States the support of necessary funds and resources to get prepared, including in training health care staff adequately. Besides, this is also evidence of the lack of proper communication between the Centre and the States.

It is unrealistic to expect States to get into firefighting mode to handle the crisis and that too when they have inadequate resources at their disposal.

It is clear that all these observations about States by the Union Health Ministry are a direct fallout of the years of neglect of the health sector, the grossly inadequate Union health budget and poor Centre-State relations on the financial front, which prevents States from being able to budget adequately to improve health infrastructure and human resource at the State level.

As rising graphs of the number of cases in problem States continue to hug the exponential curve and COVID-19 continues to take its toll, it should be clear to the government that brute-force measures and diktats from the top such as lockdowns will not solve the
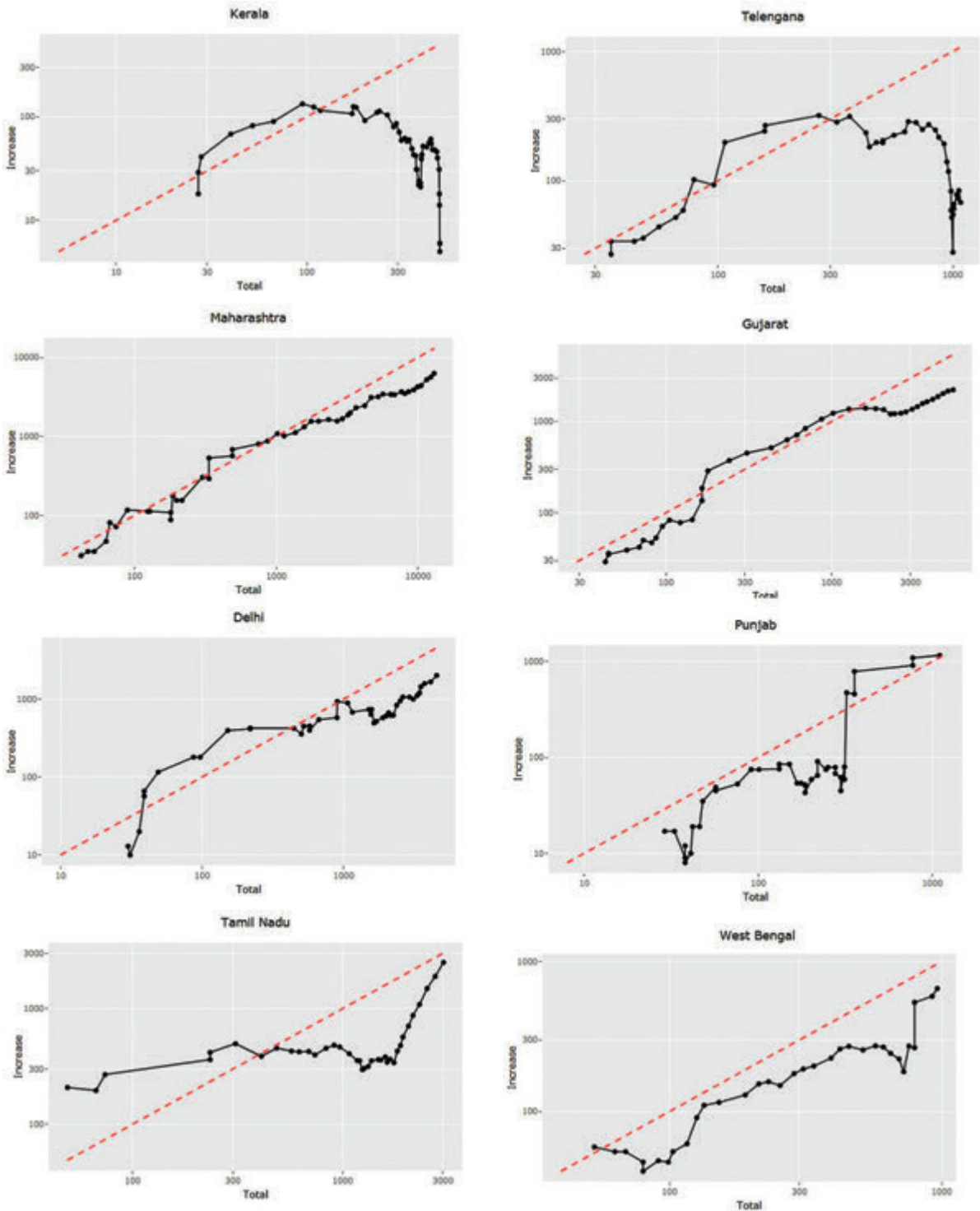
FIG. 4B: GROWTH RATE comparison of Maharashtra, Gujarat, Delhi, Punjab, Tamil Nadu and West Bengal. States such as Kerala and Telangana have fallen off the reference straight line of exponential growth compared with the problem States, which are still in the exponential phase.

problem as long as there is no long-term vision on health at the Central executive level. According to reliable sources, decisions on the second and third phases of the lockdown seemed to come directly from the higher executive without any scientific inputs of the key health advisory groups, including the National Task Force on COVID-19 and the Epidemiology and Surveillance Group of the Indian Council of Medical Research. Ad hoc measures not based on science and medical research are clearly not the rational way to fight a major epidemic. □

How a virus evolves

The mutations of SARS-CoV-2, according to a new study, have led to the emergence of a dominant virus type, Type A2a, distinctly different from the original virus, Type O, that emerged from Wuhan, and spreading with much higher frequencies than the original version. BY **R. RAMACHANDRAN**

VIRUSES READILY MUTATE. THERE IS NOTHING surprising about this because it is their nature to do so. This happens due to the imperfect copying mechanism at work as viruses replicate in the cells of infected hosts.

The complete set of genetic information needed to sustain an organism, such as the virus, is its genome, which, in the case of viruses, can be made up either of the DNA or the RNA molecule. The DNA and the RNA can be thought of as a string of (genetic) letters, and a genome can be imagined to be long stretches of these letters with different parts of it encoding for different proteins required for the organism's existence. Mutations are just random errors that occur during the process of copying these letters during viral multiplication and such errors accumulate during every replicating cycle, which can occur within hours or even less. RNA viruses mutate faster than DNA viruses because their replication mechanism is intrinsically more error-prone. Likewise single-stranded viruses mutate more often than double-stranded ones.

Viruses cannot exist in isolation; they need a host to replicate and survive. Mutations generate a diversity of virus population in a single infected host. This amazing ability of viruses to mutate is what drives their evolutionary change. Most mutations may be inconsequential. But mutations that adversely affect some virus function or the other, which impede its sustenance, will get removed by natural selection. If during an outbreak, a mutated virus with a greater (or lesser) degree of infectivity or virulence were to appear in a population, it does not immediately follow that the mutation will sustain and continue to spread with high frequency, unless it gives the virus a selective advantage as instances during the current COVID-19 pandemic that we consider below illustrate.

The causative virus of COVID-19, the coronavirus SARS-CoV-2 virus, is an RNA virus (with about 30,000 nucleotides—the basic building block of DNA/RNA—coding for 29 proteins) and is also single-stranded. So, frequent mutations in the virus are only to be expected and naturally, therefore, researchers have observed many mutations in the SARS-CoV-2 genomes from samples of

A FLOW CELL used for sequencing the coronavirus at a lab in Seattle, April 15. Analysing a virus' genetic code lets researchers track its mutations.

COVID-19 patients in different parts of the world since the outbreak began in Wuhan in central China in December 2019. Most of these mutations have been substitutions of a single nucleotide, known as single nucleotide variants (SNVs), at different genetic sites in the genome. At the viral protein level, these SNVs translate into replacements of single amino acids in different proteins.

Most genome-based analyses of the dynamics of evolution so far were largely focussed on the early phase of the pandemic, up to early March at best. A Chinese study with 103 genomes that were available in a public database in January found that SARS-CoV-2 had evolved into two major types. A more recent study based on 160 genomes that were available until March 3, which was published on April 8, identified three major types. Given the limited sample sizes in these studies, and also not being over a sufficiently longer period, a clearer evolutionary picture did not emerge until now. We know that the geographical spread of the virus was extremely rapid in March, which would have greatly increased mutation

FIGURE 1: Temporal (monthly) change in frequencies of SARS-CoV-2 belonging to the five major types as the virus spread globally. (Within each type, the intensity of the colour of each circle is directly proportional to the number of sequences belonging to the type.)

Low frequency nCov2019 clades belonging to B2, B4, A3, A6, A7 and A2 were not shown above.

FIGURE 2: Variation in frequencies of types based on weekly submissions of sequence data.

probabilities. Nidhan Biswas and Partha Majumder of the National Institute of Biomedical Genomics (NIBG) at Kalyani in West Bengal recently completed a more comprehensive and systematic analysis using a much larger public database of genomes, which maps their geographical origins, examines the emergence of virus groupings and their mutual relationships based on the observed mutations in an evolutionary tree (called phylogenetic tree) and the frequencies—both spatial and temporal—of their spread. This work is due to appear shortly in *The Indian Journal of Medical Research*.

The two researchers have found that mutations of the virus have led to the emergence of a type that is distinctly and significantly different from the original virus that emerged from Wuhan and, by March end, this mutated version had already substantially replaced the ancestral version in virtually all geographical regions of the world. It has now begun to spread with much higher frequencies than the original version and the other mutated types that emerged during the course of the pandemic, and seems to be establishing itself as the major virus type being transmitted in most countries as infections continue to grow across the world.

Biswas and Majumder analysed 3,636 full genome sequences of SARS-CoV-2 obtained from virus isolates from patients from 55 countries available from the public database www.gisaid.org covering the period from December 2019 to March end. According to the authors, the entire set of mutations observed so far can be classified into 11 virus types, each of which can be characterised

by one or a few defining mutations. Of these, Type A2a is emerging as the dominant virus type almost everywhere, sweeping away by selection the original Type O isolated from Wuhan that held sway in the early phase of the pandemic (Fig. 1). This also implies that the other 10 types are derived from Type O.

Fig. 2 suggests that Type A2a began to emerge around the ninth or tenth week since the outbreak started and currently accounts for over half of all genomic sequences across the world. The unique mutation that is seen in Type A2a is obviously endowing the virus with a selective functional advantage over the other types, Type O in particular. The authors have argued that the increasing frequency of this evolved type in different parts of the world is an indication of positive selection pressure at work enabling the virus to establish itself in the human population across the world.

Before we discuss what this selective advantage is, and its enabling mutation, it is instructive to look at what is currently known about the evolutionary history of the SARS-CoV-2 virus itself and also talk about its early evolution revealed by data from the earlier phases of the pandemic as reported in scientific literature and the media.

BINDING TO ACE2 RECEPTOR
Structural and biochemical analyses have now clearly established that the SARS-CoV-2 virus is able to infect humans by gaining entry into human cells by its binding to the receptor ACE2, which is expressed in many types of
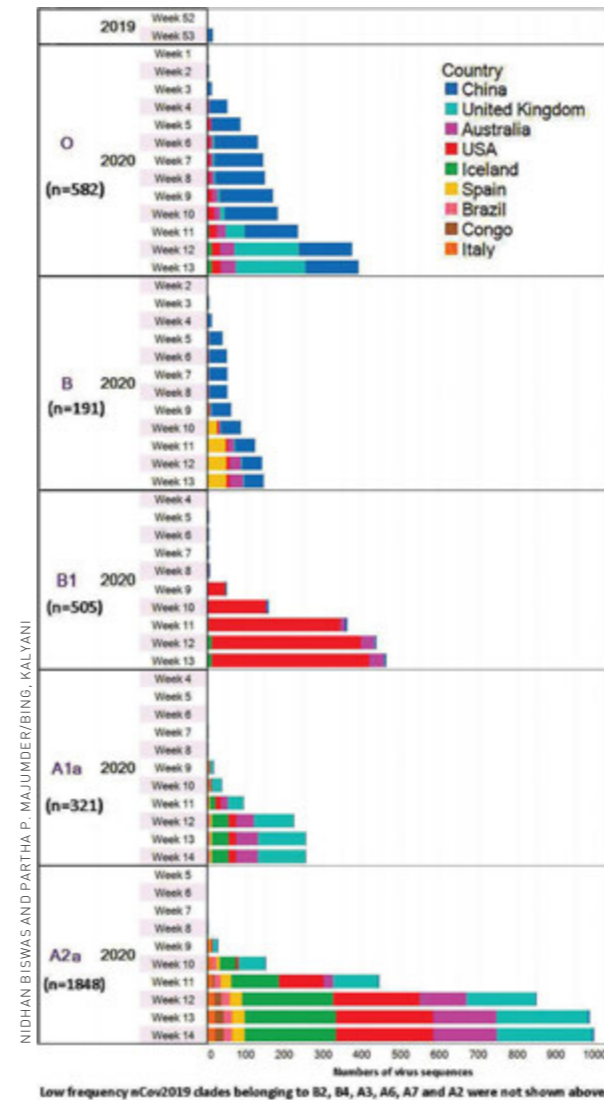
human cells. The part of the virus that enables it with this critical function is the Spike (S) protein—the protrusions on the virus envelope that give the virus the prefix "corona". The S protein has two sub-regions S1 and S2. While S1 contains the receptor binding domain (RBD) and enables the virus to attach itself to the target human cell, S2 is responsible for the later stage action—that of fusion of the viral membrane with the human cell and release of viral RNA into the cell, which, in turn, forces the cell machinery to make copies of the virus and disseminate.

For this to happen efficiently, the two conjoined subregions need to be split at the S1/S2 boundary for S2 to initiate fusion and efficient viral replication within the cell after S1 facilitates virus-cell binding. The emergence of an appropriate cleavage site at the S1/S2 boundary through evolution allows this new virus to exploit human cell enzymes such as furin and TMPRSS2 to perform this

cleavage. This results in rapid proliferation and spread of the virus to different organs, particularly the lungs, causing the defining atypical pneumonia in COVID-19 positive individuals.

In a March 17 publication in *Nature Medicine*, a team of scientists from the U.S., the United Kingdom and Australia, led by Kristian Andersen of Scripps Research Institute, presented a reasonably convincing argument about the origin of the virus and its early evolution from the then available genome sequence data. According to their analysis, while SARS-CoV-2 has high affinity to the ACE2 receptor in humans, ferrets, cats and other species, a comparison of its RBD with SARS-CoV-1 (and other related beta coronaviruses) shows that in SARS-CoV-2, of the six amino acids in the RBD that are known to be critical for binding to ACE2, five had got mutated or changed to other amino acids. As a result, they said, though its affinity to ACE2 is high, it is not predicted to be ideal and optimal.

On the basis of this, they argued that the evolution of the critical S1/S2 cleavage site, which enables enhanced binding to the cell and virus-cell fusion, is a result of mutation and natural selection. This may have occurred either in humans through multiple chains of silent human-to-human transmission sometime before it was poised for the outbreak in December 2019 or in some intermediary animal host (having originated in bats) with human-like ACE2 receptor before making the jump to humans.

This cleavage site is unique to SARS-CoV-2 and is not present in the other beta coronaviruses of the same lineage, including SARS-CoV-1 (which caused the major SARS outbreak in 2002-03), and this, it was felt, could be key to its high infectivity and rapid transmission. This, they said, was similar to the emergence of a cleavage site in the hemagglutinin (HA) protein of the highly pathogenic strain of avian influenza virus following repeated passage among chickens. The specific features of the RBD and the S1/S2 cleavage site, including amino acid structure at the cleavage site, were shared by all SARS-Cov-2 genomes available until then, which pointed to a common ancestor virus, the paper said.

A March 25 report in *The Washington Post* quoted Peter Thielen of Johns Hopkins University, a molecular geneticist involved in SARS-CoV-2 research, as saying: "There are only about 10 genetic differences between the strains that have infected people in the United States and the original virus that spread in Wuhan…. That's a relatively small number of mutations for having passed through a large number of people. At this point, the mutation rate of the virus would suggest that the vaccine developed for SARS-CoV-2 would be a single vaccine, rather than a new vaccine every year like the flu vaccine."

This view that the virus had not mutated to any significant extent, and was relatively stable up to that point in time, was reiterated by Stanley Perlman of the University of Iowa and Benjamin Neuman of Texas A&M University in the Post article. "If it's still around in a year,"
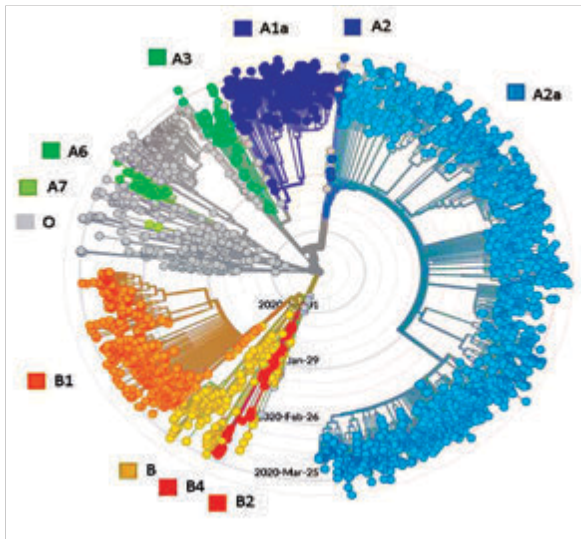
FIGURE 3: Radially displayed phylogenetic tree of 3636 RNA sequences of SARS-CoV-2. The various types (0, A2, B, etc.) are colour coded.

Neuman had said, "by that point we might have some diversity."

Yong Jia and associates from Taiwan and Australia carried out a phylogenetic analysis on 106 genomic data available up to March 24 on the U.S. National Centre for Biotechnology Information (NCBI) database of isolates from patients from 12 countries including China (34), the U.S. (54), India (2) and Nepal (1). This paper was posted on the preprint repository bioRxiv on April 11. Among its main conclusions was the observation that concurred with the view that the mutation rate and genetic diversity of the virus (from the data until then) was indeed low as compared to SARS-CoV-1.

"Overall," the paper said with regard to gene sequences relevant to viral protein synthesis, "the gene sequences from different samples are highly homologous, sharing greater than 99.1% identity…" Specifically, the work also noted that the genes encoding for the Spike (S) protein on the virus envelope were more conserved than other protein encoding genes. This notwithstanding, it has been noted by other researchers that RBD is the most variable part of the genome and some sites of the S protein may be subjected to positive selection. Jia's group had observed a total of 12 mutations in the S protein—which were all single amino acid substitutions—but only one of them pertained to the RBD of the virus, which is relevant from the perspective of infectivity of the virus.

This mutation, the work found, was responsible for disrupting a hydrogen bond at the interface between RBD and the receptor ACE2 in human cells. They argued that since the bond is important for the exceptional strong binding of the RBD and ACE2, this mutation would lead to a weakened binding of the virus to human cells. Interestingly, this mutation was seen in one of the Indian isolates obtained on January 27 from a case in

Kerala whose origin was linked to Wuhan. From this, the authors inferred that mutations of significance were beginning to occur, notwithstanding the fact that this observation was based on data of one genome. More significantly, they found that all the genomes seemed to group as two clusters, indicating that the virus spread occurred from two sources. They, of course, added the caveat: "However, these results may be based on limited genomic data in the early stage of virus development. It is critical to study and monitor the mutation dynamics of SARS-COV-2."

UNIQUE MUTATION

In an earlier article ("Chasing the virus", *Frontline*, April 24), we had discussed a work by Indian scientists that had found another unique mutation in one of the two early Indian genomes submitted to the public database, which the authors had conjectured could trigger a protective microRNA response. This particular mutation in the Indian genome discussed above is different from the one discussed earlier. In fact, these two mutations had also been noticed by the scientists of the National Institute of Virology (NIV), Pune, who had carried out the first two complete genome sequencing from Indian samples both of which could be linked to the Wuhan strain. They had also pointed out that while the mutation with apparent weakened binding was in the S1/RBD region, the mutation that had the potential of eliciting a microRNA response was in the S2 region. But, with multiple passages of the virus as infections increased, these mutations—which may have even been single random events—seem to have been discarded by selection as neither mutation figures in any of the 11 main genome types in circulation at present, let alone the dominant one A2a.

Similarly, a recent work by a group of Chinese scientists from Zhejiang University, led by Hangping Yao, that was posted on the medRxiv preprint server on April 14 had found certain mutations with higher virulence and pathogenicity in the early phase of the outbreak itself, but most of these too do not seem to have occurred with greater frequency in the subsequent spread of the disease.

The scientists had examined virus isolates taken between January 22 and February 4 from 11 patients admitted into the hospitals affiliated to the university, whose ages ranged from four months to 71 years. They noted that while data publicly available up to March 24 revealed several mutations, none had been directly linked to changes in viral pathogenicity. With that objective, they carried out functional characterisation of the 11 patient-derived isolates. They noticed considerable mutational diversity in general and in all recorded 33 mutations (of which 19 were novel when compared with publicly available 1111 genomic sequence data) including six mutations in the S protein.

Importantly, they found significant variation in the viral loads and cytopathic effects (structural changes to the cells) among these isolates when Vero cells (cell lines

derived from African green monkeys), in which the structure of ACE2 receptor is believed to be similar to that in humans, were infected with the virus. The viral load difference between two extreme isolates was as high as 270-fold. In the next highest viral load, the difference was only 19-fold. This was claimed as direct evidence of SARS-CoV-2 having acquired mutations that altered its pathogenicity substantially.

Their other important finding was that, when data from these 11 isolates were compared with 725 high quality and high coverage publicly available genomes, some of the mutations were found to be defining or founding mutations for major clades (genome clusters with a common ancestor) of the virus that are currently known to be in circulation, particularly in the U.S. and Europe.

Of the 725 genomes, 231 belonged to the European cluster and 208 belonged to the U.S. cluster. Epidemiologically, this is of significance as it implies that the origins of some of the currently circulating strains can be traced
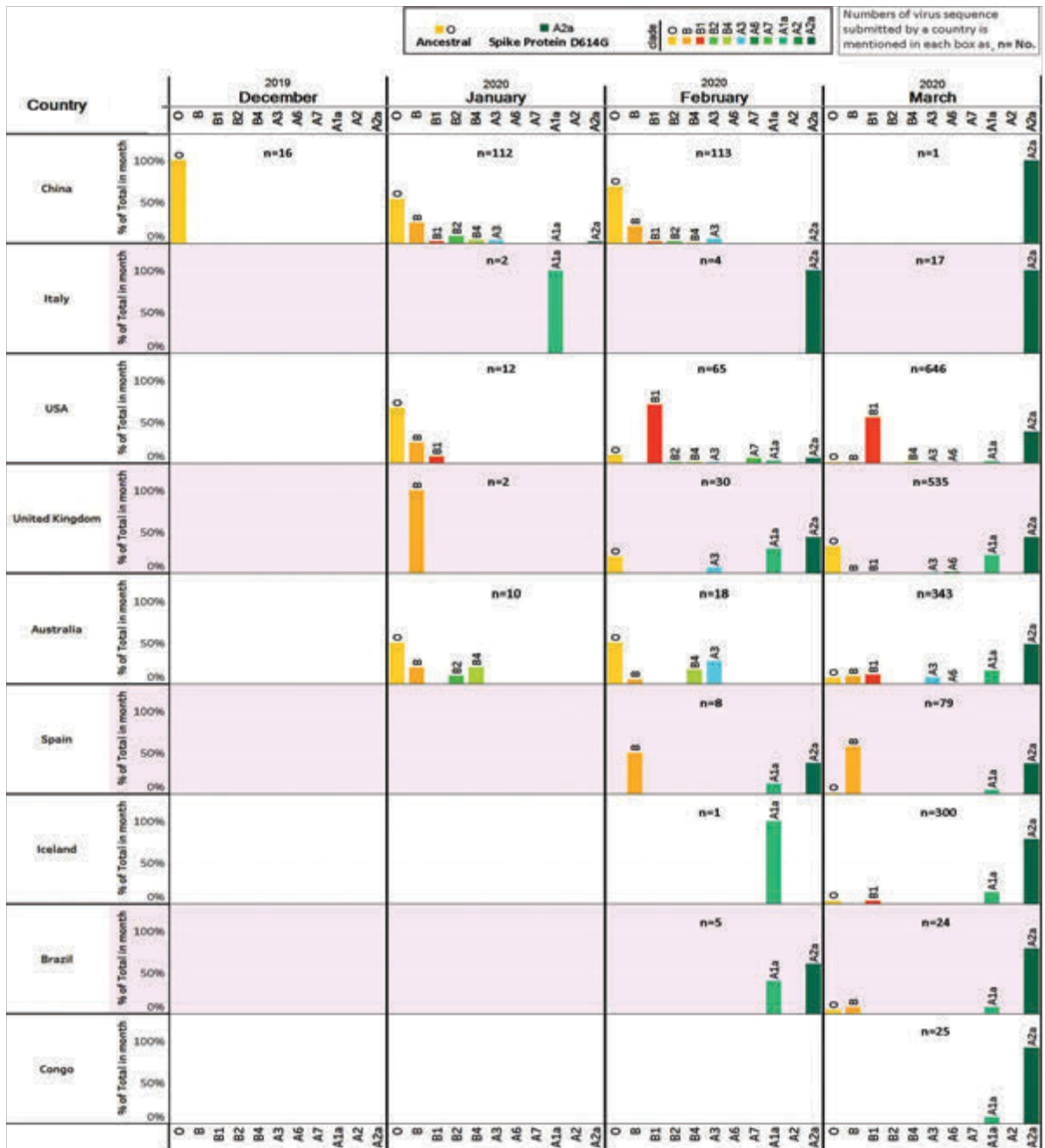

FIGURE 4: Temporal (monthly) change in frequencies of five major types of SARS-CoV-2 in countries in which the prevalence of infection has been high.

NIDHAN BISWAS AND PARTHA P. MAJUMDER/ BING, KALYANI

to China. Interestingly, the isolate that produced 19-fold viral load belonged to the European cluster. The isolate that had a 270-fold viral load, did not, however, seem to fit into any known cluster, which means that this strain got purged by negative selection.

POSITIVE SELECTION

Let us now return to the main burden of the article: the recent emergence through positive selection of a dominant strain of the virus in different regions of the world. As mentioned earlier, from among the 11 distinct genome types, the evolved Type A2a had emerged as the dominant one during the course of the pandemic, and had replaced the ancestral Type O that had dominated across the affected countries during the early phase.

Examining the evolutionary dynamics of the virus by analysing the publicly available data from 3,636 genomes up to April 6, Majumder and Biswas found that while there was considerable temporal variation in the frequencies with which different virus types were seen among the disease positives, spatial variation (across different geographical regions) was not very significant. They note that there is, however, significant micro-level spatial variation in the type frequencies, say across sub-regions of a country, which could be due to other epidemiological factors.

According to the authors, only five types—O, B, B1, A1a and A2a—have high frequencies in the genome collection, with 51 per cent—1,848 of 3,636—being Type A2a. Fig.3 shows the remarkable temporal change in the frequencies of different types across geographical regions. From Fig.4 (which includes Iceland and Congo as the number of genomes from there were proportionately larger for the number of cases), one can see that the type diversity initially increased in all affected countries (barring Italy) but by March end it had decreased leaving A2a as the dominant one. It would also seem that in China, though there is diversity, Type O remained dominant, but this could be a data artifact because it had deposited just one new genome in March, which is of Type A2a.

U.S. PATTERN

The pattern in the U.S. is interesting. While the diversity had diminished by March, with O losing its dominance, the frequency of Type B1, which emerged strongly in February, remains significantly high even as A2a has become dominant. The biological reason for this co-existence of A2a with other types, like B1 in the U.S. and B in Spain (Fig. 4), is unclear, say the authors. It remains to be seen if competing types existing in the same region persist.

The number of Indian genomes included in the
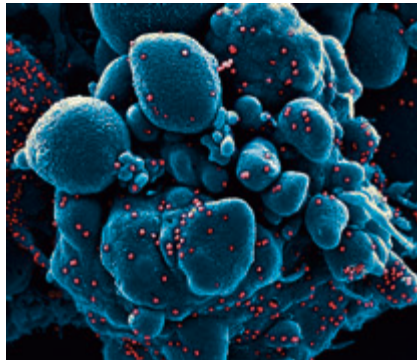
A SCANNING electron micrograph provided by the National Institute of Allergy and Infectious Diseases shows a dying cell infected with the coronavirus, with viral particles in red.

period analysed by this work is only the original two, which were discussed earlier in the article. However, considering that India suddenly submitted 33 additional genomes in April alone, the authors have separately looked at their type classification and frequencies. These 35 include complete genomic data of 21 isolates obtained from Indians returning from China, Iran and Italy as well as Italian tourists in India and their close contacts in India. Analysing these 35 genome sequences Biswas and Majumder have found that these fall into four types, O (5) and derivative types A2a (16), A3 (13) and B (1). Types A2a and A3 dominate and, according to the analysis, all the Type A3 isolates are from people with travel history to Iran, while the A2a is from people who had links to countries other than China and Iran

What is the significance of the mutations that define Type A2a, which, as the above finding shows, has acquired a foothold in India as well? According to Biswas and Majumder, the defining mutations are two: a primary SNV which replaces the nucleotide adenine (A) with guanine (G) in the viral genome at one genetic site, which translates into replacing the amino acid aspartic acid to glycine in the S protein; and a secondary one, which is an amino acid substitution (of Proline by Leucine) at another site.

Significantly, the S-protein mutation is at the S1/S2 boundary near the site where the cleaving enzyme furin acts. Arguing that this region is known to be subjected to strong positive selection pressure, the authors speculate that this mutation, either on its own or in conjunction with the second, may be providing the virus a selective advantage by making its entry into the cell much easier than before to cause enhanced transmission and infectivity, and perhaps pathogenicity as well. It may be pointed out here that Yao's group in its work discussed above had noted this S-protein mutation to be the founding mutation for the European cluster. They also had found that one of 11 cases that showed 19-fold viral load belonged to this cluster. This also ties up with Biswas and Majumder's finding that A2a had spread in Europe widely in February (Fig. 4) itself and, from Yao's work, the defining mutation of A2a probably had its origin in China.

As Biswas and Majumder have emphasised, the changes in the virulence in Type A2a of SARS-CoV-2 need to be established with more detailed studies as its frequency increases across the world, India in particular where genomic data need to be obtained from greater number of isolates. This would be important for evolving appropriate pharmaceutical intervention strategies, including vaccine development, here and elsewhere. □

In search of a road map

It is now increasingly clear that the government did not think through and provide for the consequences of the lockdown. BY **T.K. RAJALAKSHMI**

THE UNION GOVERNMENT HAS BEEN TAKING pride in its supposedly graded, pre-emptive and proactive approach in tackling the COVID-19 crisis. Yet a close look at the way the authorities have gone about the task gives the lie to these claims. India's case fatality rate (CFR) has been very low and it has been possible to slow down the rate of "doubling" of new cases. Yet, this does not really show the real picture. The comparison with European countries such as Italy or Spain that have had an abnormally high spread of the infection and case fatalities owing to demographic factors makes little sense. Any comparison should ideally have been made with countries with similar populations and demographic indicators like age and stages of development. In fact, fatalities have been low in much of the developing world—in Africa, South and South East Asia and also Eastern Europe.

Unlike in many other countries where the epidemic is ebbing, it is still on the rise in India and has in fact spread significantly in May. Testing capacities have been stepped up to around 95,000 a day. Yet, according to data available on the website of Worldometers, a global COVID-19 online tracker, India ranks 14th among countries with the highest number of cases but its testing per million population is much lower than that of countries with fewer confirmed cases such as Vietnam, Taiwan and Thailand.

LOCKDOWN IMPACT

The government now belatedly realises the consequences of a blanket lockdown for people with non-COVID morbidities such as diabetes, haemophilia, cancer and for patients requiring critical care such as dialysis and blood transfusion. The consequences of the suspension of immunisation services and hurdles created in the check-up of pregnant women requiring antenatal care are also sinking in.

The violation of government advisories issued to private hospitals not to deny care or insist on COVID testing before administering care indicates the government's complete lack of control over private health care

V.V. KRISHNAN

PHYSICAL DISTANCING means little for these residents of Haridas village in Najafgarh in the National Capital Territory as they grapple with water scarcity.

operators. The private sector now accounts for the bulk of health care services in the country.

On April 28, Union Health Secretary Preeti Sudan wrote to the Chief Secretaries of States and Union Territories regarding the importance of providing non-COVID medical services such as reproductive and child health (RCH) services, immunisation, dialysis, and treatment for communicable diseases like tuberculosis and leprosy and vector-borne diseases as well as noncommunicable diseases like cancer. She recalled that detailed guidelines and SoPs (standard operating procedure) had been issued earlier for dialysis and blood transfusion.

She also wrote that on April 20 the Union Health Minister had communicated to all State Health Ministers to ensure uninterrupted blood donation and transfusion services for people suffering from rare blood disorders such as thalassemia, haemophilia and sickle cell anaemia. (India has approximately two lakh haemo-

philia patients and around 1.5 lakh thalassemia patients, the highest in the world. Sickle cell anaemia is prevalent among tribal populations in the southern, central and western parts of the country.)

The Health Secretary noted that the Ministry had received reports that "many hospitals in the private sector" were "hesitating in providing critical services such as dialysis, blood transfusion, chemotherapy and institutional deliveries to their regular patients either on account fear of contracting COVID-19 or they were keeping their hospitals/ clinics closed". In many places, she wrote, hospitals and clinics were insisting on testing people for COVID-19 before providing services. She referred to a letter sent by the Ministry of Home Affairs on April 15 that all health services should be functional during the lockdown.

"I request you to ensure that above measures are taken in consultation with the health fraternity in your State/UT to allay the fears, alleviate uncertainty and to ensure that all the health facilities, especially those in the private sector, both clinics and hospitals, do remain functional…," she said. She also marked a copy of her letter to a member of the NITI Aayog for "taking up issues with the private sector."

PROFITEERING IN A CRISIS
The high markup charged on personal protective equipment (PPE) and testing kits is a cause for concern. The government has explained the shortfalls in PPEs and N-95 masks saying that prior to the crisis these had always been imported and were never manufactured domestically. The exorbitant overpricing of test kits came to light only when a dispute involving two firms, an importer and a distributor, reached the Delhi High Court.

That the stigmatisation of infected people and of health care workers is a serious issue is also a belated realisation. There were attacks on members of the minority community after people who had attended the Tablighi Jamaat congregation in Delhi were found infected with the virus. The government did little to convey that communalising of the problem would not be tolerated. In fact, for several days government spokespersons used terminology specifying the religious denomination of those infected and the data too was suspect. In Madhya Pradesh, for instance, the percentage of those infected from the Delhi event turned out to be not more than 4 per cent.

The campaign of ostracism did not stay limited to the community and was soon directed at health providers and members of the majority community. The "social distancing" campaign seemed to take a toll on health workers. By the government's own admission, people refrained from reporting symptoms and were hostile to health workers as they feared getting quarantined in some faraway government facility.

There has been poor reception of the government's efforts to make people instal the Arogya Setu application on mobile phones. People are uncomfortable with the idea of being constantly monitored and worried about possible quarantining in the event of COVID-19 infection. That apart, the use of the application raises issues of privacy.

From the beginning, the government's emphasis was on the strict enforcement of the lockdown in order to break the chain of transmission of the virus: "stay home, stay safe".

This approach continued more or less until late April. On April 25, however, V.K. Paul, a leading member of the NITI Aayog and chairman of an empowered group on COVID-19 control, said that the number of fresh cases would be down to zero on May 16. Yet, as each day throws up over 3,000 cases on an average, there seems to be little basis for the pronouncement.

M.P. HEALTH BULLETINS
Both the Central and State governments have been economical with data shared in the public domain through regular bulletins. Testing protocols have so far relied on the screening of people with travel histories, their contacts and those showing symptoms of severe acute respiratory infection (SARI) and influenza-like illnesses (ILI). Union Health Minister Harsh Vardhan recently said that surveillance for SARI and ILI cases should be "intensified in unaffected districts which have not reported cases for the last fourteen days".

On May 6, reviewing the situation in Maharashtra and Gujarat, he expressed concern about the high fatality rate in some districts and said that "testing of SARI and ILI cases need adequate attention as this may prevent the spread of the infection". However, the proportion of SARI and ILI cases in the total number of samples tested has not so far been made public.

Most State governments did not put out regular bulletins with daily details of the number of samples tested and the test results. While there were regular bulletins in Maharashtra, Kerala and even Delhi, most of the States ruled by the Bharatiya Janata Party (BJP) were laggardly in this matter. A wide variation was noted across States in the numbers tested. This was mainly owing to the assumption that cases were still confined to clusters within districts without community transmission. In some States, in Madhya Pradesh for instance, the figures did not always add up.

The State's daily COVID-19 health bulletins have been reporting sample-testing figures (under Serial No. 5 in the bulletin). Until April 26, the bulletin followed a format with five different numbers for the relevant date along with the previous day's figures.

The first number was of the total number of samples collected until date, which in turn were divided into the number for which test reports had been received and the number for which these were awaited. The number for which reports were received was in turn divided into numbers for which the reports were positive and those which yielded negative results or were rejected.

On April 26, the five numbers were consistent: the total number of samples reported was 38,708 of which

reports had been received for 30,269 while 8,439 reports were awaited. The figures for positive and negative/rejected results were 2,090 and 28,179 respectively, which added up to 30,269 or the number for which reports had been received.

The issue that had invited attention until then was the exceptionally large proportion of samples for which results were pending. On April 27, the reporting format was changed, and the testing numbers were listed under Serial No. 2. From that day until May 1, only three numbers were reported—the number for which test reports had been received and the numbers that had tested positive or negative respectively.

According to that day's bulletin, however, reports for only 27,009 samples had been received by that date, 3,260 less than what had been stated in the previous day's bulletin. Clearly, at least one of these figures is wrong. All the more curious, reports of 8,439 samples were awaited on the previous day, about which nothing was mentioned in the April 27 bulletin. In other words, a total of 11,699 samples simply vanished into thin air.

Further, while the number of positive cases reported on April 27 had increased to 2,165 from the previous day's 2,090, the number of negative reports on the same day stood at 23,500—4,679 less than the number reported as negative/rejected on the previous day. Since positive reports had gone up by 75 and negative ones had come down by 4,679 the net decrease in the sum of positive and negative reports was 4,604, still 1,344 more than the 3,260 by which the total number of test reports received had come down. This meant that on April 27, the sum of positive and negative reports (2,165+23,500 = 25,665) was 1,344 less than the number of test reports supposedly received.

This discrepancy continued to be present in every bulletin until May 1, reaching a maximum of 9,271 on April 30. On May 2 and 3, the reporting format was changed slightly and at first sight this offered an explanation for the discrepancies observed previously in the sum of positive and negative reports being lower than the total number of test reports received.

In addition to reporting positive and negative test report numbers, the bulletins on those two dates also said that the rest of the samples for which reports had been received were rejected/invalid. No specific numbers were given for these rejected/invalid samples but by inference the number would have been 2,510 on May 2 and 2,352 on May 3.

Both these figures were considerably lower than the discrepancy of 9,271 in the April 30 bulletin and marginally lower than the discrepancy of 2,514 observed in the April 28 bulletin.

From May 4 onwards, the reporting format was changed again—in addition to mentioning the cumulative number of test reports received until that date, only that day's number of positive, negative and rejected/invalid reports was mentioned along with the percentage of positive cases. The cumulative total of positive cases appeared in a different section of the bulletin.

The numbers in the three bulletins from May 4 were consistent in this respect except for what appears to be an inadvertent error in the May 6 bulletin. However, this means that the inconsistencies of earlier dates remain unresolved and unexplained.

The CFR has been very high in Madhya Pradesh, reaching as much as 10 per cent at one point. As of May 5, the death rate in the State was 5.77 per cent. The backlog of pending samples was also high.

Jitu Patwari, former Cabinet Minister for Youth Affairs, Sports and Higher Education, wrote to the Chief Minister that the pendency rate of sample-testing was as high as 22.5 per cent. Amulya Nidhi and G.D. Sharma, health activists in Madhya Pradesh associated with the Jan Swasthya Abhiyaan, wrote to the Union Health Secretary expressing concern about the discrepancies in the State's bulletin figures.

They also wrote that COVID-19 had spread to 35 out of the State's 52 districts with high death rates in Ujjain, Dewas and Khandwa. The State's testing numbers are low compared with those of Maharashtra, Delhi, Gujarat and Rajasthan.

There were only 13 labs compared with 45 in Maharashtra, 20 in Gujarat, 23 in Delhi and 19 in Rajasthan. "For a State with a population of 8 crore, the number of labs are very few," they wrote.

Amulya Nidhi said: "People are not being cared for in the isolation centres, which in Indore is in a private medical college. The takeover plan was good but it has been to give the benefit of Ayushman Bharat to private institutions. The AIIMS at Bhopal is lying empty. More deaths have taken place in private institutions." He said that the huge backlog of pending samples was because there were "few labs and fewer microbiologists".

Narendra Gupta, a public health expert associated with Prayas, a non-governmental organisation (NGO) based in Chittorgarh, Rajasthan, said: "It is a study in itself how China controlled the spread beyond Wuhan and Hubei. We need to learn from them rather than stretch the lockdown period. It is causing an immeasurable amount of misery to migrants. I see swathes of them every day on National Highway 27, which is called the East West highway stretching from Porbandar to Silchar. Many of them are factory workers who reside in the village here. They are from Madhya Pradesh, Uttar Pradesh, Bihar and Jharkhand. Following the COVID-19 scare, the villagers are now driving them away."

Observers have cited the examples of Qatar, Singapore and Vietnam, countries that have controlled the spread. The government no longer talks about the "doubling rate". Every passing day makes it clear that fresh cases are not going to come down to zero by May 16.

In constantly laying stress on the containment strategy and justifying the lockdown, the government seems to be talking in circles. There has been some recognition, however, that stigma and fear have resulted in the "suppression of information" and that there has been "community discrimination" and ostracism of COVID-19 patients. □

Clueless captain

As the nation longs for relief from the pandemic and the economic misery caused by an ill-planned lockdown, the government prefers symbolism over substance, exposing its lack of meaningful leadership.

BY **VENKITESH RAMAKRISHNAN**

STAGING EXTRAVAGANT, DRAMATIC spectacles to camouflage the confusion and paralysis in terms of policy formulation and practical governance has been the central characteristic of the Narendra Modi-led Bharatiya Janata Party (BJP)-National Democratic Alliance government's handling of the COVID-19 crisis right from the early stages of the pandemic in India. True to form, the run-up to the third phase of the lockdown from May 4 through May 17 was also marked by yet another diversionary extravaganza. This time it was by deploying Indian Air Force flights to conduct flypasts across India and shower flower petals on select hospitals and facilities, ostensibly to show the nation's gratitude to the thousands of health care workers battling the pandemic. The "celestial flower show" was accompanied by illumination of Indian Navy ships in harbours and band performances by the Indian Army in hospitals and other venues.

Similar theatrics preceded earlier phases of the lockdowns too, on March 24 and April 14. Lockdown 1.0 came in with the "sound show" of March 22, when the Prime Minister exhorted the people to clap their hands or ring bells or bang utensils from their houses as a symbolic gesture to show their appreciation for the corona warriors. Then came the "light show", by which people were asked to switch off lights at home at 9 p.m. on April 9 and light a candle or a lamp or flash a mobile phone standing at their doorsteps or balconies. Each of these performances was accompanied by self-aggrandising manoeuvres of the BJP and its associates in the Rashtriya Swayamsevak Sangh (RSS)-led Sangh Parivar. Prime Minister Narendra Modi and Uttar Pradesh Chief Minister Yogi Adityanath were the principal players in this "patting one's own back" exercise.

DEATH ON THE TRACKS

Amidst all this showmanship, the pandemic has continued to rage across States, especially in large ones such as Maharashtra, Gujarat and Tamil Nadu, which contribute to the economy in a big way. Exodus of millions of people, mostly migrant workers, from cities and towns to rural areas, caused by the utterly unscientific and unplanned manner in which the first lockdown of March 4 was announced, continues in several parts of the country, leaving heart-rending tales of misery day after day.

The horrific death of 16 migrant workers sleeping on a railway track when a speeding goods train ran over them in Maharashtra's Aurangabad in the early hours of May 8 starkly highlighted this misery. The workers, who were based in Jalna in Maharashtra, belonged to Madhya Pradesh, and had tried for many days to get into a special train bound for their home State. When their efforts did not succeed they decided to walk hundreds of miles to get back to what they perceived as the relative safety of their native places. After a hard day's walk, they decided to sleep on the railway track as they did not expect any train on that route since it was lockdown time. According to the survivors in the group, they had also thought that the tracks were relatively safer against any attack from animals and reptiles.

Indeed, the Aurangabad tragedy was the most shocking incident that highlighted the colossal hardships inflicted on the poor and the marginalised thanks to the absence of proper planning by the authorities in facilitating movement of people and the callous and inhuman way the Union government and many State governments treated them. Barring States like Kerala, which has managed the public health crisis and its social and human ramifications in an appreciable way, almost all regions are facing unparalleled distress situations caused by the pandemic, which have been compounded by rampaging hunger among large sections of the population.

According to a number of serving and retired defence personnel who talked to *Frontline* in the context of the unprecedented human misery, the deployment of the armed forces for the "flower show" was nothing short of a criminal offence. "We all hang our heads in shame. All the things that the three forces were made to do as part of the flower show are normally done after their victory in a war situation. Where is the victory here? And were the forces deployed for the kind of yeoman tasks that they have done in the past, such as delivering food and essentials for those who are being forced to go without them for days on end?" a senior retired army officer said.

ADMIRAL RAMDAS' LETTER TO PM

Former Navy Chief Admiral Ramdas wrote to Prime Minister Modi on these lines before the "flower show". On a website he said: "I had addressed two letters to the Prime Minister, copied to the RM [Raksha Mantri or Defence Minister], as also the CDS [Chief of Defence Staff] and Heads of the three Services. My first letter was dated March 27, and the second one April 14, Ambedkar Jayanthi. I had suggested in both letters that the considerable resources of the Armed Forces might be tapped in a number of ways to deal with the unprecedented situation brought on by the manner in which lockdown was

PRIME MINISTER Narendra Modi addressing the nation on Buddha Purnima, in New Delhi, on May 7. True to form, the run-up to the third phase of the lockdown was marked by yet another diversionary extravaganza.

A SCREENSHOT posted by Rahul Gandhi on April 30 of his conversation via video link with former RBI Governor Raghuram Rajan on the economic impact of COVID-19.

announced and executed. I had specifically mentioned the organising and running of community kitchens and food distribution in the first letter. By the time of my second letter, the situation with respect to the farm and migrant workers and large numbers walking home for thousands of miles had grown much worse. My letter had flagged the fact that from all accounts, there was more than enough rice and wheat available in our reserves with the FCI [Food Corporation of India], and that these should be released without further delay to feed our people. Some reports that sanction had been given by the Cabinet to diverting grains for the manufacture of ethanol and hand sanitisers was truly alarming."

In the run-up to the "flower show" he had noted as follows: "Furthermore, in my humble opinion, at a time when all our resources are fully stretched, we could have better utilised the money that will be spent on the events, towards assisting those most in need at this time, to reach their homes safely and thus minimise the pressures on them. Imagine the visibility and interaction with the personnel from the Armed Forces—and the building of relationships between civil and military."

Evidently, there were no takers in the current dispensation at the Centre for the former Navy Chief's opinion.

TRAIN FARE BURDEN

The Union government even messed up the lockdown relaxation plans. One of the supplementary plans announced along with Lockdown 3.0 was to run trains ("shramik specials") to take migrants stuck in different States back to their homes. The happiness that the initial order created among lakhs of migrant labourers across the country turned to shock and horror when the Railway Ministry directed the State governments to collect the ticket fare from the workers boarding such trains. In many places the workers were also charged for food.

This, expectedly, generated a political controversy. All the opposition parties, ranging from the principal opposition Congress to the Left parties and regional outfits such as the Samajwadi Party and the Jharkhand Mukthi Morcha, castigated the order. Congress president Sonia Gandhi condemned the directive in strong terms and added that her party had asked the Pradesh Congress Committees to bear the cost of the rail travel of every needy worker and migrant labourer. She also added that there had to be provisions for the safe travel of migrant workers. The Central government and the Railway Ministry chose to ignore the Congress' demands.

Though initially stung by the Congress' offer to pay the migrants' train fare, the BJP branded Sonia Gandhi's directive to the Congress units as a "political game" and an instance of "playing to the gallery". The ruling party also sought to assert that the Railway Ministry was paying 85 per cent of the fare and that the State governments run by the party will pay the remaining amount.

Even as the ticket fare controversy caused some major loss of face for the Union government, the B.S. Yediyurappa-led BJP government in Karnataka took some

CONGRESS president Sonia Gandhi holds an online meeting with Congress Chief Ministers to review how their States are tackling COVID-19, on May 6.

questionable actions. It cancelled many "shramik special trains" after the Chief Minister's discussions with prominent builders in Bangalore, who apparently argued that letting the migrant labourers go would hamper their business and the economy of the State. The decision evoked widespread public anger and ultimately the government was forced to rescind the order cancelling the special trains.

In spite of the BJP leadership's claim that the party-run State governments would supplement the Railway Ministry's concession of 85 per cent and pay the remaining 15 per cent of the ticket fare for migrant workers, the Yogi Adityanath-led Uttar Pradesh government continued to charge the fare from the workers themselves. The State requisitioned the services of the highest number of trains. In the first 10 days of May, the State was expected to receive more than 100 trains from different parts of the country. Lakhs of migrant workers are expected to reach the State and there are apprehensions about the government's preparedness in terms of infrastructure and medical facilities to handle the influx (Story on page 15).

At the time of writing this, approximately 60,000 migrant workers have reached different parts of Uttar Pradesh. Despite Yogi Adityanath's claim that buses have been provided for every returnee, there are reports of hundreds being stranded at railway stations and making way to their villages on foot. But the Chief Minister continues to warn people not to move on foot. He has also repeated the claim that the manner in which the BJP governments at the Centre and in Uttar Pradesh are combating COVID has won global praise.

Notwithstanding his self-praise, sections of the officialdom in the Central government and in the country's most populous State are of the view that apart from the lockdown, the political leadership has not come up with any concrete medical relief plan. "Some suggestions are being discussed and plans are being formulated *vis-a-vis* the economy, especially in relation to providing immedi-

ate cash transfers to people below the poverty line, but no one seems to have a clue on how to go about in the medium and long term," a senior Union Health Ministry official told *Frontline*. He was also of the view that the Prime Minister had by and large refrained from making public pronouncements after the announcement of the second lockdown primarily because his administration's cluelessness. This silence was conspicuous, they said.

RAHUL GANDHI'S INITIATIVES

In the meantime, former Congress president Rahul Gandhi interacted with several public intellectuals, including Nobel laureate Abhijit Banerjee and former Reserve Bank of India Governor Raghuram Rajan, on issues relating to the pandemic and its implications for, among other things, the economy.

Addressing an online press conference, Rahul Gandhi pointed out that lockdown did not mean switching a key on and off and that the Union government needed to be transparent in its strategy to reopen the country as well the economy. "We need to understand how they plan to open the lockdown and what will be the criteria for it. Migrants need support and money now, and today. Micro, small and medium enterprises need help immediately, not tomorrow. The Centre must immediately transfer Rs.65,000 crore into the bank accounts of poor and migrant population to give them financial support in these difficult times. There has to be a conversation between States and the Centre to oversee this. It requires a psychological change. We need to decentralise power in dealing with the virus. If we keep this fight in the Prime Minister's Office (PMO), we will lose. The Prime Minister must devolve power. Our Chief Ministers are complaining that the coronavirus zones are being decided by the Centre. This should be done by local governments. If we centralise, there will be a calamity. The Prime Minister has to trust Chief Ministers, and Chief Ministers have to trust district magistrates."

The issue of centralisation of powers that Rahul Gandhi flagged in the press conference has been stressed by several opposition-led State governments, including Kerala, Maharashtra, Jharkhand and West Bengal. Their common complaint is that they are being pushed into fiscal distress with the Centre providing them no resources to fight the pandemic.

Making an incisive comment on a social media platform about the overall political and governance stasis, the political scientist professor Balveer Arora, Chairperson of the Centre for Multilevel Federalism, pointed out that the situation as a whole signified a lack of political leadership on the part of Prime Minister Modi and this would not be forgotten. "Who is the chief strategist at the helm, combining inputs from epidemiologists and economists? The Prime Minister has so far provided comic relief, from clanging to candles to petals. We are witnessing the greatest mass misery, destitution and pauperisation since Partition. The shame and scandal of migrant workers trudging back home will remain a blot on republican memory for a long time, surpassing by far the

suffering caused by demonetisation. At least then the population were at home and confident of earning their livelihood again. Even now, there is no word from above whether migrants should stay put or go home. We are if nothing else a common market, which requires a common strategy and vision. Only a leader with a vision can provide that. As PM CARES remains a slush fund of no use to the suffering, the party which once proclaimed the oneness of India has paradoxically managed to fragment it by pursuing petty electoral calculations to divide and rule. It has used federalism to settle political scores, in the process weakening the nation more than ever before in its independent history. As we head into the worst economic recession we have known in living memory, it is the lack of leadership which is being cruelly felt in New Delhi."

Arora went on to add that "there are some notable exceptions at the State level, but they labour under the constraints of the common market and a centralised federal structure". The pandemic is historic, so is the economic crisis. It is separating the grain from the chaff in terms of leaders who measure up and those who do not. And India's long-suffering poor, whose ranks are swelling, pay the highest price. Later, talking to the portal Newsclick, the former Jawaharlal Nehru University Professor pointed to the possible political fallouts that could expose the lack of leadership at the Centre.

When this perception about leadership was brought to the notice of a senior RSS activist based in Lucknow, his response was a derisive laugh.

In his view, the COVID situation in the country, especially in the States of Uttar Pradesh and Bihar in north India, Maharashtra and Gujarat in the west, Tamil Nadu and Karnataka in the south and West Bengal in the east are giving a fillip to the BJP and other organisations in the Sangh Parivar. "Clearly, an impression has set in, especially in these States, that the Muslim minorities are the propagators of the virus. All our cadre need to do is to spread the word a bit. And it is working very well. Notwithstanding all the learned professors, intellectuals and journalists may perceive *vis-a-vis* the failures of the Union government, the march of the Hindutva is bound to continue." Grassroots reports gathered by *Frontline* from Uttar Pradesh and Bihar largely reflect the leader's contention and confidence.

Incidentally, Admiral Ramdas had, in his letter to the Prime Minister, referred to the growing communalisation of the COVID situation too. "Given the continuing and open targeting of some sections, like care-givers, doctors and nurses, etc., and our Muslim citizens, especially after the Tablighi Markaz incident, I had requested the Honorable Prime Minister that a signal from him was urgently required in order to put a halt to this deplorable and avoidable communal colour being added to a tragic health pandemic." This appeal too was met with silence and inaction.

As human misery grows across India, large sections of the Sangh Parivar perceive the state of inaction on this count as something laden with the promise of sectarian political gains. □

'Disdainful neglect of public sector must end'

Interview with **Professor K. Srinath Reddy**, president, Public Health Foundation of India, and member of the ICMR's high-level technical committee on COVID-19. BY **T.K. RAJALAKSHMI**

WITH ITS POOR PUBLIC health system, India ranks amongst the lowest in the world in terms of testing rates per million population for COVID-19. The lockdown from March 25, extended on April 14 up to May 3 and subsequently to May 17 with a partial opening up, gave the government time to work out a strategy and also reduced the burden on hospitalisations. While the spread of the virus may have been contained to an extent, there is little certainty on whether it has been suppressed.

Professor Srinath Reddy, who is a member of the 21-member high-level technical committee of public health experts, chaired by NITI Aayog member Dr V.K. Paul, spoke to *Frontline* about the limitations of testing in the general population, the importance of random sampling, surveillance of influenza-like illness (ILI) and severe acute respiratory infection (SARI), and the impact of physical distancing on the poor. Excerpts:

The experiences of dealing with the outbreak are varied across countries, particularly with regard to the extent of lockdown measures, scale of testing and the relative weightage given to these two. The government's current strategy is to expand testing, which is also what the WHO recommends. Have we, however, lost precious time by not scaling up testing during the 30 days of the lockdown? Given the limitations of both an extended lockdown and of testing a 1.3 billion population, what options does India have going forward?

Testing is an instrument that is intended to identify an infected person who is still harbouring the virus and is potentially capable of infecting others. The action that follows is isolation at home or hospital, depending on the clinical severity of infection. For COVID-19 virus, the test is not a guide to any specific therapy that targets the virus, as no evidence-backed therapy is as yet available. If the intent is to prevent viral transmission by isolating the infected person and his or her contacts, a full lockdown serves that purpose even without extensive testing. If effective, it separates both symptomatic and asymptomatic infected persons from others for three weeks of full lockdown and 19 days of partial lockdown.

Extensive testing of asymptomatic persons in the general population would not have been possible, given our large and diverse population. There were also limitations in terms of the number of testing kits for this new virus and of personal protection equipment for health care personnel conducting sample collection and analyses. The lockdown served the purpose of isolation, while giving the health system [time] to build up its resources.

It is also incorrect to think that testing should invariably drive the response strategy. Vietnam, which is a relatively unpublicised leader among Asian countries in achieving admirable control, decided not to adopt the strategy of mass testing, but combined strategic testing with other public health measures. Though South Korea has been widely cited as an example of testing-led control, globally there has been no strong correlation between testing rates and death rates. Just compare the widely divergent experiences of Belgium and Bolivia, with the same population size. While Bolivia tested at 2.5 per cent, the rate of Belgium, the European nation had 6,917 deaths compared with the South American nation's 44 when checked on April 25. So, context matters.

SAMPLES being collected from a person in New Delhi on May 4.

Testing can be ramped up as lockdown ends in India, to perform district-wise profiling for guiding a differentiated approach to staged release from lockdown. Even as we do that, we must recognise that different tests come with varying levels of false positive and false negative results. False positive tests get amplified in mass testing. So, we also need to support our assessments of spread and control through symptom-based syndromic surveillance of influenza like illness [ILI] in the community and numbers of persons hospitalised with severe acute respiratory infection [SARI]. Together with random sample population testing, these will provide a three-dimensional profile of each district.

Symptomatic cases, as you have pointed out in recent articles, are the tip of the iceberg. The proportion of asymptomatic cases is far more. Should then one concentrate on identifying and treating symptomatic cases or is it important to identify asymptomatic cases too?

It will be difficult to identify all or even most of the asymptomatic persons who are still carrying the virus or were infected recently and eliminated the virus from their bodies. Antibody tests also have false positives and false negatives, with the false positives getting amplified in mass testing. The WHO is now casting doubts on whether antibody presence indicates adequate or durable immunity, and immunologists say these tests only measure humoral immunity while missing out on cellular immunity.

Social distancing and personal protection measures will continue to be the mainstay of protection against both symptomatic and asymptomatic virus spreaders. Those who are symptomatic need to be treated according to the severity of their illness. Asymptomatic contacts who test viral antigen positive must be isolated. Others, who are unknown, are best guarded against through social distancing. It is like driving on Indian roads where we don't know which car or truck ahead will suddenly swerve into our lane. It is best to keep a distance.

That said, social distancing is a challenge for the poor. We have to ensure better housing—even if temporary to begin with—and better public transport for them. Let the government take over vacant buildings and press more vehicles into the public transport system.

As antibody tests are confined to a certain limited sample, would the evidence indicate that there is no community transmission outside the cohort that is being tested?

It would be a concern if a number of persons, even in the random sample, test positive without travel or contact history. I believe that community transmission is a label we should not be fighting over, but [we have to] plan our strategy to guard everyone. Social distancing and personal protection measures are needed for everyone at the individual level.

However, the three-dimensional picture I referred to earlier will help to decide to what extent economic and

social activities can be undertaken at the community level.

The importance of contact tracing was seen in the context of Kerala where the number of recovered cases is more than the number of positive cases. New York State, which is the worst affected in the United States, is mulling over a strategy for contact tracing. Do you think this is a viable and effective strategy to pursue once the infection has spread to the extent it has by now?

Contact tracing is an essential component of outbreak investigation and epidemic control. Kerala has done it with remarkable efficiency. Even in New York, there will be pockets where containment strategy will still be needed to stall fresh infections. Community volunteers are a useful ally to the health system for contact tracing. New York must adopt community-based public health strategies which have been tested and found effective in Asian countries, even as it is battling to save lives in hospitals.

From 500 odd cases at the beginning of the lockdown, we have now a month later 23,000 plus cases. The base on which the infection can spread is larger now. What would have changed in the 40 days of lockdown that allows us to believe that the situation will remain under control even after May 3?

Given the long incubation period of the virus, some of the pre-lockdown exposures would have emerged as cases during the lockdown. Also, the lockdown has had slippages in some areas. The curve was still on the rise when the lockdown began. It will take some time to flatten. The fact the curve has moved to a lower slope is a reason to hope that the virus is now spreading more slowly.

We need to ensure that social distancing and personal protection measures continue even after the lockdown ends. We cannot assume victory and let down our guard, lest the virus lands a knockout punch. However, we have done well on points in these earlier rounds. Also, we should not judge the country as a single, homogenous entity. There are many areas which have been protected until now and need continued protection. There are some States which are following Kerala's track to control. Others, which are hotspots, need more stringent containment measures to continue. India's diversity needs to be recognised through State-specific or even district-specific assessments.

Considering the counterfactual of where we might have been without control measures, we are better positioned today. That should give us confidence for the future. Also, at each stage we must remind ourselves that our goal is to reduce the numbers of serious cases and deaths. If many of the cases are mildly symptomatic or asymptomatic, should we be perturbed at the number of diagnosed cases?

The doubling time has increased undoubtedly but has not reached a level where the number of active cases is coming down. Have we only slowed down the growth for some time or have we also substantially reduced the number of people likely to be eventually infected?

We still have to see what happens when the lockdown is lifted. However, stretching the time for the viral spread gives the health system an opportunity to respond better without being overwhelmed by a surge in serious cases. If we implement our public health measures even more strongly after the lockdown is lifted, we can hope to reduce the total number of cases and deaths. Those who see a bleak future ahead in today's numbers must consider the counterfactual of what might have been without a slowdown and gain confidence to meet a surge should it still happen. Even slowing down the epidemic growth curve gives us the opportunity to build on that advantage, like a first innings lead in a test match.

If the lockdown is lifted this month, would it be possible to detect SARI/ILI cases and treat them with the available network of health professionals, private and public?

So far, the public sector has emerged as the hero in our battle, both in the public health response and in providing clinical care. Mobilising all our public sector resources and drawing in private sector resources as needed, we should attempt to provide the best possible responses. Most COVID-19 cases do not require hospital or intensive care. SARI cases will need hospitalisation, as may some ILI cases. It remains to be seen if our health care facilities at all three levels of care will meet the challenge or be overwhelmed. Trends so far suggest that we can meet the challenge.

Health systems the world over have been put to test. There is also an increasing realisation that the private medical sector cannot be a substitute for a robust public healthcare system and that the lockdown should be a period to assess those deficiencies. What do you think should be the strategy and road map ahead for a country like ours?

Policymakers and the media should recognise that the most dependable asset in a public health emergency is the public sector. This has also been the experience of other countries. It is also true that the visibility of the private sector in the media, with focus on intensive care and ventilators, has obscured the vital importance of primary health services and secondary care services at district hospitals. If we have to provide effective and equitable health services, whether it is community-partnered public health or appropriate and affordable health care, the health system must be restructured with a strong public sector at its heart. Whether it is a prompt and potent pandemic response or delivery of universal health coverage, the disdainful neglect of the public sector must end.

In a mixed health system, the private sector can and should play a supportive role to a revitalised public sector, but there should be no mistake as to who is playing the lead. The COVID-19 pandemic has delivered that message in a dramatic fashion. □

Dystopian pipe dream

The reluctance of the Narendra Modi regime to extend fiscal support to those in real need of help during a prolonged lockdown suggests that it is promoting further concentration of capital. Dire consequences await the economy and the polity. BY **V. SRIDHAR**

NEARLY 50 DAYS INTO THE INDIAN lockdown, the most severe in the world according to widespread consensus, as the COVID-19 count climbs steeply, the economy continues to nosedive. The Narendra Modi regime's unwillingness to countenance a relief and support package to sustain those who have lost their livelihoods and to prevent erosion of productive capacity has been true to type. What explains the stubborn resolve to go against the global current in which governments across the world, with widely varying ideological predilections, have thrown the kitchen sink at the pandemic while saving their economies?

There is little doubt that India's response to COVID-19 was lethargic and muddled, especially be-

cause the lockdown was not used to bring either the disease under control or evolve a coordinated strategy to manage the economic crisis. The experience with the lockdown indicates that the government simply hoped to ride out of the crisis after the lockdown. Effectively, hope remained the only strategy for a do-nothing government that has punctiliously avoided any kind of intervention to stop the spread of the disease, stabilise the economy or provide relief to millions of Indians on the brink of starvation.

What appeared to be puzzling is slowly falling into place. And what initially appeared to be large-scale bungling, ineptitude and incompetence now seems to have been a rather charitable explanation. Instead, it is

FINANCE MINISTER Nirmala Sitharaman launches the rupees-dollar futures and options contracts on two international exchanges, BSE's India INX and NSE-IFSC, at GIFT IFSC in Gandhinagar, Gujarat, through video conferencing on May 8.

now clear that the do-nothing course is a deliberate one, in tune with the Modi government's right-wing ideological underpinnings. This can be demonstrated by recalling a series of steps taken or not taken since the lockdown commenced on March 25, or, more pertinently, since late January, when the first case was detected, in Kerala. But first the context.

IN DO-NOTHING MODE

First, the Modi regime has still not made an assessment of the extent of the damage caused to the economy because of the pandemic and the lockdown. Kerala, a State with far lower means, recently made an assessment of the impact on the economy and on livelihoods based on the linkages between the different sectors of the economy. Thus, most estimates, including by investment banks, rating agencies and other financial institutions, appear to be instances of shooting in the dark. Such an assessment would have been eminently within the domain of a Planning Commission, but the institution was seen as part of an irrelevant "Nehruvian" past and became one of Modi's first institutional victims after he assumed office in 2014. Only a rump now remains, in the shape of the NITI Aayog, which has proved to be not only inept but utterly non-transparent in its conduct. So, India, despite its long-standing reputation as a country with a mature statistical system, has no official estimate of the damage caused to livelihoods or the wider economy. Critically, this means that even if it wanted to provide relief, the government had no transparent guide to assess the most-affected sectors and their linkages in order to prioritise relief and support.

The second aspect of the official reaction to COVID-19 is the excessive centralisation of authority and the utter lack of coordination between the Centre and the States. Moreover, Modi's own utterances—such as using the word "curfew" in his first speech—and the overwhelming importance given to the Union Home Ministry, headed by his most trusted lieutenant, Amit Shah—has effectively conveyed the government's resolve to treat the pandemic-induced lockdown as a law and order issue rather than the unprecedented public health emergency that it is. The muddled handling of the crisis is best illustrated by the fact that the Home Ministry has issued more than three dozen circulars, clarifications and modifications, which has only added to the confusion. The demarcation of zones into red, orange and green districts on the basis of COVID-19 incidence can be only justified by the bizarre logic that this is the most convenient method for the Centre. Obviously, large areas of many Indian cities fall within district boundaries, and since they are classified as "red zone", they cannot be opened up after the restrictions are relaxed. The obvious course to adopt would have been to let the States and urban bodies decide which areas to open and which to keep shut, on the basis of broad normative guidelines instead of broad brush sweeps that effectively block supply chains and extend the lockdown.

A third aspect of the government's response relates to the abandonment of the States by the Centre. Since health is a State subject, most States are effectively seeing a surge in expenditure to tackle the crisis. Moreover, most of the States, which were under pressure even before the pandemic, have not been compensated for the "losses" they suffered under the goods and services tax (GST) regime, a promise made by the Centre when it was introduced in 2017. The States' revenues from GST, which were already under pressure before the pandemic, fell in March. But in April, with the economy virtually shut down, most of the States only garnered 10 per cent of the revenue they earned last April.

The burden of providing "relief"—whether towards bus and train fares for migrant workers and stranded travellers to help them get back to their homes or for provision of food and shelter—was passed on to the States, stretching their finances further. To top it all, the Centre has not only been unwilling to provide grants to States to meet the emergency expenditures, but has been unwilling to explore other options. It has maintained a stoic silence to States' demand that the ceiling on their borrowing limits be enhanced in order to enable them to borrow from the market. In fact, Kerala was forced to borrow at very high rates—almost 9 per cent—to meet its expenses. Even if the Centre was only willing to countenance a market-based approach such as this, it could have allowed States to borrow at the repo rate (the rate at which the Reserve Bank of India lends to banks). After all, if the repo rate-based low-interest loan can be accessed by Reliance, Tata Steel and other such large companies, why not sovereign institutions such as State governments? It is clear that the extreme and illogical resolve to squeeze State finances is driven by the craving for excessive centralisation of authority and reducing the States to remain junior partners in the Indian federation.

NOT MERELY FISCAL FUNDAMENTALISM

It is obvious that the pandemic has induced a shock like no other in the history of capitalism. Both demand and supply have collapsed simultaneously, implying that the standard business cycle theory is utterly useless in such a situation. India is no exception to this crisis. The first reaction in most countries has been to provide relief—especially to those vulnerable to the disease and those hardest hit by restrictions imposed by the lockdown or the extension of the lockdown. But even this is evidently not enough. The suspension of economic activity requires a State-led propping of demand in the economy because private institutions would be unable or unwilling to do it at this point. Propping up demand does not mean simply providing monetary relief, as advocates of the more fundamentalist line have implied by caricature. It means prioritising spending in areas that are likely to spark a wider recovery; this implies obviously exploring the linkages in the economy to identify sectors that would generate more value for the buck in terms of boosting a quicker and more durable recovery. But even this is only a half-measure. The response to the pandemic has meant that large swathes of the productive capacity in the country

MIGRANT workers employed in factories travelling in a pick-up van at the PIPDIC industrial estate in Puducherry on May 4.

are in danger or are already on the verge of bankruptcy. This is especially true of small industries, which are, in some respects the true engines of the economy. Moreover, they are a critical part of most sectors—from automobiles to chemicals and textiles, for instance. In effect, if they collapse, chains of production across most sectors of the economy would be unable to function. Large industries that have used outsourcing as a means of evacuating the uncertainty of market risks from their balance sheets would now be unable to function without these critical supply chains.

This means that a rational sequencing of the policy response to the economic crisis would be relief, injection of a fiscal-induced demand, followed by extended support to small and large industries in order to keep supply lines running and preventing a contagion from taking effect. That this has not happened was surprising from the start. What is the explanation for this? The initial explanation that this arose from ineptitude and incompetence, now appears, in hindsight, to be the more charitable deciphering of the puzzle. The recent actions of the Modi government and its sullen refusal to provide succour indicate that a far more insidious objective may be guiding its actions or inaction.

RBI LIQUIDITY INFUSION PACKAGE

The first, and the only package, announced by Finance Minister Nirmala Sitharaman on March 26 was a paltry sum; the sleight-of-hand lay in the fact that a large proportion of the "package" was merely front loading of expenditures already announced in her Union Budget on February 1. The real thrust of the government's intent was revealed the following day when the RBI announced a liquidity infusion package amounting to Rs.3.74 lakh crore. Among these was the targeted long-term repo operations (TLTRO), which was supposed to act as a means of providing funds for working capital-starved companies at relatively low repo-linked rates for up to

three years. Banks were thus expected to lend to firms that had lost access to liquidity because of redemption pressures in the equities, bonds and mutual funds markets.

The increase in liquidity with banks has, however, resulted in two adverse consequences, exactly the opposite of what was given out as the rationale for the whole exercise. First, there has been a spectacular surge in outstanding amounts in the reverse repo facility—which enables banks to park funds with the RBI. Between February 1 and May 1, the outstanding amount in the reverse repo rose from Rs.1 lakh crore to about Rs. 8.5 lakh crore. What does this imply? Simply put, this means that banks were willing to suffer a small loss by parking funds in the reverse repo facility rather than lend more to borrowers who they perceived as risky.

But the second aspect of the liquidity injection is more interesting. It turns out that most of the lending under this facility went to those companies that were in the least need of emergency funding via the corporate bond market. Three large Indian companies—HDFC Ltd, Reliance and Larsen and Toubro—managed to access almost 39 per cent of all non-convertible debentures floated under this facility in April. Six of the top 15 bond issues under this facility were to large private corporations, accounting for 47.46 per cent of all issues amounting to Rs.85,232 crore. This massive concentration in lending, at a time when the entire exercise was justified in the name of enhancing availability of liquidity to productive actors in the wider economy is reflected in the fact that almost nothing from this facility reached issues that were rated below AA. In effect, smaller companies have been shut off from this measure undertaken by the RBI.

Anecdotal evidence available from banking industry sources indicates that banks, under pressure from the Finance Ministry and the RBI to lend more, are asking their prime clients to borrow even when they do not need fresh loans. In order to satisfy the Ministry and the regulator, they are asking these clients to seek enhanced borrowing limits even if they do not actually use them. "The idea is to show that we have complied, even if it does not mean a single rupee more than is actually lent," an officer of a public sector bank told *Frontline*. As the surge in the reverse repo shows, banks appear to be inclined to park funds in relatively low-interest-bearing instruments rather than extend loans to risky customers. This raises a fundamental issue about using banks as a vehicle to kickstart a recovery from a unique crisis such as the ongoing one. Essentially, the idea of using a market-based approach when markets have all but disappeared as the economy is at a standstill is fraught with serious contradictions. This is reflected in the reluctance of banks to lend to those entities that need funds to remain afloat during the current crisis. The continued portrayal of the ongoing crisis as one that is tied to liquidity logjams is a misrepresentation of reality. In actual fact, large sections of the workforce engaged in industries as diverse as garments, construction and automobiles have not received wages or any relief at all. These companies need access to working capital on an immediate basis and

perhaps more to prevent a collapse following bankruptcy. This is not about individual firms and their liabilities but about preventing a wider contagion across the ecosystem in which these industries exist.

DRIVING CONCENTRATION

An internal note circulated in the government, and accessed by *Frontline*, reveals that there is no move to mount a salvage operation by using the fiscal deficit. As far as the micro, small and medium enterprises (MSME) sector is concerned, apart from providing enhanced working capital limits and some relief via lower interest rates nothing is planned. The exclusive reliance on banking channels to provide this relief is bound to fail. There is no evidence that the Modi government is considering this at all. The reluctance to use government guarantees to ensure funding, which small industry associations have been clamouring for, is particularly striking. In short, the writing is on the wall for smaller Indian companies.

If this logic of letting the small perish is pursued to its logical conclusion, it will have devastating consequences for the overall economy. MSMEs account for about one-third of the national GDP, and about the same proportion of all manufacturing output. They account for about one-fourth of all employment and a little less than half of Indian exports. Even in the best of times many of them have been junior partners with large industry, which has only been parasitic, never clearing their bills in time, thus straining their working capital requirements. As a result of the lockdown, many have been saddled with inventories and by non-payment for supplies already made, while they continue to bear rent, electricity and wage costs. The unwillingness to look at fresh ways to deliver immediate support to this segment of industry—for instance, by using the GST Network to identify firms and adopting some normative standards—does not appear to be merely unimaginative. Instead, it appears that this section has been forsaken on a whim. In fact, the contagion, if it takes effect, will not remain confined to small businesses, many medium and large companies may go bankrupt too. The government appears to be inclined to let the assets of these companies be liquidated by banks that will convert their loans into equity.

The callous manner in which migrant workers have been treated suggests that a more insidious motive may be at play. In Karnataka, for instance, the Bharatiya Janata Party (BJP) government headed B.S. Yediyurappa first announced that migrants would be allowed to leave on trains for destinations in other States. A day later, after a meeting with heavyweights of the real estate lobby, he did a somersault. The real estate magnates justified it by claiming that the starving workers would be better off. The agitated workers, of course, would have none of it. How could they trust the same industrialists who had let them bleed for 40 days? they asked.

Under pressure from workers and trade unions, Yediyurappa did another somersault and agreed to let them proceed. Each of these workers paid at least Rs.970 towards travel expenses to destinations in Bihar, including an obviously exorbitant fare of more than Rs.100 for travel within Bengaluru city. K.N. Umesh, secretary of the Karnataka unit of the Centre of Indian trade Unions, said: "None of these poor and desperate workers even bothered to collect the Rs.30 that was due to them [after paying Rs.1,000 each]." He was at the railway station on May 8 when the migrants boarded the trains.

But even after the trains, which were scheduled to depart between May 8 and May 15, had left, lakhs of migrant workers still remained. It is clear that both the government and the industry like to use the lockdown and the conditions of the pandemic to keep workers caged so that they can be put to work, against their will. This mindset is revealed by the recent moves by Madhya Pradesh and Uttar Pradesh to drastically amend and rescind labour protection laws that date back to the time of Indian independence and even earlier. Madhya Pradesh plans to suspend the provisions of the Factories Act, enabling working hours to be extended from 8 to 12 hours a day, effectively a 72-hour week for workers. Uttar Pradesh has passed an ordinance suspending many of the labour laws, barring those obviously incompatible with scruples of modern civilisation such as those abolishing bonded and child labour. Industries in other parts of the country, which are demanding to be freed of all accountability following relaxation of the lockdown in parts of the country, are demanding that these laws be suspended. Under the pretext that foreign companies wishing to relocate from China are queuing up to come to India, the government appears to be sending out signals that it is in a mood to accommodate.

The initial reaction to the Modi government's decision to stand apart from the world by not extending a substantive relief package appeared to suggest that it was grossly unprepared and that it dragged on leaden feet. The stubborn resistance, despite appeals from several quarters, including several leading economists, suggests that its actions are by design, not arising from lethargy or incompetence. It suggests that its ideological predisposition makes it incline towards a neo-Malthusian outlook or even one that is of social Darwinism in vintage. It will be perfectly compatible for such an outlook to imagine that the small is equal to being inefficient or that consolidation is indeed desirable.

The suspension of the most basic of legal protection for labour, which trace their origins to the struggle for national independence, is in line with such a line of reasoning. In effect, this outlook seeks to promote the naked advance of the consolidation and concentration of capital. A clue to its approach is provided by the Modi government's conduct since the demonetisation of 2016. In effect, its approach to the pandemic is part of a continuum in which demonetisation and the implementation of GST were merely stops on a journey.

It is not clear whether Indian capitalists understand what is unravelling. Such a large-scale collapse of industry, especially small industries, will destroy India's productive capability. But who is to call out this dystopian pipe dream? □

A SPECIAL TRAIN for Gorakhpur, Uttar Pradesh, from Bhiwandi, Maharashtra, on May 3.

PTI

The way forward on migrant issues

Even as Kerala and Odisha have taken proactive measures for migrant welfare in the wake of the lockdown, a permanent solution to migrants' problems may lie in the implementation of the report of the first-ever task force on migration that was submitted to the Centre in 2017.

BY **S. IRUDAYA RAJAN** AND **BERNARD D' SAMI**

INTER-STATE MIGRANTS, LARGE NUMBERS of whom have been stranded in their cities of work with little means of survival and no way to get back home, are among the worst affected in the nationwide lockdown imposed since March 24. Images of hundreds of them, stranded at various transit points such as bus stops and railway stations, and trying to make the journey back home on foot, have stirred the nation's conscience. They have also, even if belatedly, raised questions on the responsibilities of States towards internal migrants who help sustain their economies and of the Centre in terms of the effects of its sudden, large-scale decisions on the lives and livelihoods of millions.

States such as Odisha, West Bengal and Bihar, which contribute a large share of migrant workers, have taken some measures to protect migrants in the destination States. Odisha's model of intervention has been quite effective, with timely implementation made through the State Ministries of Labour, Education, Women and Child Welfare and Panchayati Raj institutions.

This also reveals the structure of the Indian federal system and its powers in ensuring citizens' rights. The "sending" States are keen to protect their labour from exploitation. For instance, the Department of Non-Resident Keralite Affairs (NORKA) has provided call centre helplines for their migrants in most Indian cities, including Chennai, Mumbai and Delhi. NORKA has also set up call centres for emigrants in the Gulf countries. Many sending States have enabled a help desk for their workers in the capital cities of "destination" States such as Mumbai and Delhi, other State capitals and industrial towns in other States. However, such facilities are limited to the volume of migration that is taking place from the sending to the destination States.

The general movement of labour is from the North and East India to the West and South. Some of the prominent labour-sending States are Bihar, Uttar Pradesh, West Bengal, Rajasthan, Chhattisgarh, Jharkhand, Madhya Pradesh, Uttarakhand and Odisha. Gujarat, Maharashtra, Delhi, Haryana, Punjab, Karnataka, Tamil Nadu and Kerala serve as the key labour recipients. This is owing to the demographic divide between the South and North in terms of demographic dividend and transition. Moreover, the months from December-January to June-July are the time when seasonal migrants are in destination States, working in construction sites, brick kilns, and rice mills, among others.

The focus of this article is on the number of inter-State migrants as captured by Census 2011 and Economic Survey of India 2017, and the recommendations on the various issues of internal migration made by the working group on migration set up by the Union Ministry of Urban Affairs in 2015. It also details the various responses of the Centre and the States, and the road ahead, both in ensuring that large shocks such as the current one do not affect migrant lives and livelihoods and in preventing adversities in future.

MIGRANT POPULATION

India's total population, as recorded in Census 2011, stands at 1.21 billion. Internal migrants in India number 454 million, or 37 per cent of the population. That said, internal migration remains grossly underestimated owing to empirical and conceptual difficulties in measurement.

India experienced rapid urbanisation between 2001 and 2011, with an estimated 31.8 per cent decadal growth. Migration, one of the components of India's urban growth, is expected to increase in the foreseeable future. The number of internal migrants is expected to cross 550 million by 2021. Policies such as the National Smart Cities Mission have also contributed to this phenomenon. During 2001-2011, India saw an increase of 139 million to its migrant workforce. The internal migration almost doubled during 20 years—from 220 million in 1991 to 454 million in 2011.

Migration in India is primarily of two types: (a) long-term migration, resulting in the relocation of an individual or household; and (b) short-term or seasonal/

MIGRANT WORKERS from Maharashtra walking home, on the outskirts of Hyderabad on May 4.

circular migration, involving back-and-forth movement between a source and destination. According to National Sample Survey estimates, 28.3 per cent of workers in India are migrants. By this yardstick, India has approximately 175 million internal migrants who move for work in the informal sector and support the lifeline of many State economies.

For the first time in the history of the country, the Economic Survey of India 2017 stated that an average of nine million people migrated between States every year for either education or work. The Survey revealed that States such as Delhi, Maharashtra, Tamil Nadu and Gujarat attracted large numbers of migrants from Uttar Pradesh, Bihar, and Madhya Pradesh. According to the Survey, internal migration rates dipped in Maharashtra and surged in Tamil Nadu and Kerala, reflecting the growing pull of southern States in India's migration dynamics. The out-migration rate, or the rate at which people have moved out of their State, increased in Madhya Pradesh, Bihar and Uttar Pradesh, and dipped in Assam. The Survey reinforced the fact that the less affluent States have more out-migrants and the most affluent States are the largest recipients of inter-State migrants.

Between 2001 and 2011, migration to destinations within the State registered a higher growth rate compared with those headed to other States. The number of inter-State migrants grew at 55 per cent during 1991-2001 and fell to just 33 per cent during 2001-2011. By contrast, the rate of growth of inter-district migrants increased from 30 per cent during 1991-2001 to 58 per

cent during 2001-2011. Apart from moving within States, people also moved within districts. The growth in intra-district migration (movement within the same district) increased from 33 per cent between 1991-2001 to 45 per cent between 2001-2011. What emerged was a decline in inter-State migration and an increase in the inter-district migration within the State (Figure 1).

While the factors responsible for migration are many, as many as two-thirds of women who reported having migrated from their last place of residence cited marriage as the reason. Among men, work and business accounted for one-third of total migrations, which is also the single largest reason for migration. Inter-State migration is largely single male and female migration. Only certain categories of work cause migrants to move with their families and that is largely noticed in construction and brick-kiln industries (Figure 2).

RECOMMENDATIONS

The first ever task force on migration, the Working Group on Migration formed by the Ministry of Housing and Urban Poverty Alleviation and headed by Partha Mukhopadhyay from the Centre for Policy Research, was set up in end 2015. The panel in its report stated that the migrant population contributed substantially to economic growth and that it was necessary to secure their constitutional rights. The 18-member working group submitted its report in January 2017.

The report began by stating that in principle there was no reason for specific protection legislation for migrant workers, inter-State or otherwise, and that they should be integrated with all workers as part of a legislative approach with basic guarantees on wage and work

conditions for all workers, as part of an overarching framework that covers regular and contractual work. Pending such a unified architecture, the working group made the following recommendations:

Social protection

States must (i) establish the Unorganised Workers Social Security Boards; (ii) institute simple and effective modes for workers to register, including self-registration processes, e.g., through mobile SMS; and (iii) ensure that the digitisation of registration records was leveraged to effectuate inter-State portability of protection and benefits.

Self-registration

Migrants should be provided with portable health care and basic social protection through a self-registration process delinked from employment status. The level of benefits could be supplemented by the worker or State governments with additional payments.

Food security

One of the major benefits that migrants, especially short-term migrants or migrants who move without their household, lose is access to the public distribution system (PDS). This is a major lacuna, given the rights conferred under the National Food Security Act 2013. The digitisation of beneficiary lists and/or in some instances their linkage with Aadhaar permits the two actions necessary for portability of PDS benefits, that is (a) the modification of the benefit to permit the delinking of individuals from households and (b) the portability of the benefit across the fair price shop system (or alternative methods, if used).

Health

The rudiments of a portable architecture for the provision of healthcare are in place with the portability of RSBY (Rashtriya Swasthya Bima Yojana) and ESI (Employees' State Insurance). The focus can be on covering contract workers and even unorganised workers under ESI, and the proposed use of portability to provide the benefits under UWSSA (Unorganised Workers' Social Security). However, there is still a large gap in implementation, in the level of basic benefits and in the ability of the worker to improve these benefits with supplementary payments.

The working group also recommended that the Integrated Child Development Services–Anganwadi (ICDS-AW) and auxiliary nurse midwives (ANMs)—be advised to expand their outreach to include migrant women and children in the scheme.

Education

The working group also recommended that Ministry of Human Resource Development encourage States to include migrant children in the annual work plans of SSA (Sarva Shiksha Abhiyan), such as under the Education Guarantee and Alternative and Innovative Education schemes.

This could include the establishment of residential facilities as well as providing support to a caregiver chosen by the family, as currently practised in some States. In doing so, it is imperative to ensure adequate

child protection, basic services, and caregiver-to-child ratios.

Skilling and employment

The working group recommended that migrants have unrestricted access to skill programmes in urban areas; in cases where there are domicile restrictions, these need to be removed. The various Ministries of the Government of India need to ensure that skill programmes funded by the Union Budget support do not have domicile restrictions.

Financial inclusion

The working group recommended that the Ministry of Communications re-examine the Department of Posts' electronic money order product, benchmark it to private (informal) providers in terms of cost and time for the delivery so that it could be a competitive option for migrant remittance transfers.

The Economic Survey of 2017 concluded that the above-mentioned measures would "vastly improve welfare gains of migration and ensure even greater integration of labour markets in India".

A proper follow-up of the above points could have allowed the nation to be better prepared to take care of its migrant workers in times of a major crisis. As it turned out, the current scenario presents a contrary picture of failure to protect the nation's most vulnerable population. However, there is evidence that certain States have adopted more effective measures with due consideration extended to their migrant populations.

STATES' RESPONSES

In the present crisis, amidst the suspension of buses, trains and flights services, governments of major migrant-receiving States such as Kerala, Tamil Nadu, Delhi, Gujarat, and Maharashtra have intervened to provide basic amenities such as shelter, rations and food for the stranded workers.

Among the State Governments, the Kerala model of humane treatment accorded to migrants, who are referred to as "guest workers", has been widely appreciated. The Kerala government organised 15,541 relief camps for migrant workers, the highest in any State. Moreover, in Kerala, community kitchens are functioning at the panchayat level to ensure that no migrant worker goes hungry. Meanwhile, the State has also provided migrant workers night shelters, health care benefits, educational allowances for children, and financial support to transport the mortal remains in case of natural death.

As earlier mentioned, Odisha has been a model State in terms of protecting the migrant workers in the destination States. At all levels, the Odisha government has comprehensively framed this model by providing shelter and schooling for the children of migrant workers both at source and at select destination States to reduce the number of school dropouts. It has initiated measures against contractors and agents undertaking illegal activities.

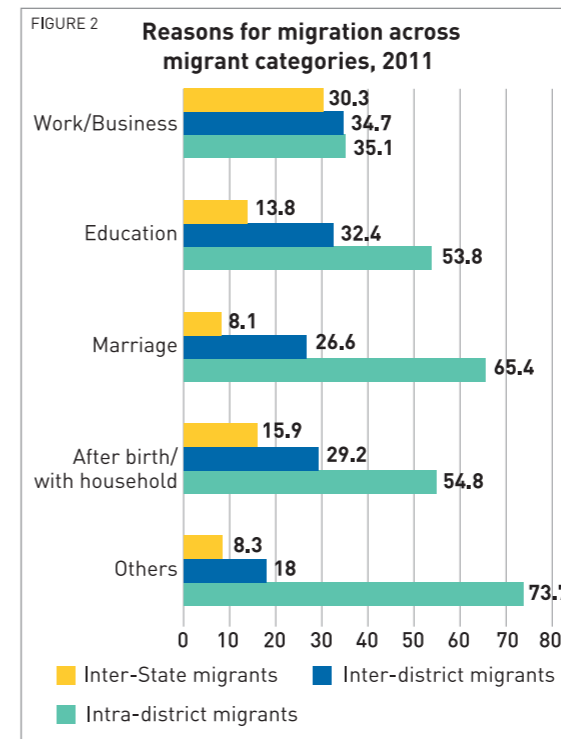The Odisha government has set up a migration support centre for workers from Odisha in Tiruppur, Tamil
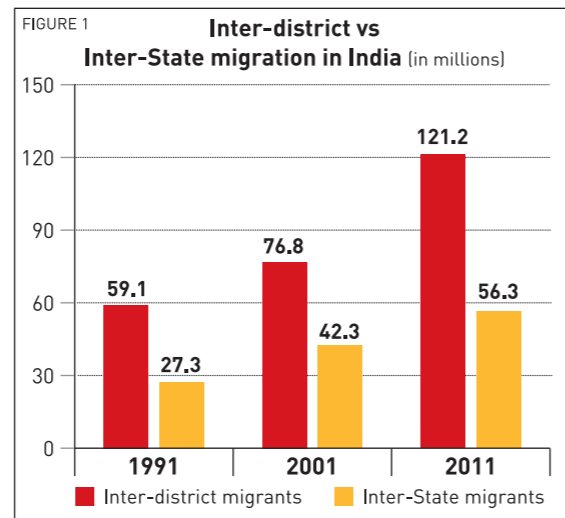
Nadu. Further, realising the need for immediate intervention at the local level, the Department of Labour and ESI have initiated the process and Memorandums of Understanding have been signed with the local associations of Odia people living in those States, to act as the first point of contact and support to Odia migrant workers. Accordingly, the managements of Utkal Association of Madras, Chennai; Orissa Cultural Association, Bengaluru; and Utkal Sanskrutika Samaj, Vishakhapatnam, have signed MoUs with the State Labour and ESI authorities.

The Odisha model also indicates the importance of networking between States to protect the migrant workers. This kind of safety net is completely absent in other migrant-sending States such as Uttar Pradesh, Rajasthan, and States in the North-east.

On the flip side is the economic insecurity faced by the migrant workers as well as its impact on their family members in their States. Migrant workers financially support their dependents living in their States by remitting their earnings home. Therefore, in the absence of economic activity, these migrants are unable to feed their dependents who also need attention. It is evident that since the lockdown, migrants have been monetarily unproductive for prolonged periods and providing basic amenities is only a temporary solution to keep them from starvation. Moreover, the "charity approach" of dealing with the migration crisis has to be replaced by the "welfare approach".

Hence, despite transferring meagre cash benefits to the bank accounts, the need of the hour is to frame comprehensive unemployment benefits to ensure economic security for distressed and stranded migrants. This measure will contribute much towards treating migrant workers with more respect and dignity.

Some migrant workers, who realised the danger of being stranded owing to the COVID-19 pandemic through the Janata curfew on March 22, tried to make the long journey home early. Migrant workers from Ker-

FIGURE 1

Inter-district vs Inter-State migration in India (in millions)

Source: Census of India 1991, 2001, and 2011

FIGURE 2

Reasons for migration across migrant categories, 2011

Note: Numbers given are percentages of total migrants   Source: Census 2011

ala who boarded the Alappuzha-Dhanbad (Bokaro) Express, with a travel time of 55 hours and 15 minutes with 94 halts, were de-trained at Chennai Central station; the railway authorities did not allow any train to move out of the Central station. Similarly, other trains proceeding to the migrant corridor routes were stopped, resulting in large numbers of migrant workers ending up in Chennai Central Station. Later, the Corporation of Chennai took them to community halls, marriage halls, and schools and provided them with shelter, medical examination and food. Likewise, there are countless migrant workers who are neither in their destination nor in their source States, but stranded at transit points such as Chennai Central station.

THE ROAD AHEAD

There were visuals in the media of migrant workers desperate to reach their home on foot, in bicycles and hiding in vehicles, in places such as Surat and Mumbai, where a large number of migrants staged protests, demanding to return to their home States. Meanwhile, the mass gathering of migrant workers, mostly working in informal and unorganised sectors, at Anand Vihar bus terminal in Delhi alerted the authorities to their plight. Subsequently, judicial intervention was sought at the Supreme Court of India. What was visible in these responses was haphazard planning when it came to the issues of internal migrants and how major decisions affected them far more adversely when compared withother classes of workers. Although the issues relating to the welfare of inter-State migrants were highlighted through the Economic Survey of India 2017 and the

report of the working group on migration, little has been done by way of a follow-through. While certain States have taken proactive measures in ensuring migrant rights, there are miles to go before the social and economic safety net of India's migrant workforce improves. This needs wider cooperation and collaboration between States. This nationwide lockdown has reiterated the fact that it is important to shore up federal structures within States and having them work in tandem with the Centre to work towards migrant safety and ensuring their rights, both at the source and the destination States.

The Smart Cities Mission, one of the most ambitious projects of the Central government, has attracted large numbers of migrant workers. The current migrant crisis has indicated how migrant workers are excluded from the safety nets of both receiving and sending States. Therefore, a fresh focus is required to protect this invisible workforce in Indian cities, by including them in the social, economic, and health security net.

To further safeguard the interest of the migrant workers, the Central government has enacted the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979, which, *inter alia*, provides for payment of minimum wages, journey allowance, displacement allowance, residential accommodation, medical facilities, and protective clothing. However, the current crisis has demonstrated starkly the lack of proper implementation, and thus the ineffectiveness, of the Act. Most importantly, the lack of political will is the most serious hindrance to uphold migrant rights. Nevertheless, there is hope when both sending and receiving States make proactive interventions.

During an emergency such as this, if the sending States are equipped with the complete data of migrant workers, they will be able to negotiate better with the receiving States as to what is expected of them. Apart from the official data sharing, the government should replicate scientific sample surveys such as the Kerala Migration Survey in other States. Now that the migrants are moving far away from their States, the receiving State equally has to protect the migrants and their rights. The economic development of India depends on migrants who dominate the labour force in the construction and manufacturing sectors.

While their remittances aid the development of the source State, they also help propel the economy of the destination States. It is time to bring the migrant population in the social and economic map of India and for policymakers to include migrants in their decision-making. It is also time for the government to implement the recommendations of the working group on migration as a first step to ensuring migrants' welfare.   □

S. Irudaya Rajan is Professor at the Centre for Development Studies, Kerala. He led the Tamil Nadu Migration Survey and is a Member of the Kerala Government Expert Committee on COVID 19.

Bernard D' Sami is Senior Fellow and Coordinator, Loyola Institute of Social Science Training and Research, Loyola College, Chennai.
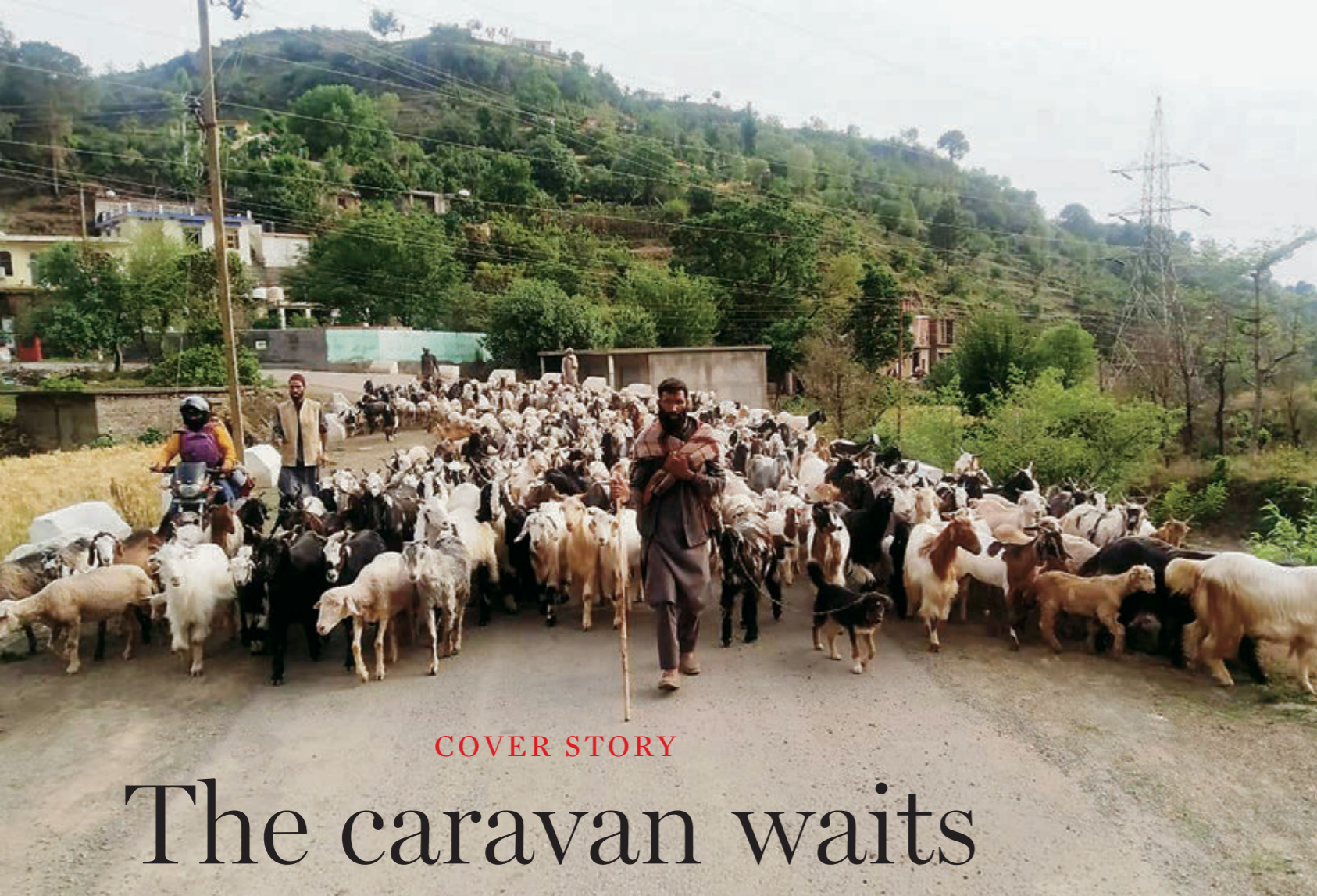
COVER STORY

The caravan waits

Denied permits and transportation and facing boycott over coronavirus conspiracy theories, the pastoral Gujjar and Bakarwal communities of Jammu and Kashmir begin their annual summer migration without adequate food rations and fodder. BY ASHUTOSH SHARMA

RANJIT KHAJURIA

A BAKARWAL family migrating to Kashmir from Jammu along with its herd near Kalakote in Rajouri district on May 4. (Above) Naksha Bibi.

PERVEZ MOHAMMAD

NAKSHA BIBI, AN OCTOGENARIAN NOMADIC Bakarwal matriarch, used to leave her winter home at Purmandal in Samba district of Jammu region well before the onset of summer. She would go across the Pir Panjal range of the Himalaya by the end of March, every year. After camping at Kokernag in Anantnag district in the Kashmir Valley for a couple of days, her caravan would set out on a long march towards Margan Top, the mighty mountain pass that connects Warwan Valley with the main Kashmir Valley. The caravan of her extended family, livestock and sturdy Bakarwali dogs—some dutifully leading from the front and the others trailing behind to ensure everyone was secure en route—would invariably reach their summer home at Inshan in Kishtwar district in the middle of the spring season.

But this year, Naksha Bibi's annual summer migration is surely going to be the longest and toughest journey of her life. After an initial delay because of the lockdown, the Union Territory administration finally allowed the pastoral nomadic Muslim communities, Gujjars and Bakarwals—one of the most vulnerable and the third largest ethnic communities of Jammu and Kashmir—to migrate within Jammu region or cross over to Kashmir and Ladakh on foot in late April. However, the local authorities would not issue migration permits for many areas even until April 30.

Replying to queries regarding nomadic families stranded in Balatar panchayat, Chuni Lal Badyal, naib tehsildar of Sumb in Samba district, said: "We don't have any orders from the office of the District Magistrate.

Many nomadic families have left for *dhok*s [highland pastures] on their own without permission."

The standard practice of Naksha Bibi's family the past several years had been to send women, children and the old and infirm in trucks to Anantang along with essential household goods. The menfolk would follow them on foot herding the livestock. After waiting for official permission for the use of vehicles, Naksha Bibi finally undertook the daunting journey on April 22. "The delay was proving disastrous for our livestock. So we didn't wait for permission to use vehicles. In view of the rise in temperature, sheep and goats have started suffering from foot-and-mouth disease. Vaccines are not available because of the lockdown," Naksha Bibi's grandson, Pervez Mohammad, said. He is doing his postgraduation in Urdu at the University of Jammu.

"Until last year, it was enough to get a *raahdaari* [permit] from the district forest authorities. But this year, we were asked to get a no objection certificate from the local police and revenue authorities apart from the district forest officer," he told this reporter over phone from Kishanpur Manwal near the Jammu-Udhampur border on April 29. "We have reduced our reliance on

ponies over the years. The ever-growing vehicular traffic has made it difficult for us to transit via the national highway and other roads on foot. Heavy urbanisation and population growth even in rural areas have led to an acute fodder shortage and hostilities. We have also lost our access to many traditional migration routes and forests."

Despite changes in administrative laws following the abrogation of Jammu and Kashmir's semi-autonomous status in August last year, the Forest Rights Act has not yet been implemented in the new Union Territory. The authorities have fenced forests, denying the pastoral communities access to them. The law promises grazing rights, access to water resources and forest produce (except timber) to traditional forest dwellers and offers them protection against forced displacements. Until August last year, forest laws of the former State provided the pastoral nomadic communities only grazing rights in certain forest areas.

Gujjars and Bakkarwals constitute 11.9 per cent of the erstwhile Jammu and Kashmir State's total population of 12.5 million, according to Census 2011. Over the past three decades, growing militancy, militarisation and frequent ceasefire violations along the 198-kilometre-long international border and the 730-km-long line of control have affected the simple pastoral life of these nomads. As a result, many pastures and traditional migration routes are out of bounds for them.

Their centuries-old biannual migration seems to have inspired the "Durbar Move", the practice of shifting the Jammu and Kashmir government's civil Secretariat and other offices to Srinagar in the summer and Jammu in the winter. The Dogra monarch, Maharaja Gulab Singh, introduced this biannual relocation of offices in 1872.

In the wake of the national lockdown implemented to break the chain of COVID-19 infection, the majority of the nomadic families have started their summer migration without adequate food rations. In the past, the Department of Animal and Sheep Husbandry had set up camps along the migration routes. This year, no such arrangements are in place, the families say.

In several places on their route, the twin communities have been facing boycott over coronavirus conspiracy theories. On April 17, the caravan of Haji Abdul Hamid, the 85-year-old Bakarwal herder, began its journey on foot for Marwah Dachan in Kishtwar district from Basantpur in Kathua district. Talking to the reporter over phone, Hamid said, "We are 20 households moving with 10,000 head of cattle. This time we don't have enough stock of food rations. We also don't have medicines for the livestock. Government veterinary doctors are nowhere in sight. The government has not shown any concern for our problems."

The communalisation of the pandemic has created a new crisis for these communities. "The previous day, the local sarpanch and his men brutally thrashed our livestock at Saira Kardoh village in Basohli tehsil, without any provocation. They warned us against camping near

their village. They blamed us for the spread of COVID. They were not willing to understand that not a single person from our community had got infected with the virus so far. I believe, they targeted us for some other reason," Hamid lamented.

Gujjars and Bakarwals have faced allegations of "land jehad" as part of an imagined conspiracy aimed at changing the demographic profile of the Jammu region. Many right-wing leaders had called for boycotting them socially and economically following the Kathua rape and murder case. Some Bharatiya Janata Party Ministers and legislators had apparently organised a rally in support of the persons who kidnapped, gang-raped and murdered an eight-year-old Bakarwal girl in 2018. Ironically, the Indian armed forces personnel laud the Bakarwal community for informing them of Pakistan's intrusions in 1965, 1971 and before the Kargil war.

Sharief Ahmed, Hamid's younger brother's son, said, "Even though the trial court has convicted the accused in the Kathua rape and murder case, the hostile attitude of many local residents has not changed." Sharief Ahmed is pursuing his doctoral degree in economics at the University of Jammu. His MPhil thesis was on "Impact of mobile primary schools on educational outcomes of students: A case study of Bakarwal tribe in district Kathua".

"Bakarwals are one of the most educationally and economically backward tribal communities in the country. The annual report of the Union Tribal Affairs Ministry 2018 revealed that the literacy rate of the community is slightly over 25 per cent," he said.

On the morning of April 19, as many as 73 sheep, goats and two horses belonging to the Bakarwal families were found dead in Meer Panchari area adjoining Udhampur district. The livestock belonged to Abdul Qyoom and Gulzar Ahmed. They had broken their journey near the village on their way to Kashmir from the border area of Khor in the Akhnoor sector. Bakarwals suspect that the livestock was poisoned by some local people.

BOYCOTT OF GUJJARS

Another section of the tribal community, Dodhi Gujjars, has been facing an undeclared boycott in the Jammu region. Dodhi Gujjars mostly migrate within Jammu region and are largely dependent on milk-yielding animals and practice small-scale agriculture. Jameel Choudhary, president of the Dodhi Gujjars community in Jammu, said: "At a time when we do not have enough food for ourselves, we have offered to supply milk to the quarantine centres in Jammu and Kathua free of cost. But, our offer has not evoked any response from the authorities. We want to contribute to the fight against COVID-19 despite threats to socially distance our community. People are not buying our milk produce. We are forced to dump the milk in rivers and farms. In several areas, local residents do not allow our cattle to graze on government land. Attempts are being made to harm the community financially under the garb of coronavirus threat."

His allegations are not baseless. During the lock-

down, pictures and videos emerged on social media showing members of the community being assaulted by the Jammu and Kashmir Police and local residents. Citing COVID-19 threat, Gurdayal Singh Majotra, sarpanch of Gharana panchayat in Suchetgarh block near the Pakistan border, wrote a letter to the local authorities, requesting that members of the tribal communities should not be allowed to enter his panchayat. "...no entry of Gujjars/Bakarwals visiting panchayat Gharana along with their animals from village Jeoura and Kalali Tibba without the permission of the panchayat. You are also requested to kindly convey the directions to the police... if we establish a checkpoint.... The infrastructure and staff of forest and VDC (village defence committee) is available and ready for check post. Please convey your directions as early as possible," Majorta stated in his letter dated April 8.

When contacted two days later, Majotra told this reporter, "I don't know what's wrong with my letter. Why is it being politicised and I'm being criticised on social media? These people come in hordes to take fodder for their livestock. They don't maintain physical distancing. Even though I've withdrawn my letter I'm very much worried about the security of my panchayat."

Incidentally, hamlets with a predominant population of the community become targets of shelling and firing from across the border during frequent ceasefire violations. In January 2018, at least 150 mud houses of Gujjars were gutted in Pakistani shelling as the area turned into a war zone. These families also lost their cattle and other livestock to mortar bombs and bullets.

Several social organisations from the Chenab Valley, which comprises the three districts of Ramban, Doda and Kishtwar, have also expressed the fear that the pastoral nomads could transmit coronavirus in their areas. The organisations, which include the Thathri Development Front, the Paddar Development Forum and the Paddar Youth Forum, have urged the Divisional Commissioner of Jammu to establish checkpoints for screening of the nomadic community. In a joint statement made to the local press on April 26, they said: "The migration of nomadic population to the upper reaches of Chenab valley particularly in subdivision Paddar, Thathri and Dachhan area can wreck havoc. The administration should establish checkpoints so that no coronavirus positive case enters the virgin valley."

DEPRIVED OF PDF BENEFIT

The Jammu Kashmir Tribal United Forum has demanded an emergency monthly financial relief of Rs.7,000 to each nomadic household living below the poverty line (BPL). Roshan Din Choudhary, the forum chief, said: "Over five lakh nomadic Gujjar and Bakarwals in Jammu and Kashmir have been affected by the lockdown. The nomadic and BPL families have no work. They have no source of income. They have no way of arranging fodder for their livestock."

"The government should immediately put in place a mechanism for purchasing milk from the Dodhi Gujjar

A BAKARWALI dog near Margan Top, which connects the Warwan Valley with the main Kashmir Valley.

PERVEZ MOHAMMAD

community," Choudhary suggested. "A large number of local Gujjar labourers who had gone to the neighbouring States of Punjab, Himachal Pradesh, Uttarakhand and Delhi for daily wage work, are stranded either at places of their work or on their way back home. They need to be evacuated and brought back. Similarly, a huge chunk of tribal population is stranded in the upper reaches of the mountains. They are facing starvation and they are yet to get the attention of the authorities."

Although Union Minister for Food and Public Distribution Ram Vilas Paswa declared in March that beneficiaries under the public distribution system would be allowed to lift their quota of subsidised foodgrains for six months in one go, in view of the coronavirus outbreak, tribal nomads largely remain deprived of the benefit.

An assistant director in the Food, Civil Supplies and Consumer Affairs Department in Jammu region said: "Over half the population of nomadic tribes in Jammu and Kashmir, the majority of them Bakarwals, has been left out of the ambit of the National Food Security Act, which has a specific policy for the nomadic tribal population. The Act was implemented in Jammu and Kashmir in 2016 in a haphazard manner. The scattered nomadic population couldn't get registered. So the government must intervene to provide them ration during the lockdown." (He did not wish his name to be shared as he was not authorised to speak to the media.)

He said there was a need to set up new screening committees comprising officials from the Revenue and Rural Development departments at the tehsil level under the supervision of his department to include the deserving nomadic families who had been left out. "The seasonal migration of nomadic tribes cuts across the Union Territories of Ladakh and Jammu and Kashmir and the States of Punjab and Himachal Pradesh. Therefore, inter-State and inter-district portability of their

digital ration cards—just like mobile phone sim cards—should be introduced after taking into consideration their unique migration patterns."

Mukhtar Ahmed, secretary of the Jammu and Kashmir Advisory Board for development of Gujjars and Bakarwals, said: "As of now, there are no clear directions from the government regarding transportation facilities. But the administration must allow the migrating nomadic families to use vehicles as they have been facing a lot of hardship."

Ahmed wrote to all the 10 District Magistrates of Jammu region (Jammu, Samba, Kathua, Udhampur, Kishtwar, Doda, Poonch, Rajouri, Reasi and Ramban) on April 16 requesting permission for the pastoral nomadic communities to migrate with their animals. "...it has been learnt that the officials of the Forest Department have not included pet animals like buffaloes/cows (milch animals) in the prescribed format. This has created a lot of inconvenience to the migratory population. It is, therefore, requested that necessary directions be issued from your office to the designated authority of the Forest Department for inclusion of pet animals as per the past practice after proper verification so that the issue is resolved.

"Still, we are receiving regular complaints that officials in some districts are not permitting nomadic families to migrate along with their bovine animals. They should be permitted after proper verification by panchayat representatives, and revenue and forest officials. They should not be suspected of bovine smuggling....

"A few days ago, over a dozen families were stranded near Atal Setu Bridge in Basholi, Kathua. These families had come from Punjab. Later, on my request the District Magistrate of Kathua allowed them to migrate to highland pastures in small groups on foot."

About the availability of veterinary doctors along the migration route, Ahmed said: "The Chief Secretary had given clear instructions that all arrangements must be ensured for their smooth seasonal migration. Officials from the Department of Animal and Sheep Husbandry had also attended that meeting. But the COVID-crisis has given an escape route to many."

On the issue of ration, he said: "The government is taking the required steps to provide free ration to nomadic families during lockdown as per the directions of Prime Minister Narendra Modi. But that is not going to be a long-lasting solution. The larger issue still remains unresolved like many of their other problems."

As the government scrambled to ensure their smooth migration, Naksha Bibi and Pervez Mohammad were struggling to cope with fear, the kind nomadic families have experienced at the height of militancy. "We are quite afraid this time. We walk only 20 km in the morning hours and another 20 km in the evening. Kharpora village in Larnoo tehsil of Kokernag area, where we camp during our migration, has been declared a coronavirus red zone. So, we are moving at a very slow pace. We have to cross Margan Top before the rainy season begins." □

'The lockdown has not eradicated COVID-19'

Interview with Jayaprakash Muliyil, Member of the National Task Force-constituted research committee on (COVID-19) Epidemiology and Surveillance and Chairman of the Scientific Advisory Committee of the National Institute of Epidemiology. BY **T.K. RAJALAKSHMI**

MANY SCIENTISTS HAVE BEEN SCEPTICAL about the efficacy of a complete lockdown as a method to get rid of the SARS-CoV-2 virus. Among them is Professor Jayaprakash Muliyil, a renowned epidemiologist who retired as Principal, Christian Medical College, Vellore, and is now a member of the National Task Force-constituted research committee on (COVID 19) Epidemiology and Surveillance, as well as Chairman of the Scientific Advisory Committee of the National Institute of Epidemiology.

Professor Muliyil spoke to *Frontline* over phone on the various issues relating to the COVID-19 pandemic. Excerpts from the interview:

One of the empowered committees set up by the government on COVID-19 has estimated that the fresh number of cases will come down to zero on May 16. Do you agree?

Not according to the science I know. Remember we have been trying to do this quite a lot through containment work. Once the presence of the virus has been established within a country and the transmission within the country has started, it is very difficult by lockdown alone to get rid of the virus.

There is an important aspect of this virus that we need to understand, and that is the spread is primarily through sub-clinical cases. A large proportion, maybe 65 per cent, may have caught the disease or not. They are asymptomatic.

Whenever you see new cases being reported, you will notice there are a large number of sub-clinical (where definite or observable symptoms are not seen) cases spreading the disease. They are infectious for probably around a week, but that is the time when they do the spreading. There is no way this can be done unless it is very localised or, say, we are around three clusters in the country. Probably we could have done a good try, but then it is not very easy. Now that it is everywhere, we are dealing with a human population. We have to talk to each other, go out and buy food from shops. It is not conceivable. We can reduce the transmission but to get rid of it to zero is going to be extremely impossible.

What is your opinion on the testing protocol?

There is the question why do we test. First of all, we want to know what proportion of cases we think could be COVID, representing the symptomatology suggestive of COVID, and what proportion is actually COVID. To ascertain that we need to do this particular Reverse Transcription Polymerase Chain Reaction (RT-PCR) test. If the person tests positive, then we are certain, to a large extent in an epidemic situation, it is possible it could be COVID-19. On the other hand, depending on the tests we are using, we have to be careful of negative results where, in some situations, a sensitivity of 70 per cent was seen. There is a difficulty with such tests.

Modern tests are much more sensitive. The reason why we test is to find out whether a person is symptomatic or has COVID. People have used it also to identify among contacts, but I am not very clear about what the use is. If there is an intra-familial contact, we assume they would all be infected. We

should assume that everyone in an intra-familial contact may not be infected today but might get it tomorrow. They will never show symptoms.

The other test we have is whether a person has immunity or shows evidence of immunity or immunoglobulins. The one that is most reliable is IgG (Immunoglobulin G, which is the most common type of antibody in the blood and other fluids). It doesn't diagnose disease. It only diagnoses whether the person has been exposed. We can talk about what percentage of the community has already been infected, and, consequently, are immune to the disease.

I know some of the labs are almost ready in India to come out with tests that are superior to the Chinese tests. The thing is, we can't see the infection as most of it is sub-clinical. But when we do the test and find what percentage of persons is positive, we know the extent of the spread. We also recognise that a good proportion of people have become immune, so then the potential of becoming diseased is low.

I would be happy to find that I have already been infected, and get a certificate from my lab that I am IgG positive. This means I can go anywhere, walk into any hospital, its ICU and talk to a COVID patient. Nothing is going to happen to me. I am an optimist. An immunogenic virus will produce good protection. Like measles, if you get it once, you will never get it again. For example, German measles, if you get it once you will never get it again. Immunity is something you can depend on. That is why testing will tell us to what extent immunity exists. I know for certain that the tests being worked on in India are very good.

HERD IMMUNITY

The numbers are going up every day. From around 500 confirmed cases on March 25, we have crossed 40,000 a month and a half later, with more than 1,000 COVID-19 deaths. Can this spread be contained with the kind of lockdown we have had until now?

You have answered the question before you have asked it. The lockdown only flattens the curve. If one doesn't do anything, the whole curve will rise steeply. It will go up and come down within three months. With a lockdown, one spreads the curve for a longer duration. Six months, nine months, depends on how long the lockdown is continued. But the total proportion of people who will get infected will not change. It will continue till the particular proportion that it is expected to infect is covered. That is what we call herd immunity. Until that point, it will continue. Instead of everyone falling sick simultaneously, we can spread it around; that can mean that the proportion suffering from serious illness will come down. The same percentage will be seriously ill and need hospitalisation. But since everyone is not falling sick, the hospitals will not be overcrowded. Instead of having the epidemic for a short duration, say three months, the epidemic will go on for more months depending on how long is the lockdown. But the final outcome will be the same number of people who will be infected. Most will be asymptomatic, some will be mildly ill, and a certain percentage will be seriously ill with pneumonia and breathlessness.

Is it possible to get herd immunity without high mortality?

I am talking of only one method that I know. Other countries are also trying to follow. Of all the deaths that occur, 80 per cent or more are in the age group 60-plus. The population that will need help is the proportion that is over 60 years. If they willingly lock themselves down instead of the whole country being locked down, and also within their families, then they won't get infected. So they won't fill hospitals. Many among them who are fairly ill may still fall ill and will need hospitalisation. But we will avoid that rush to hospitals. Younger people are stronger and take part in economic and agricultural activities. They will get infected once they go out and start working. But most of it will be mild. Some may fall ill seriously and some will die. But then they will have a better chance of surviving as the hospitals won't be that overcrowded as the elders won't enter the scene.

That is the sacrifice we expect senior citizens to do, stay at home and keep a distance from their children and grandchildren. I understand I am asking a lot.

We are going through a crisis, the worst crisis since Independence. Somehow, we need to tide it over. The question you asked is very relevant. We can reach herd immunity without too many deaths. The expected number of deaths will be slightly high, but we can reduce it substantially, in which case we have succeeded.

The virus is for real. Every country is suffering. The only strength India has is its young population. Ninety two per cent are below the age of 60. And they can protect

> "Instead of everyone falling sick simultaneously, we can spread it around; the proportion suffering from serious illness will come down. The same percentage will be seriously ill and need hospitalisation. But since everyone is not falling sick, the hospitals will not be overcrowded."

PEOPLE thronging the Big Bazaar street in Tiruchi on May 6.

the elderly. Once we reach herd immunity, we can let the elderly out without the threat of getting infected. Everybody does not believe that this is that simple, and I respect their opinion. I am an optimist and I am using my science.

Herd immunity gives protection to the whole community. I have observed it in many other viruses. It is a little difficult for people to understand. The characteristic feature of this virus is that it travels from person to person.

What percentage of our population needs to get infected to get herd immunity?

It's a little difficult to answer that as India is almost ten times the size of many European countries like Germany for instance. The proportion needed will be higher in the urban areas and less in the rural areas. In the urban areas, we are hoping it will be around 60 per cent.

Kerala did a lot of aggressive contact tracing and is an example of successful containment. Even without a total lockdown, they managed to contain the spread with a system of outreach management of health and other services.

Kerala is one of the best performers in containment. Methodologically, they were thorough. They sought the cooperation of the people. There was a good dialogue between the government and the people. They evolved a programme based on ground realities. Many a time, when there is a disease like this, there is a lot of stigmatising. That is not a good situation. Kerala created an environment of caring and concern. But the question now is, as they have opened up, will the virus return? It will be very disappointing if that happens. I wish them luck and I hope they have been able to get rid of the virus. But they have to remain isolated from the rest of India to keep their virus-free status. They can't allow people coming in.

The lockdown has affected people disproportionately. You have spoken about this as well.

It has been very hard. Even now migrants are trapped in some parts, unable to get out. The lockdown without much of a notice caused a lot of hardship. In New Zealand, where the government decided to go in for a complete lockdown around the same time as India (New Zealand went in for a lockdown on March 25 after the Prime Minister Jacinda Ardern announced it on March 23), it gave three days of notice to people. We are not a small population as New Zealand. We needed some time. Very often, when a 24-hour notice is given, there is a tendency to rush for buying. If one opens a shop for three hours, there will be crowding. Strangely, it is like facilitating the transmission of the virus. Then questions are asked, why are cases increasing even during the lockdown? We [the government] are not consistent in our approach. The whole frame of mind should not be to increase the suffering of the people.

When the lockdown is opened, I am sure there will be a larger number of cases. It will take some days to come out. I am hoping that planners will not panic. They should expect it. The lockdown has not eradicated the disease. We have to understand that it will come down. We have to educate our people about no crowding, about keeping a distance. This will go on. That is important. There will be some infection and some deaths. But each time there are two or three deaths, the demand to have the lockdown is back.

The bed strength has to be increased and watched carefully. We have to make sure that the hospitals do not get overwhelmed. This has to be done with a lot of thought and not as a reflex action. It is like seeing a report in the evening that the cases have gone up and then extending the lockdown because of that.

The participation of the people in the whole process is also vital. Once we open up, infections will start spreading. Our messages should go to the elderly to stay at home and keep away from others in the family as far as possible.

The government is projecting that things are getting better and that by May 16, the number of fresh cases will be zero.

Coming down to zero cases is not going to happen. In Kerala, one district was declared as having zero number of cases. But again some fresh cases appeared. The point to note is that as the majority are sub-clinical, one will not see any case after lockdown for some time. Nothing strange about this.

The disease has an agenda and it will complete it. It will infect 60 per cent of the people. That is one part of the agenda. Of the infected people, maybe two and a half per cent will need hospitalisation. A certain percentage will die. This is a process that will have to be gone through. You can have a lockdown and slow it down. But it will complete its agenda and we will have to helplessly watch since there is no chance of a vaccine at least for one and a half years. We are all praying for a vaccine. I also have a family.

In the meantime, we have to be sensible and protect the interest of the nation. A certain percentage of the people, less than 0.5 per cent, will lose their loved ones. That percentage looks small but in terms of our population it might be large. Almost ten million die due to natural cases. There are other causes also. We have gone through a disciplined life in the lockdown period. But it is not easy to stay in a small hut with husband, wife, children, old parents and not being able to go out. Now we should exit [from the lockdown] and carefully open up with the cooperation of senior citizens to reduce mortality.

What do you make of the efficacy of plasma therapy which has been used by some private hospitals and which the government later clarified was not among the officially approved therapies.

In many viral diseases for which there is no specific treatment available, a good number of antibodies are produced. Viruses are good at producing a good amount of antibodies in the blood. Once people recover from it, by and large the blood is free from the antibodies. Plasma containing all the antibodies can be taken and injected into someone else to reduce the viral load. It may reduce the viral load. But I am yet to see a paper which says this works.

What is your opinion about this blame game involving the World Health Organisation and China?

I am an expert in epidemiology not international relations or social psychology. But looking at the biology of it, my feeling is there was a mishap in the laboratory. The only facility that worked with the virus was in the laboratory in Wuhan. It could have been a coincidence to say that it originated from the wet market. The fact that this was a nasty virus didn't become apparent immediately. After it became apparent, an average person sitting in a lab would have liked to hush it up after realising it. It could have been contained early, but no point in attributing malice to something that can be explained by stupidity. I would be interested in knowing what really happened.

But they ensured that it didn't spread beyond Hubei province.

Yes, they contained it. They did it well.

What should have been done in the lockdown period in terms of strengthening public health systems and epidemiological surveillance?

We are always conscious of the safety of our people and that is why we spend a lot of money on our defence budget. However, we now realise that death can come in this manner, too. I hope this will be a strong lesson to say that public health should see high priority with good training and investment. This includes the ability to respond to threats and the resources to take care of casualties. All these are important in a public health scenario. This should warn us that often the battle is not with any larger enemy but with biological hazards like this.

What lessons for epidemiological surveillance does COVID-19 give us?

It is more important to have international collaborative surveillance programmes. There is realisation that threats can come from any part of the world. At least on moral principles in future, we should be open and facilitate surveillance, share information, not just within the host country where a disease may have originated. It is a sad commentary that we have developed scientifically so much but we are facing a threat from a small little virus.□

Job offers withdrawn, internships now unpaid

Engineering and business school graduates stare at a bleak future as job offers are withdrawn or revised, while delays in joining dates add to the climate of uncertainty. BY **PURNIMA S. TRIPATHI**

THE EXTENDED COVID-19 LOCKDOWN IS wreaking havoc on the country's job market. Not only are existing jobs vanishing because of a complete shutdown of the economy, but prospective jobs for engineering and management graduates, who typically enter the job market at this time of year, are withering. Job offers are being cancelled, and in cases where they are not the inordinate delay in joining brings its own uncertainties.The crisis has not spared even the prestigious Indian Institutes of Technology (IITs) and the Indian Institutes of Management (IIMs) as big-budget companies, including foreign multinationals, are reported to have withdrawn job offers.

Thousands of engineering and business graduates could be left in the lurch as a consequence, according to industry watchers. An estimated three lakh business school students and 7.5 lakh engineering students graduate every year. Even in normal times an overwhelming percentage of these students (over 60 per cent, according to some estimates) are "unemployable" for various reasons. The rest get placed with various core sector companies or IT or ITES companies. The COVID-19 crisis, however, has dashed the hopes of this section, too.

IIT Delhi, for example, which had just started its campus placement process, saw big American companies withdrawing their offers in bulk in March. Ten job offers from big oil companies and two finance companies were withdrawn. Alarmed that this could trigger an exodus by other companies, Professor V. Ramgopal Rao, Director of IIT Delhi, put out a tweet on April 3 appealing to companies to not withdraw their job offers. He pointed out that once a student received a job offer, he/she was not allowed to participate in the placement process and was thus left with nothing at all if the offer was withdrawn. "Please do not complicate the lives of these brightest children in an already complex environment. If at all, they are capable of getting you out of recession faster than you can imagine," he wrote in an impassioned plea.

Gartner, an American business research and advisory company, withdrew its job offers to 11 IIT students from Delhi, Kanpur and Madras and six IIM Calcutta students. Top American oil companies also either withdrew their offers or revised the terms. Schlumberger, the world's biggest oilfield service provider company, wrote to the IITs on April 6 saying that it was forced to either reduce the package or withdraw some job opportunities in order to adjust to the "sudden reduction in customer spend".

Professor V. Ramgopal Rao's appeal did put a brake on such withdrawals, but the picture remains bleak. "We are definitely looking at delays in joining and probably cuts in salary packages," he told *Frontline*. He said that companies in the core sector, which required the physical presence of employees either on site or in factories or oil/gas fields, were the most affected. "Those in IT or ITES are comparatively less affected because they can still have their employees work from home. In any case, a lot of business activity is happening online now, so IT/ITES companies are not so badly affected. They have not yet cancelled their job offers but have hinted at delaying the joining of new recruits."

For students whose job offers have been withdrawn and those who could not participate in the campus recruitment process because of the lockdown, IIT Delhi will hold a special recruitment drive in July or "as and when the situation normalises", said Prof. Rao. He added that companies had responded positively to this special drive. "Many companies which in normal times are not able to recruit from IITs have indicated their preferences, and we are hoping to place all our students then," he said.

Prof. Kantesh Balani, Chairman of the placement committee at IIT Kanpur, was more worried about the fact that internships of final-year students had been put on hold. "Basically, internships pave the way for future employment opportunities. Most job offers materialise during internships as pre-placement offers. Now that internships are gone, the students who will be passing out now will have to look for jobs in the market once the situation normalises, and they will have to compete with

AT A JOB fair in Chinchwad, Maharashtra in 2019.

DANISH SIDDIQUI/REUTERS

the next batch passing out at that time. This will put them at a disadvantage. At the very least, such students will lose a year," he said. He said that the All India Committee on IIT Placements will meet to discuss ways to tide over the crisis. He felt that the companies that had withdrawn job offers should be blacklisted because students could not be made to go through such an ordeal for circumstances beyond their control.

The reduction in internship offers, and the fact that most of the internships that are still available have become unpaid, is also a major concern at the IIMs. LinkedIn, a social media platform for professionals, is full of details of either cancellations/withdrawals of internship offers or paid ones being turned into unpaid opportunities. According to a IIM Lucknow student, most companies have pushed back joining dates to July and internships have been shifted completely online.

While the IITs and IIMs will help their students tide over the tough times, students passing out of second-rung colleges bear a much heavier burden. Sachin Shah, co-founder of a placement consulting firm, Success-GATEway, said: "Mostly companies do bulk hiring from second-rung colleges across the country. Hundreds of thousands of engineering and business graduates get placed across sectors. These students will now find the going tough. We are anticipating a crisis bigger than the subprime-induced crisis of 2008-09. It is going to be a mayhem in the job market." According to him, the crisis will hit all sectors, unlike in 2008-09 when the IT sector bore the brunt. "This time all sectors are going to be hit equally, including the IT sector, because a lot of IT activity happens in core sectors and when there is no work in the core sector, what are the IT engineers going to do?"

There is also a view that this may be a good time for students to pursue a master's degree. "Since we are looking at a time frame of at least one year for the crisis to pass, the students should acquire a master's degree in the meantime. By the time they finish their degree, the market will have normalised and they will have a good degree in hand," said Prof. Rao. Meanwhile, colleges are taking care to keep their students motivated during these stressful times. "We hold regular counseling sessions for our students. I myself have talked to them personally," said Prof. Rao. □

At home but not safe

"My first thought was for my daughter and myself when I heard Modiji's speech," recalls Ranjana Kurlekar, a 35-year-old former domestic worker. Almost inured to regular physical violence from her husband, she said she tolerated it for the sake of the family. The problem arose when he stayed home, as in the monsoons when he did not go out fishing with his co-workers. She says when he is away the house is at peace and the children study better. But during the monsoon, his drink-fuelled rage leaves even neighbours shaken in their slum colony of Ganesh Murthy Nagar in south Mumbai. "I knew this lockdown would be like that," she says.

Her neighbours urged her to ask her "ma'am" (employer) if she could live in for the lockdown. They thought the offer would be taken up gladly because the employer would have someone to do the housework. What they did not know, but Ranjana did, was that the upper middle-class home she worked for in a wealthy south Mumbai housing society was also one where the "*saab* beat the *memsahib*".

Ranjana is safe now at her mother's home. But during the first few days of the lockdown she saw a rage build up in her husband as he and his friends spent entire nights sitting by the sea, drinking whatever liquor they could get. When the police finally clamped down on the wine shops, Ranjana knew the violence would start. This time it extended to their 12-year-old daughter and spilled over into sexual threats. "My girl is almost a woman. I didn't know what he would do to her," she says, recalling the time before she took her children and left for her mother's home in Alibag.

The spike in domestic violence during the lockdown the world over has been so steep that it has been given a name as sinister as the act: UN Women, the United Nations entity dedicated to gender equality and the empowerment of women, has called it the "shadow pandemic". Domestic violence has indeed shadowed the path of the novel coronavirus starting in China and then moving on to the rest of the world. The National Commission for Women (NCW) recorded more than a 100 per cent increase in violence against women after March 23. Between February 27 and March 22 there were 123 recorded cases of domestic violence. From March 23 to April 16, there were 199 calls specifically related to domestic violence.

When victims of domestic violence reach out for help, if at all they do, they call the police. Under the lockdown, however, domestic violence does not get the same quick response that it used to. The NCW tried to respond to this by launching a WhatsApp number—72177135372—on April 10 to report domestic violence on an emergency basis, with the assurance that women would be provided immediate security by the police. But only 40 calls were received, an indication that the facility was not publicised enough. Realising that women could not speak freely over the phone with the abuser around at home, many non-governmental organisations (NGOs) created email addresses where victims could write in. But only literate women with access to the Internet are able to use this option, while the majority are forced to suffer in silence.

In Pune district, when women complain about domestic violence their abusers are put into institutional quarantine, leaving homes safer.

Unfortunately, the strict guidelines of the lockdown are working against women's safety. Civil society organisations and women's groups are unable to respond adequately because of lockdown stringencies. This has led them to ask for emergency support services under the Protection of Women from Domestic Violence Act.

WORLDWIDE PHENOMENON

Worldwide, the situation is the same. France recorded a 30 per cent increase in domestic violence after it went into lockdown on March 17. In Argentina, emergency calls for domestic violence cases increased by 25 per cent post lockdown. Cyprus saw a 30 per cent increase in calls for help, while Singapore registered a 33 per cent increase. In South Africa during the first week of lockdown there were 90,000 reports of violence against women. In Malaysia and China, the distress calls doubled. North America, Spain, Germany and the U.K. also registered an increase in domestic violence and a need for emergency shelters.

In a press release Phumzile Mlambo-Ngcuka, Executive Director of UN Women, said: "Helplines, psychosocial support and online counselling should be boosted, using technology-based solutions such as SMS, online tools and networks to expand social support, and to reach women with no access to phones or Internet. Police and justice services must mobilise to ensure that incidents of violence against women and girls are given high priority with no impunity for perpetrators."

Lockdown-related domestic violence is spurred not just by the fact of being closeted together but also the accompanying frustrations, which vary according to the economic situations of families. Frustrations of staying indoors and of suffering job/income losses are triggers that an abuser responds easily to. The much-repeated exhortation to "stay home, stay safe" by governments has little meaning for victims of domestic violence.

Lyla Bavadam

New paths to profit

Reliance India Limited's decision to tie up with Facebook is not only of a piece with its retail ambitions but also motivated by a common strategy to dominate India's e-commerce space. BY **C.P. CHANDRASEKHAR**

AS THE TIMES GET TOUGH, THE BIG SEEM TO thrive. At a time when economies all over the world are reeling under the sudden stop triggered by the COVID-19 pandemic, India's dominant business group Reliance Industries Limited (RIL) and global social media major Facebook have announced a megadeal. Facebook has entered into a binding agreement to invest Rs. 43,574 crore ($5.7 billion) to acquire a 9.99 per cent stake in Jio Platforms, a wholly owned subsidiary of RIL. The investment amounts to one-fourth the size of the package announced by India's Finance Minister in response to the COVID-19 crisis. But this is money being spent with an eye to future profit. RIL has played the valuation game well, as the deal places the enterprise value of Jio Platforms at Rs. 4.62 lakh crore.

The deal with Facebook came as a bit of a surprise. But it was known that RIL has been in negotiations to sell a share of equity in its different ventures ranging from oil and telecom to retail as part of a strategy to pare its large debt burden and become a zero net debt company. According to reports, RIL's net debt on December 31, 2019, was in excess of Rs.1,50,000 crore. The equity sale to Facebook will help retire a substantial chunk of that debt. Anshuman Thakur, Head of Strategy and Planning at Reliance Jio, suggested that about Rs.15,000 crore of the sum to be paid by Facebook would be invested by RIL and the balance would be used to write down debt. Similar plans are afoot in the hydrocarbons area (possibly involving Saudi Arabia's Aramco). But the collapse in oil prices will delay, if not scupper, that plan.

ADVANTAGE RELIANCE

Overall, while the benefits from the deal for RIL are obvious, it is not too clear why this is the best strategy for Facebook. From Reliance's point of view, the tie-up, once successfully sealed, will validate the three-phase path it has adopted to expand rapidly in traditional businesses and wholly new areas.

The first is to rely heavily on debt (besides internal surpluses) to finance large investments and even engage in aggressive competition to take on incumbent firms and give the company a major presence in new markets. Nothing illustrates this better than the price war

RAJANISH KAKADE/AP

RELIANCE Industries Chairman Mukesh Ambani at the company's annual general meeting on August 12, 2019.

launched by Jio to quickly garner a large mobile subscriber base and dominance in the data business. In the process, it transformed the very structure of the cellular industry that now has only three players left, of whom one (Vodafone-Idea) is facing a threat to its survival.

The second is to wait for that strategy to raise market valuations of subsidiaries operating in different areas, making a minority stake sale an easy source of capital. And the third is use the sale of a minority shareholding as a means to wind down debt. Jio Platforms has successfully traversed this path, with obvious benefits.

The other benefit that RIL may reap from the new collaboration, which would see a Facebook nominee on the company's board, is access to a technology that may be crucial to its expansion plans in the retail area. RIL's decision to tie up with the social media giant makes sense given its retail ambitions, in which Reliance Jio's nationwide telecom infrastructure has a central role. In an annual general meeting held in July 2018, RIL revealed its intention to establish a hybrid online-offline retail platform combining Reliance Jio's infrastructure with the brick-and-mortar facilities of Reliance Retail as well

as a host of small- and medium-scale partners. The idea was to combine the 10,000-odd Reliance stores and numerous warehouses with the physical facilities of a vast number of dispersed unorganised retailing units that would be linked through Reliance Jio's network.

Now, Facebook's social media connect and experience and the wide and rapid spread of its WhatsApp messaging service is to be pressed into service to mediate between buyers and sellers and consolidate this hybrid platform. The ambitious "New Commerce" experiment involves a centralised e-commerce platform built on decentralised points of sale that would save on the cost of delivery. In sum, the expectation from the Facebook agreement is that the social media giant, and in particular the WhatsApp mobile application and messenger service it owns, can be deployed to realise the goal of "seamlessly" folding India's large base of local retail outlets and neighbourhood stores into the Reliance retail empire.

Announcing the deal Mukesh Ambani, Chairman, RIL, declared: "In the very near future, JioMart—Jio's digital new commerce platform, and WhatsApp—will empower nearly 3 crore small Indian kirana shops to digitally transact with every customer in their neighbourhood." This picture of leveraging the small shopkeeper helps whitewash the relentless rise of RIL into a conglomerate with oligopolistic or monopolistic positions in multiple areas. According to Mukesh Ambani, the core of the partnership is the commitment that Mark Zuckerberg, founder of Facebook, and he share for the all-round digital transformation of India and for serving all Indians.

Facebook was not one to be left behind. "Our goal is to enable new opportunities for businesses of all sizes, but especially for the more than 60 million small businesses across India. They account for the majority of jobs in the country, and form the heart and soul of rural and urban communities alike. In the face of the coronavirus, it is important that we both combat this global pandemic now, and lay the groundwork to help people and businesses in the years to come," the social media major said.

It also made clear what was being leveraged when it said: "India is a special country for us. Over the years, Facebook has invested in India to connect people and help businesses launch and grow. WhatsApp is so ingrained in Indian life that it has become a commonly used verb across many Indian languages and dialects. Facebook brings together friends and families, but moreover, it's one of the country's biggest enablers of growth for small businesses. And Instagram has grown

FACEBOOK CEO Mark Zuckerberg in New York on October 25, 2019.

dramatically in India in recent years as the place where people follow their interests and passions."

Hype aside, it is clear that for Facebook the tie-up with RIL signals a change in its India strategy. Among its major efforts to find ways of extracting revenues from the large, even if on average poor, Indian market, was the pretend provision of 'free" access to the Internet through its Free Basics service that would tie in users to Facebook. That drive was stymied by the Telecom Regulatory Authority of India (TRAI) in 2016 on the grounds that it violated the principle of net neutrality by charging "discriminatory tariffs on the basis of content." The second major effort was to use its access to loyal WhatsApp users to launch a digital payments service. That, too, came up against roadblocks on issues relating to data localisation and privacy.

There was speculation that the government's policies in the e-commerce area were being influenced by powerful domestic interests, including RIL. Given that background, Facebook's decision to partner RIL possibly signals the recognition that the best way to get a piece of India's huge digital and ecommerce cake that is potentially lucrative is to join hands with an influential conglomerate such as RIL.

As cheaper smartphones percolate through sections of the Indian population, and as Internet use increases, expectations are that ecommerce will expand rapidly. Facebook is clearly betting on that, since it sees the collaboration as bringing together JioMart, Jio's small business initiative, with the power of WhatsApp, so as to "enable people to connect with businesses, shop and ultimately purchase products in a seamless mobile experience".

A projection by Forrester Research sees Indian e-commerce sales rising from around $27 billion in 2018 to $68 billion in 2022. The COVID-19 pandemic may hasten that transition as physical distancing requirements make offline shopping less pleasurable. The timing of the deal announcement in the midst of a nationwide lockdown may not be much of a coincidence. But clearly, the coming together of a domestic telecommunications major and a global social media giant is motivated by a common strategy to leverage their respective endowments to dominate the e-commerce space.

This thrust by Reliance Jio, which restructured the mobile telephony sector, could transform the retail space as well. But that also depends on for how long Mark Zuckerberg will be happy having Mukesh Ambani playing big brother. □

Caste and public health

What explains the paradox that India, one of the most advanced among developing countries, has one of the worst public health systems? It appears that the uniquely perverse institution of caste, coupled with the pursuit of a neoliberal economic agenda, explains this glaring abnormality. BY **AWANISH KUMAR**

INDIA IS ONE OF THE WORLD'S LEADING destinations for medical tourism, and yet it ranks abysmally low in terms of child and maternal nutrition in the world. The ongoing COVID-19 pandemic has made it all too plain that the deep socio-economic inequality in Indian society is starkly reflected in the way it provides access to health care. Whereas well-heeled Indians seem to be basking in a long holiday under the lockdown, poor working Indians are in a state of unemployment and hunger, having lost their dignity, and in utter despair. This then is the time to raise sharp questions: Why has it taken so long for Indian society to even comprehend the

SUSHIL KUMAR VERMA

CLEARING a dry latrine in Behnara village in Bharatpur district, Rajasthan, a file photo.

very notion of public health, something that has been obvious for over a century in the West? And, why and how has India's uniquely distinctive institution of caste played a subversive role in preventing this from taking root?

In an everyday sense, particularly in a society with little or inadequate historical experience of a well-functioning public health system, health is defined in a negative sense, that is, a person is considered healthy if she is not ill. Health is often reduced to health care, provided and accessed either in the private or public realms/sectors or a mixture of the two. However, COVID-19 has exposed the sheer vacuity of this logic. Most people will now readily concede that health is much more than simply not being ill at the individual level. In an understanding geared towards "public" health, health is defined very differently. The World Health Organisation (WHO) in 1948 defined health as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity". Later definitions emphasised the dynamic nature of health and its social determinants, for instance, caste, class and gender in the Indian context. Many people have noted that health must be understood as a universal entitlement of all human beings; some have argued that health must be considered a human right. Professor Lawrence O. Gostin, a well-known public health ethicist from Georgetown University in the United States, argues that health is produced in three overlapping spheres: one, health care, that is, individual clinical services; two, socio-economic determinants including but not limited to fair distribution of income, jobs, housing, and social justice; and three, public health, to which I now turn.

Before discussing public health, I will illustrate the previous points through a few examples. Think about tuberculosis: it is widely considered a disease of the poor. Globally, about three-fourths of all TB deaths occur in low-income countries; in 2019 India had an estimated 27 lakh TB cases. The relationship between poverty and TB is obvious: poor nutrition, inadequate ventilation, and overcrowded housing and work conditions significantly heighten the risk and rate of TB infections. This reasoning applies equally well to starvation deaths in poorer regions of the country or even the exceptionally high rates of anaemia among Indian women or malnutrition among Indian children.

These have macro political implications, too. In nations with certain specific historical conditions, institutions and solidarity mechanisms, comparatively less money spent on health produces better health outcomes. Compare Cuba and the U.S, for example. Cuba spends only about 8 per cent (of which 91 per cent is public expenditure) of its gross domestic product (GDP) on health, whereas the U.S. spends about 15 per cent (of which only 56 per cent comes from public expenditure) of its GDP on health. The life expectancy at birth in both countries is 78 years and, in fact, the Infant Mortality Rate (IMR) in Cuba is lower at 5 versus 7 per 1,000 in the U.S. What does this comparison reveal? It shows us that the social organisation of health is perhaps even more

important than the economics of health care. Research from various quarters has shown that public health systems cannot be understood without reference to the underlying socio-economic, political and cultural context of a country.

PUBLIC HEALTH IN THEORY AND HISTORY

Public health, in a general sense, has many meanings. In the most literal sense, public health refers to the health of a population. This is important as it takes the discussion on health away from the individual and towards a group or a community. As a philosophy, public health aims at making interventions to achieve good health at the level of the population. Prof. John Coggon from the University of Bristol in the United Kingdom argues that public health is essentially a moral and political agenda. He argues that the "public" in public health is a reflection of a "shared concern" of a political community. In Coggon's perspective, there is a striking emphasis on the collective and group identity that is built upon shared interests. This shared interest is an outcome of one, or a combination, of the following: specific historical conditions, socio-cultural institutions, force of ideology and political organisation.

Let us take the case of Britain and see how a combination of historical conditions and active political forces created the National Health Services (NHS) in the post-Second World War period. The long history of public

AN OVERCROWDED ward of the Khammam District Hospital in Telangana.

health in the European continent goes back to the black deaths during the 14th century that killed more than 25 million people in Europe alone. In fact, very few people know that the word quarantine, now in vogue, comes from "quaranta", which is Italian for the number forty. During the plague epidemic of 1348, the city state of Venice did not allow any ship to enter its territory until they had completed the mandatory detention period of 40 days at the coast. This was to ensure that the epidemic was kept at bay, quite literally, albeit unsuccessfully!

This series of deadly epidemics continued until the early modern period in Europe, when a new understanding about the relationship between disease and society emerged. As the Industrial Revolution gathered pace during this period, the state and the elite were engaged in the process of "social engineering" in order to deal with the unprecedented changes brought by industrialisation. Here, industrialisation necessarily meant the unprecedented impetus to urbanisation, following the organisation of work in factories, which necessitated a scale of demographic relocation unseen in earlier history and which meant a sharp increase in the population density in urban centres. The literature from this period, most poignantly, for instance by Charles Dickens, speaks of the massive upheavals in the lives of ordinary people and

working classes and the resulting social unrest. However, there were some important institutional arrangements from the past that provided the basis for further improvements in the way health was administered in England. First, there was the legacy of the numerous Poor Laws enacted since the 16th century, especially in 1572 and 1601, which, at least theoretically, recognised the importance of social solidarity for alleviating poverty. Specifically, in the field of public health, local governments, religious and charitable organisations and cooperatives provided health care to those in need.

The cholera epidemic in 1832 played an important role in the promulgation of the Poor Law Amendment Act in 1834 and eventually led to the passage of a Public Health Act in the year 1848. The latter focussed on some typical public health activities such as providing improved ventilation to workers, construction and maintenance of drainage, cleaning of streets and public wells, fumigation and waste management. Meanwhile, workers were getting organised and working-class activism was growing rapidly, which put pressure on industrial employers and the state to improve working and living conditions for all.

Friedrich Engels in his *The Condition of the Working Class in England* (1844) linked living and working conditions such as sanitation, overcrowding, and the lack of ventilation with the spread of epidemics in working-class settlements. A number of influential scientists such as Rudolph Virchow in the U.S. and civil servants like Edwin Chadwick in the U.K. emphasised the social and political aspects of such epidemics. An important figure during this period, John Snow, established in his *On the Mode of Communication of Cholera* (published in 1849) that one of the most important aspects of preventing cholera was to ensure that drinking water channels did not get contaminated with waste-carrying drains. This entire period of mid to late 19th century is called "the great sanitation awakening", characterised by a sanitation movement in British history.

It is interesting to note that the early period of this awakening was not informed by drastic progress in humanity's understanding of how diseases spread or even the mass production of medicines (also known as the therapeutic revolution). A great deal of knowledge available in those days about diseases and how they spread was patently wrong. It was understood that foul smells carried diseases—which is also at the root of the term "malaria", literally meaning bad air. As we know, it was only in the year 1873 that Louis Pasteur proposed the germ theory of disease, which propelled the sanitation revolution that resulted in a dramatic fall in mortality due to communicable diseases in England and Wales: from 31 per cent in 1871 to 10 per cent in 1940.

The key point here is that this decline in mortality rates took place well before the discovery of penicillin in 1941 or the therapeutic revolution of the 1950s. This "mortality revolution" can be attributed to classical and inexpensive public health measures adopted by the state in Britain. By the early 1950s, the share of infectious

diseases in total mortality in Britain had come down to a mere 6 per cent. The British situation had changed dramatically by the mid 20th century via the epidemiological transition that resulted in the preponderance of non-communicable diseases and almost a complete disappearance of the infectious ailments of the 19th century. In the same period, the National Health Service (NHS), based on the William Beveridge report of 1942, was founded in 1945 whereby health became a responsibility of the government.

The category of health care/services as commodities emerged only after this epidemiological transition and the therapeutic revolution was completed in the West in the mid 20th century. Since the Western world was the leader in knowledge creation and research and development (R&D), their priorities shifted from classical and already-achieved public health concerns to newer and more immediate medical issues such as cardiovascular and lifestyle-oriented diseases, which had grown in proportion since the 1950s. In contrast, the Global South, having failed to make this transition, continues to struggle against the onslaught of infectious diseases, which affect mainly the poor there. However, instead of addressing these issues, most developing states have succumbed to the global health care and the pharma industry along with their own national elites in prioritising secondary and tertiary health care services at the expense of battling mass killers such as malaria, dengue and TB, among others. This has been abetted by the privatisation of health care in the Global South, where lifestyle diseases afflicting the rich are avenues of profiteering by "super-specialty" hospitals and the like.

PUBLIC SANITATION, PUBLIC SOLIDARITY

We can derive two key lessons from the history of public health in Britain and Western countries more generally. The first is that a substantial part of the progress in terms of decline in mortality and advance in living and working conditions can be attributed to the classic and inexpensive public health interventions in drinking water supply, drainage, sanitation and housing. This lesson can be called a lesson in public sanitation. The second lesson relates to the emergence of the welfare state and the NHS in Britain.

In Michael Moore's acclaimed movie *Sicko* (2007), he interviews Tony Benn of the old Labour Party. Benn highlights how the NHS came into being through democracy, that is, the movement of social and political power from the marketplace to the polling station. Julian Tudor Hart, a practising doctor for many years in Wales, member of the Communist Party of Great Britain and authority on the history of the NHS, argues that the nationalisation of all hospitals as part of the NHS was central to its success. This, he says, created "a single, unified workforce aiming at common standards and with centrally negotiated pay... a sense of collective participation in a civilising enterprise for the entire U.K., and loyalty to a nationally shared idea". The doctors, other professionals, patients and the public at large felt a sense

of ownership towards the NHS. The feelings of reciprocity that are inherent in mutual trust between people ensured that social and political solidarity was not considered as altruism but common good. This is very similar to the framework proposed earlier to understand the notion of public health as shared concern and common interest. Thus, the second lesson can be called one in public solidarity.

What prevents India from learning from and adapting these two simple lessons from the public health theory and history, namely public sanitation and public solidarity?

In the days when William Beveridge was preparing his report recommending the formation of the NHS in Britain, India, too, had its own Joseph Bhore Committee (1946) that, in its report, envisioned an Indian NHS. However, that was not to be. As we know, even the Constitution of India relegated both public health and education to the non-mandatory Directive Principles of State Policy. The lack of seriousness of the Indian state towards health in general can be gauged by the fact that the first ever health policy statement surfaced only in 1983, 36 years after Independence and five years after the Alma-Ata Declaration that called for the universalisation of primary health care. The Indian state, after Independence, was unwilling to invest in either public education or in a well-functioning public health system. The agenda of the state was heavily influenced by the upper castes' outlook; the state thus lacked the conviction to bring about thoroughgoing social and economic reforms. Social policy, in particular, the promotion of health and education, was completely ignored. Social reforms that had the potential to create public systems in the new republic thus remained stillborn.

The late 1980s and early 1990s witnessed the emer-

A DISNEY-THEMED children's hospital in Hyderabad's upmarket Banjara Hills neighbourhood.

K.V.S. GIRI

gence and dominance of neoliberal policy, especially in soft sectors such as health and education. A serious engagement with the primary health care system in India only came about with the National Rural Health Mission (NRHM) and the National Health Mission (NHM) after 2005. Yet, even after massive increases in expenditure through these programmes, the Indian government's expenditure on public health still hovers around one per cent of the gross domestic product (GDP). The out-of-pocket expenditure (or, in other words, spending on health that comes from one's own personal resources in the form of personal savings or borrowings or sale of assets) continues to be about three-fourth of the total health expenditure, which disproportionately burdens the poor. India presents a unique case: the dominance of two ideological forces, caste and neoliberal capitalism, which actively prevent popular mobilisation around the agenda of promoting public health.

CASTE, SANITATION AND SOCIAL CONTROL

Indian society is constituted by castes, underpinned in the Hindu religion. The caste system, according to B.R. Ambedkar, is a system of organising people through a graded hierarchy. There is no free entry into or exit from any caste to another. The basic principles of the ideology of caste can be explained through the twin principles of purity and pollution. Both terms are defined in terms of their ritual implications, and therefore it is possible for something to be clean and yet be ritually impure and vice versa. This notion of cleanliness is most apparent in the case of open defecation where constructing a toilet inside the house is considered ritually impure, but defecating in

the open is unproblematic as far as ritual purity is concerned. Additionally, in this understanding, certain objects and persons can be pure and certain others polluting. That is why cow ghee can be considered inherently pure, whereas persons below the caste and varna one belongs to can be polluting in different gradations.

This framework of purity and pollution has many implications for public policy, especially the first lesson outlined above—public sanitation. First, this impacts the distinction between private and public spaces. As one can see from the previous example, the fact that open defecation can be a public hazard does not inspire the caste-trained mind to abstain from it as long as ritual purity—absence of impure human faeces—is maintained within the household. It does not occur to the caste-trained mind that the public space would be left both unclean and prone to disease, and "ritually impure". A lot of people would discard this example as having repercussions only for rural populations. To counter this, let us take the example of garbage disposal in urban areas, even in upper middle-class locations. The dichotomy of purity-pollution is evident here, too, in the way garbage is thrown out of balconies, car windows and buildings without any thought about the overall implications of an unclean neighbourhood.

Secondly, this perspective ostracises and criminalises persons on the basis of how "ritually pure" or "impure" they are on the graded scale of caste hierarchy. This means that certain persons are forced into cleaning other people's excreta and garbage because they are "ritually impure". This creates perverse incentives for everyone else in the system to stay far away from working towards maintaining private or public cleanliness because any such attempt might impact one's ritual position in the caste hierarchy. This results in a free fall towards filth and garbage thrown all across without affecting anyone's feelings of cleanliness or aesthetics because eventually what matters is the ritual purity of the private space. In this process, public and civic sense itself is stigmatised and discouraged. Unsurprisingly, India is perhaps the filthiest country in the world, despite growing at a faster pace than many other poorer countries.

The above implications serve to explain the lack of public sanitation in India by highlighting two features. While the notion of private ritual purity is paramount to the casteist mind, anyone who engages in sanitation activities is automatically deemed to be ritually impure. To summarise the entire argument, let us take the example of manual scavenging, of which India perhaps remains the only practitioner in the world. For the typical urban/rural Indian, mechanisation of sanitation work is not a concern at all because in the casteist imagination certain social groups are destined to forever engage in such work.

With regard to the second lesson of public solidarity, there are two socio-structural aspects that impair its emergence in India, namely caste and neoliberalism. The caste principles of purity and pollution actually blind a person to the point that he/she is utterly indifferent to

questions of public hygiene and sanitation. But even more crucially, caste is the very antithesis of any form of life based on association with other human beings. According to B.R. Ambedkar, every caste in the entire caste system exists in social isolation from another caste. This means that not only are they inward-looking in every sense but they are single-mindedly focussed on their own interest. A democratic society requires that different social groups interact freely and arrive at certain common political goals on the basis of shared interests. As is obvious, a caste society cannot be democratic because it lacks a central element which can be variously described as public spirit or civility.

Such isolation and separation of interests among distinct social groups may arguably be a feature of every multi-ethnic society. However, it is the added characteristic of hierarchy between castes and varnas that narrows the possibility of any kind of exchange of experiences and creation of common sentiment across castes. Ambedkar asserts that the caste system and untouchability are also a form of social psychology based on "social nausea", whereby groups exhibit active hostility towards one other. The perpetuation of castes thus militates against the very notion of a "public" realm, which lies at the very basis of public action based on a common agenda.

But we know that in modern democratic societies, public systems do get created. Whether those public systems attain good quality and universal reach is a matter of how different social groups in society view the operation of those public systems (of health, education, transportation, water supply, and so on).

In Indian society, populated by a grand multitude of castes, restricting access to good quality public systems is a form of exercise of social control over subordinate castes. We know that in under-developed agrarian contexts such as in Bihar, Jharkhand and Telangana, this takes the form of control over who gets to work/paid under Mahatma Gandhi National Rural Employment Guarantee Act 2005, or who gets the licence to run public distribution systems to control access to food. Dominant castes exercise such control to demonstrate their dominance over the social life and labour of the oppressed castes by gatekeeping access to these public facilities. At the macro (national or State) levels, poor sanitation, air quality, water supply, etc., obviously create a plethora of health problems that impact everyone. Rather than investing in public health, the Indian elite has encouraged the mushrooming of water and air purifiers in the market, and the promotion of unregulated private clinics. In the post-1990s neoliberal phase, the Brahminical elite has aided the weakening of public systems and the creation of a parallel private universe where basic public services are provided for a premium (in terms of both caste and class). But the limitation of this private health care system is that it has no space for the classical public health concerns, made apparent by COVID-19.

Thus, casteist notions of health and sanitation prevent society and the state from organising and implementing basic public health interventions in India.

Remember that such interventions are inexpensive for policy and extremely beneficial for the overall welfare of the population. The desire for social control, a feature of the Brahminical elite, overpowers any concern for economic growth or national development that may, in turn, also benefit the elite themselves. This is evident from various studies which demonstrate that the most common cause of rapid decline in the social and economic status of families is health crisis.

NEOLIBERAL CAPITALISM

These limitations of the caste society and the ideological backwardness of the Indian elite are compounded by the overall dominance of neoliberal economics in academics and neoliberalism in government and policy advisory circles. Many social science students, especially those trained in neoliberal economics, who go on to occupy important positions later consider the provision of health care services and education by the government as a result of market failures—situations where markets fail to provide certain goods and services even when they function efficiently. In themselves, health care and education are considered purely private goods in economics. The emergence of public health as a category is rarely historicised in economics classrooms; there is no comparative framework either.

The political philosophy behind neoliberalism is simply called libertarianism. Libertarians believe in a kind of negative freedom, that is, the absence of any external coercion. The term free market is a good illustration of this idea—markets freed from what? The answer, according to the libertarians, is state control. In this framework, personal liberty is always supreme and common good is more often than not considered illusory. It is the duty of individuals to make good and informed decisions regarding their life, including health. If a smoker decides to buy a health insurance product, a higher premium reflects his poor choices in the past and in a way provides him with an "incentive" to quit smoking.

Even during the COVID-19 pandemic, the solution, according to the libertarians, is insulation rather than social solidarity. Please note that a forced lockdown by the state is against the very grain of libertarian thinking. It is partly the rapidly infectious nature of COVID-19 and partly the fear of social solidarity that causes libertarians to readily sacrifice personal liberty in their fight against the pandemic. In fact, come to think of it, social distancing as a phrase is itself libertarian in nature, calling out to all individuals to save themselves, warning them that if they do not, they will be held responsible for their own health care needs.

The other concern that the libertarian philosophy has with the state is of efficiency and corruption. The solution to the problems of corruption and unaccountability in public systems is the separation of the two functions that the state undertakes while provisioning, say for example, health and education.

These twin functions are purchasing and provisioning. The state purchases health care from doctors, nurses

In the new system of health apartheid, the public health system is marginalised while the best of private health care is available for the rich.

and other health professionals and at the same time provides health care to the people in the public hospital. In such cases, no one can be held accountable for any ill-functioning in the hospital because the purchaser and the provider of the service, that is, health care, is the same entity—the state. A split between the purchaser–provider function will ensure competition and choice for the "customers of health care": the insurance company for instance buys health care on behalf of the consumer from a variety of providers. The consumer of health care can go to any health care provider and because there is a competition between the providers, they are on their toes to maintain high levels of service. Similar prescriptions are made in the field of education with what is called school coupons. Students can be given school coupons that they can utilise in any school of their choice.

There are a lot of problems with the insurance model, most importantly that the out-of-pocket expenditure continues to be high even after high premium payments. However, the major problem in this framework of health is that it is restricted to the individualised understanding of health care and it is impossible to imagine a common political goal based on shared interest towards a public health system. So, it is difficult, nay impossible, for a neoliberal economist to appreciate the category of public health. Indeed, neoliberal economics is constructed in such a way that it simply defines away the notion of public health. As is the case with almost all capitalist democracies in the world, there is always pressure from electoral politics, and sometimes concessions simply have to be made. No wonder, then, that in the sphere of policymaking, we have been witnessing a strange combination of neoliberalism-inspired government-subsidised health insurance models (as in the case of the Rajiv Gandhi Swasthya Bima Yojana or, more recently, Ayushman Bharat) working hand in hand with publicly funded strengthening of the health system (as in the case of the National Health Mission). According to the former Union Health Secretary K. Sujata Rao, between 2007 and 2014, India worked with a "dual policy" arrangement. There was an overall injection of Rs.200 billion a year (including public expenditure plus private, tax-exempted out of pocket personal spending) into the private sector via health insurance premiums, which allowed it to capture the secondary and tertiary health sectors.

During the same period, a similar amount of money was spent every year on the National Rural Health Mis-

sion in order to strengthen the primary health care segment.

In the time of COVID-19, it is increasingly realised that a universal and well-functioning public health system is the need of the hour. The draft (third) National Health Policy of 2015 had declared its commitment towards health care as a fundamental right. However, the final NHP of 2017 crops this promise thus: "a progressively incremental assurance-based approach, with assured funding to create an enabling environment for realising health care as a right in the future".

The public health discourse in India continues to be deliberately confused between two polar positions: first, a welfare-state orientation based on a universal public health system that requires heavy investments in the creation of public health infrastructure such as in NHM; and second, a neoliberal orientation that requires public investment in the private health insurance system. As pointed out earlier, this confusion is deliberate because of the Brahminical elite's desire for social control and neoliberalism's insistence on fiscal control and withdrawal of the state. The Brahminical elite and neoliberal state have created a new system of health apartheid whereby the public health system has been marginalised, starved of resources and kept reserved for the poor whereas the best of private health care is available for the rich, national and international.

In conclusion, the public health agenda in India has two components: a struggle for social justice against caste, and the fight against neoliberal social policy. At the socio-political level, the inclusion of health in the social justice agenda will create public interest and a shared concern that will be the first step towards a sustainable public health system in India. A public health, education or transport system creates stakes for all sections of the population in its functioning and sustenance. The feeling of being part of a common/shared concern can be a way towards breaking social and cultural barriers between castes and classes. In this way, public systems are political weapons against segregation in society and polity.□

Awanish Kumar teaches in a college in Mumbai.

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Stripped to the bone

With meat shops shut, transportation prohibited, and the maintenance of livestock becoming unviable, the crisis in the Muslim-dominated meat industry threatens to extend beyond the lockdown. BY **ZIYA US SALAM**

IN THE ABSENCE OF A PROPERLY fleshed-out lockdown plan, the continued closure of trade for over 45 days has stripped India's meat industry to the bone. Meat exporters have suffered a loss to the tune of Rs.10,000 crore owing to the lockdown. From exporters of beef to daily retail shops and their assistants, everyone is in the throes of a crisis in Uttar Pradesh and Delhi, while things are not too different in neighbouring Haryana.

The problem is manifold—from the prohibition on the transporting of animals to the rising cost of feeding the animals to the absence of chicken feed, the industry is looking at a long-term crisis. Experts believe things may not return to normal even after the lockdown is lifted. Already, the rating agency ICRA had projected a 4 to 5 per cent decline in revenue in the domestic poultry sector in the last quarter of 2019-20. The first quarter's reports are likely to be even lower .

Earlier, ICRA vice president Ashish Modani had told the media, "Owing to a sharp decline in realisations during Q4 FY2020, players incurred contribution losses; they sold birds below their cost price (due to perishable nature of the product). Restricted logistics due to lockdown led to supply glut in local market, further adding to pressure on realisation. Consequently, sizeable losses in the last 2-3 months wiped out almost all profit booked during FY2020." This estimate was reiterated by Sirajuddin Qureshi, president, All India Jamiatul Quraish [a body of meat traders and exporters comprising people from the Qureshi community], who said: "The meat industry has been given a stepmotherly treatment during the lockdown. They [the government] did not allow transport of animals nor did they allow shops to be opened. The Uttar Pradesh government is primarily responsible for such a state of affairs. All export units have been closed for last one-and-a-half months. The export units were also used for local supply. With the units being closed, the local supplies have dried up."

There is clear lack of communication between the States, which compounds the problem of transportation. For instance, most of the mutton supply comes from Rajasthan. But with Rajasthan, Delhi and Uttar Pradesh, each having different norms for transport of animals, the supplies get stuck.

Qureshi added, "The transportation of buffalo, sheep and goats has been affected as the borders are sealed. The Central government allowed the movement of livestock, but at the ground level the supplies have all dried up."

The fast depleting supplies have resulted in a huge surge in prices in the informal retail market, where the price of mutton has gone up from Rs.800 to Rs.1,000 in Delhi and parts of western and central Uttar Pradesh.

A WHOLESALE meat market in New Delhi.

ANUSHREE FADNAVIS/REUTERS

Retailer Mukhtar Khan said: "There is little a retailer can do. I have a shop in East Delhi where I somehow manage to procure mutton from the Ghazipur wholesale market. However, I cannot bring the animals to my other shop in Noida as the U.P. government has not allowed even limited transportation of animals ever since the lockdown was imposed."

There are others who believe that the problems of the meat industry are deliberately caused and that people are being coerced towards vegetarianism. Qureshi said, "If that is so, the government should be clear about its intentions of turning India into a vegetarian state. In the circumstances, it is not just the consumer who is suffering; the worst-hit are the dairy farmers. The costs of retaining the animals are becoming unmanageable. If permission could be granted for movement of vegetables and fruits everywhere, why not for animals and birds? We do not have any shortage of livestock but people are being denied beef."

The lockdown has impacted the meat industry at all levels. Even maintaining chicken, goats and buffaloes is becoming financially unviable.

"The government does not understand we are sitting on the edge of a huge crisis. We have seen only the tip of the iceberg. When the restrictions are lifted, the reality will strike us. The dairy farmer is not able to look after his livestock. In Delhi, 15,000 to 20,000 goats and sheep are slaughtered every day, besides around 2,000 buffaloes. The figures would be even higher in U.P. where an estimated 25,000 to 30,000 goats are slaughtered. Now for the past six weeks or so, hardly any animals have been slaughtered. This automatically increases the cost of maintaining the animals. The animals had to be fed during this period. Normally, they are in motion; one supply comes, it moves to the market, followed by the next arrival. With the increased cost of animal maintenance, the expense will be passed on to the consumer in the form of retail price rise," Qureshi said.

"The poor dairy farmer cannot afford to feed the animals. The media will talk of the impact of so many animals on the animals. But first understand, how can a farmer feed his animals for so long? Dairy farmers cannot afford to feed them. The animals will start dying of hunger," Mukhtar Khan said, adding, "We keep animals on a small plot of land near our shop in Ghaziabad. Earlier, five-six goats would be there every day, grazing. Now, if 40-50 goats graze in the same space, will there be enough food for all of them?"

Manzoor Ali, who owns six shops in and around Ghaziabad, said: "We earn every day. We consume every day. Every day, we pay our shop assistants. Every day we bear the cost of feeding the chicken. But for the past five-six weeks, we have not been allowed to open our shop in Ghaziabad, although the adjacent fruit and vegetable market remains open every evening. Are laws of physical distancing applicable only to meat merchants? We are suffering because the government believes only a certain community is the major consumer. It is wrong."

Unorganised labour is rampant in this industry, with around 1,000 to 1,500 labourers working in every meat plant.

"Some 5,000 to 8,000 people are dependent on these 1,000 labourers for their livelihood. Then there are supply chains, transport; the boys who help with the loading, downloading, feeding the animals; then those who slaughter the animals. Everywhere, you see a crisis . It is believed that if there is a locality with a thousand people, there will be a meat shop to cater to their needs. Now, if a township has a population of a million people, you can understand how many such shops and people associated with them would be impacted by this avoidable closure," said Qureshi.

The lockdown is only the latest in a series of struggles faced by meat merchants, particularly in U.P. "It seems nobody wants us. The government first wanted the age-old shops to turn modern, bring in freezers, use air-conditioners. Even when the shops complied, the licences were not renewed," said Mukhtar Khan. "The Ghazipur slaughterhouse in Delhi is only technically open, as the supply chain of animals is broken," Qureshi said.

According to Qureshi, the figures of losses are likely to go up. He said: "There is total lack of clarity on the part of respective governments on this. They do not seem to have any idea about reviving the industry. The industry has not got any help from any of the State governments for the casual labourers. We are feeding 1,500 families every day in U.P., providing them with ration kits. But for how long can we do this?"

This ground reality is vastly different from what the Ministry of Fisheries, Animal Husbandry and Dairying had claimed when the lockdown was imposed on March 24. The Ministry had written to the Chief Secretaries of all States and Union Territories asking them to ensure that meat products were included in the list of essential commodities exempted from the lockdown.

In a communication to the States and U.T.s, Dr O.P. Chaudhary, Joint Secretary, Ministry of Fisheries, Animal Husbandry and Dairying, had asked them to issue necessary directions to the law enforcement authorities to include live chicks, egg and meat in the list of commodities to be exempted from the lockdown.

"After the lockdown was announced by a number of States, it came to our notice that egg, meat and live chicks had not been included in the list of exempted items. Till the coronavirus pandemic continues, we have requested that such items should be exempted so that people don't face any issue while transporting these from one place to another," wrote O.P. Chaudhary.

Apparently, not many paid heed. "Whatever any communication from the government, it failed to reach the police manning the borders. Our animals have not been allowed. In some cases, some of the animals have died. As we had paid for the livestock, we have to bear the loss," said Sajid Ali, a meat merchant from Aligarh. "Either the government should declare they want us to do business, or we can shut down. Nobody can stay in this state of continued harassment," he said.   □

Little hope, less trust

By placing its trust on the Central government and thereby limiting the scope of its intervention, the Supreme Court continues to stonewall pleas for effective state action to mitigate the ill-effects of a prolonged lockdown on the downtrodden. BY **V. VENKATESAN**

IN ITS INFAMOUS JUDGMENT IN *A.D.M. Jabalpur vs Shivkant Shukla*, delivered during the Emergency (1975-77), the Supreme Court upheld the President's order suspending citizens' access to courts for enforcement of the rule of law. Responding to the argument that the presidential order might empower the government to arbitrarily shoot any person, Justice Y.V. Chandrachud, who was part of the five-judge bench that pronounced the order, said: "Counsel after counsel expressed the fear that during the Emergency, the executive may whip and strip and starve the detenu and if this be our judgment, even shoot him down. Such misdeeds have not tarnished the record of free India and I have a diamond-bright, diamond-hard hope that such things will never come to pass."

Justice Beg, another judge on the bench, went even further in approving the emergency regime. He observed: "Furthermore, we understand that the care and concern bestowed by the state authorities upon the welfare of detenus who are well housed, well fed and well treated, is almost maternal."

Little did the judges know then that their optimistic picture of Indian democracy, as reflected in their judgments, was at complete variance with the reality: there was a series of atrocities committed by the state during the Emergency.

The Supreme Court judges of today may not be as effusive as the bench that heard *A.D.M. Jabalpur vs Shivkant Shukla* in their defence of the executive. But the slide in that direction might have begun with the court heralding what advocate Prashant Bhushan described recently as "hope and trust jurisprudence".

A defining facet of this is that the judiciary places its entire trust in the government and hopes it will mitigate

people's sufferings caused by the lockdown in due course, thus limiting the scope for its intervention.

Another facet is the general belief among judges that the judiciary and the executive should act in "harmony" in times of crisis or for "nation building". The former Chief Justice of India (CJI), Ranjan Gogoi, invoked the "nation building" argument while defending his nomination to the Rajya Sabha within four months of his retirement.

The current CJI, S.A. Bobde, reportedly favours "harmony" during a crisis. "Money, men and material are with the executive, and it is for the executive to decide how

these should be deployed and prioritised. Epidemic or any disaster can be best handled by the executive," he told a virtual media conference on April 27, not caring to appear neutral at a time when petitions seeking the judiciary's intervention to ensure the executive's accountability during the pandemic are pending before courts.

HOPE AND TRUST JURISPRUDENCE

In *Jerryl Banait vs Union of India*, the Supreme Court bench comprising Justices N.V. Ramana, Sanjay Kishan Kaul and B.R. Gavai, heard a plea on April 27 seeking provision of personal protective equipment (PPE) to all health workers, including doctors, nurses, ward boys, and other medical and paramedical professionals working in "non-COVID treatment areas" as infection from asymptomatic patients was on the rise. Finding substance in the plea, the bench directed the Centre to "examine this issue and make necessary suggestions in the 'rational use of PPE' guidelines". "Needless to say, that the other directions passed by this court on 8-4-2020 are directed to be continued," the bench observed, disposing the writ petition and the pending applications in the matter. In similar cases in the past, the court had always kept them pending in order to "continuously monitor" the implementation of its interim directives.

Another instance of the court's attitude to pleas seeking its intervention became evident on April 3. A bench consisting of Justices L. Nageswara Rao and Deepak Gupta heard *Alakh Alok Srivastava vs Union of India* in which a lawyer invoked the public interest litigation (PIL) petition jurisdiction to seek direction that governments requisition hotels, resorts, government guest

houses and State bhavans, among other things, to house migrant workers. The bench recorded Solicitor General Tushar Mehta's submission that State governments had been requisitioning private properties as and when required and so there was no basis for entertaining the plea.

On April 27, the bench comprising Justices Ramana, Kaul and Gavai disposed of the petition after hearing the petitioner and Tushar Mehta again. The bench chose to admit Tushar Mehta's assurance that the Centre would examine the petitioner's suggestions and take appropriate action.

Tushar Mehta said the directions issued by the court on March 31 in the case would continue. On March 31, another bench had observed that migrants should be dealt with in a humane manner and that State governments/Union Territories should endeavour to engage volunteers to supervise the welfare measures for migrants along with the police.

But the thrust of the March 31 order was to ensure compliance with the directions issued by the Central government under the Disaster Management Act, and a "direction" to the media to publish the official version on the status of the coronavirus disease, in order to prevent the spread of fake news.

Thus, when another bench disposed of the petition on April 27, there was no indication whether it took note of the concerns expressed over the March 31 order, which wrongly attributed the mass exodus of migrant workers to the spread of a non-existent fake news that the lockdown would last for three months. The bench also did not take note of the concern expressed by professional bodies of journalists that its "direction" to the media to publish the official version on coronavirus was gratuitous.

Similar was the fate of the petition filed by social activists Harsh Mander and Anjali Bhardwaj. They sought the court's directions to the Centre and the State governments to ensure payment of minimum wages to all migrant workers within a week. On April 21, Prashant Bhushan, counsel for the petitioners, told the bench comprising Justices Ramana, Kaul and Gavai that thousands of migrant labourers housed in temporary shelters had no access to basic amenities. He also said that studies conducted by non-governmental organisations (NGOs) indicated that in several places government aid had not reached them.

The bench recorded Tushar Mehta's submission that various measures were in place to address issues concerning migrant workers, that a helpline number had been provided to report issues concerning implementation on the ground and that whenever a complaint was received, the authorities attempted to address it immediately.

The bench observed: "Taking into consideration the material placed before us, we call upon the respondent, Union of India, to look into such material and take such steps as it finds fit to resolve the issues raised in the petition. With the above observation, the writ petition stands disposed of."

Undaunted by the court's insouciance, Prashant

NURSES and paramedical staff protest against the shortage of PPE in Nadia district in West Bengal on April 18.

Bhushan decided to try his luck through another petition. It was filed on behalf of activists Jagdeep S. Chhokar and Gaurav Jain, who wanted the court to issue an order that migrants be allowed to go back to their hometowns and villages after necessary testing for COVID-19 and that the state make arrangements for their safe travel. On April 27, the Ramana-Kaul-Gavai bench called upon the Centre to place on record the proposed protocol, if any, for the movement of migrant workers between States in view of the reported discussions going on between State governments, and adjourned the hearing for a week.

On April 3, the bench comprising Justices L. Nageswara Rao and Deepak Gupta, in *Justice for Rights Foundation and others vs Union of India*, heard a plea seeking the court's direction to the Centre to ensure fair and equitable distribution of surgical/N95 masks, hand sanitisers and liquid soap, and make such items available to the public at reasonable prices. Recording Tushar Mehta's submission that the Centre has taken steps to ensure the availability of masks, sanitisers and liquid soaps at the minimum retail price, and deal with complaints from the public through a helpline, the bench disposed of the petition saying it "hoped and trusted" that the complaints would be addressed promptly.

LINE OF TREATMENT

On April 30, the Ramana-Kaul-Gavai bench refused to order a change in the treatment guidelines for patients who were receiving a combination of the anti-malarial drug hydroxychloroquine (HCQ), and the antibiotic azithromycin (AZM) saying it was not an expert on the matter. It, however, agreed that the plea filed by the NGO, People for Better Treatment (PBT), should be considered as a representation to the Indian Council of Medical Research (ICMR). Kunal Saha, president of PBT, told the court that the combination of HCQ and AZM had side effects and that the American Heart Insti-

tute had issued warnings in this regard. The PIL claimed that the Union Health Ministry recommended this line of treatment primarily on the basis of anecdotal evidence and not as a specific therapy. The Health Ministry did not respond to a written representation, which was made before the filing of the PIL, voicing concerns over the line of treatment. The bench, however, pleaded helplessness in considering the plea that the Ministry should obtain "informed consent" from all COVID-19 patients for treatment with HCQ and AZM by bringing necessary changes in the treatment guidelines.

In *Aayom Welfare Society vs Union of India*, the same bench heard on April 30 a plea for providing ration to those who do not have ration cards and for universalisation of the public distribution system. "This being a policy issue, it is left open to the government of India and also the concerned States/Union Territories to consider such relief," the bench observed before disposing of the petition. The bench directed the petitioners to serve a

copy of the petition on the Solicitor General immediately.

The "hope and trust jurisprudence" guided the bench comprising the CJI Bobde and Justice Aniruddha Bose to refuse on April 30 to stay the Centre's ambitious and expensive plan to redesign New Delhi's central vista comprising Parliament and other government offices. The bench told the petitioner, Rajeev Suri, that it saw no urgency in considering the issue as no one was going to do anything in the COVID-19 situation. Tushar Mehta wondered what the problem was if a new Parliament building was built.

The petitioner's concern was that the project would become irreversible with moves to grant clearance for it already being set in motion. His stand was vindicated when reports came suggesting that the Expert Appraisal Committee of the Union Ministry of Environment, Forest and Climate Change has recommended granting of green clearance for expansion and renovation of the existing Parliament building at an estimated cost of Rs.922 crore.

FIRS AGAINST LOCKDOWN 'VIOLATION'

With the "hope and trust" jurisprudence guiding the Supreme Court's approach during the pandemic, the fate of several PIL petitions pending before the court appears uncertain. Dr Vikram Singh, former Director General of Police, Uttar Pradesh, in his capacity as Chairman of the think tank, Centre for Accountability and Systematic Change (CASC), challenged the filing of first information reports (FIRs) under Section 188 (disobedience to order duly promulgated by public servant) of the Indian Penal Code (IPC) in cases of lockdown violations.

The Union Home Ministry has claimed in its lockdown guidelines that violations would be treated as an offence under Section 188. The offence is punishable with simple or rigorous imprisonment up to six months or a fine up to Rs.1,000 or both. Between March 23 and April 13, 848 FIRs had been filed under Section 188 in 50 police stations in New Delhi. In Uttar Pradesh, during the same period, 15,378 FIRs under Section 188 had been registered against 48,503 persons. Other States have reported registration of FIRs against thousands of alleged violators of the lockdown.

Vikram Singh submitted that the police action on an individual who was suffering due to the pandemic and the lack of information would have long-term ramifications and did not bode well for constitutional democracy. Burdening the criminal justice system with more cases during a pandemic was worse than the disease burden, he said.

The question before the court is whether the police can bypass the process of filing complaints before competent magistrates and resort to registration of FIRs for lockdown violations. Secondly, cognisance of an offence under Section 188 specifically excludes a police report.

OTHER PILS

Another petition seeks the court's direction to the Centre to review the COVID-19 testing criteria to include all

Proactive High Courts

EVEN as the Supreme Court abdicated its responsibility to intervene effectively in pandemic-related cases so as to ensure executive accountability, some High Courts rose to the occasion. On April 16, the Jammu and Kashmir High Court took *suo motu* cognisance of the plight of victims of domestic violence during the lockdown and issued notices to the authorities concerned to submit an action taken report. A division bench comprising Chief Justice Gita Mittal and Justice Rajnesh Oswal proposed a slew of measures to be undertaken by the authorities to ensure immediate assistance to the victims.

On April 17, the bench directed the authorities to formulate reports and apprise the court about issues relating to welfare, safety and the basic needs of the residents and others. It also directed the Director General of Police (Prisons), Jammu and Kashmir, to file a report within 10 days on the steps taken to ensure the health of the residents of Jammu and Kashmir/Ladakh lodged in prisons in the Union Territories of Jammu and Kashmir and Ladakh, and in other parts of India.

The Calcutta High Court, on April 17, directed the West Bengal government to file periodic reports about its efforts to tackle COVID-19 and the steps taken to follow the guidelines issued by the World Health Organisation and the Indian Council of Medical Research (ICMR). A bench comprising Chief Justice Thottathil B. Radhakrishnan and Justice Arijit Banerjee asked the State government to take a "deeper look" at the need for testing more number of people and taking more samples on a war footing. The bench also sought a report on the manner of certification and the auditing of the reason for death undertaken by the authorities before issuing death certificates.

The Madras High Court bench comprising Justices M. Sathyanarayanan and M. Nirmal Kumar, on April 20, took *suo motu* notice of reports that residents of an area in Chennai resisted the burial of the body of a doctor who had died of COVID-19, and attacked the ambulance and the persons accompanying the body. The bench held that the right to have a decent burial was well within the scope and ambit of Article 21 of the Constitution. It issued notices to the authorities to explain the dereliction of duty in preventing such an outrageous act.

The bench dismissed a plea to reveal the identities of persons afflicted with COVID-19 on government websites. It was of the view that preventing the social stigma associated with the disease far outweighed the concern of the petitioner about checking the spread of the disease.

The Bombay High Court's Nagpur bench on April 20 sought a reply from the Maharashtra government to a petition challenging a circular issued by it prohibiting door-to-door distribution of newspapers in view of the pandemic, and the continued rise in the number of positive cases in the State. The Maharashtra Union of Working Journalists and the Nagpur Union of Working Journalists had filed the petition contending that the circular was arbitrary, unreasonable and in violation of the fundamental rights guaranteed under the Constitution.

A division bench of the Delhi High Court, comprising Justices Siddharth Mridul and Talwant Singh, on April 27, in *Delhi Rozi-Roti Adhikar Abhiyan vs Union of India*, directed the Delhi government to ensure that all ration shops remained operational eights hours a day on all seven days of the week and disbursed food-

grains on a regular basis at the designated time.

The bench directed the government to ensure that foodgrains were distributed to the poor, needy and marginalised people not covered under the public distribution system (PDS) from PDS outlets and other distribution centres. The bench also directed the government to immediately place on its official website, as well as publicise through the print and electronic media, grievance helpline numbers, so as to enable members of the public, to seek redress of their grievances by contacting the nodal officers appointed for the purpose. The action taken by the officials to redress such grievances should also be published on the website in order to ensure transparency, the bench held.

In *Rare Metabolics Life Sciences Private Limited vs Matrix Labs,* the Delhi High Court held that COVID-19 test kits should be made available urgently at the lowest possible price so that the virus could be controlled and people's health safeguarded. Justice Najmi Waziri, on April 24, issued directions to three private companies to import the testing kits at a cost of not more than Rs.400 each, inclusive of goods and services tax. The petitioner companies sought the release of 7.24 lakh COVID-19 test kits from Matrix, which has the licence to import medical equipment. Matrix sought full payment upfront before delivering the kits. The companies agreed to the selling of kits at Rs.400 per test, which is lower than the rate (Rs.600 per test) approved by the ICMR. Although it is a subject matter of arbitration, the High Court applied the principle of public interest to resolve the issue. The order came as a relief to the government as it enabled the import of more testing kits at reduced costs.

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Lessons from abroad

ON April 17, the High Court of Malawi suspended for seven days, pending judicial review, a 21-day lockdown planned by the government after the measure was challenged in the court (*S vs President of Malawi and Others; Ex Parte: Kathumba and Others*). On April 24, judge Kenyatta Nyirenda extended the lockdown suspension by another five days. The government had ordered a three-week national lockdown from April 19 to May 9 in response to the COVID-19 pandemic.

One of the applicants before the High Court, the Human Rights Defenders Coalition, noted that it sought the injunction because the government had failed to put in place measures "to cushion the poor during lockdown".

On April 28, the High Court extended indefinitely the order barring the government from imposing a lockdown. The court decided to refer the case to the constitutional court because the issues raised by the petitioners required the interpretation of the Constitution. Judge Nyirenda ruled that until the constitutional court decided on the matter there should be no lockdown. The court responded to the plea that imposing a lockdown without allowing social security interventions for marginalised groups was not permissible.

On March 24, the government of Nepal declared a lockdown, which was initially extended until April 27 and later up to May 7. On April 16, the Supreme Court of Nepal issued an interim order directing the government to take care of the health needs of Nepali migrant workers living abroad and seek the repatriation of vulnerable Nepali workers. A single bench of Justice Sapana Pradhan Malla issued the order in response to a writ petition filed by advocate Som Prasad Luitel and others against the office of the Prime Minister and Council of Ministers and others seeking relief for Nepali workers stranded in foreign countries.

The court asked the government to acquire through the Nepali embassies details of Nepali migrants suffering from COVID-19 in the respective countries and ensure that they got treatment as per World Health Organisation rules without any discrimination. The court ordered the government to bring back vulnerable Nepal migrants while ensuring that the larger population was not at risk of infection following the reckless return of migrants. The Supreme Court pointed out that the government could not ignore the plight of Nepali migrants whose contribution to the nation's economy was significant.

Critics of the lockdown measures opine that the Malawi and Nepali courts' orders put the Supreme Court of India to shame.

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asymptomatic persons in areas affected by the outbreak. Yet another seeks issue of directions for repatriation of Indian women nurses and doctors, in the final stage of pregnancy, from Saudi Arabia. They had plans of returning to India in March and April but were unable to do so owing to cancellation of flights. A petition filed jointly by the National Alliance of Journalists, the Delhi Union of Journalists and the Brihanmumbai Union of Journalists, has challenged the action of several newspaper establishments that have laid off staff, reduced wages and sent employees on forced indefinite unpaid leave in the wake of the lockdown.

Pravasi Legal Cell, an NGO, has challenged the refusal of the airlines to refund the full amount collected for tickets following the cancellation of flights. Instead of providing full refund, the airlines are providing a credit shell, valid up to one year. This, the NGO contends, is against the norms approved by the Directorate General of Civil Aviation.

The Civil Aviation Requirement of May 2008 sets a limit of 30 working days for airlines to complete the refund process for tickets booked through travel agents and portals, the petition states. Besides, the office memorandum directing the airlines to provide full refund of amount paid to only those who booked tickets during the lockdown leaving out those who booked tickets before it has been challenged as discriminatory.

In *Foundation for Media Professionals vs Union of India*, the petitioner, a not-for-profit organisation, claimed that the lack of high-speed mobile Internet in Jammu and Kashmir was causing difficulties during the COVID-19 outbreak as patients, doctors and the public in general had no access to latest information, guidelines, advisories and restrictions relating to the pandemic. The Internet speed on mobile phones has been restricted to 2G, the slowest data download speed, in the Union Territory since March 26. Various public health practitioners, medical professionals and doctors have complained about the amount of time lost in downloading latest studies, protocols, manuals and advisories on treatment and management of COVID-19 in view of the 2G connection, the Foundation for Media Professionals told the Supreme Court.

The Jammu and Kashmir administration, however, said right to access the Internet was not a fundamental right and the degree of access for exercising free speech or for carrying on any trade or business could be curtailed. Protection of sovereignty and integrity of India and ensuring security of the country were sound grounds for reducing the Internet speed, the Union Territory's administration said in an affidavit before the Supreme Court. The increase in Internet speed would lead to swift uploading and posting of provocative videos and other heavy data files, aimed at disturbing the peace in the region, inciting violence and abetting terror activities, the affidavit added. It claimed that the reaction time of law enforcement agencies to such situations decreased as a result.

The court had held in January that access to information and the freedom of trade and commerce via the Internet were fundamental rights. It, therefore, directed the Centre and the Jammu and Kashmir administration to periodically review the orders restricting Internet services. It, however, kept open the question whether access to Internet itself was a fundamental right. It appears that the Centre is now using this grey area to deny the rights to the people, even if the result is weakening the country's fight against the pandemic. It is not clear whether the court will settle this issue in favour of declaring access to Internet a fundamental right in order to defeat the government's ruse to pit national security against health concerns.

FIRS AGAINST ARNAB GOSWAMI

On April 24, the bench of Justices D.Y. Chandrachud and M.R. Shah granted interim protection from arrest for three weeks to Republic Television editor-in-chief, Arnab Goswami. In multiple FIRs filed across several States, Youth Congress activists have accused Arnab Goswami of defaming, in the course of a debate on television, Congress president Sonia Gandhi by alleging that she maintained "deliberate silence" on the Palghar incident (Maharashtra) in which two Hindu monks were allegedly lynched. The bench stayed all FIRs except the one filed in Nagpur, and transferred it to Mumbai, as the cause of action in all the FIRs was the same. The FIRs invoked several provisions in the IPC against Goswami for offences such as criminal defamation and causing communal disharmony. Goswami, on the other hand, relied on his fundamental right as a journalist to use his freedom of expression to ask critical questions and sought the quashing of FIRs on this ground.

The bench perhaps did the right thing by protecting Goswami from any coercive steps following the FIRs filed against him so that he could seek legal remedies such as anticipatory bail. However, the question was whether it would have heard any other person in a similar situation in the midst of a pandemic, considering it as urgent. According to reports, Goswami's petition was filed after 8 p.m. on April 23 and within an hour, the court's website was updated with information that it would be heard at 10.30 a.m. the following day.

Supreme Court advocate Reepak Kansal, in a letter to the Chief Justice of India, accused the court registry of picking and choosing cases filed by a few influential law firms and lawyers for early listing. He questioned the registry's decision to list Goswami's petition on April 24, without disclosing the reasons for its early listing and expeditious hearing. Justice Madan B. Lokur, former judge of the Supreme Court, , in his interview to *The Wire*, questioned the early listing of Goswami's petition when there was no likelihood of his immediate arrest.

PRASHANT BHUSHAN'S TWEETS

In *Prashant Bhushan vs Jaydev Rajnikant Joshi*, the Supreme Court intervened on May 1 to protect Prashant Bhushan from coercive action by the Gujarat Police in the FIR filed against him for his tweets on March 28. The bench of Justices Ashok Bhushan and Sanjiv Khanna issued notices to the complainant and the State government on Prashant Bhushan's writ petition challenging the FIR filed against him at the police station at Bhaktinagar, Rajkot.

In his tweet, Prashant Bhushan had made critical comments about Union Minister Prakash Javadekar for posting a picture of himself watching the television serial "Ramayan" during the national lockdown saying: "As crores starve and walk hundreds of miles home due to the lockdown, our heartless Ministers celebrate consuming and feeding the opium of Ramayana and Mahabharata to the people!".

Joshi complained that the tweet hurt his religious sentiments and sought action against Prashant Bhushan under Section 295A of the IPC (deliberate and malicious acts, intended to outrage religious feelings or any class by insulting its religion or religious beliefs). The FIR against Prashant Bhushan also invoked Section 505 (1)(b) of the IPC (intent to cause fear or alarm to the public or to any section of the public whereby any person may be induced to commit an offence against the state or public tranquillity).

The FIR alleged that Prashant Bhushan retweeted two tweets that were critical of the Centre's decision to declare sports stadiums as jails for the purpose of housing migrant workers, and deduct one day's salary of the doctors/staff of the All India Institute of Medical Sciences as a contribution to the Prime Minister's fund. In his petition, Prashant Bhushan denied that his tweets/retweets hurt religious sentiments or could cause public mischief.

When the bench asked what was wrong if someone watched a TV programme, Prashant Bhushan's counsel Dushyant Dave responded that the petition was not against the Minister watching "Ramayan", but against the twist given to Prashant Bhushan's tweets in the FIR, filed nearly a fortnight after the tweets were posted and circulated in social media. The belated filing of the FIR was nothing but an attempt to curb criticism of government policies/actions and was *mala fide*, vexatious, frivolous and an abuse of the process of law, Prashant Bhushan stated in his petition.

The prioritising of Goswami's petition and the Gujarat government's FIR against Prashant Bhushan for his tweets have raised genuine concerns. That the government and the court did not consider pandemic-related petitions filed on behalf of marginalised people as meriting urgent hearing and continuous monitoring was a matter of concern. How could the Centre and the apex court ignore the non-adversarial nature of PILs that could have provided an opportunity to nudge the executive to render justice to the voiceless. □

The virus of authoritarian strain

Taking advantage of the lockdown restrictions, the Delhi Police unleashes a witch-hunt against anti-CAA activists, especially Muslims, on the pretext of investigating the February riots in North East Delhi in February. BY **DIVYA TRIVEDI**

EVEN AS THE WORLD BATTLES THE COVID-19 pandemic, the right-wing regime in India is working overtime to stifle democratic voices. A strict lockdown, which prevents citizens from gathering, has come in handy for the government to crush dissent against its communal policies, especially the controversial Citizenship (Amendment) Act. According to some reports, as many as 800 people have been detained or arrested since the lockdown began on the charge of rioting in North East Delhi. Some activists against the Act have been booked under the draconian Unlawful Activities (Prevention) Act (UAPA), which allows the police to detain an accused for up to six months without producing a shred of evidence for crime.

At a time when governments across the world, including in India, are decongesting prisons to contain the spread of the novel coronavirus, the Delhi Police's heightened arresting spree seems to be out of step and inhuman. Advocates Seema Misra, Sowjhanya Shankaran, Maneka Khanna and Nitika Khaitan made a representation to the High Powered Committee (HPC) formed on the the orders of the Supreme Court to deal with the issue of release of prisoners. The committee looked into the summoning, detention and arrest of the persons by the police during lockdown in connection with the first information reports (FIRs) relating to the February-end violence in North East Delhi. The advocates pointed out that if the recipients of the summonses tried to comply with them, they would render themselves liable to penal action

ZAFARUL ISLAM KHAN, Chairman, Delhi Minorities Commission. The police landed up at his doorstep following an FIR against him over a social media post.

for violating lockdown orders. But the HPC, headed by Justice Hima Kohli of the Delhi High Court, who is also Executive Chairperson, Delhi State Legal Services Authority, did not intervene in the matter. The committee said: "The members of the committee are of the considered opinion that the submissions advanced in the representation and prayers made therein, are beyond the scope and purview of this committee."

Prior to the lockdown, 3,304 people were arrested or detained, and 763 cases, including 51 under the Arms Act, were registered, according to G. Kishan Reddy, Minister of State for Home Affairs. They were charged with fanning the February communal violence in North East Delhi, in which 53 lives were lost and 226 houses and 487 shops were damaged. While some Hindus suffered in the violence, Muslims bore the brunt of it and were targeted by not only rioters but also the police and political leaders.

Most of the people arrested during the lockdown were Muslim men and women (one of them pregnant), including university students and riot-affected people. The arrests were linked to either the anti-CAA protest sites of Jamia Millia Islamia, Shaheen Bagh and Brijpuri Pulia or riot-affected areas such as Chand Bagh Mazar. Many of the accused were picked up from their homes or directed to appear at Crime Branch or Special Cell police stations for questioning and arrested without being given a chance to obtain legal help. The police did not share FIR copies with them, nor allowed them to meet family members or even talk

to anyone on the phone. The affected persons could not challenge such violations of fundamental rights.

Speaking to *Frontline*, North East Delhi residents said that even some 40 days into the lockdown, the police kept coming in droves of 20 or 30 to arrest young Muslim men. If they could not find the person they were looking for, they picked up his family members and detained them until the person they were after appeared before them.

Moonga Nagar, where Hindus and Muslims live in harmony, was unaffected in the February violence. Yet the police picked up several young Muslim men from there. A resident of Moonga Nagar said: "We are all very scared. Just day before yesterday hordes of policemen, some in plainclothes and some in uniform, came and picked up two men aged 35 years and 22. Their families are in distress. One of them has two small daughters. His wife can't stop crying. We don't understand whom we should fear more: the coronavirus or the Delhi Police." The families later came to know that the two men had been shifted to the Mandoli jail but had no way of ascertaining their well-being.

HELPLESS COMMUNITY
Many have been picked up from Chand Bagh, Bhajanpura, Chaman Park, Mustafabad and adjoining areas. But since everybody remained indoors there is no clarity on the exact number of the arrested, said Taj Mohd, former Councillor of Nehru Vihar. People whose homes were burnt in the riots are in a precarious situation. "While the community is pooling in money and helping those living nearby with rations, there are families stuck in Hindu-majority areas with no help. Before the lockdown, NGOs [non-governmental organisations] and individuals from outside used to come and help, but that has stopped now. We hear about their plight but are helpless," he told *Frontline*.

The Delhi Police have blamed the violence in North East Delhi on students and activists at the forefront of the anti-CAA protests. The Jamia Coordination Committee (JCC), a collective of students and alumni of Jamia Millia Islamia, has emerged as their target. More than 50 JCC members have received notices from the Delhi Police. Among them are Shifa-ur-Rehman, president of the Jamia alumni association, Safoora Zargar, Meeran Haider and Gulfisha. Badre Alam and some others were released after questioning. All the arrested , including the suspended Aam Aadmi Party councilor Tahir Hussain, have been booked under the UAPA. Umar Khalid, former JNU student and activist, and Kawalpreet Kaur of the All India Students Association (AISA) are also apparently under investigation.

Commenting on the Delhi Police's attempts to blame the violence in North East Delhi on Jamia students, JCC member Imran Khan told *Frontline* "Jamia has no relation with North East Delhi, and nor have we organised any protest there. Some of our members were invited to give speeches in those protests, and so they went, but that is it."

NAJMA AKHTAR, Jamia Millia Islamia University Vice Chancellor, talking to the students during a protest demanding registration of an FIR against Delhi Police in connection with the December 2019 violence on the campus, outside the VC's office on January 13.

Meeran, 29, president of the of the Rashtriya Janata Dal's youth wing, was arrested on April 2. A JCC member said: "The FIR on the basis of which Meeran was arrested is far-fetched and does not sound believable to any sane person. It brings together randomly chosen leaders and cooks up connections between them in an effort to shift the blame for the riots and to cripple voices of resistance against the regime." The JCC member said that while the country was facing a massive health crisis, the state machinery was busy harassing and framing student activists in false cases to suppress voices of dissent.

Safoora, who is in the second trimester of her pregnancy, was arrested on April 10 and charged with being a "key conspirator" in the Delhi violence. She has been kept in solitary confinement in Tihar jail. She was apparently granted bail, but the UAPA was invoked to keep her behind bars. Human rights organisations and civil society groups have called for her release. Her sister penned an emotional letter to her saying, "You're the strongest person I know and now I've seen so many people be strong for you. I'm taking lessons from memories of you having courage. Of being resilient. Of being kind. Of welcoming everyone. Of being so so brave."

Gulfisha, 25, an MBA student, was arrested by the police on April 9, but the details of the case against her, including charges of sedition and those under the UAPA, remain blurry. She remains in judicial custody without access to her family or a lawyer.

A statement issued by the Campaign Against Witch-Hunt of Anti-CAA Activists and signed by people like Anand Patwardhan, Aakaar Patel, Saeed Mirza and Yug Mohit Chaudhury condemned the arrests of anti-CAA protesters. Referring to FIR No. 59/2020, it said:

THE SHAHEEN BAGH protest against the Citizenship (Amendment) Act, on March 1.

"FIR means First Information Report, i.e., the receipt of information that a cognisable offence has been committed. However, FIR no 59/2020, shows a glorious absence of any information. It has conjectures, yes, even a theory of what the complainant, a sub inspector of the Delhi police thinks, has transpired, but certainly no information. By hypothesising that Muslims did not send their children to schools on the day violence broke out, it attempts to elevate prejudice and conspiracy theories typical of WhatsApp bilge to 'legal fact'. The original FIR names only two accused while listing offences that are wholly bailable. But overtime, the Special Cell has been expanding its pincer grip, arraigning more and more anti CAA activists—from Khalid Saifi, to Meeran, to Safoora, at the same time invoking very serious sections that were absent initially. This FIR has enabled the stitching together of a political narrative where a direct link is sought to be made between anti CAA protests and the widespread violence that rocked North East Delhi in the end of February. Yes, lives from both communities were lost but the worst brunt was borne by the Muslims, and the loss of property and business was almost exclusively Muslim. It allows simultaneously the criminalisation of the peaceful and democratic protests, while granting full immunity to the perpetrators of anti-minority violence. It blanks out even a whisper about the purveyors of hate speech who led angry mobs and gave ultimatums to the police to clear out protests."

On April 24, the Jamiat Ulama-i-Hind's general secretary Maulana Mahmood Madani filed a petition in the Delhi High Court concerning arbitrary arrests of Muslims on the pretext of investigation of offences relating to the Delhi riots. The court on April 27 directed the Delhi Police to comply with the D.K. Basu guidelines regarding arrests and detentions, which includes access to a lawyer.

Sharjeel Imam of Jawaharlal Nehru University, Dr Kafeel Khan, JNU scholar Chingiz Khan, Ishrat Jahan, Khalid Saifi and Sabu Ansari are others who have been arrested since January.

'PUNISHMENT' FOR VICE CHANCELLOR

Even Jamia Vice Chancellor Dr Najma Akhtar, an appointee of the BJP government, has come under the scanner. On March 8, Ramakrishna Ramaswamy, a member of the search committee formed in 2018 to look for candidates to be appointed as Vice Chancellor of Jamia, wrote to President Ram Nath Kovind asking him to rescind Dr Akhtar's appointment. He claimed that the Central Vigilance Commission had denied clearance to Akhtar in an office memo dated January 10, 2019, and had recommended that she should not be considered for any post-retirement assignment or re-employment in any organisation, institution or university under the ambit of the Human Resource Development Ministry.

Students of Jamia suspect that she is being punished for her criticism of Delhi Police after they entered the campus in December 2019. But they pointed out that she was forced to make the statement almost a month after the incident when students gheraoed her office and demanded action against police brutality. "It seems this government is vengeful and will not tolerate even a mild criticism of its actions," said a student.

Chairman of Delhi Minorities Commission Dr Zafarul Islam Khan was charged with sedition for a Facebook post in which he thanked Kuwait for expressing solidarity with Indian Muslims who he said were facing persecution at the hands of Hindutva bigots. A large posse of policemen landed up at his doorstep, perhaps to arrest him. But they were deterred by several local residents, including AAP MLA Amanatullah Khan and former Congress MLA Asif Mohammad Khan.

His lawyer, Vrinda Grover, released a statement saying, "You are informed that Dr Zafarul Islam Khan is a senior citizen of 72 years age and he suffers from old-age-related physical illnesses that make him extremely vulnerable to the COVID-19 coronavirus. The law as per Section 160 of CrPC [Criminal Procedure Code] mandates that the police cannot compel attendance of a person above 65 years age at any place other than their residence for the purpose of investigation and interrogation. You are required as per law to question/interrogate Dr Zafarul Islam Khan only in his residence and you cannot compel him to go to any police station." Several individuals and organisations, including the Civil Liberties Monitoring Committee, strongly condemned the witch-hunting of Dr Khan.

A statement released by 1,100 feminists demanded that the Delhi Police immediately make public all FIRs, arrests and detentions with their legal status and conduct a free and fair investigation into all the incidents of violence. It demanded that the real culprits should be booked, including the likes of Kapil Mishra, Anurag Thakur, Parvesh Verma and others who had instigated hate and triggered the violence. □

RISING TREND

There are no signs of any let-up in the COVID case numbers well into the third phase of the lockdown even as issues of violation of physical distancing norms, mistreatment of front-line health workers, inadequate public health infrastructure and increasing distress among the poor come to the fore in most States, besides of course the low testing numbers and haphazard screening and isolation of suspect cases.

UTTAR PRADESH

Anxiety over arrivals

VENKITESH RAMAKRISHNAN

"Even though Uttar Pradesh is the most populous State in the country, the number of COVID-19 cases are comparatively lower than in other States, especially when we look at the population to positive cases ratio." This is the refrain of senior officials of the State government, including the Health Department's Principal Secretary, Amit Mohan Prasad, in their briefings on the COVID-19 relief activities in Uttar Pradesh. Officials have also stressed that an important reason for this situation is widespread screening and surveillance. Talking to the

media on May 5, Prasad said: "So far 50,193 teams have been involved in the surveillance work and have covered more than 43.56 lakh houses and screened at least 2.16 crore people."

However, the Union Health Ministry's tabulation on the evening of May 5 showed that deaths due to COVID-19 in Uttar Pradesh had shot up by 71 percentage points over the preceding seven days. A similar tabulation for active COVID-19 cases for the same period showed that the rate of increase in Uttar Pradesh was just 16 percentage points, much lower than the national average of 45 percentage points. Talking about these figures, a senior Union Health Ministry official pointed out, off the record, that the message for the Uttar Pradesh government, and indeed for all governments, was that screening and surveillance needed to be followed up with

MIGRANT LABOURERS who arrived in Prayagraj, Uttar Pradesh, from Gujarat by a special train wait to leave for their native villages.

RAJESH KUMAR SINGH

good clinical care. He was also of the view that the manner in which the public health care system in Kerala had rallied around to provide adequate clinical care to those identified as "active" was the definitive model for the other States to follow.

Many officials at various levels of the Uttar Pradesh government machinery acknowledge that the deficiencies in "good clinical care" will be more glaring in the days to come, especially in the context of the return to the State of migrants from different parts of India and foreign countries. In fact, Uttar Pradesh is one of the States that has led the effort to bring people belonging to the State back from other parts of the country and the world. Special trains have been launched nationwide from the first week of May to bring migrants back to their home States, and it is clear Uttar Pradesh will be receiving a high number of these trains.

On May 3, 3,000 migrant workers arrived in Lucknow and Gorakhpur, Chief Minister Yogi Adityanath's political bastion, primarily from Maharashtra. With close to 20 trains being put into service, the daily arrivals are expected to be in the range of 10,000 migrant workers. Additional Chief Secretary (Home) Awanish Kumar Awasthi told the media after the first arrivals: "The State government is preparing to receive about 18 to 20 trains each day, on an average of one train in one division. These will include about six trains coming from Maharashtra and six from Gujarat. The government has also coordinated with the Punjab government, and trains are likely to arrive from Ludhiana, Amritsar and Chandigarh soon. Another set of trains is expected to bring back migrants from Karnataka and Kerala." He also said that over 50,000 people, including workers and students, had already returned to the State in the last week of April and the first week of May. These apparently included approximately 11,000 people from Haryana, 6,000 from Madhya Pradesh, 11,000 from Rajasthan and 1,500 from Uttarakhand and 12,000 students from Kota in Rajasthan, who were brought back on the special instructions of the Chief Minister. Through the month, the State Home Department estimates that approximately 10 lakh workers will return from different parts of the country.

A senior official in the State Health Department, who is also a specialist doctor, told *Frontline* on condition of anonymity that this new influx would thoroughly expose the veritable absence of a functional community quarantine system in Uttar Pradesh. "The long-standing deficiencies of the State's public health systems, especially at the level of primary public health centres, are also bound to get woefully laid bare as these migrants come back to their homes. The effect of this, coupled with the lack of preparedness in placing these people into effective quarantine facilities, poses a daunting challenge. As of now, our… do not even seem to have a clue as to how this will pan out and to what proportions this will exacerbate the pandemic. I am of the view that the after-effects of this new influx will conclusively prove that lockdown by itself cannot flatten the COVID curve, which unfortunately seems to be the only strategy that the Uttar Pradesh and Union governments seem to have at this point."

On its part, the government has deployed approximately 10,000 buses to ferry the returning migrant labourers to their home districts. About 50,000 medical teams have also been deployed to screen them for the coronavirus before sending them to a 14-day home quarantine. "All those being sent to home quarantine will be monitored through committees formed under the gram pradhan in rural areas and under corporators in the municipal areas of the State," Awasthi told the media. He also mentioned that Yogi Adityanath had directed officials to prepare a "labour reforms" work plan in the next few days to provide jobs to migrants once they completed the quarantine.

The fact that the returning migrant workers were made to pay their rail fares has generated considerable public rancour and has led to a social and political controversy. Social and human rights organisations and political forces such as the Samajwadi Party (S.P.) and the Congress have termed the "rail ticket fare collection callous and inhuman". S.P. president Akhilesh Yadav told *Frontline* that this once again proved that the poor and the suffering were not the priority of the Bharatiya Janata Party (BJP) and its governments. "They will waive the loans of the rich and the mighty but still charge the marginalised." Yogi Adityanath's response was predictable—that the opposition was trying to politicise the issue as it was rattled by the giant strides that the State and Union governments had taken in combating COVID-19. "We are becoming an international model and that is what the opposition cannot stand," he said in a statement.

Even as this political controversy captured some media and public attention, the rapid increase in the number of cases in many districts of western Uttar Pradesh, which constitute the backbone of the State's economy, is a cause for concern. Districts in the region such as Agra, Gautam Budh Nagar, Meerut and Ghaziabad recorded a significant rise in cases and deaths in the seven days ending on May 5. The two principal cities of the State, Lucknow and Kanpur, have also registered a significant spike in cases. Social and health sector observers are of the view that the trends from places like Agra and Meerut indicate community spread. However, authorities continue to deny this. Amidst all this, even these hotspot districts and the green zones wait in trepidation for the new problems that the arrival of expatriates could cause across the State.

Fighting on two fronts

LYLA BAVADAM

Chief Minister Uddhav Thackeray has been fighting a war on two fronts. One, obviously against the COVID-19 pandemic, and the other against the Shiv Sena's erstwhile political partner, the BJP. He is marginally ahead on both fronts. As far as the handling of the pandemic is con-

HEALTH WORKERS and nurses of Thane Municipal Corporation surveying citizens for any symptoms of COVID-19, at Pachpakhadi in Thane, Maharashtra.

cerned, Uddhav has earned for himself some surprising praise.

Said a now-retired senior bureaucrat who used to be in Mantralaya during Bal Thackeray's remote-control era: "Many people thought Uddhav would be like his father and in many ways he is like [him] in his determination to build a temple at Ayodhya. But in one very vital way Uddhav differs from Bal Thackeray. He is willing to learn. He acknowledges he has a lot to learn and he is willing to be guided by those he thinks know better. In that sense he is trusting too. I don't want to name names, but he has learnt to trust one senior politician and now he is greatly under that gentleman's able guidance. His tackling of the novel coronavirus in Maharashtra has been good. He has held true to a good balance of toughness and reassurance and there has been an element of transparency that the public seems to have recognised. That is why the lockdown in Maharashtra has been without incident."

The praise is largely well-deserved, especially since Uddhav Thackeray has had to constantly watch his and his government's back. In the five months he has been in office, he has had to fend off the BJP which, at every possible opportunity, has lunged to discredit and destabilise the Maha Vikas Aghadi (MVA) coalition government. Condemning this, the retired bureaucrat said, "A responsible opposition is not opportunistic. During a crisis both sides should work together and forget party lines in the larger interest."

This desirable larger interest was not on display on April 14 when more than 2,000 migrant workers gathered at Bandra station in the hope of returning to their home States. The chaos, even while Section 144 of the Code of Criminal Procedure (prohibiting the assembly of more than four people) was in force, gave rise to a brief but fierce political blame game. The MVA said it was an outcome of mischief-making (read BJP-engin-

eered) while the BJP said the government had failed to maintain law and order. Home Minister Amit Shah gave Uddhav Thackeray a patronising rap on the knuckles, but he chose not to retaliate. A TV reporter was arrested and then released—a convenient scapegoat for all, it is believed.

Then came the lynching of two religious leaders and their driver in Gadchinchle village in Palghar district. In a web address, Uddhav Thackeray explained what had happened: "The two sadhus were travelling to Gujarat through back roads as there were curbs on travelling by the main roads. They were stopped at the border and asked to turn back. On their way back, they were stopped because of the rumours in this remote area that there were thieves around, and unfortunately, they were killed."

The BJP was quick to make use of the opportunity. Praveen Darekar, Leader of the Opposition in the Legislative Council, termed it a failure of the law and order machinery and called for the Home Minister's resignation, but Uddhav Thackeray was firm and told his critics not to politicise or communalise the lynching. "Do not try to create misunderstandings. I spoke to Union Home Minister Amit Shah," he said. "He knows there is no communal angle here. I told him we must search for all those fanning anger on social media. Those trying to inflame passions must desist from doing so. There is no Hindu-Muslim angle or communalism in this attack."

Maharashtra Congress general secretary Sachin Sawant pointed out that the village panchayat where the lynching took place was a BJP stronghold with a BJP person heading the panchayat. Furthermore, there is not a single Muslim household in the village. Sawant also said that the BJP should not forget that four lynchings had taken place during its term but no Minister had resigned.

ELECTION ISSUE

One issue that has weighed on Uddhav Thackeray from November 28 when he became the Chief Minister is that he is not an elected member of either House in the Maharashtra legislature. The constitutional framework gives him six months from that day to win a seat electorally. In March, the government wrote to the Governor asking him to use his powers of nomination to get Uddhav Thackeray a seat in the Legislative Council. A request not so unusual but one that received no reply.

As the May 27 deadline drew nearer, Uddhav Thackeray spoke to the Prime Minister. He apparently did not mince words and said that it was nothing short of an attempt to destabilise Maharashtra politically. The outcome was an announcement of elections on May 21. "Considering that there is a crisis in the State it would have been a reassuring and, I may add, very simple thing for the Honourable Governor to have assented to the nomination," said a source in Mantralaya.

It has been a tightrope walk between the State and the Centre, with the latter invariably letting party affiliations dictate its decisions. Three examples highlight

this. Since early April, Maharashtra has been asking for rail services to help migrant labourers return to their home States, but the Centre has denied this, resulting in terrible human suffering and huge pressures on the State. With the highest number of virus cases in the country, the State clearly requires more funds.

Nationalist Congress Party leader Sharad Pawar wrote to the Prime Minister and the Finance Minister saying Maharashtra required an additional grant of Rs.1 lakh crore in 2020-21 to help revive the economy. Earlier Deputy Chief Minister Ajit Pawar had asked for a Rs.25,000 crore package and early disbursement of GST (goods and services tax) dues of over Rs.16,000 crore.

IFSC IN GANDHINAGAR

Instead of facilitating an inflow of funds, the Centre chose to take away a big economic opportunity. On May 3, Sharad Pawar slammed the Centre for its decision to set up an International Financial Service Centre (IFSC) in Gandhinagar, Gujarat. His anger stemmed from the fact that although Maharashtra gives the highest contribution to government securities, the IFSC was given to Gujarat. In a letter to the Prime Minister, Pawar said out of the Rs.26,000,00 crore funds that the Centre receives from States, Maharashtra contributes Rs.5,95,000 crore compared with Gujarat's Rs.1,40,000 crore.

Pawar's letter states: "It will not only cause financial damage to the country but also bring international discredit to it by undermining the importance of Mumbai, which has been recognised as world's top ten centres of commerce in terms of global financial flow generating 6.16 per cent of India's GDP and accounting for 25 per cent of industrial output and 70 per cent of capital transactions to country's economy."

The letter further states: "I request the Centre to reconsider the decision to shift IFSC in Gujarat and relocate it in Mumbai on merit basis and I expect the Prime Minister will take a rational, judicious decision keeping aside the State politics and consider it as an issue of utmost national importance."

GUJARAT
Sudden spike

ANUPAMA KATAKAM

As of May 5, Gujarat's tally stood at 5,804 COVID-positive patients and 319 deaths. On May 2, the State recorded a sharp spike with 374 new cases in 24 hours. On May 3, there were 28 deaths in a single day. The State's largest city, Ahmedabad, is a "hotspot as" and the worst affected urban centre in the State with 4,076 cases and 234 deaths as of May 5, according to Gujarat's Health and Family Welfare Department. Far from flattening, the curve seems to be rising at a rate far above the national average.

Gujarat's failure in containing the virus exposes some harsh realities on Prime Minister Narendra Modi's home

DINESH TRIVEDI

turf. Why is this supposedly prosperous State hit so hard? Among the factors identified by experts, the most pertinent perhaps is an increased economic and health vulnerability of the population, notwithstanding Gujarat's claims of a high growth rate. Indira Hirway, director and professor of economics at the Centre for Development Alternatives in Ahmedabad, said: "There is a difference in growth and development. The State places negligible emphasis on social development. The pandemic has proved how unprotected people here are."

Data published by the Union Health and Family Welfare Ministry in early May calculates Gujarat's death rate at a frightening 22.6 per cent against the national average of 10.8 per cent. Italy had seen a 26 per cent death rate at the peak of the curve. Gujarat's fatality rate is at 5.4 per cent against Maharashtra's 4.2 per cent and Delhi's 1.6 per cent and the national average (as of early May) of 3.3 per cent.

Ahmedabad Municipal Commissioner Vijay Nehra told media persons that cases were doubling every four days on an average through most of April, a rate at which the State might have ended up with 50,000 cases by May 15. The rate of doubling of cases had been brought down to nine days, but it was still too early to feel relief, he said.

Nehra said the Ahmedabad Municipal Corporation (AMC) was using a "proactive approach" called EPIC, involving "Enhanced Testing, Intensive Surveillance, Proactive Detection and Corona Checkposts". The city has eight designated COVID hospitals and six quarantine centres. The State has a total of 19 COVID hospitals which have a total capacity of 2,200 beds. The AMC says 31 private hospitals across districts have been recruited for COVID treatment.

Dakxin Chhara, a documentary film-maker based in

MIGRANT labourers clashing with the police in Surat on May 5, demanding to be sent home,

Ahmedabad, said: "Given the circumstances they are doing what they can, but it is not at all adequate and there is a lot of chaos." Chhara said his uncle was put in a COVID isolation ward in a hospital even though he tested negative. "It was absolute hell for the family. We did not even know how to contact our uncle as he was being shunted around wards within the civil hospital."

Gujarat with its several big, medium and small industries is highly globalised and Ahmedabad sees a considerable amount of international travel. In addition to people travelling for business, there is considerable traffic of the Gujarati diaspora visiting the home State; many Gujaratis also take foreign holidays. There is a theory that the L strain of the virus, which is considered very strong, entered the State directly through business travellers from China. The theory has been debunked by a few scientists but is still debated. There is a possibility that travel between Mumbai and Gujarat could have added to the problem.

Hirway, who has written extensively on Gujarat's development, said there were three main factors for the spread: Ahmedabad's insufficient and casual attitude towards testing at the start; the city's congested ghettos; and the high vulnerability of the poorer sections such as the daily-wage migrants. "Gujarat is very different from other States. There is a huge informal workforce that is highly vulnerable with no access to health care. Gujarat is going the wrong way. It may show economic growth but at the cost of other things," she said.

The red zone in Ahmedabad is within the walled city where the minority Muslim population lives. There are

large families packed in small homes, which does not work in favour of distancing norms and lockdown compliance. Statistics show that the largest number of cases are in the central zones of Ahmedabad, where poor people, Muslims and Dalits live.

Sanjeev Kumar, a senior researcher at the Tata Institute of Social Sciences (TISS) who tracks Gujarat's economic and social development, said that the alarming condition of public health and inadequate spending on the social sector were now extracting a price. Using Government of India data, he said Gujarat had 0.33 hospital beds for every 1,000 of the population against the national average of 0.55. According to the World Health Organisation, India had 0.70 hospital beds per 1,000 of the population in 2011. Gujarat was ranked 17 among the 18 largest States by the Reserve Banks of India in terms of social sector spending. In 1999- 2000, Gujarat was spending 4.39 per cent of its total State expenditure on health, but by 2009-10 this came down to 0.77 per cent, said Sanjeev Kumar.

Gujarat's low recovery rate of 11 per cent is also a clear reflection of its poor health infrastructure. Once the virus started spreading, managing the crisis was entirely the responsibility of the State. Sanjeev Kumar said that this was where Gujarat fell short.

PLIGHT OF THE MARGINALISED

Gujarat is also grappling with the migrants issue. Reports say 94 per cent of the workforce falls under the unorganised category. At least half of the migrants are from Uttar Pradesh and Bihar. The lockdown left thousands of them stranded with no resources. Twice in Surat migrants clashed with the police demanding they be sent back home, episodes which highlighted their miserable condition.

Rupesh Solanki, a wholesale fabric dealer, said: "Many are daily-wage earners who work in the hundreds of textile units across Surat district. They live in poor conditions and have barely anything as most earnings go back to the village. It is tragic to see them just sitting hopelessly on the roads."

The State government has finally made arrangements to send them home. On May 4, 21,500 migrants from Surat were sent home by train. More are expected to get back to their native villages after getting a medical clean chit. Unfortunately, the Railways are charging Rs.700 for each ticket. Nasim Akhtar, a handicraft worker from Bihar who is stuck in Ahmedabad, said: "I have not got my salary and have barely Rs.400 left with me. I could not afford the ticket."

TAMIL NADU
Fumbling along

R.K. RADHAKRISHNAN

A lockdown within a lockdown, consistent denial of the emergence of new clusters of infections until the number of in the State blew up, and absence of forward

AT MAPPEDU in Tiruvallur district, Tamil Nadu, on May 7 at a retail liquor outlet.

B. JOTHI RAMALINGAM

planning factoring in the worst-case scenarios marked Tamil Nadu's response to the COVID pandemic in April and early May.

Yet spokespersons of the ruling All India Anna Dravida Munnetra Kazhagam (AIADMK) continued with their refrain since early April that no one can be prepared for a pandemic of this scale and that the government was doing all that it could. Facts on the ground speak otherwise.

The State government's response from the beginning has been to look to the Centre for responses. For instance, as the first phase of the lockdown was coming to an end in mid-April, many in the State were eagerly waiting for the Tamil Nadu government to make an announcement early enough on what lies ahead. Some States had already announced plans to continue with the lockdown. But it was just a day before that phase ended that the State government announced that the lockdown would continue until April 30. It added a rider: this will be subject to what the Central government decided on the issue. Soon after, Prime Minister Narendra Modi announced an extension of the lockdown.

This overdependence on the Centre for all decisions has resulted in not having a concrete plan for different case-load scenarios that would pan out. The second is the Chief Minister's reluctance to take charge of a unified response despite the Health Minister, C. Vijayabhaskar, known for his media management skills, repeatedly misreading the severity of the pandemic.

Although the 1.2 lakh employees of Tamil Nadu's health care delivery system are working tirelessly across the State, they are let down by the poor decision-making. The only act with foresight the government seems to have done is the requisitioning of all convention halls, educational institutions and some hotels to be converted into isolation centres when needed. Barring this, and the deployment of a few efficient officers in some places, the government's lack of planning is glaring.

To add to the confusion and mismanagement, much

like the Central government's 4,000 plus orders, the Tamil Nadu government has released multiple orders on a variety of subjects. In some cases clarifications followed the orders too.

For instance, much confusion prevailed over the government's decision to open retail liquor vending outlets. It announced on May 5 that all retail outlets would be open from May 7. Following protests from the opposition, the government amended the order saying that all the outlets except in Chennai, where the number of cases is high, would be open on May 7. Then came a whole new set of rules as to which age group can buy alcohol at what time, and so on. Another "rule" was that at a time only five people could buy alcohol.

On May 6, the northern region's Inspector General of Police passed an order warning that anyone travelling from Chennai to buy alcohol in the neighbouring districts would be arrested.

Above all, in an order on May 6, the Madras High Court too gave the government directions regarding delivery of online orders of liquor and said that the outlets should give two bottles of alcohol to anyone making an online digital payment. It further said that only one bottle of 750 ml should be given to a person making a payment at the counter and that person could only buy two bottles in a week. Reports coming in from different parts of the State indicated that none of these orders or instructions was being followed.

KOYAMBEDU CLUSTER

Meanwhile, every day since April 30, the number of (161 cases) has been going up in Tamil Nadu. It was 203 on May 1, and 231 on May 2. The next day (May 3) saw a total of 266 new positive cases. On May 4, there was a spike in the number of cases to 527. May 5 saw the numbers remaining high at 508 new cases. On May 6, the number rose to an alarming 771, taking the total positive count in the State to 4,829, and deaths to 35. The government claimed that this was because the rate of testing was high

in Tamil Nadu. In reality, the government had several gaps in its COVID strategy. One, it did not screen anyone coming into Koyambedu, Chennai's main market for fruits and vegetables. The spread from this one market took the infection to at least 10 districts. The Koyambedu cluster was responsible for the late April and early May surge in the number of cases.

Opposition political parties fear that the opening of retail liquor stores will create new hotspots across the State. But with inadequate Central allocation to fight the pandemic, the State is left with no choice.

In another desperate move, it has increased the retirement age of government staff to 59. This follows orders freezing the Dearness Allowance (DA) anulling annual leave encashment.

An order of the Personnel and Administrative Reforms Department dated May 7 (G.O. (Ms) No.51) with regard to retirement age said: "This will apply to all those who are in regular service as on date and due to retire on superannuation from May 31, 2020. This order shall also be applicable to all teaching and non-teaching staff working in aided educational institutions and employees of all Constitutional/Statutory bodies, public sector undertakings including all State Corporations, Local Bodies, Boards, Commissions, Societies etc."

Reacting to the decision, P.K. Ilamaran, State president, Tamil Nadu Teacher's Association, said that it was good for those who were to retire now because their DA would remain frozen. "Retirement a year later will mean that the pension will not be affected. But lakhs of youth who are waiting for a job will be hard hit. Already there is unprecedented unemployment. This move will mean one more year's wait for them," he said.

Prof. J. Jeyaranjan, Director, Institute of Development Alternatives, and economist saw this as a desperate move. "The State has limited means to raise resources.

Even a postponement, such as this one, is welcome as far as it is concerned," he said. If the same situation continued, given the lack of space for any financial manoeuvrability, more desperate measures, such as deferring part of the salary of government staff, as was done in Kerala, and opting for a ways and means advance will be resorted to, he said.

KERALA

Incoming challenge

R. KRISHNAKUMAR

The first week of May was of great relief for Kerala, with no deaths or new COVID-19 positive cases reported for several days in a row and 462 (or 92.59 per cent) of 499 people who had tested positive recovering and leaving hospitals. There were no positive cases in six of the total 14 districts; in four of the remaining eight districts there was only one positive case each. Only about 21,724 persons were under observation, and of them just 372 in designated isolation facilities.

But May was also sure to be a month of rising concern in Kerala, with already 4.2 lakh emigrants registering with the NORKA-Roots website by May 4 for returning home from at least 12 countries, including the United Arab Emirates, Qatar, Saudi Arabia, Bahrain, Kuwait, Oman, the United States, the United Kingdom, Malaysia and Singapore.

Similarly, in the first four days since registration started, 1.66 lakh Keralites stranded in other States also had registered in the NORKA website to return home, an operation that called for an entirely different and complex logistics if they were all to be monitored at the various border entry points in the State and their institu-

VEHICLES carrying stranded Keralites queuing up for clearance at a checkpost at Walayar in Palakkad on the Kerala-Tamil Nadu border, on May 5.

K.K. MUSTAFA

tional or home quarantine ensured after proper medical check-up.

The largest numbers were from Karnataka (55,158), Tamil Nadu (50,863) and Maharashtra (22,515). People had also registered from Telangana, Gujarat, Andhra Pradesh, Delhi and Uttar Pradesh. By May 4, as many as 28,722 people had applied for passes to travel to their home State, and though only 5,470 passes were issued in the first two days, many returnees were stranded on the way or at border points because of hurdles raised by the authorities in other States.

Though Kerala was not insisting on COVID-19 free certificates from those coming back from other States, the inter-State returnees needed travel permits to undergo medical screening in the States of their origins. Many could not afford private transport and therefore are forced to wait for public transport facilities to open after the lockdown.

INTER-STATE WORKERS

Meanwhile, the State also faced rising demands from inter-State migrant workers now camping in labour camps for facilities to return home. In a few places, for instance in Malappuram district, where 65,255 such "guest workers" (as they are called in Kerala) were residing, the labourers even organised a street demonstration, a first in the district, demanding immediate transport facilities. The neighbouring Kozhikode district, too, witnessed such demonstrations.

After negotiations spread over several days with the Centre, other States and Railway authorities, a few special train services were launched from May 1. Nearly 6,000 guest workers left for their homes in the first two days to Jharkhand, Bihar and Odisha from various stations in Kerala.

However, many special train services were stopped abruptly after that as the home States of such workers denied approval for their immediate return as facilities for their arrival, including quarantine and further transport arrangements were reportedly not yet ready.

There are nearly 3.6 lakh guest workers in Kerala, and the State authorities say 300 to 400 special train services will be needed in the coming days to take all those who want to return back to their States.

The first trains to leave the State with guest workers saw a well-organised attempt by the Kerala government to identify those in the camps who wanted to return home, verify their documents, conduct medical check-ups and transport them to the respective railway stations in KSRTC (Kerala State Road Transport Corporation) buses and see them off in trains with travel permits, tickets and free food packets to last their long, non-stop journey and to ensure that they followed social distancing norms throughout the journey.

At the same time, there was widespread confusion too among guest workers as the first few trains could accommodate only very few people. Also, a large majority of them were in camps where lack of information on how to register for their journey home or about train schedules

and cancellation of already announced special trains were leading to desperation and panic reactions. There were also complaints that guest workers located in camps away from the major centres and workers who had come on their own into the State (and not as a group under an employer or contractor) were being left out of the entire scheme.

RETURN FROM GULF COUNTRIES

But surely, the most sensitive issue the Kerala government needed to tackle was the return of Keralites from other countries, especially those in the Gulf countries. The opposition parties have found in this an opportunity to pounce on the State and Central governments for the delay in providing transport facilities to those living now in desperate and dangerous situations in other countries, especially those in the Gulf region.

State government sources have said Kerala expected about five lakh Keralites to return home. The Central government has planned to bring back passengers according to a list prepared by the respective embassies, "strictly on 'payment basis'". Flights are to be operated from May 7 and it will take 45 to 60 days to bring back the first lot of at least two lakh Keralites by flights and naval vessels to the three major cities, Thiruvananthapuram, Kochi and Kozhikode.

As per early estimates, nearly 15,000 Indians are expected to return to the country during the first seven days from May 7. Nearly 64 flights are to be sent to 12 countries, six of them in the Gulf region, including the UAE, Qatar, Saudi Arabia, Bahrain, Kuwait and Oman, and rest to the U.S., the U.K., Bangladesh, the Philippines, Malaysia and Singapore. The maximum number of flights would be operated to Kerala and Tamil Nadu among eight other States.

Initially, 15 services are to be operated to Kerala, mainly by Air India and some other private operators, with each flight carrying about 200 passengers on an average. Naval vessels are also being pressed into service and can carry between 800 to 850 people. Already two vessels were on their way to Dubai on May 5, with, the journey from Dubai to Kochi expected to take three and a half days.

EXTENSIVE ARRANGEMENTS

Meanwhile, as *Frontline* had already reported, the State authorities have already made extensive arrangements for a mass return of Keralites from abroad, including provision of 1.6 lakh beds in surveillance centres, 70,000 rooms with toilets, plus an additional two lakh bed accommodation facilities, 5,610 ICU beds in government and private hospitals and 1,966 ventilators. Those who do not have symptoms are to be transported to their homes for a 14-day quarantine immediately on arrival at the airport. Those who do not have facilities to quarantine themselves at home are to be sent to government facilities or to hotel rooms if they are willing to pay for them. Those who show symptoms of the disease are to be sent to surveillance centres or hospitals.

But the most serious issue is the fiscal crisis Kerala is about to encounter, with the Central government ignoring its long-pending demands to raise the deficit ceiling of the State and to pay the GST (goods and services tax) arrears due to the State or for more resources for the health system.

According to a report by the State Planning Board, Kerala suffered a loss of Rs.29,000 crore as a result of the nationwide lockdown from the first 10 days in March to May 3. The agriculture sector alone, including the plantation sector, suffered a loss of Rs.1,570.75 crore. The fisheries sector suffered a loss of Rs.1,371 crore and the animal husbandry sector Rs.181 crore. Production loss in the industrial sector was an estimated Rs.8,000 crore. Hotel and restaurant sectors had an income loss of Rs.17,000 crore, and the tourism industry has had a temporary loss of Rs.20,000 crore. In the IT sector, there was a daily loss of 26,200 jobs and in allied informal sectors the job loss was 80,000 per day.

Unlike in many other States, the people, especially those belonging to the underprivileged sections, in Kerala were largely protected from the initial severe impact of the lockdown by the special measures implemented by the State government, among them an immediate livelihood package worth Rs.20,000 crore. The State had taken upon itself the responsibility of providing all the primary needs of the people, including free food and accommodation, free ration, food through community kitchens to all needy people, including thousands of "guest workers", immediate release of welfare pensions and arrears, and interest free loans to thousands of members of the Kudumbashree network in addition to the provision of huge resources needed to run its acclaimed COVID-19 prevention efforts.

However, a serious financial crisis is threatening the State, which has already forced it even to issue an ordinance to defer a portion of the salary of its employees equivalent to six days for each month from April 2020 to August 2020—a total of one month's salary by the end of

the fifth month. The ordinance was issued after the Kerala High Court issued a two-month stay to an executive order issued by the government earlier to this effect, which was challenged by the opposition employees' organisations.

The State has now no other go but to wait for assistance from the Central government if it is to move forward, with what the State Finance Minister says it has in hand now: "zero income". ∎

Confusion in the capital

DIVYA TRIVEDI

As of May 4, Delhi continues to be the third worst affected region in India after Maharashtra and Gujarat, with 4,898 cases of COVID-19, of which there are1,431 recoveries and 64 deaths. Over the preceding week, the number of new infections grew by an average of 7 per cent every day, while the recovery rate was 29.22 per cent, which is slightly better than the national rate of recovery.

With the daily surge in cases not abating, the Central government declared as red zones all 11 of Delhi's districts. The State government further demarcated a dynamic list of 100 containment zones within the city, which as of May 4, has fallen to 90. No activity apart from emergency services is allowed in these zones. Outside them, certain activities are allowed as per the Centre's guidelines.

As the third phase of the lockdown began on May 4, a considerable number of relaxations were allowed outside the containment zones. But confusion prevailed. While shops selling essential goods were allowed to operate all over the National Capital Region, shops selling non-essential goods, neighbourhood shops and standalone

THE SCENE at a liquor shop in New Delhi on May 6 despite a 70 per cent increase in price per bottle.

SANDEEP SAXENA

shops inside residential colonies were also allowed to operate. When some of these shops opened on May 4, policemen came and forced them to down their shutters. A shopkeeper told *Frontline*: "I thought my shop came under that criteria, but the police came with lathis and made me close it. We repair and rent out air conditioners. Air coolers are in the essential category list but air conditioners are not." Since there was a discrepancy between the stated rules and what was being allowed on the ground, most shopkeepers did not reopen for business but decided to play the wait-and-watch game.

Despite the relaxations, the city did not witness the kind of activity one might have expected to resume. But even the marginal increase of traffic on the roads prompted some mediapersons to declare that people were flouting rules. Some private offices opened with a staff strength of 30 per cent. There were long queues outside liquor shops, which the administration was ill-prepared for. The police resorted to lathicharge and threatened to seal the areas altogether.

Chief Minister Arvind Kejriwal declared that he would seal all the areas where people were not following physical-distancing rules. Soon afterwards, his administration announced an astounding 70 per cent extra tax as a "special corona fee" on liquor sold in the capital from May 5 onwards.

State governments are opening liquor stores mainly because they have suffered huge revenue losses due to the lockdown and a major chunk of their revenue comes from the sale of liquor.

The Kejriwal government also increased value-added tax (VAT) on petrol by Rs.1.67 a litre and on diesel by Rs.7.10 a litre, thereby raising the price of petrol to Rs.71.26 a litre and diesel to Rs.69.39 a litre. While States such as Haryana and Tamil Nadu also hiked VAT on fuel, Delhi's hike was the steepest. In the coming days, this is expected to inflate the cost of products across the shelf.

The prices of fruits, vegetables and other staples had already been hovering at dangerous levels in Delhi after its borders with neighbouring States, especially Haryana, were sealed. The wholesale markets in Delhi were also shut for a few days for sanitisation after 15 cases of COVID-19 were found in the Azadpur mandi. Uncertainties over an extension of the lockdown triggered panic buying and hoarding, which led to a further hike in the prices of commodities.

Meanwhile, the Kejriwal government entered into a tussle with residents' welfare associations (RWAs) over the entry of service workers such as domestic helps and drivers into housing colonies. While the government gave the go-ahead for their return to their jobs, several RWAs were against it as the danger of the virus had not fully receded from the city. A member of the decision-making committee of an RWA told *Frontline*: "It is a big dilemma. The worker can be a carrier or, conversely, one of us residents who go out into the city could be a carrier who unwittingly passes it on to the maid. She goes back to her slum and becomes a spreader there. These are not easy decisions."

The situation remains worrying as there is a steady spike in the number of cases of mild or asymptomatic infections. Contact tracing has failed to reveal the sources of all infections. This indicates the presence of silent carriers moving around undetected in communities. Delhi had conducted 2,300 tests per million population of the city, which is pretty high compared with the numbers in other States. Gujarat, for instance, which had 5,804 cases of coronavirus, had tested only 1,246 per million population, while Kerala, which did not report any new cases in the week preceding May 4, had tested only 500 people per million population. The Delhi government contacted 1,100 people who had recovered from COVID-19 and asked them to donate their plasma, which is being used as an experimental treatment procedure in Delhi hospitals.

Newer hotspots seem to be emerging in the city; on April 29 200 health workers tested positive for the virus. Very few of them were from the facilities dedicated for the treatment of coronavirus infections, said State Health Minister Satyendar Jain. The paramilitary forces became super spreaders after 137 personnel of the Central Reserve Police Force (CRPF) were found to be positive. The entire battalion of 480 CRPF personnel based in Mayur Vihar had to be quarantined after one of them died of COVID-19 infection. Apart from that, personnel from the Central Industrial Security Force (9), the Indo-Tibetan Border Police (21) and the Border Security Force (31) deployed in the Jama Masjid area were found to be positive for the virus.

An artist based out of Patna said: "But no media house hounded them or blamed them for spreading the virus deliberately as they had done with the Tablighi Jamaat congregation and rightly so. But here in Bihar, ordinary Muslims continue to be hounded and harassed by local residents, who blame them for 'corona jehad'. The media's hate propaganda has gone deep within an already Islamophobic society, and we will see its ill effects for a long time to come."

PUNJAB

Blame game over pilgrims

ANANDO BHAKTO

The COVID-19 contagion is increasing at an alarming rate in Punjab following the return of Sikh devotees who had got stranded in Nanded in Maharashtra after the lockdown was announced. From May 1 to May 3, as an estimated 4,000 pilgrims flooded back into the State, the total number of positive COVID-19 cases jumped to 1,102 with 21 deaths. As of May 3, as many as 609 pilgrims who returned from Maharashtra had been found to be infected. The steepest spike was recorded on May 3: of the 331 cases recorded that day, 326 were pilgrims.

POLICEMEN recording details of passengers travelling in a bus that carried people back to Punjab from Nanded in Maharashtra. The passengers were to be subjected to a mandatory 21-day quarantine.

The spike sharpened the political blame game. The Shiromani Akali Dal (SAD), principal opposition party in Punjab, accused the Amarinder Singh-led Congress government of negligent handling of the devotees' transportation from Maharashtra. The Congress alleged that the Bharatiya Janata Party (BJP)-led Centre was discriminating against opposition-ruled States.

The pilgrims had travelled to Nanded (Maharashtra) to pay obeisance at Gurudwara Hazur Sahib. The announcement of the lockdown on March 24 at four hours' notice forced them to stay back at the shrine complex. In the absence of adequate space and amenities at the complex, social distancing norms presumably could not be followed.

The Punjab government initially recommended home quarantine for returnees who showed no symptoms on arrival. The situation changed after eight pilgrims in Tarn Taran and Kapurthala tested positive. The Home Department issued strict orders that all those who were arriving in Punjab would be first screened at a government facility and then allowed to go home only if they tested negative.

Much controversy has arisen regarding the mode of transport of the pilgrims and the difficulties they encountered at the government quarantine centres. SAD leader Bikram Singh Majithia demanded that Health Minister Balbir Singh Sidhu be sacked and alleged that the State government mismanaged the transportation of the pilgrims by not sticking to Indian Council of Medical Research (ICMR) guidelines; he pointed to the use of air-conditioned buses for the purpose. "The social distancing norm was not followed. The buses passed through red zones, and it was because of this mishandling that pilgrims who were in good health in Nanded for more than one month tested positive for COVID-19 on their return to Punjab," Majithia said.

In response, Balbir Singh Sidhu alleged that Majithia was conducting a misleading propaganda and emphasised that the pilgrims contracted the disease during their stay at the Hazur Sahib Gurudwara and not on their way back to Punjab. He justified his claim citing the fact that some "sevadars" of the gurudwara had also tested positive. Sidhu also criticised Union Minister Harsimrat Kaur of SAD for her comment that the Centre had been generous with funds. He dared her to prevail on the Union government to clear the State's Goods and Services Tax arrears amounting to Rs.4,400 crore. In a video message on his Facebook page, he said: "A sum of Rs.71 crore has been given to Punjab under the National Health Mission to fight the coronavirus. It comes to even less than Rs.3 crore per district. Besides that, we have not got a single penny from the Government of India in the fight against COVID-19".

The opposition in the State criticised facilities at the quarantine centres as poor. Some senior people associated with Health Department who were running the administration of the hospitals where most suspected coronavirus patients have been quarantined agreed with the criticism. A source told *Frontline*: "You know the condition of government health facilities. Would you expect them to change overnight?"

Congress spokesperson Raman Balasubraminan, who is also the chairman of Ludhiana Improvement Trust, said there might have been irregularities in the beginning but claimed that the situation had since improved. "One cannot deny that there were some difficulties in the beginning given the sudden spurt in cases, but we acted fast. We have significantly upgraded the amenities at the quarantine centres," he told this reporter. In view of the spiralling number of cases, the government has started a drive to increase the number of isolation centres. On May 2, 2,081 government schools were declared quarantine facilities until further orders in Patiala alone.

INTER-COMMUNITY EFFORTS

Punjab has seen robust inter-community efforts to aid the overall preparations and action plan to deal with the pandemic. As in the rest of the country, civil society has come out strongly in support of efforts made by independent non-governmental organisations (NGOs) to ensure supply of food and other essentials to the poor. Volunteers of Voice of Amritsar (VoA), a prominent NGO that has handed over 50 PPE kits, 100 face shields and 10 litres of handsanitiser to the administration, said they got a tremendous response from the people, especially, small shopkeepers and grocers. VoA's founding director, Rakesh Sharma, Professor in Surgery at the Government Medical College Amritsar and Convener of Special Coordination Committee on COVID-19, said that at least 10 of its staff secured travel permits in the first week of the lockdown and were instrumental in distributing food supplies and protective gear.

Sharma told this writer over the phone from Amrit-

sar: "So far we have catered to over 10,000 families. People from all walks of life responded to our donation calls generously. Even shopkeepers would either give food essentials free of cost or give us extra quantities over what we purchased. Besides money, people also generously donated rations to our teams. We were able to raise enough funds to buy 50 thermal scanners worth Rs2.5 lakh to make up for any lack of medical equipment."

Meanwhile, the Punjab government has criticised the Centre's attitude towards States not ruled by the BJP. Finance Minister Manpreet Singh Badal said the Centre was not disbursing adequate funds for the battle against COVID-19. He said Punjab had got a meagre Rs.71 crore from the Centre. Sources in the Punjab Pradesh Congress Committee told this writer that there had been correspondence between Amarinder Singh and the Prime Minister and Home Minister but nothing concrete seemed to have emerged.

Speaking to *Frontline* over the phone, Raman Balasubramanian said: "We clearly need a major package as we are dealing with a situation which is unknown and will have a trickle-down impact on all walks of life, particularly the economy. We ought to have an economic plan much in advance as COVID-19 is not an isolated incident but will have consequences on agriculture and industry. The Centre has announced a Rs1.7 lakh crore national plan, but as of now it seems most of that would be invested to bail out the poor. What about the service class and lower-middle bracket and middle bracket families who would be severely impacted by job losses?" He said Punjab's unique situation warranted an urgent stimulus package. "In Punjab the service sector is growing by 11-12 per cent and that is more than the national average. So we do fear major layoffs in the days to come. The unorganised sector will also be hit hard. The Union government seems to have no clue, nor any sense of urgency to deal with what is coming," he said.

RAJASTHAN
Critical battle
T.K. RAJALAKSHMI

After an initial spurt in COVID-19 cases from midMarch through April and early May, the confirmed cases in Rajasthan were more or less concentrated in three or four districts and mainly in the urban centres of Jaipur, Jodhpur, Kota, Ajmer and Tonk. On April 27, the NITI Aayog identified Jaipur and Jodhpur as "critical" districts along with 13 other districts in the country with high case volumes and loads. The share of Jaipur and Jodhpur in the State's case load was 36.98 per cent and 16.75 per cent respectively. Ajmer, Bharatpur, Chittorgarh, Nagaur and Tonk districts also reported more than 100 cases each. Twenty-nine of the 33 districts reported more than one case. The recovery rate in the State, at 48.11 per cent, was higher than the national rate. The mortality rate, at 2.82 per cent, was lower than Madhya Pradesh's 5.77 per cent. Rajasthan tested more samples than Madhya Pradesh did.

MIGRANTS proceeding to board buses in Jaipur bound for other States on March 29.

Rajasthan's share in the country's case load was 6.46 per cent. As of May 6, there were 90 deaths, 1,567 active cases out of 3,193 confirmed cases, and 1,536 cured or recovered cases in the State. Of more than 1.34 lakh samples collected, close to 1.3 lakh tested negative. The cases indicated that the virus had spread to the community level though it was by and large confined to urban centres and major cities.

The State government declared a complete lockdown on March 22, three days before the enforcement of the national lockdown. The administration's stringent measures helped contain the spread of the virus in the textile town of Bhilwara. The relatively low population density of the district helped achieve this. Civil society organisations contacted by Frontline on telephone said the seriousness of the Ashok Gehlot government in dealing with the crisis was never in doubt but there were management-related issues. For instance, as soon as the lockdown was announced, the government declared the takeover of 84 private hospitals for COVID screening, isolation and treatment. The move was widely appreciated but the Rajasthan Nagrik Manch, a citizens' initiative, has alleged that the takeover was mostly on paper. Anil Goswami, State convener of the Manch, told *Frontline* that in Jaipur only two hospitals, one of which was on private public partnership mode, were commissioned for isolation and treatment of COVID patients. Recently, one of them stopped functioning as a dedicated COVID-19 hospital.

Rajasthan has a huge migrant population, which depends on tourism, manufacturing and mining industries and agriculture for livelihood. Migrant workers from West Bengal were employed in the gems and jewellery sector, which took a major hit after demonetisation in 2016. Jaipur accounted for around 1.65 lakh migrant workers. Out migration from the State has generally been

to Madhya Pradesh and Gujarat. Some 1.48 lakh migrants from Jalore district were said to be stranded in States such as Madhya Pradesh and West Bengal. Buses sent to West Bengal in the first week of May to bring back these migrants returned empty in the face of West Bengal's non-cooperation.

There was also the issue between the States and the Centre over who should bear the cost of migrants' travel. It was after opposition parties demanded that migrants should be spared the burden of paying rail fares that the Centre agreed to bear 85 per cent of the cost. The remaining 15 per cent was to be borne by the States. Congress president Sonia Gandhi declared that her party would bear the travel costs of the migrants if the Centre did not. On May 4, Rajasthan Chief Minister Ashok Gehlot assured the migrants that his government would bear the full cost of rail fare and arrange to transport them by buses to inter-State borders.

LOCKDOWN AND FARM PRICES
Inter-district migration generally took place during harvest and sowing seasons. Onion harvest, for instance, was done mostly with the help of manual labour. Local people and migrants flocked to the Shekhawati belt (Sikar, Jhunjhunu and Churu) for the rabi crop harvest. According to Atma Ram, State secretary of the Communist Party of India (Marxist), the government failed to ensure fair prices for onion and milk produce. He said onion prices had fallen to Rs.7 a kilogram from the pre-pandemic rate of Rs.15 a kg. Likewise, the procurement price of milk by Saras (Rajasthan Coopertive Dairy Federation Limited), which was Rs.33 or Rs.34 a litre, dropped to Rs.18. The consumer, on the other hand, was still buying milk at Rs.42 a litre. Crops like mustard, gram and pulses for which minimum support prices had been fixed, were sold at lower rates in the grain markets. "The government should procure in a big way and distribute dry rations free of cost instead of allowing the harvest to rot in the fields. There has been a bumper crop. There is no need to collect donations from people. Instead of converting crops to fuel, they can be distributed to the needy. The rich in any case are not interested in rations. It is such an irony. The small trader cannot open his shop but the liquor vendor can," he said. One positive development was that the government resumed work under the Mahatma Gandhi National Rural Employment Guarantee Scheme and enhanced the wages slightly.

Amra Ram said poultry was another sector that was badly hit with no buyers for eggs, even at the rate of Rs.1 each. The sale of meat and that of livestock dropped following sustained communal campaign linking the minority community with the spread of COVID. This was following the Tablighi Jamaat event held in New Delhi, several days before the lockdown was announced. "The government did little to counter this. There was 24/7 news coverage of Tablighis as the main carriers of the virus. The government should have aggressively countered this as facts on the ground proved otherwise. The virus does not have a religion. There were videos

MIGRANTS who arrived at Danapur railway station in Patna by a special train from Bengaluru leave to board buses arranged by the State government to their native places, on May 5.

warning people not to buy from Muslim vendors. No first information report was registered against such persons. One news channel repeatedly referred to the Muslim-dominated Ramganj area in Jaipur as an area inhabited by traitors. The Congress took part in the clapping of hands and clanging of utensils at the behest of the Centre," he said.

In the first week of April, the Rajasthan government discontinued the special reference it was using to denote the attendees at the Jamaat Markaz in its COVID bulletins after civil society organisations objected to communal profiling. In any case, it was clear that the Markaz attendees and their contacts accounted for a small percentage of the total number of infected persons.

BIHAR
Waking up late
PURNIMA S. TRIPATHI

Ever since the COVID-19 outbreak began, the Bihar government has been in the news for all the wrong reasons. First, it said it would not allow migrant workers stranded elsewhere to return home lest they would bring infection with them. Then, it said that since the students stuck in coaching centres in Rajasthan's Kota were from affluent classes they should stay there until the lockdown was over. This prompted many to see Chief Minister Nitish Kumar, who is known as "Sushasan babu" (good governance man), as an insensitive politician in the hour of crisis.

Ever since the lockdown began, thousands of migrant labourers from Bihar, Uttar Pradesh, Madhya Pradesh, Odisha and West Bengal have been taking to the streets

in various parts the country demanding some form of transport so that they could go back home. Workers from Bihar clearly outnumbered those from other States. While some State governments requested the Centre to help their people get back home from places like Delhi, Maharashtra, Kerala, Rajasthan and Gujarat— where they were put up in shelter homes and provided with food—the Bihar government did nothing much to mitigate the misery of migrants from the State. Nitish Kumar went to the extent of issuing a statement saying that allowing these workers to come back would defeat the very purpose of the lockdown.

Even those who managed to reach the State's border either by walking or by cycling thousands of kilometres were stopped at the border and quarantined in substandard facilities. Videos from these centres showed the pitiable living conditions there and the sparse food given to them.

Unlike other Chief Ministers who either visited the quarantine centres or hospitals or took the initiative to spread awareness among the people, Nitish Kumar did not make a single public appearance for nearly 40 days. The Bihar government, however, has been issuing statements every evening explaining how closely it is monitoring the situation and how well the State is handling the crisis.

"Nitish Kumar has abandoned the people of Bihar in this hour of crisis," Rashtriya Janata Dal (RJD) leader Tejaswi Yadav was quoted as saying.

Lok Janshakti Party (LJP) leaders, who did not want to be named, told *Frontline* that Nitish Kumar's overrated leadership abilities had been exposed in these critical times. "Absolutely no testing is being done. Our hospitals, which even in normal times are understaffed and lacking in facilities, are horribly inadequate to deal with an outbreak. Everything has been left to the mercy of gods," said a senior LJP leader.

Adding to the migrant workers' woes, Nitish Kumar announced that the State government would not pay the travel fare for migrants who would be transported to the State through the trains named Shramik Special. Those who were left without any work or income or food or a proper place to stay in far-flung places had to shell out Rs.600-700 on an average for their journey. Reacting to the State government's stand, the RJD announced that it would pay the train fares of people travelling by 50 such trains, and the Congress said it would pay the fare of every worker travelling back home. Only after noticing all-round criticism of its indifference and the offers of the opposition parties, the State government announced that it would pay not only the fares of workers travelling back home but also an additional amount of Rs.500 each.

POLITICAL DYNAMICS

Political observers attribute the Nitish government's flip-flop to the State's strange political dynamics. According to them, there are only two political parties in Bihar that have grassroots support, the Bharatiya Janata Party and the RJD, and both lack a credible local face for the Chief Minister's post. The BJP is forced to piggyback on Nitish Kumar's mass appeal and wide acceptability.

Despite its appeal among the poor, the RJD is hamstrung by the incarceration of Lalu Prasad and remains a weak opposition . This puts Nitish Kumar in an invincible position. The RJD and the Congress may have to tweak their political strategies to make themselves acceptable to the non-backward, observers say.

"This is why Nitish Kumar has grown so arrogant in his behaviour. He thinks he can get away with anything. He knows migrant workers are not his vote bank. Unfortunately, even in such tragic times, politics comes before everything else in Bihar," the LJP leader told *Frontline*.

Rajiv Ranjan, senior leader of the ruling Janata Dal (United), however, told *Frontline* that the Bihar government was doing everything possible notwithstanding its limited resources. He said the low number of COVID positive cases and almost negligible number deaths in the State are proof of that. "We are a poor State. If Nitish*ji* has not supported the moves to bring the labourers back, it is because we don't have the resources for such a massive exercise. That is the reason he has been appealing to the Centre to make guidelines for facilitating this exercise," he said.

According to official statistics, over 29 lakh migrant labourers have registered with the government to come back to the State. Unofficial sources put this figure at 32 lakh. "It is not possible to bring such a large number back. Even if we use trains, we will have to keep doing this exercise for one year, to say the least. Besides, there would be the problem of employment thereafter. We don't have the wherewithal to give employment to so many people. How will we feed them?" asked another JD(U) leader.

COMMUNAL CAMPAIGN

Bihar, surprisingly, has not had many COVID cases so far. At the time of writing this report, over 523 cases have been reported, with four deaths. Munger, with 102 cases, tops the list. Of 38 districts in Bihar, 31 have been affected so far. This, however, could be because the State lags behind in testing too. A total of 27,000 samples have been taken so far, which is highly inadequate in a State of over 12 crore people.

Significantly, communalism has raised its ugly head in the wake of COVID. In Biharsharief, on April 20, a group of Bajrang Dal activists went around planting saffron flags on shops/carts of Hindu vegetable vendors and issuing a warning against buying vegetables from Muslims. Two persons were arrested.

On the same day in Patna, a young man, Sunny Gupta, was killed in broad daylight, after a fight broke out between two communities over enforcing the lockdown. Strangely, while no arrests have been made in this case, the family members of the youth have been booked under various sections for violating the lockdown when they sought to take his body for cremation. This has created a lot of anger against the government. "Bihar is sitting on a communal cauldron," said a Patna resident. □

Harvesting misery

The lockdown has accentuated inequalities in the post-harvesting season in Punjab. Poor peasants' access to markets has been severely curtailed, while the plight of rural manual workers threatens to worsen.

BY **GAURAV BANSAL** AND **SOHAM BHATTACHARYA**

PTI

A HEALTH WORKER sanitises a combine harvestor prior to the reaping of wheat in a field in Jalandhar on April 22.

IF THE NATION IS IN LOCKDOWN FOLLOWING the COVID-19 outbreak, Punjab has gone a step further and imposed a curfew. That this happened just as the harvesting of the rabi crop gathered pace has meant adverse consequences for lives and livelihoods. Although both the State and Central governments have claimed that harvesting and procurement operations have continued as usual, this report from the ground suggests otherwise. The prolonged lockdown has had a differential impact on the peasantry. Small and marginal farmers and rural manual workers engaged in agricultural work are bearing the brunt of the lockdown. And, even large dairy farm owners are reporting heavy losses. In short, the existing socio-economic differentiation in

rural Punjab has been exacerbated during the lockdown.

This survey, based on telephonic interviews with respondents from two villages in Jalandhar and Mansa districts in Punjab, is part of the Project on Agrarian Relations in India undertaken by the Foundation for Agrarian Studies (fas.org.in). The objective of the exercise, aided by the authors' familiarity with the existing socio-economic structure of the two villages, was to see whether the lockdown widened existing disparities in the countryside. Another objective was to see the effectiveness of the implementation of the State-level measures to protect livelihoods.

Tehang is a large village in Jalandhar district situated in the Doaba region of Punjab. It was denoted as a red

zone by the government during the lockdown. All movement was thus highly restricted. The village is fully irrigated, primarily by private tube wells. It has a high concentration of landholdings among the dominant Jat Sikh households. Demographically, 55 per cent of the households in the village belong to the Scheduled Castes, who are mostly landless and predominantly dependent on non-agricultural wage labour, primarily in construction activities and factories in the nearby towns.

Hakamwala village is in Budhlada tehsil of Mansa district, which shares a boundary with Haryana's Fatehabad district. Even though few COVID-19 cases have been reported in the district, movement to the two nearest towns, Budhlada in Punjab and Ratia in Haryana, is restricted because of the lockdown. These towns provide significant opportunities for employment through various non-agricultural activities and are of immense importance to manual workers during the lean agricultural season. The village is also an extremely differentiated one, which is reflected in the fact that a few Jat Sikh and Kumhar Sikh (OBC) households control most of the land. Dalit households, consisting of largely Majhabi Sikh, Ramdasia and Ravidasia Sikh castes, are landless and rely on wage work in agriculture in the village and in the nearby towns.

During early May, when the interviews were conducted, wheat-harvesting was being undertaken in both villages. The harvesting operation, although relatively smooth, is delayed this year because of the restrictions imposed on the hours of operation of combine harvesters and the restrictions on marketing of the produce. Harvesting, which would generally be completed by early April, is likely to extend to mid May this year.

Until last year, the triennium average of wheat yield in the State was about 48 quintals per hectare. The reported yield is better than the average in the case of the village in Jalandhar, roughly around 50 quintals per hectare. In the other village in Mansa, the yield is a little lower than the usual average of the region—40 quintals per hectare.

While harvesting is a highly mechanised operation in Punjab, manual labour is required for post-harvest operations such as the filling of gunny bags and loading/unloading from trucks and trolleys in the mandis. Marketing a major worry. In order to maintain social distancing in the mandis, the marketing of the produce has been controlled through the issue of travel passes. The respondents revealed that a farmer was allowed to sell only one trolley a day in the mandi. Earlier the passes were issued by gram panchayats but now they are available on-the-spot in the mandi. As a result, peasants have been asked to store their grain-filled gunny bags in their homes/godowns.

The interviews revealed that the problem is severe for small and marginal cultivators. The immediate need of cash after harvesting has not been solved owing to the delay in selling the produce.

On the other hand, large cultivators in both villages share a strong relationship with the commission agents in the mandis, who have reportedly promised to procure the grains from their fields. A more disruptive case was found in Hakamwala village. There are a few small cultivators who sell their produce through commission agents in the neighbouring town Ratia in Haryana. HS, a Jat Sikh farmer with more than 10 acres of land, said: "After hiring a combine harvester to finish harvesting, and paying higher wages to labourers, we are saddled with the crop, uncertain about when the sale will take place as the borders are shut." Apart from the sale of wheat, wheat by-product, locally known as *toodi*, is an important source of income for cultivators and workers alike. While *toodi*-making is a largely mechanised activity through reapers, which are rented at Rs.800 per acre, labour is required for transporting, storing and/or loading/unloading of *toodi*. A manual worker from Hakamwala said during the lockdown, work opportunities for loading and unloading *toodi* have been limited because of physical distancing measures.

While the marketing of wheat has been relatively smooth, farmers growing perishables such as vegetables and flowers have lost heavily. Many small cultivators in the region grow vegetables like radish and potato in the rabi season, but since the *sabzi* mandis in the nearby towns have been shut, they have not been able to sell their produce there. Some had to accept rock bottom prices while others were forced to plough back a portion of their produce into their fields.

The sale price of the vegetables and other perishable agricultural commodities are volatile, and has fallen. Farmers said retail vegetable prices in general have been rising, citing the lack of supply, which hints at fat margins for the traders at the expense of the farmers themselves.

LABOUR USE IN AGRICULTURE

A lot of agricultural operations in Punjab are performed by migrant workers from eastern Uttar Pradesh and Bihar. Since these workers had left the State after the announcement of the lockdown, labour has been a major concern among farmers for the harvesting and post-harvest tasks. To some extent the shortfall has been met by local workers who were earlier engaged in non-agricultural occupations in the village and nearby areas but who have lost employment during the lockdown.

An interesting arrangement of labour use in wheat-harvesting is observed in the villages. With harvesting entirely done using hired combine harvesters, some four-five workers accompany the combine operators and they perform the tasks of filling the grains in gunny bags and their loading/unloading in the mandi. The rent of the harvester ranges between Rs.1,000 and Rs.1,200 per acre (which includes the operator's wages), while the wages paid to the labourers are in the range of Rs.350- 400 a day in both the villages. The rent for machinery has not increased compared with last year, but workers reported an increase in the wage rate from Rs.300 in the previous season.

While this arrangement has reduced the hassles for farmers for now, a major concern raised by them is

A LABOURER weighs a sack filled with wheat at a market in Jalandhar on April 24.

related to the upcoming paddy-transplanting season. This is one of the most labour-absorbing tasks in Punjab's otherwise highly mechanised agriculture and is performed largely by migrant workers from Bihar and Uttar Pradesh in Tehang and by labour groups from Haryana in Hakamwala.

In the current state of uncertainty, it is not clear whether the workers from Bihar and Uttar Pradesh or even neighbouring Haryana will be allowed to migrate for work in the forthcoming season. This may, however, induce a long-term accelerated mechanisation through the adoption of paddy-transplanting machines. This machinery, although cost-saving compared with the traditional method using labour, has not been very popular among Punjabi farmers because of the operational hassles and low efficiency. However, with the Punjab government and agricultural universities promoting the use of machines through massive subsidies and providing them through farmer cooperative societies at low rental costs, they may find wider acceptance now. The social impact of this change is expected to be substantial as it would be highly labour-displacing, which is likely to adversely affect the socially marginalised labouring classes.

FALL IN MILK DEMAND

Milk selling is another source of income for small and marginal cultivators in Punjab, although it has been declining over the past few years. Milk procurement has been normal in the villages after a disruption of two-three days in the initial days of the lockdown. However,

milk prices have declined from Rs.70-75 a kg to even as low as Rs.55-60 a kg, largely because of falling demand. This will put an additional strain on the livelihoods of smaller cultivators, what with losses from vegetable cultivation and non-availability of work in the non-farm sector.

There were reported disruptions in the availability of animal feed in the initial days of the lockdown, but the situation appears to have improved somewhat now.

RELIEF MEASURES AND DIFFERENTIAL IMPACTS

The relief measures reported by the respondents from two villages bring out the stark reality of myopic policy-making in the State. The landed cultivator respondents reported receiving Rs.2,000 in their bank accounts under the PM KISAN scheme. As the government identifies all landowners as farmers, three members of a respondent's household had received this money since they all had some land registered under their names. They were also able to access the bank and ATMs in the nearby town to withdraw cash.

On the other hand, Dalit manual worker households who had Jan Dhan accounts had received Rs.500 from the government in their bank accounts along with the three months of free PDS rations (5 kg wheat and 1 kg dal per month per member on the ration card). A few manual worker respondents did not even receive Rs.500 in their accounts.

Apart from relief measures by the State, local religious organisations and welfare organisations had also arranged for *langar seva* and prepared packages of cooked food for poor households in Tehang village in the initial days of the lockdown. However, there has been no such relief work from these organisations since then.

It is evident that in rural Punjab marginal farmers and manual workers have borne the brunt of the sufferings caused by the lockdown. While the large landowning cultivators, with better bargaining power, could access and benefit from established connections with the marketing channels, the relatively poorer sections of the peasantry are reeling under severe uncertainty. A successful harvesting of the winter crop is generally made possible by the intensive work put in by workers, who are largely under a livelihood crisis because of the closure of the non-farm economy in the countryside. The financial and food support that is provided to workers who are stuck with fewer livelihood options is obviously insufficient.

The "success story" of wheat production in Punjab during the ongoing pandemic has also opened up the seamier side of impoverishment, especially of small farmers and landless workers. The economic concern of these sections is glaringly missing from the policy pronouncements made during these distressing times. □

Gaurav Bansal is an independent research scholar. Soham Bhattacharya is Senior Research Fellow at the Economic Analysis Unit, Indian Statistical Institute, Bengaluru.

The iron hand is out

The coronavirus pandemic has come in handy for governments to tighten their hold by curbing civil liberties and cracking down on political opponents, critics and vulnerable sections of people, including migrant labour. BY **JOHN CHERIAN**

PRESIDENT Donald Trump speaking in a meeting on the COVID-19 crisis at the White House on April 30.

MANY GOVERNMENTS AROUND THE WORLD have been using the COVID-19 pandemic as a pretext to intensify crackdowns on human rights and peaceful protests. The Indian government, unfortunately, is no exception. The Narendra Modi government has been using the national lockdown to move against people involved in peaceful protests against the Citizenship (Amendment) Act in Delhi, and there have been some arrests. A first information report (FIR) was registered against Delhi Minorities Commission Chairman Zafarul Islam Khan on April 30 for sedition and for promoting enmity between groups on the basis of religion, race and place of birth. The charges were based on a social media post by Khan.

Many countries are freeing political prisoners and even common criminals temporarily to prevent the spread of the pandemic in overcrowded prisons. The Indian authorities, however, are showing no such considerations. Kashmiri politicians and intellectuals accused of sedition continue to be incarcerated, many of them in places far from home.

U.N. WARNING

United Nations High Commissioner for Human Rights Michelle Bachelet issued a statement in late April calling on governments to ensure that human rights were not violated "under the guise of exceptional or emergency measures" to combat the pandemic. "Emergency powers should not be a weapon government can wield to quash dissent, control the population, and even perpetuate their time in power. They should be used to effectively deal with the pandemic—nothing more, nothing less," Bachelet said. She emphasised that the restrictions imposed should be "necessary, proportionate and non-discriminatory".

U.N. Secretary General Antonio Guterres has said that the pandemic is triggering or exacerbating various

RESIDENTS AT A CAIRO neighbourhood at an Iftar meal on May 20, 2019, during the Ramzan month.

human rights violations. "We are seeing stigma, hate speech, and white supremacists and other extremists seeking to exploit the situation. We are seeing discrimination in accessing health services," he said in a recent speech. "And there are growing manifestations of authoritarianism, including limits on the media, civic space and freedom of expression."

Not only authoritarian governments but also the so-called democratic ones have used the crisis to bring entire populations under surveillance and cut civil liberties. Many governments have justified intensified surveillance on the grounds that location tracking and facial recognition were essential in the "war" against the virus. The "Aarogya Setu" app, which the Indian government wants citizens to download, has alarmed large sections of civil society. Experts have warned that it vastly expands the state's surveillance capabilities.

THE CASE OF ISRAEL

Israel was the first country to officially allow the use of cellphone data to monitor the spread of the virus. (India and Israel are known to cooperate closely in the cyber security sphere.) The Israeli government says the new security measures it has introduced will be in place for only six months, but the Israeli newspaper *Haaretz* has dubbed the move as "a corona coup" against human rights. Israel's domestic secret service, the Shin Bet, has been routinely collecting cellphone meta data since 2002. Israeli laws allow the Prime Minister to order cellphone companies to hand over data "to perform the functions of the security forces or to exercise their powers".

The Palestinian population has been kept under constant surveillance with the help of cellular technology for a long time. Now, Israel has used the pandemic to an-

nounce plans for the formal annexation of the West Bank. According to an agreement signed in April between Prime Minister Benjamin Netanyahu and the Israeli opposition leader, Benny Glantz, for the formation of a coalition government, the main focus will be on combating the coronavirus and the advancement of the Trump administration's peace plan, which gives the Israeli government a *carte blanche* for the official takeover of the West Bank. From all indications, the Netanyahu administration is all set to formally annex the whole of the Jordan valley in the next few months. Violent attacks against Palestinians have spiked since the beginning of April as Jewish settlers, helped by the Israeli army, seek to drive out more Palestinians from their land.

SINGAPORE

Invasive surveillance systems helped the Singapore and South Korean governments (and also many Western nations) to track infected citizens. Singapore is anyway one of the most tightly policed states in the world, even in the best of times. All the same, after its initial success, the Singapore government is now fighting an uphill battle to bring the virus under control. By the end of April, Singapore, notwithstanding its small population, became one of the worst affected nations in the region. Only India and China had registered higher numbers of infected people than Singapore.

The packed dormitories occupied by the country's large migrant workforce have now become coronavirus hotbeds. Eight to 10 workers, mostly from India and Bangladesh, typically share one room. Singapore had limited its community testing to citizens, leaving the migrant labour force largely unattended. Alagu Periyakarrupan, a 44-year-old construction worker who

BRAZILIAN PRESIDENT Jair Bolsonaro in a protest against the National Congress and the Supreme Court amid the coronavirus pandemic on May 3 in Brasilia. He has been downplaying the seriousness of the crisis.

ANDRESSA ANHOLETE/GETTY IMAGES

worked in the city state since he was in his early thirties without any citizenship rights, was found dead in a Singapore hospital stairwell in late April. He left behind a wife and three daughters in Tamil Nadu.

The Singapore government keeps emphasising "low community transmission" among its citizens, indirectly shifting the blame for the spreading contagion on "the high migrant cases".

Malaysia, with an estimated 5.5 million migrant workers, followed up its May 1 announcement of lockdown relaxations with a decision to crack down on its migrant workforce. Hundreds of migrant workers and undocumented refugees from COVID-19 "red zones" were arrested. The new Malay-centric government, which replaced the multi-ethnic coalition government led by Mahathir Mohammed, has announced that all undocumented workers will be put in detention centres. Latent anti-immigrant feelings are now out in the open as the coronavirus has dealt a body blow to the economy.

REPORTS FROM ACROSS THE WORLD

Bachelet pointed out that there were reports from different parts of the world about police and security forces using "excessive, and at times lethal, force to make people abide by lockdowns and curfews". Nigerian security forces killed more than 15 people by mid April. There were reports of high-handedness by security forces from other African countries, too; in South Africa, videos of police brutality went viral.

In Egypt, President Abdel Fatah al Sisi has used the pandemic to consolidate his authoritarian rule. Anyone breaking the 11-hour night-time curfew is fined the equivalent of US$250 or given a long jail term. Egyptian jails are among the most overcrowded in the world, and a large proportion of the inmates are political prisoners.

More than a thousand doctors and health care workers are also in prison. In the third week of April, the Egyptian parliament extended emergency rule and gave the President additional powers. In the first week of May, Shady Habash, a 24-year-old film-maker who was in prison for the last two years, passed away. His crime was producing a music video caricaturing the Egyptian President.

Algeria has used the pandemic as a cover to crack down on the opposition. Before the pandemic struck, Algerians from all walks of life and different political persuasions were staging protests every Friday for more than a year, demanding genuine political reforms and fair and free elections. Now, with large gatherings banned, the Algerian authorities have moved against protest leaders and journalists.

Bachelet said that the poorest and most vulnerable sections often ended up as victims of human rights violations by regimes. In some countries, thousands of people have been arrested for violating curfews, which, Bachelet said, was a practice that was both unnecessary and unsafe. "Jails and prisons are high-risk environments, and states should focus on releasing whoever can be safely released, not detaining more people," she said.

In many Muslim countries, strict lockdowns during the holy month of Ramadan have become an emotive issue. This is the first time that the faithful are not allowed to congregate freely in the mosques because of the pandemic. Some governments, like that of Pakistan, have relaxed restrictions after demands by influential clerics. The pandemic has not been brought under control in Pakistan so far.

In Europe, Hungary's Prime Minister Victor Orban got legislation approved that gives him the power to rule by decree and allows him to abrogate laws to protect the country "against the coronavirus". The parliament has been prorogued and elections are indefinitely postponed. The emergency laws stipulate a five-year prison sentence for spreading "false news". Most of the media in Hungary are controlled by the ruling party.

(The Indian Supreme Court had denied the Modi government's request to monitor the media. However, journalists in India have started facing the heat. One journalist based in the Andamans was briefly arrested on charges of spreading false information about the pandemic, although he was only fulfilling his professional responsibilities on the basis of available information.)

Turkish President Recep Tayyip Erdogan initially refused to order a lockdown and kept on insisting that the "wheels of the economy" had to be kept running, despite the country having the ninth highest number of coronavirus cases by early April. The mounting death toll forced him to change course. The media in Turkey have anyway been muzzled for some time. Now, with the pandemic raging, Erdogan is taking an even tougher line with critics. The arrest of a truck driver who had criticised government policy in a social media post shows the extreme lengths to which the regime can go.

Like the Indian Prime Minister's "PM Cares" Fund that was set up in the wake of the coronavirus outbreak,

AT A RESTAURANT in Istanbul on March 25. Turkey persisted in keeping the wheels of commerce running until the rising death toll made it change course.

EMRAH GUREL/AP

Erdogan has floated one called the "national solidarity campaign" fund, over which he has full control. He kickstarted the campaign by pledging seven months' salary to the fund. The Turkish government pressured business leaders and others to come up with sizeable contributions. At the same time, the central government in Ankara shut down similar fund-raising efforts by the Mayor of Istanbul and opposition figures.

In the Philippines, President Rodrigo Duterte declared a six month "state of calamity" in mid March and has since threatened to declare "martial law". He accuses the communist New People's Army (NPA), which has been fighting the central government for the last 50 years, of disrupting the flow of relief supplies meant for people affected by the pandemic. The country's security services have been accused of using excessive force while enforcing the lockdown ordered by the government. Duterte has ordered the armed forces to shoot "troublemakers".

Like most governments all over the world, the Philippine government has left the poor to mostly fend for themselves under lockdown. A statement from the women's rights group Gabriela said: "Using excessive force and detention will not quell the hunger in the empty stomachs of Filipinos who up to this day remain denied of the promised cash aid to the poor."

Thailand's Prime Minister, Prayuth Chan-ocha, the former army ruler who has donned civilian garb, has assumed more powers to impose curfews and suppress the media.

Bachelet warned against the "excessive use of force" in Latin America, saying that her office had received reports of arrests and detentions as part of heavy-handed enforcement of quarantine measures. Jail riots have broken out all over Latin America as prisoners protest against overcrowded conditions and lack of basic amenit-

ies, and hundreds of prisoners have been killed in these uprisings.

The country worst hit in the region is Brazil, where President Jair Bolsonaro's efforts to control the narrative and impose his will have failed miserably. Unlike most world leaders, the maverick Brazilian President has been busy trying to downplay the impact of the coronavirus despite the rising number of deaths in the country—the highest in the region. The President's political future is now in peril as many of his own supporters have turned their back on him and called for his impeachment.

The Chilean government, which had been rocked by months of protests, declared a "state of catastrophe" on March 18 and deployed the army in the capital and the major cities, bringing the protests to an end. In Bolivia, the coup leaders who ousted the democratically elected President Evo Morales are using the pandemic as an excuse to further stifle the opposition and the media. The elections scheduled for May have now been postponed to the end of the year. Morales, who has been barred from running, and his Movement for Socialism (MAS) party are not being allowed to campaign freely. Many of its leaders have either been arrested or forced to flee the country.

Recent history shows that once governments introduce surveillance measures rarely do they withdraw them. The American whistle-blower Edward Snowden has warned that the security measures adopted by many states may continue well after the pandemic is over. The surveillance systems introduced after 9/11 by the United States government are not only intact but have been enhanced.

NO INTERNATIONAL COHESIVENESS

As the U.N. Secretary General has pointed out, there is no international cohesiveness in fighting the pandemic. Countries are following different strategies, with some countries like Sweden, Belarus and Turkmenistan carrying on with life as usual. The infection and mortality rate in Sweden have been higher than in neighbouring Denmark and Norway, where lockdown measures are in force. Even more dangerous is the move by the Trump administration to completely shirk responsibility for its handling of the pandemic and shift all blame to China. Despite his own intelligence community coming to the conclusion that there was absolutely no evidence that the virus strain had escaped from a Chinese laboratory in Wuhan, Trump and his close associates continue to claim that they have evidence to prove otherwise. The American President says that he plans to sue China for reparations and is encouraging other countries to do likewise. The international community has so far not taken Trump's allegations seriously, the only exception being Australian Prime Minister Scott Morrison. America's close allies, France and the United Kindom, have stressed that this is not the time to apportion blame and the international focus should be squarely on the fight against the pandemic. □

How not to prepare for a pandemic

The Trump administration and the entire U.S. political class find it easier to blame China for the pandemic rather than look deep into the record and try and understand their own failures. BY **VIJAY PRASHAD**

THE WORLD HEALTH ORGANISATION (WHO) declared a global pandemic on March 11, and just after that, in mid March, the United States National Security Council (NSC) sent a cable to U.S. government agencies instructing them on how they should speak about China and the novel coronavirus. One section of the cable was called "NSC Top Lines: PRC [People's Republic of China] Propaganda and Disinformation on the Wuhan Virus Pandemic". NSC officials wrote: "Chinese Communist Party officials in Wuhan and Beijing had a special responsibility to inform the Chinese people and the world of the threat, since they were the first to learn of it." Instead, the U.S. government argued, the Chinese government "hid news of the virus from its own people for weeks, while suppressing information and punishing doctors and journalists who raised the alarm. The party cared more about its reputation than its own people's suffering." The NSC told U.S. officials to trumpet this narrative and to suggest that the U.S. must be thanked for its "extraordinary humanitarianism". "The United States and the American people are demonstrating once

again that they are the greatest humanitarians the world has ever known," it wrote.

There were two immediate reasons to blame China for the global pandemic. First, it was a convenient way to divert attention from the fact that the U.S. government had done nothing, despite months of notice, to prepare for the arrival of the virus. Second, it was a necessary way to undermine the remarkable way China was able to tackle the epidemic, with massive infusions of personnel, equipment and relief into Wuhan and Hubei Province. U.S. President Donald Trump's attack on China can be explained not as the rant of an unstable individual but as part and parcel of the agenda of the U.S. government to displace its own incompetence onto China and to ensure that China does not benefit from its own swift public health response.

On December 31, 2019, Dr George Gao, head of China's Centre for Disease Control and Prevention, called the U.S. Centres for Disease Control and Prevention (CDC) and informed it about the lethality of the virus; a few days later, Dr Gao spoke to Dr Robert Redfield, head of the U.S. CDC, and "burst into tears". This

was just a few days after the first cases of the mysterious pneumonia were detected in Hubei Province. It was the same day that a high-level team arrived from Beijing to investigate the as yet unknown virus and the same day that Chinese authorities informed the Beijing office of the WHO about it. The U.S. government, in other words, was personally informed about the lethal virus at the same time as the Chinese government told the WHO.

On January 2, the WHO made a public statement that it had alerted all levels of its organisation to the emergence of this virus. The next day, Dr Redfield informed the U.S. Department of Health and Human Services, whose leader, Secretary Alex Azar, is a Cabinet-rank official. Trump did not pick Azar for this post for his government experience but for two other reasons: first, for his fierce loyalty to Trump, and second, his links to the pharmaceutical industry (from 2012 to 2017, Azar was the head of the U.S. division of Eli Lilly, one of the world's largest drug companies, and he was on the board of the Biotechnology Innovation Organisation, a trade association of the drug industry).

Azar informed the NSC, which he is obliged to do. But he did not brief Trump on the actual facts. In fact, as *The Wall Street Journal* reported, Secretary Azar "waited for two weeks to brief the President on the potential severity, calling him to assure him the agency was ready to handle any cases in the U.S.".

VIETNAM'S REACTION

Through most of January, when other countries had begun to look with concern at what was happening in China, the U.S. government did nothing.

Compare the U.S. reaction with that of Vietnam. On January 16, Vietnam's Ministry of Health informed other government agencies and the public about the dangerous virus and urged particular steps. Five days later, on January 21, the Ministry of Health gave detailed instructions to hospitals and clinics on tackling the virus. On January 30, the Vietnamese government, led by Prime Minister Nguyen Xuan Phuc, established a National Steering Committee on Epidemic Prevention; on that day, the WHO declared the outbreak a Public Health Emergency of International Concern. Two days later, on February 1, Prime Minister Nguyen declared what was effectively a national emergency.

Both Azar and Trump were remarkably callous. On January 28, Azar said that Americans would find that the virus "should not be an impact on their day-to-day life". By then, Vietnam had already begun preparations to contain the virus, including increasing capacity in medical institutions and stepping up production of protective equipment. On the day that the WHO declared the Public Health Emergency, Trump said, with zero evidence: "We think we have it very well under control." He did not declare a national emergency (Azar declared a public health emergency on that day, which meant merely that agencies could reallocate personnel and resources to deal with the virus).

Trump set up the first task force on January 29, by

which time there were already five known cases of coronavirus in the U.S. The declaration that set up the task force maintained that "the risk of infections for Americans remains low". The U.S.' actions were hollow; the shells were created, such as the task force, but their actions were nil. For instance, Azar did not clear laboratories to conduct testing until February 29, an entire month afterwards; this had a catastrophic impact on the ability of local governments to do contact testing and to manage the spread of the disease.

Right through January, February and March, Trump minimised the threat. His twitter feed provides all the evidence. On March 9, Trump likened the virus to the common flu: "Think about that!" he wrote. Two days later, the WHO declared a global pandemic. On March 13, Trump declared a national emergency; this was six weeks after the WHO had declared a public emergency. Those six weeks were lost.

ATTACK ON CHINA

The NSC's instruction to attack China was led from the very top. On March 10, Trump retweeted the right-wing commentator Charles Kirk, who wrote: "With China Virus spreading across the globe, the US stands a chance if we can control of our borders." That day, Dr Redfield appeared before the U.S. Congress for a hearing. Representative Lois Frankel (Democrat from Florida) said: "It's absolutely wrong and inappropriate to call this the Chinese coronavirus. I assume you would agree with that?" Dr Redfield answered that he agreed with her. Earlier, on February 14, WHO Director-General Tedros Adhanom Ghebreyesus had called for "solidarity, not stigma". This is what Dr Redfield recognised, but it was precisely what the U.S. government denied.

On March 16, Trump wrote on Twitter: "The United States will be powerfully supporting those industries, like Airlines and others, that are particularly affected by the Chinese Virus." This was all part of the campaign to blame China for the epidemic and to suggest that China should receive no credit for its remarkable fight to contain the outbreak. Trump's Secretary of State, Mike Pompeo, used the term "Wuhan Virus", and the entire administration and the far-right press—as well as conservative Democrats, including Trump's challenger Joe Biden—began to blame China for the outbreak.

Vietnam has, thus far, registered very few cases and no deaths. By March 16, when Trump was going on about the China Virus, there were 88 deaths in the U.S. due to the coronavirus. A month later, over 50,000 people in the U.S. had died from it, far more than in China. Rather than look deep into the record to see how the U.S. destroyed its own public health system, how the U.S. government disparaged a science-based approach to contain the pandemic, and how the U.S. ignored warnings from China and the WHO, the Trump administration and the entire U.S. political class find it easier to blame China.

Both Vietnam and China, meanwhile, have sent necessary equipment to the U.S. to help it break the chain of infection. ☐

PRESIDENT
Donald Trump at the Federal Emergency Management Agency headquarters in Washington on March 19. With him (from left) are Department of Health and Human Services Secretary Alex Azar and Vice President Mike Pence, who heads the coronovirus task force.

EVAN VUCCI/AP

Discoverer of coronavirus

Dorothy Hamre at the University of Chicago's Department of Medicine discovered the coronavirus in the 1960s, but her role in this regard seems all but forgotten today. BY **P. BALARAM**

ONE OF THE DEFINING images of science in the 21st century may well be that of the coronavirus, a deceptively simple spherical object with a surface covered by spikes. The havoc the COVID-19 pandemic has caused will remain etched in memory for decades to come. The principal actor in the ongoing drama, the coronavirus (the virus family to which severe acute respiratory syndrome coronavirus 2, or SARS CoV-2, belongs), was unknown to the world of science until the mid 1960s. Other viruses that caused respiratory disease, notably the influenza virus and the common cold virus (rhinovirus), were better known. Who then can legitimately claim to be called the discoverer(s) of the coronavirus? In seeking an answer to this apparently simple question, I chanced upon the work of Dorothy Hamre, a virologist and infectious disease researcher at the University of Chicago's Department of Medicine. In a paper co-authored with John J. Procknow, Dorothy Hamre describes a new virus "possibly associated with mild upper respiratory illnesses of man" ((1966): *Proceedings of the Society of Experimental Biology and Medicine*, Vol. 121, pp. 190-3).

Dorothy Hamre was the first person to isolate a strain of the coronavirus, which she did from samples taken from students at the university's medical school. This strain was designated as 229E. Almost at the same time, in Britain's Common Cold Research Unit in Salisbury, David Tyrrell and Malcolm Bynoe were isolating what appeared to be a new class of viruses from organ cultures, with the strain B814 appearing to resemble an avian bronchitis virus. In 1967, June Almeida, working in Tyrrell's laboratory, produced the first image of the virus. Transmission electron microscopy revealed particles "varying somewhat in size" with "an average diameter of about 800 to 1200 angstroms [which is denoted by A (1 A
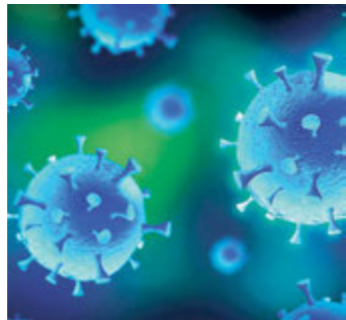
A THREE-DIMENSIONAL visualisation of the coronavirus.

GETTY IMAGES/ISTOCKPHOTO

= 10⁻⁸ cm)]. The surface of the particles is covered with a distinct layer of projections roughly 200 A long. These projections seem to have a narrow stalk just within the limit of resolution of the microscope and a 'head' roughly 100 A across." Much of the world's population can now recognise an idealised rendering of this image. It was only in 1975 that the virus was christened. A group of scientists that did not include Dorothy Hamre but featured both Tyrrell and June Almeida made a proposal "to group together a number of recently recognised viruses under the head of coronaviruses" ((1975): *Intervirology*, Vol. 5, pp. 76-82). Thus was the coronavirus launched in the literature of virology and medicine.

Who was Dorothy Hamre? A search for the face behind the name led me through the labyrinths of the Internet and launched me into correspondence with an academic at Harvard University and an archivist in Arizona. The Internet yielded much in the way of Dorothy Hamre's science but little in the way of personal details. A search with Google Scholar yielded 56 publications spread over the period 1941-72. PubMed, the database of the United States' National Library of Medicine, turned up 40 papers between 1943 and 1972. Clearly, Dorothy Hamre was a consistent and productive scientist, at a time when scientific publications appeared when authors had something to say and not, as in more recent times, as an essential prerequisite for career advancement. I was drawn to her early papers far removed from the coronavirus. One written in 1943 with the intriguing title "The toxicity of penicillin as prepared for clinical use" reported on the death of guinea pigs during experiments on the efficacy of the newly introduced antibiotic on gas gangrene. In later years, a commentator was to note of this study that Dorothy Hamre's admonition that the

"chronic toxicity (of penicillin) for man be borne in mind" was an "accurate and perceptive observation" (Botting, J.H. (2015): *Animals and Medicine*, Open Publishers, p. 181). The Second World War was at its most intense, and penicillin, the newest weapon against battlefield infections, was still far from being a homogeneous chemical substance. Even a cursory reading of Dorothy Hamre's papers reveals that her work had the attention to experimental detail that is so characteristic of a skilled and careful laboratory scientist. When she turned her attention to respiratory viruses in the 1950s, she was well positioned to address the problem of isolating the infectious agents that cause respiratory disease.

Her research led her to the coronavirus 229E. A paper she co-authored with Marc Beem of the Department of Pediatrics, University of Chicago in 1972, entitled "Virologic studies of acute respiratory disease in young adults: V. Coronavirus 229E infections during six years of surveillance", was an epidemiological analysis of the infections caused by the virus she had discovered ((1972): *American Journal of Epidemiology*, Vol. 96, p. 94).

ANONYMOUS PRESENCE

But who was Dorothy Hamre? Her scientific work is available for all to see. Yet, she is an almost anonymous presence on the Internet. The book *The Foundations of Virology* (Frederick A. Murphy, Infinity Publishing), which was published in 2014, provides a honour roll of the scientists who advanced the discipline and celebrates "Discoverers and Discoveries, Inventors and Inventions and Developers and Technologies". I scanned the list, which begins centuries ago, and scrolled down to 1965, where I found that the "discovery of coronaviruses" was credited to David Tyrrell, June Almeida and others. Even here, Dorothy Hamre had been consigned to anonymity. Had I been chasing a mirage, driven by the boredom of the coronavirus-induced lockdown? The Internet and Google, as always, threw me a lifeline.

Dorothy Hamre's name appears in the archival collections of the Cline Library at Northern Arizona University, Flagstaff, Arizona. For one whose academic affiliations were in locations such as Colorado, Washington State, New Jersey and Chicago, Flagstaff—a town that lies near the intersection of the Rocky Mountains and the vast reservations to which Native Americans have been consigned and not too far from the Arizona desert—seemed a strange resting place. But it was here, in a collection of photographs of nature deposited by her husband, Alexander Brownlee, that I found a brief biographical note: "Dorothy Hamre was born in Seattle, Washington, in 1915. She earned her B.S. cum laude in 1937 and her M.S. in 1938, both from the University of Washington. Her PhD in virology came in 1941 from the University of Colorado. She was a bacteriologist with the 9th Corps Area Lab in Fort Lewis, Washington, from 1941 to 1942 and then associate in research at the Squibb Institute of Medical Research in New Jersey from 1942 to 1951.

"During 1951-1952 she worked as a bacteriologist for

the Army Chemical Corps at Dugway Proving Grounds near Tooele, Utah. She became a research associate and Assistant Professor in the Department of Medicine, University of Chicago, in 1952, where she remained until 1968." She retired in the late 1960s, prematurely for an academic, and went to live in the small town of Ouray, high up in the Rocky Mountains in Colorado. From the archivist in Arizona, I received a brief excerpt from a book, *San Juan Country* by Thomas M. Griffiths, that gave me a glimpse of her life in Ouray. In a strange way, the extract said little but seemed to say it all: "To come into Alex and Dorothy Brownlee's home and enjoy their hospitality and the ambiance which surrounds their past academic and artistic pursuits is to escape into an intellectual realm not often found on what remains of the Western frontier." Dorothy Hamre Brownlee died on April 19, 1989, in Ouray.

The coronavirus strain she discovered, 229E, is generally relatively benign, causing moderate infections, but in rare cases serious, life-threatening conditions can quickly arise, as reported in a recent example from Greece ("A Rare Case of Human Coronavirus 229E Associated with Acute Respiratory Distress Syndrome in a Healthy Adult", *Case Reports in Infectious Diseases*, Vol. 2018, Article ID 6796839). This case was highlighted in the popular press (https://www.forbes.com/sites/alexknapp/2020/04/11/ the-secret-history-of-the-first-coronavirus-229e/ #654eae3871d6).

More than 30 years after Dorothy Hamre's death, the coronavirus has become a household name, and terms such as "social distancing, lockdowns and flattening the curve" roll with easy familiarity off the tongues of leaders and common people. The SARS and Middle East respiratory syndrome episodes of the first decade of the 21st century served as warnings of the potential lethality of coronaviruses. The visionary statesman of science Joshua Lederberg warned us in 1989: "No matter how selfish our motives, we can no longer be indifferent to the sufferings of others. The microbe that felled one child in a distant continent yesterday can reach yours today and seed a global pandemic tomorrow. Never send to know for whom the bell tolls; it tolls for thee."

Dorothy Hamre spent much of her life working on infectious diseases and discovered the coronavirus. As a woman building a scientific career in the days of the Great Depression and the Second World War, she must have been gifted with both imagination and resilience. She must have honed her experimental skills in the hard crucible of infectious disease laboratories. As the coronavirus rampages across continents, Dorothy Hamre emerges as a distant and anonymous presence. As the archives in Arizona are locked down, the virus will decide when we get to see an image of its discoverer. While thinking about this unsung scientist, an old dictum, whose provenance is uncertain, came to mind: "Time and history blot out small merit and fatten big glory." □

P. Balaram is at the National Centre for Biological Sciences, Tata Institute of Fundamental Research, Bengaluru.

Will socialism make a comeback?

The time has come for various streams of the global socialist movement to put their heads together and shape a new world of hope. BY **BINOY VISWAM**

THE ONGOING GLOBAL CRISIS CAUSED BY the COVID-19 pandemic has raised fundamental questions regarding globalisation and claims of its invincibility. These questions are social, political, economic, ideological and ecological in nature. The current world order, dominated by neoliberal capitalist ideologies, has fallen woefully short in the face of this global health crisis. Out of their despair and the abysmal global response that has seen over one lakh victims dying, people across the world have begun questioning the powers that be. Various groups of people have started thinking about alternatives and are asking, "Will socialism come back?"

Before examining these questions, it is worthwhile to state the following. The unquestionable supremacy of neoliberal capitalism over the world order has suffered a severe setback. The vanguard of this mode of development has become incapacitated in the face of a problem that does not adhere to the logic of the market. The foundational myth of capitalism that the market will be the ultimate source of human development has been exposed, leaving in its wake a series of promises as fleeting as soap bubbles. The "trickle down theory" that justified the accumulation of unequal wealth has been rendered hollow. Faced with the unprecedented human distress brought on by COVID-19, the market has been crippled, forcing many governments to depend largely on measures that are unfamiliar to present-day market dynamics. The crisis has unveiled the acute insufficiency of the much-celebrated welfare schemes invented by the welfare state concept of capitalism itself. Still, its proponents have been exploring the possibilities of mitigating people's anguish with new pro-poor steps. They fail to understand that the crisis is not at all cyclical but more fundamental and systemic.

The COVID-19 pandemic and the severe blow it has caused to the global economy reveal the inevitable contradictions that have existed within the system. The interconnection between globalisation, global warming, the spread of the pandemic and its economic fallouts has now become more and more visible. Storm troopers of global capital cannot hide it anymore. In its citadel, the United States, the death toll and the number of positive cases have been increasing uncontrollably. As on April 2, as many as 56,164 people had died there and 9,87,467 people were reported to have been infected. In the most advanced capitalist nation, with a raging free market, health care workers at the forefront of battling the virus face an acute shortage of the most basic safety equipment and essential drugs. Many of them lost their lives because of the lack of protective equipment. Commodities such as masks, sanitisers and personal protective equipment are being imported. Health insurance also stands curtailed; three crore Americans have no health coverage at all. Thirty-three per cent of the people are unwilling to undergo treatment as they are unable to bear the expenses.

The doctor-patient ratio in the U.S. is lower than the ratio in many poor countries. The frenzy in that country over the last decade to privatise the health care system now appears to have been highly misplaced. Similar is the plight of other advanced, capitalist countries in Europe. All these are the inevitable aftermath of throwing the health care system to the whims and fancies of profit-centred market forces. When profit alone becomes the sole concern of health care, the concept of public health system becomes a hapless casualty.

CRISIS OF CAPITALISM

In 1998, when George Soros published his book *The Crisis of Global Capitalism*, there were not many takers for it. Being a billionaire himself, Soros approached the issue from the viewpoint of a free-market advocate. His anguish was that global capitalism was moving rapidly towards market fundamentalism, disturbing the very foundations of capitalism itself. But with laissez-faire, the free market system, that urge is instinctive, and hence unavoidable. The unbridled greed for super profits by the super rich has caused the biggest ever crisis in the "era of globalisation".

Marx had explained the unending pursuit of profit by capital in Volume 1, Chapter 31, of *Capital*, referring to T.J. Dunning, a famous writer of those days. "Capital eschews no profit, or very small profit, just as Nature was formerly said to abhor a vacuum. With adequate profit, capital is very bold. A certain 10 per cent will ensure its employment anywhere; 20 per cent certain will produce eagerness; 50 per cent, positive audacity; 100 per cent will make it ready to trample on all human laws; 300 per cent, and there is not a crime at which it will scruple, nor a risk it will not run, even to the chance of its owner being hanged. If turbulence and strife will bring a profit, it will freely encourage both." This observation was possible not

CUBAN doctors and medical professionals before leaving for Italy, in Havana, Cuba, on March 21.

ISMAEL FRANCISCO/AP

because Marx was a prophet. It is his objective study and analysis of the basic nature of capitalism that helped him arrive at such conclusions. It threw light on the basic character of the capitalist mode of production where the output of social labour was appropriated for private profit. This intrinsic nature of capital would lead to inevitable contradictions within society. The more capitalism grows, the more this contradiction too will grow. Its manifestation and features may change, but the basic character will not change.

In the era of liberalisation, privatisation, globalisation that followed the decline of global socialism, capitalism became more aggressive and unquestionable, with maximum profit becoming the only concern. It paved the path for ruthless exploitation of human beings and nature. The socialist ideology has the potential to analyse the capitalist contradiction. If properly developed and applied, it gives one the capability to understand the causes of the fall of the erstwhile model of socialism as well. That alone will not solve the problems. As Marx stated, interpretation of the world alone will not be sufficient: "The question however is how to change it."

The return of socialism cannot be ruled out. At the same time, it needs to be stated equally categorically that it cannot happen in a dramatic way. Its re-emergence in the new world situation should be conceived as a historical process that addresses various fundamental questions relating to the current economic, political, ideological, social and environmental aspects. It is not at all a simple task as many wish it to be. Objective and subjective factors, their development and correlations, determine the course of social change. Sincerity, however deep it is, alone will not be sufficient to translate those desires into reality. As the most foundational task, various streams of the socialist movement in the world must introspect and rectify their shortcomings that led to the downfall of socialism in the Soviet era and after. At the moment the movement is not at all equipped to provide answers to the new challenges posed by the post-COVID-19 world.

While assimilating the lessons from the outbreak of the COVID-19 pandemic, the experiences from Cuba have great significance. It was predicted that Cuba, the tiny country in the Caribbean, located close to the U.S.

coast, would be doomed after the collapse of the Soviet Union. However, with a remarkable resilience, it attracted the world's attention.

MESSAGE OF HOPE

Now, the Cuban brigade of doctors and health workers who landed in Italy and elsewhere were conveying a message of hope. Cuba also underlined the difference between two systems: one of market-controlled economy and social structure and the other of state-regulated economy and social values. Cuba stood apart in developing a health infrastructure that could provide hope for people even in fighting an unprecedented viral attack like COVID-19. The uninterrupted research in the field of virology heralded by the Cuban Centre for Genetic Engineering and Biotechnology under its Ministry of Public Health is commendable in this regard. While the U.S. was concentrating its research and efforts in the field of armaments, Cuba was consciously focussing on developing vaccines to protect human life.

In this context, it is worthwhile to look at the Kerala experience too. It rose to world attention because of its glowing achievements in the fight against COVID. It is the first State in India where a coronavirus case was reported, on January 29. Now it stands as a model for India in successfully resisting the pandemic. It has the highest rate of recovery and the lowest rate of death. This was the result of massive and consistent efforts under the leadership of Chief Minister Pinarayi Vijayan of the Left Democratic Front government. Analysts within and outside India have applauded Kerala's success story.

This is not an achievement made in a small period. The root of Kerala's success in the health sector goes back to the 19th century when the princely State of Travancore opened a "Dharma Asupathri" (free hospital) thanks to the social reform movement that was deep-rooted in the State in various forms. Following in the footsteps of various social reforms movements, the freedom movement led by the Congress, and the peasants' and workers' movements led by the Communist Party, also contributed to this effect.

The course of pro-people measures was accelerated by the first government of united Kerala, led by the Communist Party that came to power on April 5, 1957. Generally one could say that successive governments followed this narrative of governmental role in vital areas such as health, education and social security. Attainment of complete literacy, opening up of primary health centres in all villages, and adoption of multiple social welfare measures to support the poor, and so on, laid a strong foundation for Kerala's growth. Local self-governments in the State are the proof of comprehensive, decentralised governance at the grassroots level. These factors together provided a strong foundation for the current government to work out the best performing model that the whole world appreciates.

These two examples are relevant to the current discussions as they point to the difference between two systems and their approaches to governance. The pro-spects of socialism making a comeback depend mainly on the alertness and ability of the socialist movement to find new answers to new questions. Socialist forces have spent much of their time in the past in discussing comparatively less important matters, mainly their internal squabbles, which have further led to their marginalisation in many countries. They have to come out of this self-destructive framework and learn to apply their ideology and politics to cope with the new situation.

History stands at a crossroads today. It would now be classified as "before and after COVID-19". Nothing in the world will be the same as what it was before the pandemic. Everything relating to human life will be different in the days to come. Not only health care but economics, politics, society will undergo change. All forms of private ownership in all sectors will have to depend on the public sector and government funds even for their survival. More than once in the past a capitalist crisis was resolved by utilising people's money and government funds. Even when a crisis was the creation of private capital, its solution was possible only by pumping in public funds.

Markets, which were the driving spirit behind globalisation, had nurtured a fierce income divide even before the pandemic hit. As a result, the richest 1 per cent in the world have more than double the wealth of 6.9 billion people. The combined wealth of the world's richest 22 men is more than the wealth of the total women population in the whole of the African continent. The World Bank estimates that almost half of the world's population live on less that $5.50 a day. Now during the pandemic all the mechanisms built up by the market stand exposed. They are helpless in providing solutions to people's distress. The TINA (There is no alternative) theory has been punctured. Naturally, people will search for alternatives. Socialist forces have to rise up to new occasions. The basic philosophical traits of socialism again emerge as the source of new solutions.

The ideological, political and organisational preparedness of the forces that subscribe to socialism is on test. Issues such as environment and social and gender justice cannot be secondary in their thinking anymore. Commitment to democracy should be at the heart of the quest for a new path.

Contemporary political developments across the world have witnessed a rightward swing where rulers, with their blind allegiance to the market, have become more and more authoritarian whereas the masses crave for democracy. Socialist forces should understand the meaning of the democratic aspirations of the people. That remains one of the crucial lessons from the fall of the command-control system of socialism, which cannot be a model anymore. The ways and means to translate this philosophical potential to a workable plan of action is also a part of the present challenge. The time has come for various streams of social change to put their heads together and shape a new world of hope. History will wait for none. □

Binoy Viswam is the secretary of the National Council, Communist Party of India, and leader of its parliamentary wing.

The man and his mission

On V.K. Krishna Menon's incredible journey as a diplomat, politician lawyer and a builder of modern India. BY **K.P. FABIAN**

I READ Jairam Ramesh's *The Chequered Brilliance* practically non-stop, despite its intimidating length, mainly because of its lucid style, impressive logic and sound chapterisation. As I finished reading, I was reminded of Thomas Carlyle's (1795-1881) words: "No great man lives in vain. The history of the world is but the biography of great men." Of course, this view of history is not cent per cent right. One is reminded of Pierre Goubert's *Louis XIV and 20 Million Frenchmen* that gives a polar opposite point of view. Reflection will show that both Carlyle and Goubert are partly right.

One can say with confidence that anyone seeking to find out more than what is generally known about India's march towards independence in 1947 and how India under Jawaharlal Nehru formulated and followed a foreign policy based on a good deal of out-of-the-box thinking should read this book.

The title of the book has been chosen carefully, foreshadowing the ups and downs in the life of an exceptionally gifted human being. When V.K. Krishna Menon started speaking

The Chequered Brilliance

The Many Lives of V.K. Krishna Menon

By Jiaram Ramesh

Penguin Random House, India, 2020

Pages: 725
Price: Rs.999

for India on the world stage, the world listened, and therefore, the establishment in the West started a cottage industry of demonising him.

Some in India obediently joined in. Why did the United States want to demonise him? Because he was seen as "dangerously persuasive". That is what the Central Intelligence Agency (CIA) told MI5 of the United Kingdom. The MI5 even seriously considered assassinating Krishna Menon when he was High Commissioner in London and there were hints that he might be called back to New Delhi to join the Union Cabinet. MI5 feared that his entry into the Cabinet would

carry enormous risk for the West. Fortunately, the agency reconsidered the matter. This is revealed in the book *Defence of the Realm* (2009) by Professor Christopher Andrew of Cambridge University.

Prof Andrew was commissioned to write the history of MI5 for its centennial in 2009. He was given complete access to its archives. India's Intelligence Bureau (I.B.) was established in 1887. Did anyone think of publishing its history in 1987?

As a people, are Indians willing and able to look at their past with a degree of scientific objectivity without falling into the temptation of misusing the past by manufacturing fake

history for settling scores in the petty political debates disfiguring the present? A sensitive reader of the book under review cannot but help raise such questions.

Jairam Ramesh has dedicated this book to his wife Jayashree who passed away before it was completed. The author narrates the life story of Krishna Menon with a command over some family issues, all the more remarkable, as we do not know whether the author who was eight years old in 1962 and 20 in 1974 when Krishna Menon died, had ever met him.

The two quotations used before the text opens are the most apposite. The first quote is that of Indira Gandhi: "A volcano has been extinguished." The second is from K.P.S. Menon, the first Foreign Secretary of free India who had a less than cordial relationship with Krishna Menon: "But, the glow of the lava which poured out so copiously and brilliantly from it... would long remain in the memories of men and annals of history." Is it not intriguing that Indira Gandhi and K.P.S. Menon, should have both
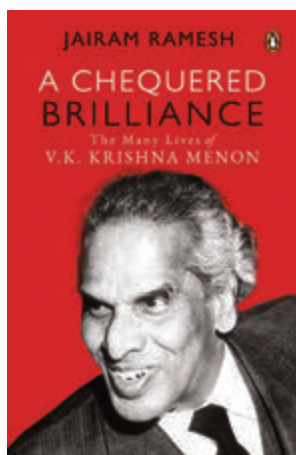
thought of a volcano in their tribute?

Jairam Ramesh has divided the text into two sections, pre-1947 and post-1947, with seven parts, in all 21 chapters, and A Final Word. We start with A First Word, less than four pages, summarising the life and work of Krishna Menon. "He finds significant mention in histories of the negotiations over nuclear disarmament, the struggle against colonial rule in Africa, the emergence of Cyprus, the campaign against apartheid in South Africa and the crisis in Congo." There is at least one notable omission in this list. Krishna Menon played a pivotal role in the ceasefire in the 1954 Korean War, the 1954 Geneva Conference on Indochina, and the 1956 Suez Crisis, to name a few. However, the omission is not significant as the author has meticulously covered all this in this well-researched book.

The first chapter is about the Vengali family. Krishna Menon was born on May 3, 1896, in Calicut (now Kozhikode), where Vasco da Gama set foot in May 1498, eventually leading to the capture of Goa by the Portuguese. In 1961, Krishna Menon played a crucial role in putting an end to the Portuguese rule in Goa.

Strangely enough, he was fixated on astrology and asked his sister, Janaki Amma, to send him a horoscope reading before he left London in 1952 on completion of his term as High Commissioner. The horoscope said that he would be "mentally agitated", though there is no

"danger of being unbalanced mentally". For once, astrology was right.

Chapter 2 is titled "Annie Besant's Protege (1918-1930)". Krishna Menon got his Bachelor of Arts degree in economics, political science and history in 1918. He joined the Theosophical Society the same year. He taught at the National University in Madras, started by Annie Besant with Rabindranath Tagore as its first chancellor. In 1924, Annie Besant sent him to England where he joined the London School of Economics (LSE), remaining there for 10 years. Frida Laski, wife of Harold Laski, quipped that "Krishna was a chronic [perpetual student] at the LSE." He got a BSc degree with first class honors in 1927 and later an MA in Industrial Psychology in 1931 from University College, London. He returned to LSE, registered for a PhD, which he did not complete. But in 1935, Krishna Menon got an MSc degree in economics for a thesis on English Political Thought in the 17th century.

ROLE IN FREEDOM STRUGGLE

One of the reasons, he did not complete his PhD is that from 1934 Krishna Menon was engrossed in political campaigning in the U.K. for India's independence. Chapters 4 to 8, in all 258 pages, give us a detailed account of his contribution to India's struggle for independence. Krishna Menon's contribution is not all that well known, and the author has made a singular contribution to historiography.

Krishna Menon took

over as India's High Commissioner on August 15, 1947, and held that post until July 15, 1952. We get more than a glimpse of Sardar Patel's dislike for Krishna Menon. Nehru appointed him as High Commissioner despite Patel's misgivings. It is not clear why Patel did not like Krishna Menon. But it appears that Patel had, without evidence, concluded that he was close to communists, if not one of them. Patel had wrongly concluded that the U.K. and the U.S. were working at the United Nations against India on the Kashmir issue because they saw India as "too close" to Russia.

Krishna Menon lived an ascetic life even as High Commissioner. He did not draw a salary for more than six months. In April 1948, he wrote to Nehru saying that the annual salary for the High Commissioner was about £ 3,000, but he wanted to take only the living wage, say between £350 and £650. The bureaucracy wanted this matter to drag on and raised the absurd argument about a "constitutional difficulty" in having an unpaid High Commissioner. In December 1950, an exasperated Krishna Menon told Nehru that he would not draw any salary.

JEEP SCANDAL

Everyone must have heard about the so-called "jeep scandal". But how many of us know that Krishna Menon had not benefited financially from the deal? The transaction was made in 1951. Some persons holding high office, suffering from Krishna Menon

phobia, manufactured a "scandal". On August 24, 1954, R.P. Sarathy, Director of Audit, Defence Services, sent a "most secret" 18-page note to Nehru fully exonerating Krishna Menon. The same Sarathy had signed the 1951 audit report damning Krishna Menon. In any rational polity the matter should have ended. But Krishna Menon's foes continued with their vicious campaign for years, assisted by a compliant media.

British intelligence, with its visceral hatred for and fear of communists, convinced Prime Minister Clement Attlee that the High Commission was a den of communists and that what the British government told Krishna Menon might reach the communists. Obviously, Attlee, who had known Krishna Menon for years, should have known better. But he swallowed the MI5 capsule hook, line and sinker. (Incidentally, we may recall that Attlee played a dirty role in the partition of India as narrated by Narendra Singh Narela in his book *The Untold Story of India's Partition*.) Finally, the British High Commissioner in India conveyed to Nehru that sensitive matters would be conveyed only through him and Nehru accepted. Krishna Menon protested to Nehru and, as Jairam Ramesh says, he was in the right.

On May 14, 1952, Krishna Menon wrote to Nehru, Indira Gandhi, Janaki Amma and some others of his intention to leave this world. The originals of these letters are in the archives and one might assume that they were not

V.K. KRISHNA MENON with Jawaharlal Nehru.

dispatched. All this strengthens the view that Krishna Menon was more sinned against than sinning.

KOREAN WAR

Jairam Ramesh's account of his resolution of the prisoners of war issue in the Korean War is a study in brevity and accuracy. At one stage, Dean Acheson of the U.S., accused Krishna Menon of siding with the communists and, four days later, the Soviet Foreign Minister, Andrey Vyshinsky, called Krishna Menon "a stalking horse" for the U.S. Years later, Acheson would write of the "Menon Cabal" that included Lester B. Pearson (Canada), Selwyn Lloyd and Anthony Eden (U.K.), and R.G. Casey (Australia), "making life difficult for him". As the author points out, Krishna Menon had divided the West.

I have found out, to my distress, that more than one political science faculty member in India is innocent of India's role in the ending of the Korean War.

Let us look at another of Krishna Menon's diplomatic triumphs. On April

24, 1954, Nehru read out a statement on the situation in Indochina (Vietnam, Cambodia, and Laos) in Parliament. Nehru rarely read out from a note. Since the matter was important, he read out the note containing a six-point formula that Krishna Menon had drafted.

On April 28, 1954, 19 states met in Geneva, to discuss Korea and later Indochina. India was not among the 19. Two days after the start of the Geneva Conference, Nehru and Krishna Menon went to Colombo to attend a "mini summit" of Asian powers with Burma (Myanmar), Ceylon (Sri Lanka), Indonesia and Pakistan. That summit endorsed Nehru's six-point formula on Indochina.

The Geneva Conference on Indochina started on May 8 and for a while it was meandering. Krishna Menon reached Geneva on May 23, partly at the invitation of British Prime Minister Anthony Eden, of course with no mandate to take part in the formal sessions. He worked "behind the scenes". Miraculously,

on July 20, an agreement was announced in Geneva based on Nehru's six-point formula.

Interviewed by the Press Trust of India in Geneva, Krishna Menon said, "I am an old fool. I am here only as a tourist; just a bystander. If people, ask to see me or come to see me, well that's very nice." What disarming humility from a man portrayed as arrogant, incorrigibly arrogant, by the media!

Incidentally, hardly any book on India's foreign policy narrates in any detail this incredible diplomatic tour de force by Krishna Menon. These days, some commentators wistfully speak of India's mediation between Saudi Arabia and Iran or between Qatar and Saudi Arabia. Is there an equivalent of Krishna Menon? He had a serious shortcoming as a diplomat: He had not mastered the art of invariably suffering fools gladly. After all, there is an abundant supply of them. But seldom was Krishna Menon surpassed in the art of squaring the circle.

In 1961, Krishna Menon took the lead in lib-

erating Goa. In a riveting account, Jairam Ramesh demolishes the myth that Krishna Menon acted without Nehru's orders and presented him with a *fait accompli*. However, as regards the timing, Krishna Menon wisely told Nehru only after the action had begun. The U.S. Ambassador, John Kenneth Galbraith, was working overtime to prevent the liberation and meeting Nehru too often.

The year 1962 was crucial. The chapter is correctly titled as "The Glory and the Fall (1962)". The author gives an exceptionally absorbing account of Krishna Menon's landslide victory over J.B. Kripalani, president of the Indian National Congress in 1947, in the North Bombay Lok Sabha constituency in March 1962. Krishna Menon called on Kripalani at his residence after the result was declared. The reader will wonder what has happened to good manners these days among politicians.

FIGHTER AIRCRAFT DEAL

Krishna Menon was the third Indian to appear on the cover of *Time* magazine after Mahatma Gandhi and Nehru. Despite strident opposition from President John F. Kennedy, who roped in British Prime Minister Harold Macmillan, the Air Force and the Ministry of External Affairs, Krishna Menon pressed hard and signed the MiG deal with the Soviet Union, a landmark achievement as it provided for transfer of technology and manufacturing in India. There was a good deal of correspond-

ence between Nehru and his Defence Minister. Once again, the reader will be tempted to think of the ease with which another Prime Minister decided on the purchase of Rafale aircraft from France without the knowledge of his Defence Minister.

The author deals insightfully with the 1962 Sino-Indian war. What is striking is that all those who made a cottage industry of hating Krishna Menon found a heaven-sent opportunity to foist upon him the entire responsibility for the humiliating military debacle. Krishna Menon did make mistakes. He had discounted the threat from China. If the Indian military was caught lacking in arms and equipment, the primary responsibility is that of Finance Minister Morarji Desai who put the Defence Ministry on a tight budget.

Mao Zedong decided to strike taking into account the 1962 Cuban missile crisis. The good work done by Krishna Menon in defence production had not yet borne fruit. He established the Defence Research and Development Organisation in 1958, overcoming opposition from service chiefs. As former President R. Venkatraman, who was Defence Minister from 1982 to 1984, put it, the good work done by Krishna Menon bore fruit in the 1965 and 1971 wars.

When Lal Bahadur Shastri succeeded Nehru as Prime Minister, he wanted to send Krishna Menon as High Commissioner to London. Shastri did not want him in the capital. President S. Radhakrishnan called in the British

SEPTEMBER 21, 1960: Krishna Menon (right) with Nikita Khrushchev, the Soviet Premier, in the General Assembly of the United Nations in New York.

High Commissioner to find out whether the U.K. would accept him. Prime Minister Harold Wilson was far from willing. Incidentally, the author seems to have taken care not to point out the irregularity, to put it mildly, of a head of state seeking agreement for the appointment of his ambassador.

The last four chapters of the book are devoted to Krishna Menon's life after resignation as Minister. He tried to get back to Parliament, but the Congress refused to nominate him. He won as an independent candidate with Left support from Midnapore (Bengal) in 1969 and from Thiruvananthapuram in 1971.

Krishna Menon started his legal practice and engaged himself with Bertrand Russell and the World Peace Council. One celebrated case was that of Kerala Chief Minister E.M.S. Namboodiripad who was convicted by the Kerala High Court for saying that "Marx and Engels considered the judiciary as instruments of oppression... and even today... judges are guided and dominated by the class hatred...." Krishna Menon defended the Chief Minister in the Supreme Court, but lost the case. The court held that nowhere had Marx and Engels specifically said that about the judiciary.

The author does not forget to give us a glimpse of the women Krishna Menon was romantically close to. He lists seven.

Krishna Menon, who had advocated nuclear disarmament with religious zeal, was ill and in hospital when Indira Gandhi carried out the the peaceful nuclear explosion on May 18, 1974. He summoned her to his hospital bed and voiced his disapproval of the PNE. He passed away on October 6, 1974.

Indira Gandhi, speaking in Parliament at a meeting in honour of Krishna Menon, went down memory lane. What she said about the bound-

ary dispute with China is significant: Had the solution which he had proposed on behalf of India in the 1950s for the India-China situation been accepted, a great deal of hardship, waste and suffering would have been avoided.

The author elaborates that in the 1950s Krishna Menon advocated a negotiated settlement on the basis of India accepting China's claim in the West and China accepting India's claim in the east. Nehru was "broadly supportive" but could not carry some of his senior colleagues with him.

The Jana Sangh's *Motherland* saw a Voltaire in Krishna Menon, "full of wit, often pungent... The best-read politician, and with all his faults, a clean man."

In the last chapter titled "Life after Death (1974-)" we are told about what his contemporaries thought of him, and the biographies and the academic work on him. The reader will be stunned by the Teutonic thoroughness of the author.

The photographs and cartoons add value to this exceptionally well-written book on a personality of abiding importance.

The book ends with "A Final Word'. "I have always believed that a good biographer should, for the most part, ascertain, not assert. *Mine was not to vilify or deify*" (emphasis added). The author has been true to his word. □
Ambassador K.P. Fabian is Professor, Indian Society of International Law, Distinguished Fellow, Symbiosis University.

Epochal figure in physics

P.W. Anderson (1923-2020) was a giant among theoretical physicists, and the amazing range of his creative spirit, which was active in physics for nearly 70 years, led to revolutionary contributions to physics and other disciplines. BY **G. BASKARAN** AND **T.V. RAMAKRISHNAN**

PHILIP WARREN ANDERSON was a giant among theoretical physicists in the second half of the last century. He passed away in Princeton, New Jersey, United States, on March 29, at the age of 96, while still active in research until his last breath. A statistical survey in 2006 named Anderson as the most creative living physicist.

He won the Nobel Prize in Physics in 1977 along with John Hasbrouck van Vleck and Nevill Francis Mott. He was also directly or indirectly responsible for half a dozen other Nobel Prizes. His career started in the 1950s, and his foundational discoveries transformed the then obscure field known as solid state physics (also known derisively as "squalid state physics") to perhaps the most prominently active research area in subsequent decades. Even the name "condensed matter physics" is due to him.

Anderson's theories of the condensed matter around us are relevant to and have far-reaching consequences for widely disparate phenomena such as the origin of the mass of elementary particles (electrons, quarks, and so on), the unusual "glitches" in pulsars (rotating neutron stars), the working of the brain, the complexities of financial

P.W. ANDERSON. He was not merely aware of relevant experimental facts but understood the tangled network of connections between several of them.

markets, the colour of white paint, the origin of the rigidity of solids and the magnetic properties of rust.

Anderson was born in Indianapolis, Indiana, U.S., on December 13, 1923. He grew up on a farm in Urbana, Illinois. He came from a "family of secure but impecunious Midwestern academics" on both sides. His father was a professor of plant pathology at the University of Illinois, Urbana.

Anderson was both an undergraduate and a graduate student at Harvard University, where he worked for his PhD with van Vleck. He joined Bell Telephone Laboratories (Bell Labs) in 1949, where he would be for the next 35 years. Bell Labs, formally the R&D laboratories of a telephone company, had a constellation of world-class theorists and was a place where Anderson "learned most of all, the Bell

mode of close experiment—theory teamwork".

He spent 1953 in Japan as the first Fulbright scholar there and acquired a lifelong admiration for Japanese culture, arts and architecture, besides learning the board game GO (which he played throughout his life and of which he became a first Dan master). Starting in 1967, he divided his time between Bell Labs and academic institutions. He was with Cambridge University, United Kingdom, until 1975 and then with Princeton University, where he became the full-time Joseph Henry Professor of Physics in 1984 after leaving Bell Labs. He retired to emeritus status in 1996.

THE REALITY OF EMERGENCE

Anderson's increasing awareness of the subject matter of science resulted in his path-breaking paper "More is different" (*Science*, 1972). It woke all of us up to the reality of emergence, at a stage when "real" science was equated with reductionism although emergence has always been a known reality in science. It reminded us that "[a]t each stage (of complexity) entirely new laws, concepts and generalisations are necessary, requiring inspiration and creativity to just as great a degree as the previous one…. The main fallacy in this… [reductionist] thinking is that… the reductionist hypothesis does not imply by any means a 'constructionist' one…. The constructionist hypothesis breaks down when confronted with the twin difficulties of scale and complexity." The last bit is a reference to the common belief that once the basic laws of nature are known, the rest is "just" a relatively straightforward, if painstaking, matter of putting things together according to these.

CONDENSED MATTER PHYSICS

Condensed matter physics (in both its quantum, or hard, and its classical, or soft, parts) describes a variety of natural phenomena and is readily accessible to controlled experiment. In this sense, it is very close to the wellspring of modern science as understood by Francis Bacon (1561-1620), one of its founding spir-

its. Bacon emphasised the importance of experiment over contemplation and over scriptural authority. He also felt that science should aim at practical inventions for the improvement of all human life. Anderson's inspiration is Baconian, as he had often said. He started with experiment, then made a hypothesis and an appropriate theoretical model; interestingly, his inspiration in solving the model and in predicting its consequences is its underlying natural reality, the interconnected nature of which he had a profound knowledge.

From the amazing range of Anderson's creative spirit, which was active in physics for nearly 70 years, we mention below just a few of his contributions, one each to the fields of disordered systems, magnetism and superconductivity. The examples we chose to write about form the basis of modern condensed matter physics and its present frontiers.

DISORDERED SYSTEMS

We are all familiar with waves. According to quantum theory, the electron is a wave. It is known that a wave can interfere with itself. In a conducting disordered medium (such as an electrical wire), electrons move, diffusing from end to end. Anderson discovered in 1957 that under some conditions these waves simply cannot move. He was awarded the Nobel Prize for this discovery a full 20 years after he published a paper on it. The physics community did not pay much attention to this work; nor did many physicists believe in it. Mott, almost alone among them, saw that it provided the conceptual underpinning for the existence of an entire class of materials, namely, solid but amorphous semiconductors (not to mention insulating glasses and transformer oil), and that a number of applications could be developed. Mott also realised that this could lead to a new kind of metal-insulator transition (cessation of electrical conduction due to Anderson localisation), which he called the Anderson transition, and a new kind of insulator, the Anderson insulator. This effect is not specific to electron

waves but is common to *all* waves in random media, for example, light waves, sound waves and even Rossby waves (ocean waves with a wavelength on the scale of a hundred kilometres). In 1979, Anderson, along with Elihu Abrahams, Don Licciardello and one of us (TVR) showed that electrical conductivity harbours telltale premonitory signs of localisation that can be accurately measured. This area of research continues to be an active field in basic science with profound technological implications for microelectronics and future quantum computers.

MAGNETISM

There are many magnetic systems that are intrinsically "frustrated". In these, the magnetic interactions between some pairs of nearest neighbour atoms (which can be thought of here as tiny magnets with a certain strength, or as "magnetic moments") are such that their magnetic moments tend to line up parallel to each other. For some other pairs (often involving the same magnetic moments), the more stable state would be for the magnetic moments to be mutually *anti*-parallel. So, a particular magnetic moment is intrinsically "frustrated"; some of its nearest neighbours "would like it" to point this way, while others "would like it" to point that way. It was commonly believed that just as a melt of disordered atoms or molecules freezes into a glass smoothly on cooling (motions become more and more viscous and then unobservable, at least on the scale of our lifetime), these "spin glasses" would also freeze continuously into the energetically most favourable configuration decided by the nature of the magnetic interactions of an atom with those in its vicinity. In 1975, Samuel Frederick Edwards and Anderson proposed a model for these systems; their novel analysis—which showed that there is actually a sharp transition into the spin glass state characterised by a precisely defined freezing criterion (and many other bizarre features that were confirmed experimentally)—revolutionised the field.

Further research showed that

ANDERSON WITH G. BASKARAN in Princeton. Anderson was at Princeton University from 1975 and became the full-time Joseph Henry Professor of Physics there in 1984, retiring to emeritus status in 1996.

there are far-reaching parallels with many kinds of statistical systems that consist of a large number of interconnected parts. These could be interconnected neurons in the brain or a large number of cities situated at different distances from one another that a salesman is expected to visit and the associated question of the optimisation of travel time. Methods of combinatorial optimisation inspired directly by Anderson's study have even spawned and invigorated areas of research outside physics.

SUPERCONDUCTIVITY

It was discovered in 1911 that at low temperatures a large number of metals and alloys lose all resistance to the flow of electrical current through them (superconductivity). Nearly half a century later, after many failed attempts by some of the greatest physicists of the time, John Bardeen, Leon Cooper and Robert Schrieffer (BCS) proposed a credible theory that accounted for the facts. There was, within the community, acceptance, relief and, equally, scepticism. Anderson clarified many of the basic issues, and this opened fertile directions of research with far-reaching implications. We mention

only one here. In his study of BCS superconductivity, Anderson discovered in 1963 that basic principles of physics require that there are massive excitations concomitant with superconducting order. As it turns out, this is the same phenomenon by which all elementary particles in the universe are supposed to acquire mass, namely, the Anderson-Higgs mechanism of mass generation in elementary particles (Peter W. Higgs and Francois Englert won the Nobel Prize for this in 2013).

Following Georg Bednorz and Alex Muller's remarkable Nobel Prize-winning discovery in 1986 of high temperature superconductivity in certain cuprates, Anderson opened a new direction in the field of superconductivity: the resonating valence bond (RVB) theory of high temperature superconductivity. In this approach, superconductivity can arise even when there is only repulsion between electrons (and that too strong); this is to be contrasted with the BCS theory, which relies on an effective attraction between electron pairs. Interestingly, Anderson first presented this theory at a conference in Bangalore (now Bengaluru) in

December 1986. According to Anderson, the work of two renowned Indian chemists, P. Ganguly and C.N.R. Rao, on lanthanum cuprate, about which he learned in detail in Bangalore, was part of the inspiration for the RVB theory. One of us (GB) joined Anderson in this game as a close collaborator from January 1987.

In an article published in *Nature* in 2005, Anderson re-emphasised that while the creators of the quantum revolution in physics felt that the quantum domain was atomic and subatomic (with classical physics being the right description of the world at the macroscopic scales readily accessible to humans), Fritz London alone among the quantum pioneers saw clearly that superconductivity and superfluidity were quantum effects on a macroscopic scale. This is a timely reappraisal because recent theoretical and experimental discoveries have revealed to us novel kinds of quantum matter. Their strange (and potentially revolutionary) macroscopic properties at room temperatures are related to properties of quantum states of electrons at the level of atoms. This was one of Anderson's abiding concerns: macroscopic quantum phenomena in condensed matter physics.

Anderson immeasurably deepened the concept of broken symmetry, which he emphasised as an example of emergence. The behaviour of constituents of a certain piece of matter is governed by certain laws of motion; these laws have certain symmetries. Often, physical states are realised that break these underlying symmetries. Among other things, Anderson showed that characteristic rigidities follow when symmetry is broken (for example, it hurts when you kick a stone). In some cases, quantum mechanics restores the symmetry, but this happens typically at astronomical time scales. Broken symmetry is itself emergent. For instance, it does not make any sense to think of an atom as a solid, but a collection of atoms can have such a property. Similarly, we cannot think of an atom of lead as a superconductor. But when a collec-

Philip W. Anderson

More and Different

notes from a thoughtful curmudgeon

World Scientific

Philip W. Anderson

ANDERSON was against the "Star Wars" initiative of the U.S. government (1983). The public interchange between him and the then Secretary of State, George P. Schultz, can be found in his book "More and Different: Notes from a Thoughtful Curmudgeon" (World Scientific, Singapore, 2011).

tion of them is cooled below a certain temperature, the piece of lead becomes a superconductor, an emergent broken symmetry state.

While looking at Anderson's contributions to physics, the very first fact that draws one's attention is this: They are all motivated by an experimental fact and a desire to understand it in a fundamental way. The process of understanding leads to new models, fundamental principles and, often, paradigms. This was a crucial aspect of Anderson's way of doing physics: the engagement he had with experiments, both data and detail. He was not merely aware of the relevant experimental facts but understood the tangled network of connections between several of them. Some of these were obvious, others not. This heightened awareness gave him a unique security in the world his mind inhabited. This also meant that he was quite idiosyncratic in what he valued in people and in physics.

He was quite independent minded, often contrarian, and was not excessively weighed down by the mathematical subtleties or diffi-

culties of this theoretical approach or that. The following paragraph from Anderson's Nobel lecture captures his stance in science: "One of my strongest stylistic prejudices in science is that many of the facts Nature confronts us with are so implausible given the simplicities of non-relativistic quantum mechanics and statistical mechanics, that the mere demonstration of a reasonable mechanism leaves no doubt of the correct explanation. This is so especially if it also correctly predicts unexpected facts.... Very often such a simplified model throws more light on the real workings of Nature than any number of *ab initio* calculations of individual situations, which even where correct often contain so much detail as to conceal rather than reveal reality. It can be a disadvantage rather than an advantage to be able to compute or to measure too accurately, since often what one measures or computes is irrelevant in terms of mechanism. After all, the perfect computation simply reproduces Nature, does not explain her...."

CONSCIENCE KEEPER

As a thinking citizen, Anderson often took forthright public positions that brought him into confrontation with the "authorities". For example, he was against the "Star Wars" initiative of the U.S. government (1983) and wrote against it; the public interchange between him and the then Secretary of State, George P. Schultz, can be found in Anderson's book *More and Different: Notes from a Thoughtful Curmudgeon* (World Scientific, Singapore, 2011).

As a scientist, Anderson was a conscience keeper of his field. He identified truly important developments and helped them grow. He could be very critical as well. In his article in *Scientific American* (November 1994) on Anderson titled "Gruff Guru of Condensed-Matter Physics", the author John Horgan notes: "Robert Schrieffer, a Nobel laureate in physics, who has often butted heads with Anderson, admires his blunt style. Anderson 'has played a uniquely provocative role to make sure that people get things

right', Schrieffer says. But he adds, 'Anderson can be undiplomatic.'"

Friends of Anderson recall that he could be impetuous at times in a very funny way. V.N. Muthukumar, a long-time associate of Anderson (known to all as Phil), recalls his first meeting with him: "Phil took me along to the cafeteria at the Institute for Advanced Study in Princeton (one of his favourite luncheon places) for lunch. I parked my car, and we were making our way to the cafeteria when Phil turned suddenly and walked up to a pick-up truck parked nearby. Showing great purpose and determination, he tore a bumper sticker off the truck (it was one of those 'Guns don't kill people; People kill people' NRA stickers). I was transfixed and had an appalling vision of a truck driver with rippling muscles charging at Phil...." (Luckily, this did not happen.)

Anderson had many close collaborators and associates originating from the Indian subcontinent: T.V. Ramakrishnan, G. Baskaran, Sajeev John, C.M. Varma, B.S. Shastry, H.R. Krishnamurthy, S. Chakravarty, Anil Khurana, Sanjoy K. Sarker, S.L. Sondhi, R.N. Bhatt, G. Srinivasan, V.N. Muthukumar, K.A. Muttalib, M. Randeria and Nandini Trivedi, among others. He was an Honorary Fellow of the Indian Academy of Sciences from 1997.

In a book containing selected papers of his (*A Career in Theoretical Physics*, World Scientific, 2nd Edition, 2004), Anderson remarks: "The contribution of physics is the method of dealing correctly both with the substrate from which emergence takes place, and with the emergent phenomenon itself.... Ever newer insights into the nature of the world around us will continuously arise from this style of doing science." Anderson was the best, and arguably the last, exemplar of this way of doing physics.   □

G. Baskaran is with the Institute of Mathematical Sciences, Chennai, and the Indian Institute of Technology Madras.
T.V. Ramakrishnan, FRS, is with the Indian Institute of Science, Bengaluru.

Star scientist

Margaret Burbidge (1919-2020), one of the greatest astronomers of the 20th century and a pioneering observational astronomer, died aged 100 on April 5 in San Francisco, California, U.S. BY **JAYANT NARLIKAR**

THE year was 1961, the location Cambridge University. I was amongst the dozen or so research students in the Department of Applied Mathematics and Theoretical Physics (DAMTP). All of us, students and faculty members belonging to DAMTP, had been given "desk space" on two floors of the Phoenix building of the famous Cavendish Laboratory. Naming the building "Phoenix" was a tongue-in-cheek exercise by the Head of the DAMTP because the building had been rebuilt after it was burnt down.

It was one of those afternoons when we were busy with academic jobs like writing papers, having discussions, or reading research journals or simply gossiping. In my office, shared with two other students, we often talked about anything under or over the sun. The discussion was, however, interrupted by the entry of a senior scientist, Roger Tayler, who was evidently very excited—certainly not in the "cool" state one associates with an Englishman. What had caused the excitement?

It was like telling a pop music fan that the Beatles were out there, or a cricket lover that Don Bradman was in the corridor outside. "I want to tell you people, that the Burbidges are out there," said Roger. He could hardly contain his excitement. And I recall (even today) the thrill I felt on that announcement. Certainly, I did not want to miss

them! And it came as a great satisfied feeling to me when a few minutes later, the celebrated couple walked into my (one-third of an) office.

To understand the excitement generated that day by the arrival of the "Burbidges", Geoffrey and Margaret Burbidge, often shortened to "B2", it is necessary to appreciate the work they are often credited with.

So what was the reason for such accolades? To understand the contributions of Margaret Burbidge, we take a look at her early work. She did her doctorate work in the University of London Observatory in 1944 at the height of the Second World War. This meant going to Mill Hill Park from her residence in Hampstead Heath at night while the Luftwaffe was firing flying bombs from Northern France. On one occasion, the bomb exploded with such ferocity that all her telescope settings were disturbed.

In postwar peace times, the working was not so chaotic. But there were other problems. Her application for observing on the 100-inch Mount Wilson Telescope in Southern California was turned down because the facilities in the observatory did not have women's toi-

MARGARET BURBIDGE with the Catherine Wolfe Bruce Gold Medal from the Astronomical Society of the Pacific in 1982.

lets. Margaret Burbidge got married to another up-and-coming astronomer, Geoffrey Burbidge, and both shifted their centre of activity to the United States. In 1957, the Burbidges combined with the duo of William Fowler and Fred Hoyle and the outcome was a comprehensive paper in *Reviews of Modern Physics* describing details of how different chemical elements are formed in stars. Nearly a 100-page paper, it covered a large number of scenarios which they used to show that except for some light nuclei like deuterium, most nuclei are produced in thermonuclear reactions in evolving stars. This work is often referred to as B2FH after the names of the four authors.

The husband-wife combination worked well for astronomy since Margaret was an observer and instrumentalist while Geoffrey was a theoretician. Their styles also greatly contrasted. Geoff was aggressive while Margaret was gentle but firm and stuck to her point of view. In fact, many opponents in a controversy discovered that the soft-spoken lady was hard to budge on the basis of evidence submitted.

Margaret had been to India several times. Indeed, one could say that Bangalore and Pune were her favourite haunts. She had been a participant in a workshop conducted by the Inter-University Centre for Astronomy and Astrophysics (IUCAA) at Pune. The workshop had important inputs in observations and instrumentation, which helped guide future developments in these fields. Later Margaret became one of the prestigious honorary fellows of IUCAA. Another contribution to IUCAA programmes was her participation in science popularisation activities. At the conclusion of her opening lecture, she showed a group of geese all going in one way with a small group in the lead. She pointed out how anomalous evidence is ignored because it is found to be inconvenient for accepted paradigms.

With her many academic contributions, many honours came her way. She was made the Director of the Royal Greenwich Observatory (RGO) in 1972. Although this was a well-deserved honour, it was rightly criticised as it did not do honour to her. Why? Historically the directorship of the RGO carried with it the title "Astronomer Royal" (AR). From 1972 onwards it was decided to split the dual status and accordingly another (radio) astronomer, Sir Martin Ryle, was made the AR. It would instead have been better to give both the posts to the first appointee under the new rules. Thus Margaret Burbidge should have been the first AR as well as Director, RGO. Margaret, however, was not very happy with her RGO appointment because the work was more bureaucratic than she liked and the weather was not very conducive for her usual observing experience. So she resigned and came back to her earlier work in California.

Margaret Burbidge was awarded several distinguished prizes. One of them was the Henry Norris Russell Award, which requires delivering a lecture.

But she was sensitive to sexually discriminating awards. For example, she was offered the Annie Cannon Prize, which was for women only. She felt that such awards tried to distinguish between men and women and could create the undesirable impression that one gender was superior to the other. Nevertheless, she kept fighting for the equality of men and women.

Margaret Burbidge belongs to the "old style" of astronomers whose genre is fast disappearing. In the earlier days the observer had to use a series of tests to decide if an existing theory was right or wrong. Modern observers start with the assumption that their paradigm is correct and the telescope is there to rubber-stamp that belief.

Young or old, we all will miss her.□

Jayant Narlikar is Emeritus Professor, Inter-University Centre for Astronomy and Astrophysics, Pune, and founder director of the centre.

Fascinated by twinkling lights

Frontline supplements Jayant Narlikar's reminiscences with other brief information about her as an astronomer:

When Margaret Burbidge wanted half a night of observation time on the new 10m telescope at the Keck Observatory in Hawaii, built in the early 1990s, to look at objects that might disprove the Big Bang Theory (she did not believe in the theory until the very end), a young staffer there apparently remarked in annoyance: "You can't give telescope time for this junk science! Who does she think she is?"

Obviously, the young astronomer had not heard of Margaret Burbidge yet. The observatory director Joe Miller quickly admonished him saying, as quoted by the magazine *Sky & Telescope* in the article it ran on her 100th birthday last year, "If Margaret Burbidge wants half a night to draw up pictures of Mars, I'll give it to her—whether we think it's crazy or not, we're going to show respect to one of the greatest astronomers of the 20th century."

Burbidge, the British-American observational astronomer, began to get interested in stars at the age of three or four. As she has recounted in her interview for the Oral History Archives of the American Institute of Physics, "A small child brought up in London doesn't get to see much of the sky, because it's so often cloudy in the winter when it's dark enough, early enough in the evening, to be looking at the sky…. The first time I consciously remember really noticing the stars was the summer that I was four, and we were going on a night crossing to France, for summer vacation. And we were taking the long crossing. I began to feel seasick during the night, and so to take my mind off that, I was lifted up to look out of the port hole on the upper bunk to see the stars. You know how they are at sea, on a clear night. These twinkling lights and tracking down any kind of twinkling light and enjoying twinkling lights then became another fascination to me…."

Eleanor Margaret Burbidge (nee Peachey) was born to chemist parents in Davenport in the United Kingdom, and it was her parents who encouraged her to learn science at a very young age. By age 12, she was reading astronomy textbooks by James Jeans, a distant relative of her mother. She studied astronomy at the University College, London (UCL). She graduated in 1939 and did her PhD during 1940-43. During the war years, since male staff were engaged in Britain's wartime efforts, she acted as the caretaker of the University of London Observatory (ULO). As has been recorded in the ULO archives, "Burbidge conducted her PhD research during the World War II years. Between wartime duties, she observed [the variable star] Gamma Cassiopeiae…. While observing on the night of August 3rd [1944], Burbidge was twice interrupted by bombs exploding nearby, but neither incident rattled her, as is clear from her notes."

Burbidge has later said of these early days of her research in her 1994 autobiography in *Annual Review of Astronomy and Astrophysics*, "Those nights, standing or sitting on a ladder in the dome of the Wilson reflector, guiding a star on the slit of the spectrograph, fulfilled my early dreams. I have never tired of the joy of looking through the slit in the darkened dome and watching the stars."

Soon after the war, she taught astronomy to University of London's undergraduate students, which included Arthur C. Clarke, who was then an undergraduate at King's College London. During her days at the UCL in the post-war years, she met Geoffrey Burbidge, in 1947, who she would marry soon after. It is said that Geoffrey shifted to astronomy influenced by Margaret's passion and knowledge of astronomy and stellar spectroscopy, which subsequently grew into many long years of fruitful collaboration, yielding highly productive astronomy research, with her skilful observational data giving a firm theoretical basis to Geoffrey's insights as Narlikar has recounted in his essay.

Their seminal work on Alpha2 CanumVenaticorum (a type of variable star), which was published in 1955, drew the attention of the U.S. nuclear physicist William Fowler, who was then visiting Fred Hoyle at Cambridge. Between 1946 and 1954, Hoyle had advanced his theory of stellar nucleosynthesis of how nuclear fusion reactions of hydrogen and helium in the stars drive the formation all the heavy elements in the stars. The Burbidges' spectroscopy results were seen as a means to verify Hoyle's hypothesis. This led to the collaboration among these four, which resulted in the magnum opus landmark paper, universally referred to as the B2FH paper, to which Narlikar has referred.

In her interview for the Oral History Archives, when asked as to which piece of research that she had done had given more satisfaction than anything else, Margaret Burbidge said: "Oh yes. It would be the nucleosynthesis, B2FH."

On Fowler's advice and invitation, the Burbidges moved to California and in 1962 they moved to the University of California in San Diego (UCSD), where Margaret Burbidge had unquestioned time on the Lick Observatory's 3m telescope. After the discovery of quasars in 1963, she measured their spectra and by measuring their very large red shifts, she also showed that these were the most distant objects known until then.

Margaret Burbidge also measured the rotation and masses of spiral galaxies. Her skill at instrumentation, coupled with her observational experience with distant astronomical objects, resulted in her contributing to the development of the Faint Object Spectrograph (FOS), which was launched aboard the Hubble Space Telescope in 1990.

Vera Rubin, one of Margaret Burbidge's collaborators in her galaxy rotation studies, would later discover motion in the far outskirts of spiral galaxies which could be explained only through the hypothesis of gravitational pull of unseen matter, now called "dark matter". As the U.S. astronomer Virginia Trimble recently wrote in *Nature*, this was one of the many ways in which Margaret Burbidge blazed a trail for women astronomers.

Margaret Burbidge was not one to be deterred by setbacks and hurdles; she would always find a way to overcome it. In fact, in her tweet in 2017, when she was 97, she had said: "If you're having troubles in your life, to quote myself—'If you meet with a blockage, find a way around it.' You can do it."

R. Ramachandran

Salaam, Irrfan

The remarkable career of Irrfan Khan (1967-2020) in Indian and international cinema was proof of his relentless pursuit of perfection, and saw him prove his mettle against the best actors and directors in the film industry. BY ZIYA US SALAM

IN an industry where every aspiring actor dreams of a candyfloss romance as launch vehicle, all Irrfan Khan got was a small role in Mira Nair's *Salaam Bombay* (1988). A film that received critical acclaim, it was nevertheless unlikely to transport a newcomer to the top of the popularity charts. However, Irrfan had reason to be grateful for the film; it gave him a toehold in the Indian film industry.

Meanwhile, it was television that helped Irrfan hone his craft, with serials such as "Chandrakanta", "Chanakya" and "Kahkashan". Early in his career, he showcased his unusual talent with "Banegi Apni Baat", a TV serial which had its audience smiling, laughing, and growing wistful in equal measure. It was written by Sutapa Sikdar, later to be Irrfan's wife. In an interview, Sutapa Sikdar revealed how Irrfan had made her rewrite certain episodes as many as 11 times. It was this mind-boggling pursuit of perfection that bore Irrfan excellent results.

In 2003, the year of blockbusters such as *Kal Ho Naa Ho*, *Baghban*, *Koi... Mil Gaya* and *Tere Naam*, came Tigmanshu Dhulia's *Haasil*, a campus romance starring Jimmy Shergil and Hrishitaa Bhatt. In the year of big stars and bigger banners,

IRRFAN, who was adjudged the best actor for his performance in "The Lunchbox", poses with his trophy during the Asian Film Awards in Macau on March 27, 2014.

Haasil not only managed to carve its own niche, but also gave the Hindi film industry two major talents—the director Tigmanshu Dhulia, and the villain Irrfan, who was the life and soul of *Haasil*. His portrayal of Ranvijay Singh was so powerful it could burn the screen. It also won him the Filmfare Award for the Best Actor in a Negative Role.

While the role he played in *Haasil* would have been a comfortable stereotype for any other actor, Irrfan was eager to prove his true mettle. He strove to test his skills opposite the best actors in business, under the best directors. In Vishal Bhardwaj's *Maqbool* (2003), Irrfan played the title role along with a stellar cast that included Tabu, Pankaj Kapur as the underworld don Abbaji, and Naseeruddin Shah and Om Puri as corrupt policemen. The film not only established Vishal Bhardwaj as a director to reckon with, but also made Bhardwaj realise that Irrfan was a talent to draw upon in the years to come. Bhardwaj, Irrfan and Tabu came together again in *Haider* (2014), set in conflict-ridden Kashmir. Tabu and Irrfan also starred together in Mira Nair's *The Namesake* (2006), based on Jhumpa Lahiri's book of the same name which told the story of a Bengali couple based in the United States. Irrfan and Tabu shared a subtle, unique screen chemistry that brought out the best in each other.

There was a special touch to the success of *The Namesake*, for it was in Mira Nair's *Salaam Bombay* that Irrfan had debuted 18 years earlier with a role that barely survived the editor's scissors. The way he had come full circle, from being an also-ran to the protagonist, would itself make for an engrossing novel.

Almost a decade after working with Tigmanshu Dhulia in *Haasil*, Irrfan returned to star in his *Paan Singh Tomar* (2011). Irrfan played

> He strove to test his skills opposite the best actors in business, under the best directors.

the title role with consummate ease. The role of an athlete who rebels against the system was tailor-made for him, and ensured the National Award for the Best Actor that year was his.

Thereafter, Irrfan's career soared to a new high. Every film he worked in became a milestone, making many wonder if he was the best actor in contemporary Hindi cinema. Irrfan silenced that debate with the soft epistolary romance *The Lunchbox* (2013) and the comedy drama *Piku* (2015).

INTERNATIONAL STAR

As he proved in the succeeding years, Irrfan was meant to fly higher. He starred in *Slumdog Millionaire* (2008). The film won an Oscar. Then came *Life of Pi* (2012), followed by *Jurassic World* (2015) and *Inferno* (2016). Importantly, Irrfan had well-etched characters to play in each of these films. India's truly international star had arrived, with style and substance.

His career ran parallel with the dominance of the Khans in the Hindi film industry. Instead of trying to be the fourth Khan after Salman, Shah Rukh and Aamir, he opted to be the first Irrfan. In an industry where to be a Khan was to be a star, he dropped "Khan" from his screen name. He was Irrfan, not just another Khan.

The way he went, too, was against the stereotype. Fighting neuroendocrine cancer, and having almost turned the corner, he succumbed to colon infection days after his last film *Angrezi Medium* released. With the nationwide lockdown announced soon after its release, not many could watch the film. As for Irrfan, he told his wife moments before he breathed his last, "Ammi [his mother who had passed away a few days before] has come to take me."

From here to eternity, from the world of celluloid dreams to a mother's warmth, Irrfan completed his journey, aged 53. Born in Tonk, Rajasthan to a devout Muslim family, he defied tradition and cultural mores to chart a journey all his own, and script his own success story. □
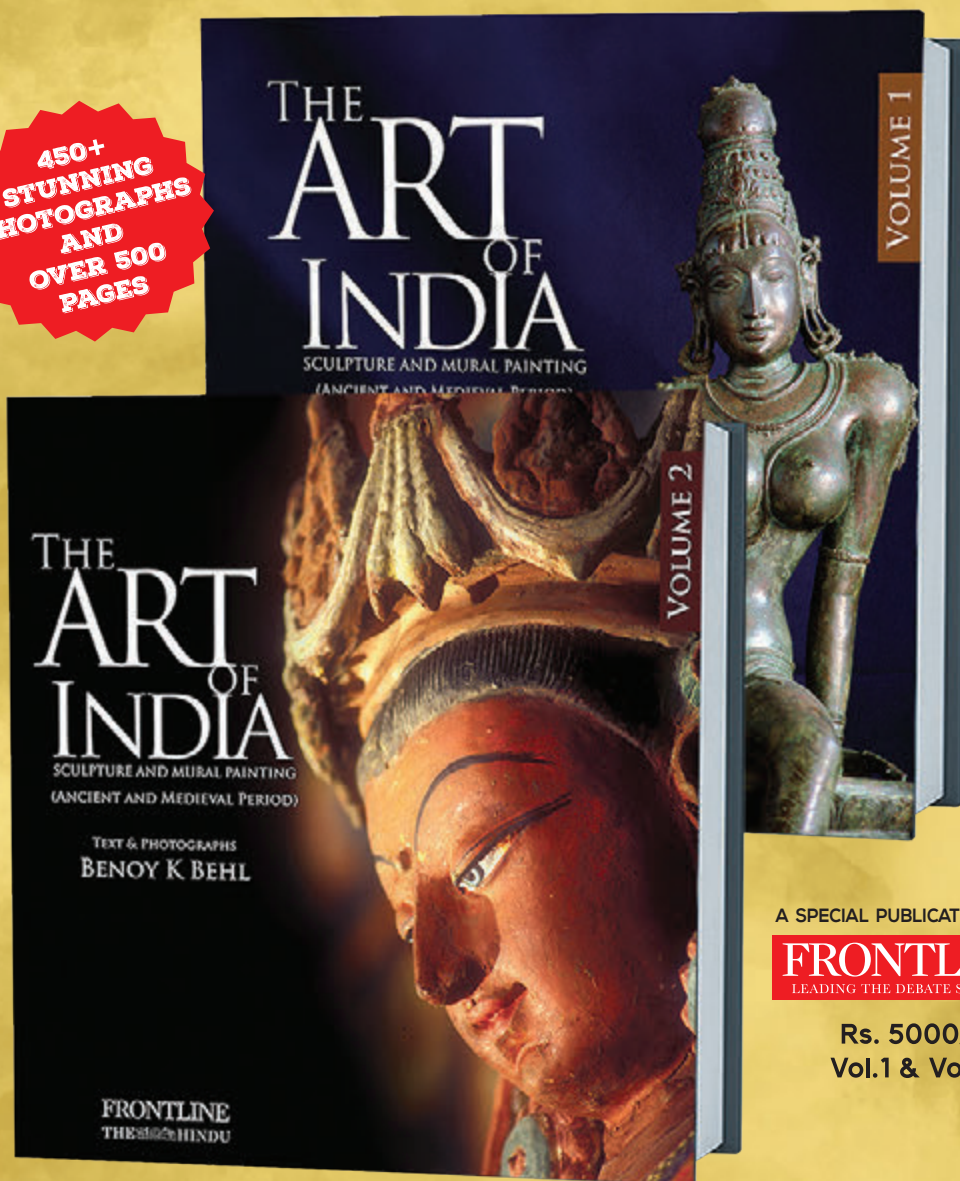
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